

The Mountain and the Valley
A Planning and Conservation Approach for the Annapolis Valley

by

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AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis.
This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

ABSTRACT

The Annapolis Valley Region is home to a rich and varied landscape. Agriculture, historic sites, the Bay of Fundy Shore, and the inland forests are just some of the aspects that together make up this unique region. Yet this exquisite region is under threat from the dual challenges of depopulation and unconsidered development leading to the loss of its essential historical and environmental character. These are quintessential rural problems and feed off of one another in a vicious circle: environmental character decreases and makes a less pleasant place, so people leave for other regions; people leave for other regions and the financial resources of the region are reduced, so environmental character decreases; etc. Action needs to be taken to break such an escalating loop.

However, to develop effective strategies to combat these intertwined problems, the genius locus of the region must be better and more comprehensively understood. The methods described in the work propose an image bank and cartographic analysis to break apart the qualities of the region and enable an in-depth knowledge of its entirety. This information, presented in a consistent format, allows better informed decision making for the Annapolis Valley Region's future which will allow its people to embrace its unique combination of circumstances. This new type of database will prepare the region to chart an alternate path and better deal with the issues facing the Annapolis Valley.

The proposed design scenarios utilize strategies developed around the genius locus of the region as a whole and for a set of specific case study sites. An approach of the type developed in this work is not only applicable to such individual scenarios or to the Annapolis Valley Region. It is a method that is adaptable to other regions around the world. The strategies presented are a starting point, able to be mixed, recombined, added to, and modified to address the wide range of rural situations. The commonality of rural regions in general is the great issues they face in an urban-dominated society; reconnection with genius locus will offer a path to overcoming these threats.

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And last, to Ernest Buckler, the Annapolis Valley author from whom I borrowed the title of this thesis. To him and all the residents of the Annapolis Valley, thank you for sharing my appreciation for this special place.

DEDICATION

To my ancestors who first made the rural Nova Scotia choice

&

To my parents who continued the family tradition

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		http://novascotia.ca/agri/programs-and-services/research-and-statistics/county-profiles/ .			Scotia, Service Nova Scotia and Municipal Relations, Nova Scotia Topographic Database, accessed August 25, 2013, via GeoNova Data Download Service, http://gis8.nsgc.gov.ns.ca/datadownload/main.aspx .
80	2.3.38	Apple Orchards and Processing/Storage Facilities Map by author, Source: Canada, Nova Scotia, Service Nova Scotia and Municipal Relations, Nova Scotia Topographic Database, accessed August 25, 2013, via GeoNova Data Download Service, http://gis8.nsgc.gov.ns.ca/datadownload/main.aspx .			Wines of Nova Scotia, "Nova Scotia Wineries," Google Maps, accessed February 12, 2014, http://goo.gl/maps/kx6Go .
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		"Marketing Information – Apple Processors," Nova Scotia Apples, accessed February 12, 2014, http://www.nsapples.com/apple_processors.html .	83	2.3.46	Phone Box Red, Lockett Vineyards Source: Natalie MacLean, "Great Canadian Wine Match Celebrates Wines from Coast to Coast," CTV News Ottawa, July 3, 2013, accessed April 2, 2014, http://ottawa.ctvnews.ca/features/natalie-maclean-s-wine-of-the-week/great-canadian-wine-match-celebrates-wines-from-coast-to-coast-1.1352119 .
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82	2.3.42	Western Annapolis Valley Region wineries Map by author, Source: Canada, Nova Scotia, Service Nova Scotia and Municipal Relations, Nova Scotia Topographic Database, accessed August 25, 2013, via GeoNova Data Download Service, http://gis8.nsgc.gov.ns.ca/datadownload/main.aspx .	84	2.3.50	Parks and Historic Sites Map by author, Source: Canada, Nova Scotia, Service Nova Scotia and Municipal Relations, Nova Scotia Topographic Database, accessed August 25, 2013, via GeoNova Data Download Service, http://gis8.nsgc.gov.ns.ca/datadownload/main.aspx .
		Wines of Nova Scotia, "Nova Scotia Wineries," Google Maps, accessed February 12, 2014, http://goo.gl/maps/kx6Go .			Canada, Nova Scotia, Department of
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		Environment and Labour, Nova Scotia's Protected Areas Program, (Halifax, NS: 2009), http://www.novascotia.ca/nse/protectedareas/docs/ProtAreas_map_color.pdf .			http://www.novascotia.ca/nse/protectedareas/docs/ProtAreas_map_color.pdf .
		Canada, Parks Canada, Directory of Federal Heritage Designations-Nova Scotia, accessed March 24, 2013, http://www.pc.gc.ca/apps/dfhd/results-resultats_eng.aspx?p=1&m=10&ct100%24Main%24PageSearch1%24txtKeyword=&desCheck=NHS&desCheck=EVENT&desCheck=HRS&c=&ct100%24Main%24PageSearch1%24ddlProvince=100025&dey=&ct100%24Main%24PageSearch1%24ddlCustodian= .			
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		“Annapolis Valley Schools,” Annapolis Valley Regional School Board, accessed January 22, 2014, http://www.avrsb.ca/			

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		=csc2000v&language=en.			
93	2.3.79	Land cover, Kings County Map by author, Source: Canada, Natural Resources Canada – Earth Sciences Sector: Mapping Services Branch – Centre for Topographic Information, Land Cover, circa 2000-Vector, (Sherbrooke, QC: 2009), http://www.geobase.ca/geobase/en/search.do?identifiant=&region=ns&produit=csc2000v&language=en .			– Earth Sciences Sector: Mapping Services Branch – Centre for Topographic Information, Land Cover, circa 2000-Vector, (Sherbrooke, QC: 2009), http://www.geobase.ca/geobase/en/search.do?identifiant=&region=ns&produit=csc2000v&language=en .
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		http://novascotia.ca/agri/programs-and-services/research-and-statistics/county-profiles/ Google Maps			gis8.nsgc.gov.ns.ca/datadownload/main.aspx Statistics Canada. 2011. "Nova Scotia". Dissemination Area Reference Maps, by Census Subdivisions, for areas outside Census Metropolitan Areas and Census Agglomerations. 2011 Census. Statistics Canada Catalogue no. 92-145-X. Ottawa, Ontario. http://www12.statcan.gc.ca/census-recensement/2011/geo/map-carte/ref/csd-sdr/CSD-SDR-b2011-eng.cfm?PRCODE=12 (accessed May 11, 2013). Bing Maps
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		Canada, Nova Scotia, Department of Environment, 1:10,000 Primary Watersheds of Nova Scotia, (Halifax, NS: 2011), https://www.novascotia.ca/nse/water.strategy/docs/WaterStrategy_NSWatershedMap.pdf .			Canada, Natural Resources Canada – Earth Sciences Sector: Mapping Services Branch – Centre for Topographic Information, Land Cover, circa 2000-Vector, (Sherbrooke, QC: 2009), http://www.geobase.ca/geobase/en/search.do?identifiant=&region=ns&produit=csc2000v&language=en .
183	4.6.7	Land Use, Aylesford Lake Map by author, Source: Map by author, Source: Canada, Nova Scotia, Service Nova Scotia and Municipal Relations, Nova Scotia Topographic Database, accessed August 25, 2013, via GeoNova Data Download Service, http://gis8.nsgc.gov.ns.ca/datadownload/main.aspx .			Canada, Nova Scotia, Municipality of the County of Kings, Shoreland District Zoning: Aylesford Lake - Schedule 3S, (Kentville, NS: 2010), http://www.county.kings.ns.ca/upload/All_Uploads/residents/planning/LUB/Lakeshore/Aylesford%20Lake%20-%20Schedule%203S.pdf .
		Canada, Nova Scotia, Municipality of the County of Kings, Shoreland District Zoning: Aylesford Lake - Schedule 3S, (Kentville, NS: 2010), http://www.county.kings.ns.ca/upload/All_Uploads/residents/planning/LUB/Lakeshore/Aylesford%20Lake%20-%20Schedule%203S.pdf .	188	4.6.10	Existing conditions, Aylesford Lake Image by author, Source: “Aylesford Lake AND Lake Nicholas!,” Tradewinds Realty, accessed April 30, 2014, http://www.tradewindsrealty.com/cgi-bin/listings.cgi?key=7358 .
		Bing Maps			Bing Maps
185	4.6.8	Design strategies, Aylesford Lake Map by author, Source: Canada, Nova Scotia, Service Nova Scotia and Municipal Relations, Nova Scotia Topographic Database, accessed August 25, 2013, via GeoNova Data Download Service, http://gis8.nsgc.gov.ns.ca/datadownload/main.aspx .	189	4.6.11	Typical development conditions, Aylesford Lake Image by author, Source: “Aylesford Lake AND Lake Nicholas!,” Tradewinds Realty, accessed April 30, 2014, http://www.tradewindsrealty.com/cgi-bin/listings.cgi?key=7358 .
		Canada, Natural Resources Canada – Earth Sciences Sector: Mapping Services Branch – Centre for Topographic Information, Land Cover, circa 2000-Vector, (Sherbrooke, QC: 2009), http://www.geobase.ca/geobase/en/search.do?identifiant=&region=ns&produit	190	4.6.12	Proposed strategy conditions, Aylesford Lake Image by author, Source: “Aylesford Lake AND Lake Nicholas!,” Tradewinds Realty, accessed April 30, 2014, http://www.tradewindsrealty.com/cgi-bin/listings.cgi?key=7358 .

PG.	NO.	DESCRIPTION
191	4.6.13	Typical development sketch, Aylesford Lake Image by author, Base image photo by author.
191	4.6.14	Proposed strategy sketch, Aylesford Lake Image by author, Base image photo by author.
192	5.1.1	Hampton wharf at low tide Photo by author
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200	5.1.4	Abandoned railway bridge and Fort Anne National Historic Site, Annapolis Royal Photo by author
202	5.1.5	The North Mountain and the Valley from The Lookoff Photo by author



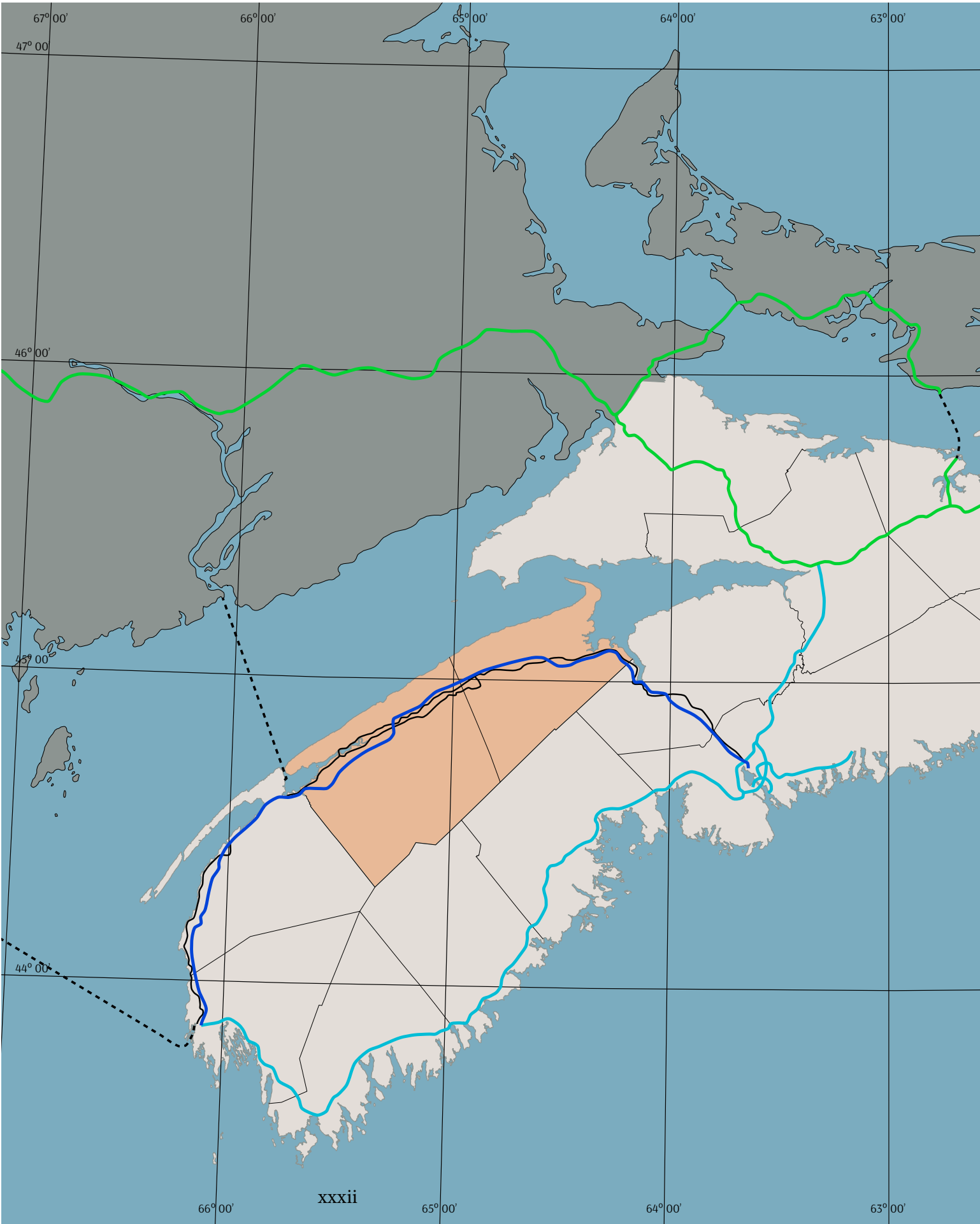


The sunlight was so clear when it touched the ash-white shingles on the barn in the morning it seemed more unsubstantial than space itself; and at the same time so equable as it explored the green leaves in the afternoon as to see almost tangible. There was something almost audible about it. [...]

In the afternoons a steady heat, like Sunday hush, seemed to bring the mountains closer. It gave them a dreamy light-greenness. They looked like *pictures* of mountains. The clear blue heat outlined everything with stereoscopic immaculacy. The repleteness in the air, as if the thirst of growing were forever slaked, gave it an almost churchy texture. [...]

Then in the blue evenings the dew began to make a clamminess in the hay while it was still dusk. Scarves of haze blued and exiled the mountains. Later, the breath of the whole blue night was bated with the pulsating hum of insects.

-Ernest Buckler, The Mountain and the Valley¹



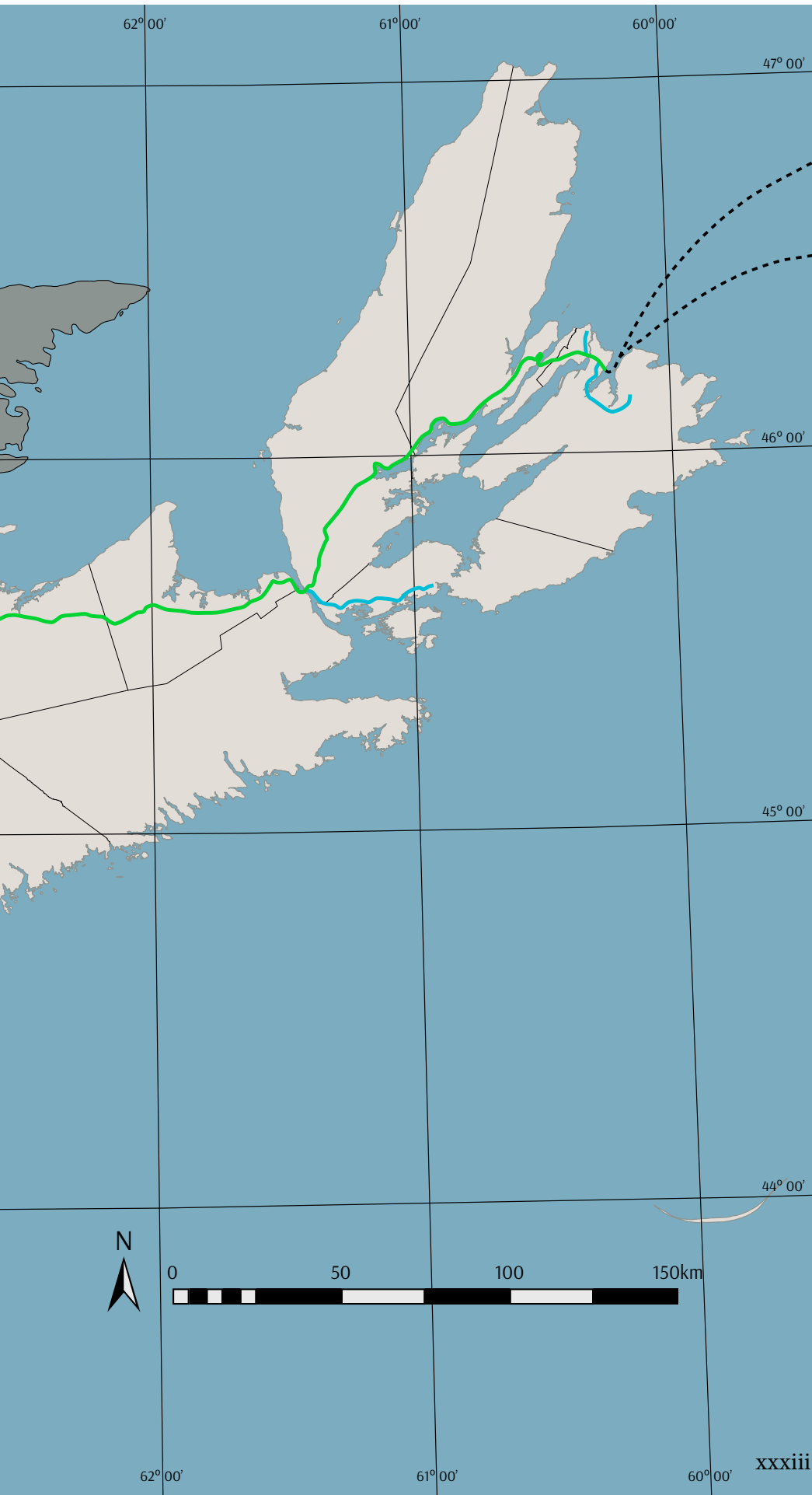



Fig. 0.1.2 - The province of Nova Scotia, with the Annapolis Valley Region indicated

- Trans Canada Highway
- Nova Scotia Highway
- NS Highway 101
- Major Valley Roads
- - Ferry Routes

Fig. 0.1.3 - Annapolis Valley
Region key map


1. Annapolis Royal
2. Bridgetown
3. Middleton
4. Kingston
5. Greenwood
6. Berwick
7. Kentville
8. Wolfville

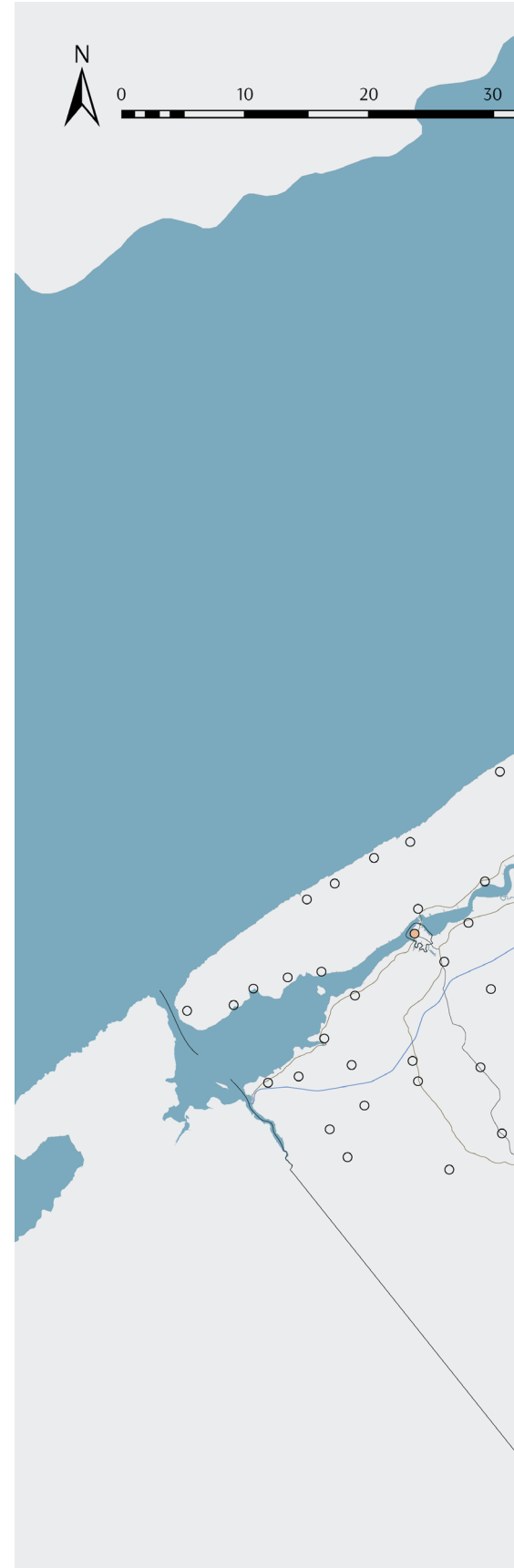
 NS Highway 101

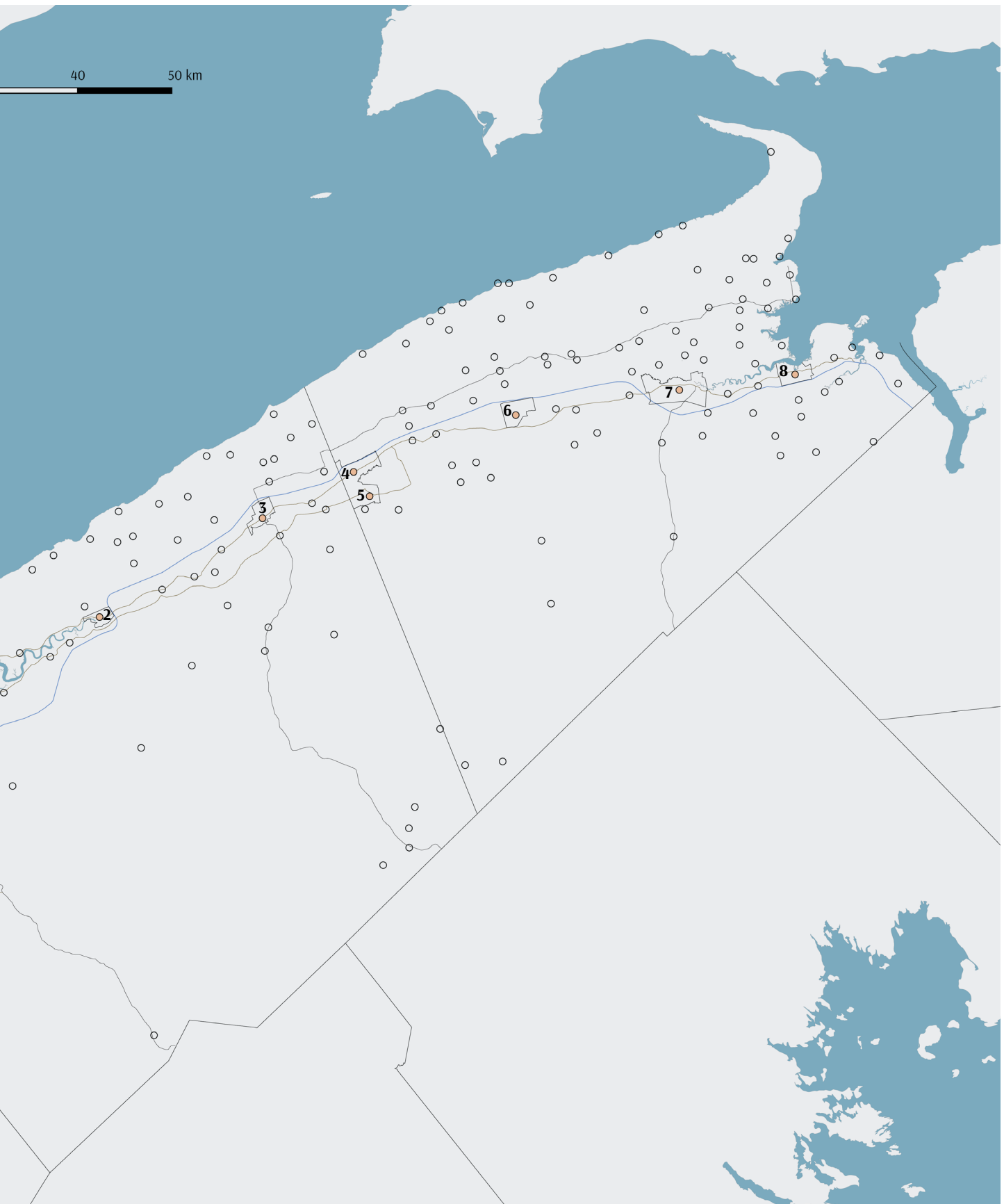
 NS Highways 1 & 201

 Other Major Valley Roads

 Major Community

 Other Community









1.1 PERSONAL PREFACE

The Annapolis Valley was the landscape of my childhood.

The elementary school I attended was literally a minute down the road from my house, though I had to take the bus the long way around to pick up other children. I would go with my parents to get groceries in the town of Middleton, and occasionally we would make a trip to the mall in Greenwood for other things we needed. Usually, we would stop by my father's drugstore to say hello as we passed through Middleton. My father's parents lived forty five minutes away, outside of Bridgetown, and we would visit them often, as well as my great-grandmother who lived in the seniors home in Bridgetown.

For a treat, we would sometimes go further afield. We had family picnics at Fort Anne, drove to the Lookoff to see the view of the Valley and have an ice cream, and took hiking trips to Kejimkujik. When we went to Halifax or Cape Breton, there was a thrill of being home as we came back over the rise at Avonport to see Cape Blomidon's cliffs in the distance.

School trips took me to Upper Clements Amusement Park, the swimming pool at CFB Greenwood, skating at Middleton Arena, and the historic sites at Grand-Pre and Port Royal. In high school, we made trips further afield more often. I went to volleyball workshops in New Minas and attended student conferences in Canning and at Acadia University in Wolfville. I competed in trivia competitions at schools up and down the Valley and performed with my high school's band.

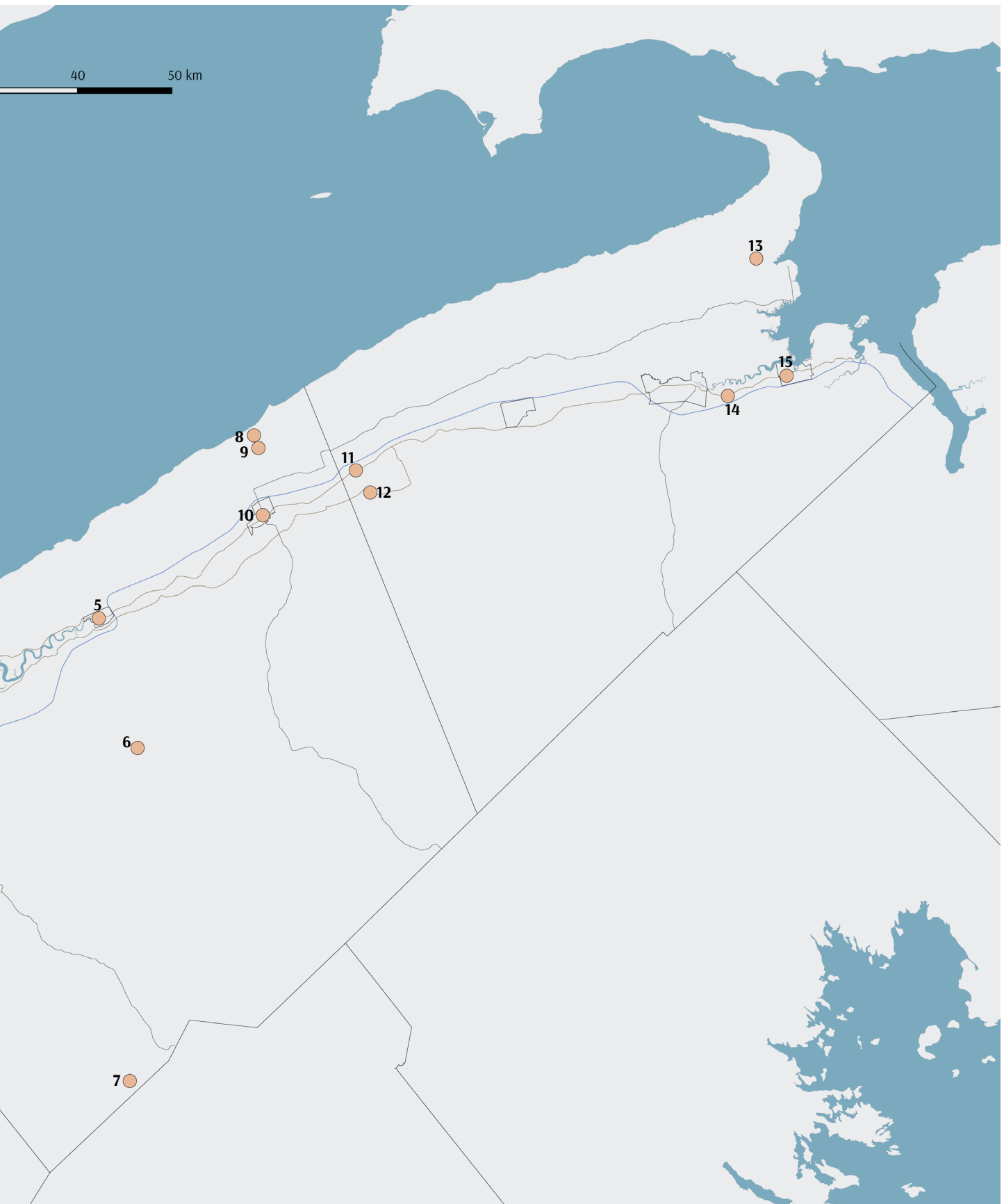
A childhood in the Annapolis Valley can sound idyllic. I have memories of making noises at the cows at the side of the road, playing under the big trees that surrounded our yard, bonfires at the shore with hot dogs and marshmallows, fresh summer fruits and vegetables, eating homemade apple sauce and strawberry jam in the middle of winter knowing that the fruit all came from nearby, and learning about the tides and the Acadians at school and how they made our region special in the world.

It is only now, at the remove of age and distance, that I can see the challenges facing the region. As a child, you cannot understand concepts like depopulation, economic decline, or landscape normalization and suburban development. I only saw the challenges in the shape of friends moving away, my favourite stores closing, and new rows of identical houses being built where there used to be a farm. Now, the Annapolis Valley is facing these struggles and, frankly, is losing the fight. This thesis is my contribution to the region where I grew up and called home, using the knowledge I have gained elsewhere to form a proposal for that region's future.

Fig. 1.1.2 - My personal map of the Annapolis Valley

1. My great-grandparent's farm: they lived here until I was 3
2. Upper Clements Amusement Park: I had multiple birthday parties here
3. Granville Ferry: my parents lived here before I was born
4. Annapolis Royal: trips to the farmers' market and Fort Anne
5. Bridgetown: my father grew up here and my grandparents live there
6. West Dalhousie: my grandparents lived here when I was growing up
7. Kejimikujik National Park: family camping and hikes
8. Margaretsville Consolidated School: my elementary school
9. Victoria Vale: my parents' house
10. Middleton: I attended high school here, and had my first part-time job at my father's drugstore
11. Kingston: my father's other drugstore
12. Greenwood: shopping trips, the little movie theatre, and dance classes when I was younger
13. The Lookoff: family day trips
14. New Minas: shopping trips and the big movie theatre
15. Wolfville: band camp and leadership conferences at Acadia University









1.2 THE ANNAPOLIS VALLEY

Backwoods, boondocks, cow country, sticks.

None of these are complimentary names for rural areas. Whether used by urban dwellers or by rural residents in a self-effacing manner, these terms reduce the countryside to a lesser status than the city. This thesis assumes this viewpoint to be false. Instead it is predicated on the opinion that rural areas not only serve a complimentary function to the city, but also present the option of an alternate style of living. The merits and challenges of this lifestyle are evident throughout the Annapolis Valley Region, both in social and cultural interactions and in the physical structure of the region's natural resources and historical settlement patterns.

The Annapolis Valley is facing great challenges today, and has problems that are held in common with rural areas around the world. Steady migration to large urban centres and new resource production areas like distant oil fields is draining the population away from the traditional rural lifestyle centred on agriculture and other more historical primary resource economies. With less people, the regional economy diminishes and with it goes the funds to ameliorate any problems the region faces. Connected to this, the Annapolis Valley must deal with the normalization of its architecture and landscape. One of the drawbacks of a globalized world is the flattening of local uniqueness into an increasingly corporate globalized culture.

As of yet, the Annapolis Valley has not lost its unique sense of place. This remains present in the many natural and cultural components of the region. These combine to form the genius locus, or spirit of the place; a holistic, deeply rooted, and evolving understanding of the place. Moving forward, the Annapolis Valley must recognize its genius locus or stand to lose its distinguishing identity. The authenticity of the region can be its greatest resource. This thesis makes use of the Valley's genius locus as the guiding principle of planning and design decisions, giving a greater depth than the more normative planning approaches focused on land use, function and infrastructure. In the face of globalization and depopulation, these more localized strategies will offer a way forward for the Annapolis Valley while remaining true to the extant nature of the region. By finding the appropriate balance between the existing conditions and activities of the Annapolis Valley Region and new projects, the region can begin to attract new people with an interest in the authentic nature of the place.

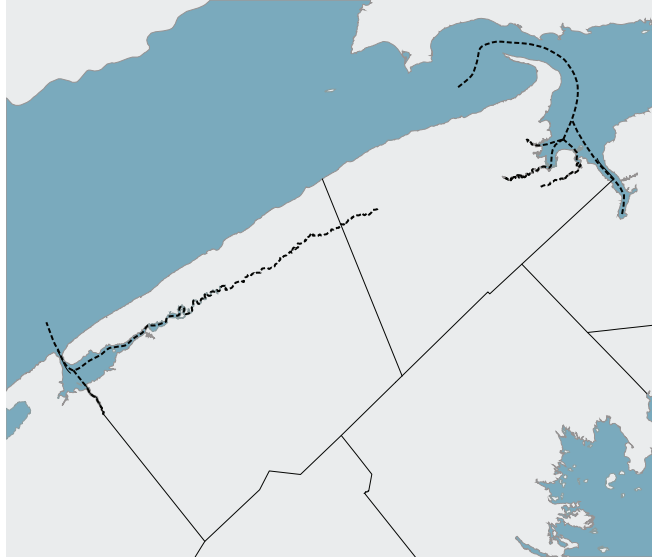


Fig. 1.2.2 - River Routes

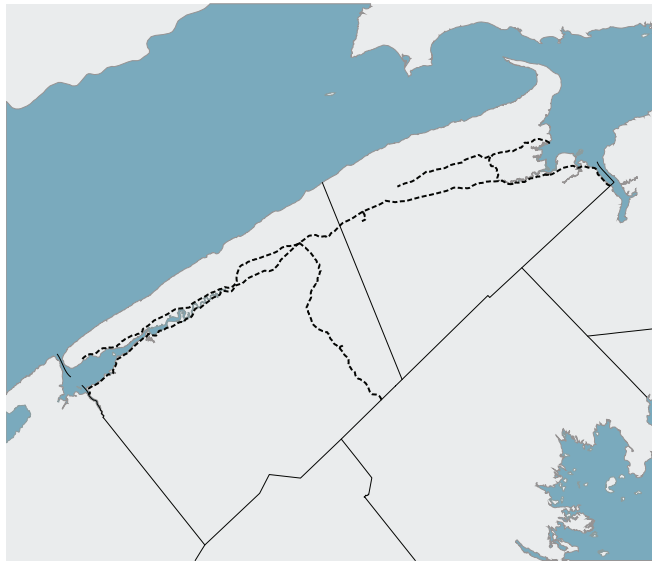


Fig. 1.2.3 - Former Railways



Fig. 1.2.4 - Present-day Road Network

SCENARIO

All of the Annapolis Valley's major towns are located in a string along the Valley floor. These parallel the transportation routes from all points in the Valley's history: first the rivers and rough trails, then roads and the railways, to the present day Highway 101 and Evangeline Trail. Over a quarter of the region's population lives in the eight most significant communities along this corridor. It is these larger communities at the Valley's core that act as service centres for their surrounding rural areas. Schools, recreation facilities, commercial enterprise, and health services are located there but have a reach that extends beyond the municipal boundaries of the towns. Although the towns may be central and significant to life in the Valley, in the greater scheme of things they are all small towns. Kentville, the largest, has a population of only 6,094 people.¹

In addition to this corridor of towns, a web of smaller communities is spread across the rest of the region; across the Valley floor, on the higher lands of both the North and South Mountains and along the Bay of Fundy coast. These vary in size and amenity. Some are no more than a small concentration of homes, with no particular facilities or stores. Others, slightly larger, may have a small convenience store, a gas station, or a farmer's market.

Between all of these small communities lies the rural fabric that makes up the majority of the land area in the Annapolis Valley region. This land is mostly forested or agricultural. The agricultural land is concentrated along the fertile Valley floor, with smaller patches located on the North and South Mountains. Scattered throughout both types of areas are the homes of those who do not live in the previously mentioned towns and hamlets as well as summer cottages by the inland lakes or along the Fundy shore. There is little local commercial activity here: only seasonal u-pick fruit fields, roadside vegetable stands, and the occasional shop packed with antiques and other curiosities.

POPULATION

The preceding description paints a picture of a typically quaint rural area. The Annapolis Valley offers its residents a slower pace of life away from the hustle and bustle of urban centres. While this lifestyle is an easy sell to retirees, it can be hard to convince young people to remain in the area. Because of this, the Annapolis Valley is staring down a slow population decline coupled with a resulting physical decline. The Valley's population size remains relatively stable, but the median age is getting higher. Between 2006 and 2011, the part of the population lost in Kings and Annapolis Counties was 128 people, though the population aged 65+ increased by 1865.² This rate of aging outpaces that of the province of Nova Scotia and of



Fig. 1.2.5 - Major Town: Kentville



Fig. 1.2.6 - Small Community: Bear River



Fig. 1.2.7 - Rural Fabric: Grand-Pré



Fig. 1.2.8 - Major Town:
Middleton



Fig. 1.2.9 - Small Community:
Canning



Fig. 1.2.10 - Rural Fabric: near
Kingston

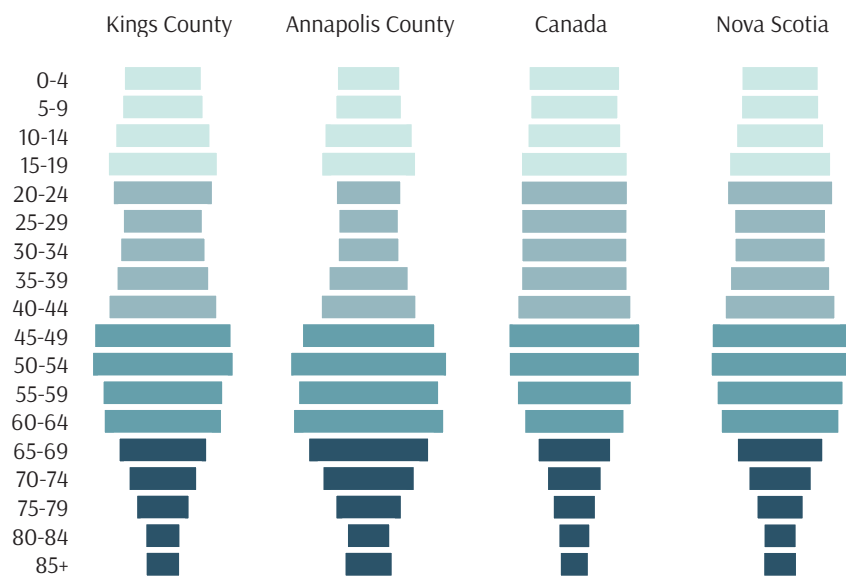


Fig. 1.2.11 - Population Age Distribution, showing older population of Annapolis and Kings County versus the national and provincial population

Canada as a whole, suggesting that the Annapolis Valley's aging population is more than a product of the baby boomers getting older. Young people fleeing from rural areas en masse are the other side of the problem. In the same five year period, the Annapolis Valley lost 1060 people aged between 20 and 39.³ Anecdotal reports indicate that as much as eighty percent of the region's high school graduates leave following their graduation, lured away by either higher learning, higher pay, or a more exciting urban lifestyle.⁴

I am part of this eighty percent. When I graduated from Middleton Regional High School in 2007, any of my classmates with the grades and the financial means to head to university or college were pursuing post-secondary studies. Except for a small number who attended the local Nova Scotia Community College, this meant leaving Middleton for more urban centers. Though it is hardly a precise research method, the stories that have reached me from home indicate that the great majority have not returned to the region following their studies. Some have travelled west to Ontario, Alberta, or British Columbia for better paying jobs, some are pursuing additional education, and some have settled in Halifax or other more distant cities.

As young people run from what they view as a declining dying area with few prospects, they accelerate the rate of its decline. Rural areas around the world are being left to the old, the tourists, and those who are employed in serving them. The Annapolis Valley is no exception. The working population of the region decreases as young people leave and more baby boomers retire. This is a compounding trend. As the population ages, school budgets suffer due to declining enrolment and government programs instead begin to focus more on the elderly and ill. These things deter parents who want the best for their children and young people planning to start a family.

Accordingly, the Annapolis Valley becomes less and less attractive to those younger people who may have once considered returning.

This is not just a personal observation. Kate Beaton, a contributor to the Huffington Post Canada, describes this phenomenon in relation to her experience growing up in Inverness, a village in Cape Breton, NS, “You grow up around Inverness and you know it’s probably in the cards for you to leave it, eventually. Every year, more of us do, making the villages even smaller, and making the cities a little bigger. That’s true of all the rural Maritimes. You can be anything you want, but probably not here.”⁵ Yet Beaton remains optimistic that given the right attitudes and incentives this trend could change. As she says, “We had to go, but we want to come back. Leaving is something we learned to do, but I think now and then on what it would be if we were taught to stay instead, and shown we could. If we invited others to join us. I mean, there’s a pretty nice view. And like I said, the tea is on.”⁶

These emigrants are the greatest threat to the Annapolis Valley: people who are young and eager but too educated and urbanized to find a fulfilling life in their rural childhood home. For most, there is at least a sense that the Annapolis Valley Region will remain ‘home’ in some way. Often, their parents still live there but it is also a connection to the landscape. However, it is hard for the Annapolis Valley to compete with the draws of urban life. It cannot provide all that a city provides so the alternative is to provide what the city cannot. If the Annapolis Valley taps into its genius locus to stay true to its own identity, it can begin to call some of these rural expatriates back from the cities.

THE RURAL CHOICE

The Annapolis Valley is only one example of a worldwide trend of rural depopulation as the world is becoming increasingly more urban: global urban population passed fifty percent around May 2007.⁷ Urban living is becoming the preferred style of living not only as an economic choice but as a draw for young people escaping the confines of rural life. While researching the Annapolis Valley, it has become increasingly clear that living in a rural area, especially in a relatively prosperous Western society, is a conscious choice. As explained by Kelly Toughill in “The Chosen Land”:

Nova Scotia is a chosen land. It is not a home of convenience or habit. It is a place that people deliberately choose, and a place that often demands a sacrifice to stay. Those elements of choice and sacrifice bring a shared commitment to community that is rare in this world, and that will or should guide our future more than any consideration of what riches lie hidden under land and sea, what construct of politics will enhance our bottom line, or how we can use our unique geography to best advantage.⁸

Growing up in the Annapolis Valley, this chosen rural lifestyle was my personal default setting. My parents and their parents before them had all been born and raised in rural areas; my father and his parents in the Annapolis Valley, my mother and her parents in western Cape Breton. All of my grandparents had careers that could have easily allowed them to live in an urban setting: a teacher, an engineer-turned-teacher, a nurse, and a motor vehicle inspector. Yet, to raise their own children, they chose to remain in the rural communities where they had grown up. In neither case was this decision based on ignorance of an urban alternative. My mother's parents lived in Sarnia for several years when they were first married, but returned to Cape Breton before my aunt and mother were born. Though my paternal grandparents have lived in Nova Scotia for their entire lives, they are well-traveled and have seen much of the world. As for my parents, both attended university in 'the city' as Halifax is called in the rest of the province. They chose to settle in Middleton after they were married, where my father co-owns the local pharmacy and my mother teaches at the elementary school. The families of many of the people I grew up with have the same type of narrative. However, as my peers and I now reach the age at which our parents were returning to the Valley region, very few of us are making the choice to follow in their footsteps.

REGIONAL IDENTITY AND COMMUNITY

This new pattern of choices raises concerns for the region and its character and quality of life. If the Annapolis Valley is to retain its vitality, there are two options. The region must either find a way to entice former residents to return, or it must convince those who have lesser ties to the region to put down new roots, either permanently or seasonally. This thesis aims to accomplish this through the creation of a set of policies and guidelines which will address both the conservation and future shaping of the latent strengths of the Annapolis Valley. The region has truly unique resources which cannot be found anywhere else: the world's highest tides, numerous historical sites from the time of the first European settlement in Canada, some of the best farmland in the Maritime Provinces, and many hiking trails and bike routes to name a few draws. Any attempt to increase the appeal of the Annapolis Valley must use these unique features as a suite of attractions. These qualities of the Valley's genius locus will grab the attention of those who are unfamiliar with the region, giving them a sense of the true nature of the place.

The more practical resources of the Valley can also be laid out. No place is more than three hours from downtown Halifax.⁹ There are many local businesses but also centres with well-known provincial and national brands. Farm-fresh produce and wharf-fresh seafood are available in their seasons. There is convenient access to health care, education, and other

government services. Along with its unique qualities, the Annapolis Valley is also a place that offers all of the conveniences of modern life. The Valley is not an isolated place but is easily accessible to global networks.

Still, though a compact urban neighbourhood may cater to the entirety of residents' day to day needs, a small town cannot support every necessity for daily life. Rural residents of the Annapolis Valley are thus required to live on the regional scale. Every day to address their daily business, residents must come together with those from nearby communities in the region. Consequently, a regional identity develops around those things which are shared and common. Such a regional focus is described by Lewis Mumford in "Regional Planning":

[...]there are special institutions which require a large basis of population, and it would be futile to duplicate these in small communities and unfortunate to do without them: they must be produced on a regional scale. [...] Each city would have all the local institutions necessary for its own effective life, local shops, schools, auditoriums, theaters, churches, clubs; and in addition each center would perhaps tend to specialize on some one institution of culture or social life, a museum of natural history in one center, a radio broadcasting station in another, a university in a third. [...] Each city would perhaps be a regional center for at least one function; but no city would attempt to be the regional center for everything.¹⁰

This view holds true in the Annapolis Valley, where each community has a different role to play: Annapolis Royal and Grand-Pre focus on promoting their historic significance, New Minas has the largest modern shopping area, Wolfville is the academic centre with Acadia University, Lawrencetown hosts the Annapolis Valley Exhibition each August, Greenwood is home to a Canadian Forces Base, Kentville and Middleton have hospitals, and so on.

As each small community assumes responsibility of these roles for the entire region, an argument can be made for viewing the entire Annapolis Valley region as a single cohesive community, albeit one with 81,000 members spread over 5,300 square kilometres.¹¹ In *The Price of Fish*, Michael Mainelli and Ian Harris, founders of the commercial think tank Z/Yen, define six characteristics for determining if a group can be considered a community: common purpose, co-located spaces, cultural alignment, coherent interests, consistent methods, and co-created futures.¹² Applying these to the Annapolis Valley:

Common purpose – Members of the Annapolis Valley community have made an active rural choice to live in the region. This universal investment in the rural alternative gives all members similar motivations when pursuing improvements in the area.



Fig. 1.2.12 - Historic Dykelands, Grand-Pré



Fig. 1.2.13 - Acadia University, Wolfville



Fig. 1.2.14 - Soldiers Memorial Hospital, Middleton

Fig. 1.2.15 - New Minas Commercial Area



Fig. 1.2.16 - Annapolis Valley Exhibition, Lawrencetown



Fig. 1.2.17 - CFB Greenwood



Co-located spaces – Many facilities are shared between communities. These include schools, health care facilities, shared recreational facilities, and larger businesses and shopping centres, which have a reach extending over many communities.

Cultural alignment – Many people in the Annapolis Valley feel a strong connection to the land and the resources harvested from it, even if today they are not directly involved in agriculture, forestry, or fishery. This is often due to families having been in the area for many generations, with nearly eighty-six percent of residents being three generations or more in Canada.¹³

Coherent interests – There are the many organizations which operate across the entirety of the Annapolis Valley, addressing diverse concerns. Some provide services to the general population, such as the Annapolis Valley Health Authority. Others are commercial organizations, like the Annapolis Valley Real Estate Board. Many recreation groups also act across the breadth of region. Any of these organizations can then act as the regional voice of its participating members.

Consistent methods – There is a continuing, though diminished, tradition of resource economies in the region. The region has a long history of continuous settlement by various groups, with First Nations settlement dating back at least 4,000 years and European settlement dating back to 1605 when Champlain and Sieur de Monts built the Habitation at Port-Royal.

Co-created futures – All members of Annapolis Valley Region have a stake in its future. While they may not agree on the particulars of how to move forward, most would agree that something must be done to invigorate the economy and attract more residents. Evidence of this is seen in support of undertakings such as the Georgetown Conference and the Nova Scotia Commission on Building Our New Economy.

Viewing the region as a singular community, as this thesis seeks, can help the Annapolis Valley in a number of ways. First, when marketing the region to outsiders, it can be more useful to showcase the community of the region rather than the separate small communities. Tourists will see the region as one large destination which will take more than a day to fully experience, rather than only taking a daytrip from Halifax to the Grand-Pre wineries or the historic sites of Annapolis Royal. Potential new residents will consider the region as a whole when evaluating whether this is a place they want to make their home, even for a summer retreat, seeing the benefits of a

small town lifestyle with both a wonderful natural setting and more urban amenities within easy reach.

Secondly, rural communities generally have less operational resources than urban centres. It is common that small towns and municipalities scrape by, able to provide little more than the entirely necessary services for their residents with little of their budgets free for capital improvements or new endeavours. Patchwork strategies are employed on infrastructure; problems are repaired when they become unbearable rather than prevented before they happen. By pooling their small leftover resources to work towards shared regional goals, the towns and villages of the Annapolis Valley could accomplish more together than they would apart. There are already examples of this occurring in the region. For instance, the towns of Annapolis Royal, Bridgetown, and Middleton had previously collaborated on a website to provide public access to planning maps and an online GIS map of the three towns.¹⁴ This act of collaboration is a precedent for larger scale projects such as a regional database of cartographic analysis which addresses the entire Annapolis Valley. The analysis section of this thesis is intended to be the beginning of this database.

Regional identity is not only connected to the patterns of the present and a region's visions for its future. It also comes from a shared past. In the Annapolis Valley, this is partially derived from the long-standing settlement, stretching back to the Mi'kmaw people and the first French settlers in the seventeenth century. From these earliest people, there has been a connection to the land as the provider of the necessities of life. Like any pioneer community, the economy was based on the resources available through forestry, hunting, fishery, and agriculture. These activities continue to this day. This shared history leads to shared beliefs formed over many years, despite conflicts that have occurred in the past.

RURAL-URBAN RELATIONS

This entrenched local identity can be seen in the use of the Maritime phrase "come-from-away," which has developed dual interpretations. Some feel it is a reflection of the sense of community in Nova Scotia, where people will always stop to chat in the middle of the grocery store and do not think twice about helping their neighbour out. To them, it is not about something negative attributed to those from elsewhere, but rather represents something positive that is common between the people who have been in the area for a longer time.

To others, it projects an exclusive and unwelcoming concept of what it means to be "Nova Scotian," though there are likely as many definitions of what that means as there are people using the phrase. The term is generally used to describe people who arrive in Nova Scotia and cannot fit in. Whether it is applied to tourist drivers speeding down the rural roads like

they are on a major highway, big-box retail business taking over what was once farmland and forest, or foreigners buying up oceanfront and lakeside property, it gives a connotation of being intruded upon by an unpleasant urbanity from elsewhere.

“Come-from-away” is part of the typical complex relationship between rural and urban in most circumstances. Heading to a less populous area for rest and vacation is common for urbanites, whether it’s Torontonians heading to a Muskoka cottage or New Yorkers going to a summer place in the Hamptons. It is a generally accepted feeling that a rural place is a good place to relax. In turn, rural areas come to depend on a tourism and hospitality industry driven by visitors. As the resource-based economies that were previously the drivers of rural economies become increasingly automated, requiring less workers, dependence on tourist dollars for employment only increases.

More pragmatically speaking, the typical rural-urban relationship is one based historically on resources. There are many resource extraction systems which need wide swaths of space for the industry to develop viably. Trees to make oxygen to breathe and wood to build, animals and plants to eat, minerals to process into the electronic necessities of modern life: these practical and tangible things are impossible to obtain from the land of a crowded city. As explained by Dr. Ron Wimberley, Distinguished Professor of Sociology at North Carolina State University:

As long as cities exist, they will need rural resources – including the rural people and communities that help provide urban necessities. Clean air, water, food, fiber, forest products and minerals all have their sources in rural areas. Cities cannot stand alone; rural natural resources can. Cities must depend on rural resources [...] So far, cities are getting whatever resource needs that can be had from rural areas. But given global rural impoverishment, the rural-urban question for the future is not just what rural people and places can do for the world’s new urban majority. Rather, what can the urban majority do for poor rural people and the resources upon which cities depend for existence? The sustainable future of the new urban world may well depend upon the answer.¹⁵

The resource industries in the Annapolis Valley have had and continue to have a great impact on the landscape. Clear-cut sections of forest, fishing harbours, and, most obviously, agricultural fields and orchards affect perceptions of visitors to the region. When moving through the Valley landscape, they are struck by the productive but beautiful scenery of the landscape. Yet when the products of these landscape alterations are shipped to Halifax and other urban centres, they are processed and stripped of most indications of their rural source. Given this, urban residents have a vague idea that these products come from somewhere in the countryside,

but lack any real knowledge about whether a product comes from fifty or five thousand kilometres away. This detachment of products from their sources further contributes to the rural-urban divide, even though the two conditions are linked by the resource flow.

The Annapolis Valley could benefit from re-establishing the connection between products and their sources. In the essay “Nova Scotia - A Future,” Errol Sharpe outlines the productive past of the province and its presence in the landscape:

The political economy of earlier eras was built on our agency, our enterprise. Somehow, in spite of the exploitation and oppression that was a part of the industrial era, we came to see ourselves as a productive people. The fruit and vegetables we produced, the fish we caught, the animals that we raised, the crops that we grew provided the food that graced our dinner tables. The coal that came from the mines and the wood that came from the forests heated our homes and fired our industrial enterprises. We built those homes with the lumber from those same forests. We were a proud productive people. It was out of this enterprise that the vibrant culture of our past emerged. The memories of this time continue to inform the culture of today. We see it in the song, poetry and stories from the sea, the coal mines, the steel mills, and the rural farms and schoolhouses.¹⁶

In recent years, there have been a number of movements that express a desire to return to knowing how things are made and where they originate. These includes the growing number of farmers’ markets¹⁷ and community-supported agriculture programs¹⁸, the 100-Mile Diet¹⁹, and websites like Etsy²⁰ connecting individual craftspeople with buyers around the world. Taking better advantage of these areas could be a way for the Annapolis Valley Region to forge a more meaningful connection with more urban areas.

Despite the increase in these movements, the rural-urban disconnect still creates a gap in comprehension between rural and urban places and their residents. In April 2014, Mayor Horace Hurlburt of Bridgetown wrote to the National Post in response to an article titled “Nova Scotia’s future looks grim as its economy stagnates, but for optimistic residents it remains the ‘time of our lives’” which used phrases like “Nova Scotia is dying” and “But why live somewhere where there is no future?”²¹ Mayor Hurlburt took askance with the national paper’s portrayal of the province and his town in particular, “To look down on rural communities, is to lead readers to believe the residents of those locations whether in Nova Scotia or Ontario, are not well connected, educated, or anxious to improve the lives of those families, as those who presently live in a city.”²² This kind of misunderstanding contributes to combative attitudes and discord between the rural and the urban.

While the rural-urban divide cannot be denied, there will always be those who cross from the city to the country life. This aspect of the rural-urban relationship is called “town-sizing”, a term used by Don Mills, Chairman, CEO and Co-founder of Corporate Research Associates, based out of Halifax.²³ Especially relevant in an area like the Annapolis Valley with its low density and easily available real estate, this phrase refers to younger urban residents who relocate to small towns and rural areas. Many of these people bring their own jobs with them, either by e-commuting to a larger centre or by working in e-commerce. Some entrepreneurs start small businesses and employ members of the existing community. Others still commute to traditional urban workplaces, but offset the longer commute with other benefits at home such as less traffic, less major crime, higher feelings of safety and security, less crowding and the belief that small towns and rural areas are good places to raise a family.

INTRINSIC VALUE OF PLACE

When persuading people to town-size or to travel to the region, the promoters of the Annapolis Valley must be aware of its competition. The Valley is not going to lure someone away from the bright lights and shopping of New York City if that is their preferred destination. However, with careful strategies, the Annapolis Valley can entice those who would go to other rural areas such as upstate New York, small town New England, or Quebec’s Eastern Townships. These are the places from which the Annapolis Valley needs to distinguish itself. To stand out in this crowd, the specific strengths of the Annapolis Valley Region must be brought to the forefront. These physical and cultural qualities will be identified then preserved, enhanced, and augmented as is appropriate to their particular situations. This authentic interpretation of the Annapolis Valley can be the identity which will attract new residents to the landscape.

The importance of the deep underlying characteristics of a site is a recurring theme throughout the research backing this thesis. It is also a key theme of the work of Zita Cobb and the Shorefast Foundation on Fogo Island, Newfoundland. Speaking of the Foundation’s work in the keynote address at the Georgetown Conference in October 2013, Cobb said:

It is not the specialness of place that matters; it’s the specificity of place. When we lose the specificity of a place, we’ve lost the place. And so, we need to look inside each of our communities [...] and say, ‘What is special about this place?’ And that’s what we need to build on. What do we have? And we have a lot. I’ve never been to a community that doesn’t have anything. [...] Place has value and specific places have intrinsic value.”²⁴

This thesis is fundamentally concerned with recognizing and enhancing the genius locus of the Annapolis Valley region. Only by understanding the Valley in all of its aspects can a designer, be they architect, landscape architect, or planner, create a new form or suggest a new lifestyle choice which is true to a particular Annapolis Valley site's essential character.

In seeking this understanding, this thesis develops an outlook based on several viewpoints: a mapping outlook seeking and documenting patterns and information in a newly consistent format, an imaging outlook seeking the essential visual qualities of the Valley's natural lands and human communities, and a narrative outlook seeking the Valley's stories. These together will better outline the Annapolis Valley's genius locus and give a sense of what its future might be.





1.3 METHODOLOGY AND STRUCTURE

DATA AND MAPPING CHALLENGES

One of the greatest challenges faced in the process of this thesis was the gathering of data. Having personal knowledge of the area, I knew the general structure of things well. Determining the details and what had changed since I left for university in 2007 was a different matter.

The maps in the following pages are created from many different sources. The quality of these sources varies greatly. At one extreme is information which had to be manually traced from enlarged raster images. In the best case, the sources are properly formatted GIS data. In between these extremes are degrees of source quality that include high resolution raster images easily traced into a vector program and GIS data which are not properly aligned, projected or formed into cohesive shapes. Worst of all, there is some information which exists somewhere which was never obtained in a useable form despite extensive Google searching and contact with the relevant Nova Scotia government departments. In particular, a map showing the land owned by non-residents of the province was included in a report by the Voluntary Planning Task Force¹ and later referenced in a separate report by the Nova Scotia Coastal Secretariat². However, neither group could provide me with a legible copy of the map for my research. In one case, I received no response; in the other, I was given links to web pages I had already accessed in my fruitless Google search.

Other issues in data collection are tied to inconsistent boundaries and scale of data. The thesis chooses the existing limits of Kings and Annapolis Counties as the bounds of the Annapolis Valley Region. However, some sources which address the 'Annapolis Valley' also include all or portions of Hants and/or Digby counties. The worst offender in this category is the Nova Scotia Department of Economic and Rural Development and Tourism. The Annapolis Valley Region as defined by this thesis is part of the greater Annapolis Valley and Fundy Shore Tourism Region which is comprised of not only Annapolis and Kings Counties, but also portions of Digby, Lunenburg, Hants, Colchester, and Cumberland Counties.³ Data was only found at the scale of this large tourism zone or the scale of individual towns. Inquiries to the government and tourism boards as well as professors at Mount Saint Vincent University's Department of Business and Tourism produced no data at the county level.⁴

THE ROLE OF A DATABASE

By bringing these disparate sources together in a single format, this thesis presents the power of the database in regional planning. Unlike a city's

planning division with access to all resources in compatible formats and the manpower to convert any which do not comply, the Annapolis Valley Region currently lacks a comprehensive overview of its own circumstances. With the data existing only in this disjointed way, the full picture of the region is hidden. Uniting this information in one place creates a resource for all planners, landscape architects, and architects who create work in the Annapolis Valley, as well as for residents of the region who are working on their own projects. It takes information that would have previously been inaccessible to most and brings it forward into the public eye. It will reveal the portions of the genius locus which can be quantified, showing each measurable aspect of the region's identity. Much of this knowledge already exists; a database will allow the dots to be connected in ways that have not been thought of before due to the lack of an overarching understanding of the region's qualities.

The single database developed for this thesis establishes the bounds of knowledge about the region: historically, economically, geographically, etc. It brings everything that is known about the area into one place, so that the unknown can be determined. As explained by Confucius, "To know that we know what we know, and that we do not know what we do not know, that is true knowledge."⁵ Establishing the edges of knowledge allows us to look beyond them.

At this time, the maps presented in this thesis represent a "pre-GIS". The data is in vector format; however it is not yet converted to a form useable by GIS programs. The intention is that this will take place in the future, to develop the collected information into a powerful unified database. However, the creation of a true GIS is a work in itself, and was not feasible within the scope of this thesis.

THE STRUCTURE OF THE THESIS

This thesis is presented in three chapters. The first chapter introduces the Annapolis Valley Region. It also outlines the differences of a chosen rural lifestyle and how this affects the relationships between rural and urban areas, between different rural areas, and within the region itself. It also addresses the thesis methodology of creating a database to inform regional planning. Lastly, this chapter includes a review of the literature which informs the thesis.

The second chapter presents the database analysis of the Annapolis Valley Region, building on the brief introduction of the first chapter. First, the panorama image bank offers a better understanding of the landscape characteristics of the region, especially to those who are not familiar with the region. These photos are taken at a variety of sites throughout the Annapolis Valley region. Second are the mapping products of this analysis, mostly shown at the scale of the entire region. Additional mapping is

presented both at larger scales (provincial, Atlantic) and smaller scales (county, community). Addressing environmental, landscape, and cultural information, these maps will provide the basis for proposals moving forward. As explained above, these are visual vector based maps which can easily be developed into a fully functional regional GIS for the Annapolis Valley.

The third chapter describes the four overarching planning principles and shows how they would be applied over the entire region. The fourth chapter presents six hypothetical future scenarios which use the principles as a basis to develop appropriate site strategies to address the preservation of genius locus. These scenarios are intended to show one of many possible options for the region's future, and are not meant to represent a finalized design solution.



WELCOME TO
MICHIGAN
HISTORIC
HOTEL

The Turret
BED & BREAKFAST
★★★★



1.4 LITERATURE REVIEW

The majority of sources for this thesis can be placed into three categories. A first category is those sources which offer a greater understanding of the issues facing the Annapolis Valley and the larger context of Nova Scotia and the Atlantic Provinces. These sources allow a deeper understanding of the region beyond personal experience, as well as a larger context of what rural areas hold in common. Second are sources addressing the concept of *genius locus*, the spirit of the place. These deal with the implications of the concept for architects and planners, and how a site can inform built works. The final category of sources encompasses examples of regional planning, particularly ones which strive for a balance between the existing conditions of a site and its projected future. This includes the landscape and planning work of landscape architect and ecologist Ian McHarg, landscape architect Lawrence Halprin, and the Center for Rural Massachusetts.

THE LOCAL RURAL

Several collections of essays, including *Shaping an Agenda for Atlantic Canada*, edited by John G. Reid and Donald J. Savoie, and *Nova Scotia: Visions of the Future*, edited by Lesley Choyce, offer insight into the many potential avenues for the future of the greater area. The writers in these compilations address all manners of rural issues: depopulation, declining resource economies, the environment, etc. Though few of these essays are used as direct sources, they provide a base of knowledge on which to develop the planning and design proposals of the thesis. In the same vein, news articles are an important source regarding the immediate situation of the Annapolis Valley region. National, provincial, and local newspapers give different levels of coverage. Contrasting the outsider view of national coverage and the on-the-ground intimacy of local newspapers helps to illustrate the difference of opinion between rural residents and urban visitors regarding the rural situation.

A number of other sources, both books and articles, present the historical context of the Annapolis Valley region. From the geological processes which shaped the area to more recent history, touching upon the stories of the Mi'kmaq people, the Acadians, the New England Planters and others who have lived in the region over its long history. Connected to these sources are two works of fiction by Ernest Buckler, *The Mountain and the Valley* and *Ox Bells and Fireflies*. Buckler's appreciation for the Annapolis Valley, where he lived most of his life, shines through in his vivid descriptions of the region's landscape and the quirks of its residents.

GENIUS LOCUS

The phrase “genius locus” has its roots in ancient Roman religion, referring to the guardian spirit of a place.¹ While it no longer refers to a literal spirit, the phrase has remained relevant throughout history as a term for the comprehensive intrinsic quality of a place. It is an influential concept in architecture, planning, and landscape architecture. One of the early references connecting genius locus with these fields is Alexander Pope’s 1731 poem, “An Epistle to the Right Honourable Richard, Earl of Burlington”:

Consult the genius of the place in all;
That tells the waters or to rise, or fall;
Or helps th’ ambitious hill the heav’ns to scale,
Or scoops in circling theatres the vale;
Calls in the country, catches opening glades,
Joins willing woods, and varies shades from shades,
Now breaks, or now directs, th’ intending lines;
Paints as you plant, and, as you work, designs.²

Later, in Ian McHarg’s 1969 book *Design with Nature*, the landscape architect and theorist stresses the importance of site in all architecture and planning. The site and its qualities are the basis on which any project is built. As such, to make a work which is truly fitting in its place, the builder/designer must understand the place:

The farmer is the prototype. He prospers only insofar as he understands the land and by his management maintains its bounty. So too with the man who builds. If he is perceptive to the processes of nature, to materials and to forms, his creations will be appropriate to the place; they will satisfy the needs of social process and shelter, be expressive and endure.³

McHarg goes on to show how one comes to understand a site through analysis of the existing environmental and cultural conditions by presenting several case studies of regional development. Through mapping, he discovers the hidden traces of the site and those which are more obvious. Then, through extensive layering of conceptually separate landscape features, and by their comparison, the relationships between all aspects of a site are revealed.

He also discusses a site’s genius locus as an evolving condition. To McHarg, the genius locus contains not only the pre-existing natural conditions of site, but also in many situations, subsequent human alterations:

It seems to hold that memorable cities have distinctive characteristics. These may derive from the site, from creations of

man or from a combination of these.[...] The total city can then be seen as an exploitation of the intrinsic site – the creations of men seen as conscious adaptations to it – that preserve, heighten and enhance its basic qualities. These become values in their own right.⁴

McHarg, as a landscape architect and planner, does not envision himself as a saviour of nature, returning it to some former idyllic state. For McHarg, the human impact on the landscape is significant enough to contribute to the genius loci. It is something to be developed upon not something to be eradicated.

Many other authors address the concept of genius locus, though not all identify it by name. In “Tradition and Modernity: The Feasibility of Regional Architecture in Post-Modern Society” Juhani Pallasmaa writes about “a sense of specific locality” which is made up of “expressions and experiences of specific nature, geography, landscape, local materials, skills, and cultural patterns.”⁵ Alan Colquhoun in “The Concept of Regionalism” talks about the essence of a region which “lies in local geography, climate, and customs, involving the use and transformation of local, ‘natural’ materials.”⁶ Harwell Hamilton Harris addresses the “special nature of the place” and how it affects concepts and works of art that emerge from a region in his essay simply titled “Regionalism.”⁷ Regardless of how it is named, there is an understanding among these authors that there is an distinct sense of place that can be perceived in a region, and that if it is identified, it has the potential to enrich and enliven the works undertaken in that area.

REGIONAL PLANNING

Regional planning as a method of place preservation has its beginnings in the 1960s. These early works can be exemplified by projects such as ‘The Valleys’ outside of Baltimore by Ian McHarg (1962-3) and the Sea Ranch on the Pacific Coast north of San Francisco by Lawrence Halprin (1963-8). Later projects in this lineage include the 1988 report [Dealing with Change in the Connecticut River Valley](#) by the Center for Rural Massachusetts.

At ‘The Valleys’, McHarg faced the looming threat of suburban sprawl expanding outwards from Baltimore. Located to the northwest of the city, the Green Spring, Worthington, and Caves Valleys area covers around seventy square miles, only fifteen percent of which was in residential use at the time of McHarg’s plan. The three valleys form a landscape of sweeping pastoral flats closed in by the wooded slopes of the plateaus. McHarg recognized that development in some form was inevitable due to the encroaching city. He also saw that even a small amount of development on the valley floor, no matter how well intentioned, would ruin the landscape as a whole. The

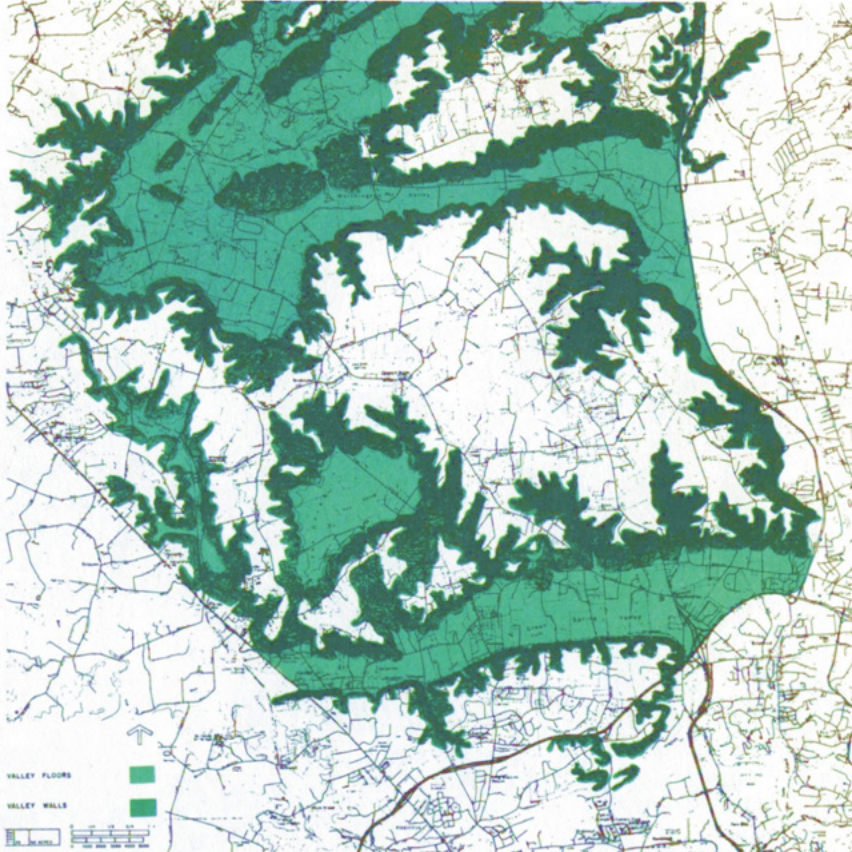
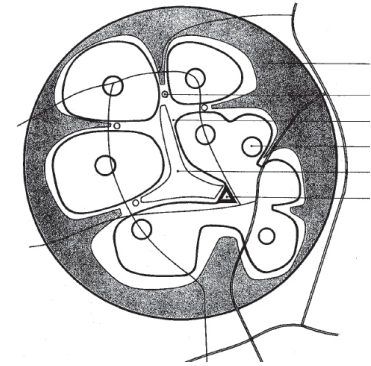


Fig. 1.4.2 - Map of Basic Amenity in The Valleys

Fig. 1.4.3 - Country town and village concept diagram



aim of his work was to find the balance of growth and preservation. As a guide for McHarg's work, The Plan for The Valleys was built around eight principles:

1. The Area is Beautiful and Vulnerable
2. Development is Inevitable and must be accommodated
3. Uncontrolled Growth is Inevitably Destructive
4. Development must Conform to Regional Goals
5. Observance of Conservation Principles Can Avert Destruction and Ensure Enhancement
6. The Area can Absorb all Prospective Growth without Despoilation
7. Planned growth is more Desirable and as Profitable as Uncontrolled Growth
8. Public and Private Powers Can be Joined in Partnership in a Process to Realize the Plan⁸

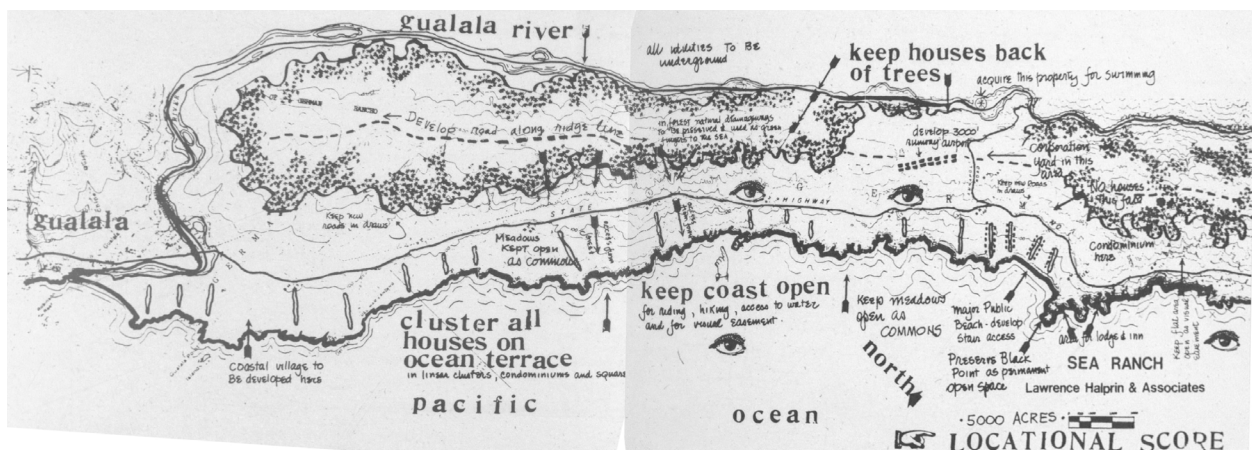
Following these principles, McHarg developed different land-use designations for the various landscape conditions of The Valleys. Different purposes were given to the plateaus, the valleys, and the slopes between

based on their specific characteristics. Development was permitted mainly on the plateau areas as they were the least sensitive environmentally. On the slopes, limited development was to occur in forested areas. Slopes without forest cover were to be planted and protected from development of any sort until the forest was well established. No changes were allowed on the steeper unforested slopes except to add forest cover, as they were more susceptible to erosion. Use of the valley floor was limited to activities that would neither damage or be damaged by the flood plains: agriculture, open space, and recreation. Plateau development was concentrated in small towns, villages and hamlets, spaced around The Valleys. Between these small centres, homes were nestled within the trees or at the edges of fields to be unobtrusive in their surroundings. The intention at the time of design was to provide homes for 110,000 to 150,000 people by the year 2000.

Contemporary to The Valleys, The Sea Ranch plan by Lawrence Halprin had an even greater environmental emphasis. The plan covered a ten mile stretch of Pacific Ocean coast just over a hundred miles north of San Francisco, making it a popular summer home destination for residents of the city. Previously a sheep ranch, the 4,000 acre site was a challenging landscape of windswept meadows on a rugged sea coast, broken up by intermittent hedgerows. Halprin's planning took into account the high winds in the area by reinforcing the existing hedgerows and creating additional hedgerows to allow for protected clustered building sites. Meadows and the coast were to be kept open and free from buildings. These lands were to be held in common by all residents of The Sea Ranch. The forests on the inland side of the highway were not to be disturbed to maintain their existing appearance. All in all, projects were to nestle themselves within the shelters of the landscape, whether that be the hedgerow or the forest.

The original projects on The Sea Ranch, especially Condominium One by Moore Lyndon Turnbull Whitaker, the Hedgerow Houses by Joseph Esherick, the recreational centres (also MLTW), and The Sea Ranch Lodge

Fig. 1.4.4 - Locational Score/Site Plan of The Sea Ranch



designed in part by Alfred Boeke, vice president of Oceanic Development and a trained architect, all adhered to Halprin's plan. Architecturally, they followed a similar language of sloping roofs and local materials. Individual houses were to follow certain height restrictions, particularly closer to the shore. Condominiums were a preferred landholding as they concentrated the development of the site.

Halprin's rules regarding siting, materiality, and landscaping around homes built at The Sea Ranch were and have been enforced by a design committee. Unfortunately, later projects at the site do not follow all of Halprin's design principles as the stringent policies were relaxed over time. More recent developments in the northern portion of The Sea Ranch take up the meadow areas which were to remain open for common use, and other homes are located along the sea coast, blocking views from elsewhere in the site. Yet, even when these principles are ignored, many of the rules regarding the natural landscape and materiality are still obeyed. In his essay "Origins, Evolutions, and Ironies" Donald Canty describes the results of this partial accordance:

The Sea Ranch is still a special place. Boeke credited the autonomy of the design committee with preserving some of The Sea Ranch character even in the northern sectors, while Halprin believes that the saving grace has less to do with the architecture restrictions than the landscape rules. Allowing only native plant materials has preserved the primacy of nature in the meadows by placing the houses on a continuous grassy carpet. [...] William Turnbull observed in 1996: "you can stand a lot of [architectural] mediocrity if the landscape is wonderful."⁹

While the original plan and early phases of The Sea Ranch show the power of a landscape vision implemented through sweeping planning principles, the later phases which do not follow the original rules so closely illustrate the primacy of landscape quality. This contrast shows both the resilience and susceptibility to compromise of large-scale community planning exercises.

Unlike the lands of The Valleys or The Sea Ranch, the Connecticut River Valley has a long history of significant rural settlement, beginning with Native American agricultural practices and intensifying not long after the Pilgrims came to America. Like many rural areas, the Connecticut River Valley faced pressures from urbanization and cultural globalization. The report [Dealing With Change in the Connecticut River Valley](#) was prepared by the Center for Rural Massachusetts in 1988 to provide a planning guide for the region's towns, villages, and rural in-betweens. Recognizing that "the Valley's regional identity is a composite of its landscape, people, institutions, and history,"¹⁰ the report stresses the importance of preserving those things



Fig. 1.4.5 - Aerial plan illustrating clustering of houses along hedgerows

Fig. 1.4.6 - Residence at the Sea Ranch





Fig. 1.4.7 - The Connecticut River Valley agricultural landscape

which are special to the Valley, its “scenic, historic, and cultural resources,” as they are “its essential attractive force.”¹¹

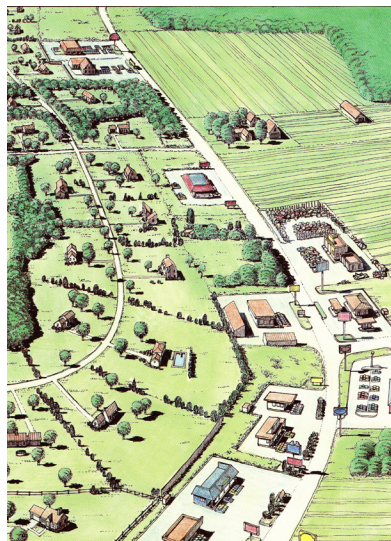
By advocating a balance of development and conservation, Dealing With Change in the Connecticut River Valley puts forward the idea that the levels of residential density and commercial enterprise of typical suburban communities can be achieved in a creative manner which preserves the “spirit of the place.” The report uses eight example scenarios to show the existing environment and then contrasts how typical development and creative development would each impact the landscape. As a resource for showing the implications of land-use planning on rural sites, which can be difficult to explain to legislators and residents, the report is invaluable.

This thesis and its outcome scenarios are deeply influenced by the Connecticut River Valley report. While using the report’s scenario based methods, this thesis precedes the scenario development with a mapping methodology which supports the scenarios; a methodology which draws from cartographic basis of the work of McHarg. Halperin’s work is important in setting up the concept that the Annapolis Valley’s genius locus, like The Sea Ranch, is deeply rooted in both its natural and human ecosystems and their iterations over time.

Fig. 1.4.8 (left)- Aerial view of existing conditions

Fig. 1.4.9 (center) - Aerial view of typical development

Fig. 1.4.10 (right) - Aerial view of creative development







2.1 PREFACE

ASPECTS OF ANALYSIS

Because the genius locus is comprised of many different qualities of the Annapolis Valley Region, its analysis must also take different forms. The image bank and cartographic analysis of this thesis and the broader resources used in the research represent distinct methods of exploring the genius locus of the Annapolis Valley.

The image bank showcases the qualities of place of the Annapolis Valley Region. The panoramas on the following pages, as well as the images throughout the thesis give the reader who is unfamiliar with the region a sense of its scenic qualities and organization. The images also give a suggestion of how such a place has developed over time. For those who already know the region, the photographs provide a record of places within the region that they may be less familiar with or a differing viewpoint than they typically experience. As the database continues to develop over time, the expanding image bank will be a record of the changes within the Annapolis Valley and could be set up to make those comparisons easier and more accessible.

The cartographic analysis provides the underlying factual information about the Annapolis Valley. Covering a wide range of topics in a set of map layers, from the physical form and natural traits of the region, to representations of the Annapolis Valley's population characteristics, the maps address the varied nature of the landscape. These map layers could be set up, again, in a comparative format allowing for more detailed cross-referenced analysis. This is a valuable resource both for those just becoming familiar with the region as well as residents who would be familiar with the landscape manifestations of the data but not necessarily with the quantified information.

A third aspect is only slightly presented in this thesis. The people of the Annapolis Valley are just as important as the landscape they inhabit. The stories and views of residents and those who care for the Annapolis Valley Region would illustrate the personality of the region. I have presented my own experiences in part, but I have no authority to speak for others. This aspect of analysis would come forward when the approach of this thesis is concretely implemented, through public consultation and outreach campaigns regarding the overall plan and the specific projects. These would then be archived for future reference and accessed in combination with the image bank and cartographic analysis.

BOUNDARIES

Dewey Thorbeck, author of *Rural Design: A New Design Discipline* and director of the Center for Rural Design at the University of Minnesota describes the formation of regional boundaries as follows:

[...] regardless of the size of a region, a shared natural environmental figure such as an eco-region or watershed, rather than political boundaries, might be a better way to define landscape assets and economic opportunities, because all people and lands within it are similarly affected. This way of thinking is sometimes called 'bioregionalism' as a way to organize and coincide political boundaries for mutual benefit.¹

Topographically, the form of the Annapolis Valley dominates Kings and Annapolis County. Ecologically, the three ecozones present in the region do not exist together elsewhere in the province. Rooted in these conditions of the land, a common historical and agricultural landscape developed in the trough of the valley over time. This shared identity is taken into consideration with existing municipal boundaries to formulate the study area of the thesis. Existing municipal boundaries form the limits of the study area, as it is felt that to propose new political boundaries would require impractical government restructuring, diverting resources away from projects creating regional change.

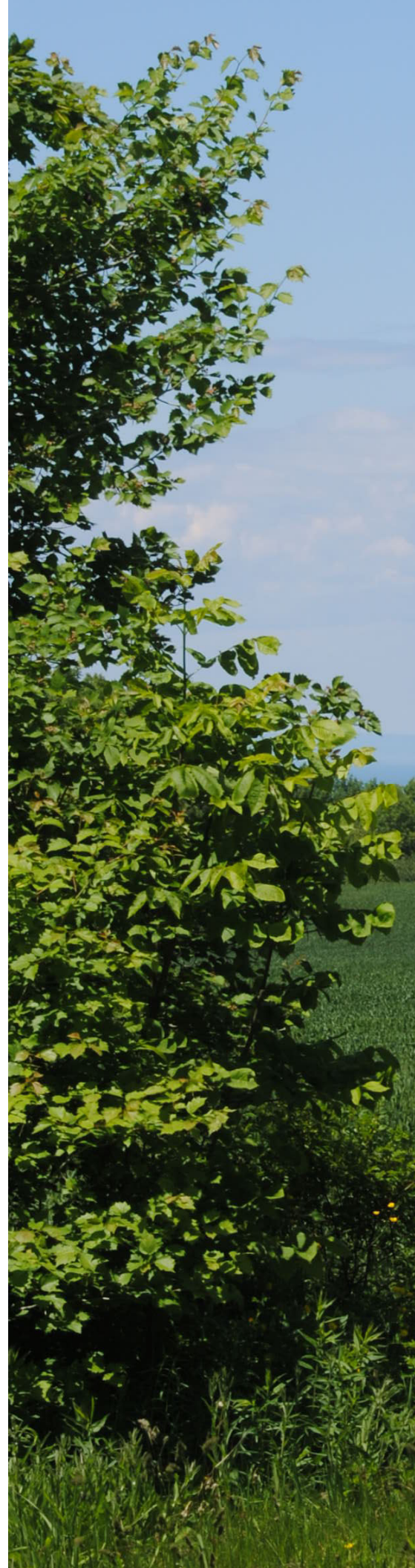




Fig. 2.2.1 - View upstream at Annapolis Tidal Generating Station



Fig. 2.2.2 - View downstream at Annapolis Tidal Generating Station

2.2 IMAGE BANK



Fig. 2.2.3 - Mouth of Allain's River, Annapolis Royal



Fig. 2.2.4 - Annapolis Basin from Fort Anne National Historic Site



Fig. 2.2.5 - Annapolis Marsh



Fig. 2.2.6 - Annapolis Royal, from end of Annapolis Royal wharf



*Fig. 2.2.7 - Annapolis River at
Jubilee Park, Bridgetown*



*Fig. 2.2.8 - Annapolis River at
Tupperville*



Fig. 2.2.9 - Wharf and beach at Hampton



Fig. 2.2.10 - Beach at Port George



Fig. 2.2.11 - Dykelands and railbed, Wolfville



Fig. 2.2.12 - Main Street, Wolfville



*Fig. 2.2.13 - Waterfront, Wolfville
at high tide*



*Fig. 2.2.14 - Waterfront, Wolfville,
one hour and forty-two minutes
earlier*



Fig. 2.2.15 - Port Williams and dyke



Fig. 2.2.16 - Luckett Vineyards



Fig. 2.2.17 - Farmland, Starrs Point Road



Fig. 2.2.18 - Habitant River, Canning



Fig. 2.2.19 - Aylesford Lake



*Fig. 2.2.20 - West side of wharf,
Kingsport*



*Fig. 2.2.21 - Grand-Pré dykelands
from Parks Canada lookoff*



*Fig. 2.2.22 - Grand-Pré dykelands
from National Historic Site*



Fig. 2.2.23 - Gaspereau River at Grand-Pré



Fig. 2.2.24 - Evangeline Beach



Fig. 2.2.25 - Portion of New Minas retail district



Fig. 2.2.26 - The Lookoff



2.3 CARTOGRAPHIC ANALYSIS

LIST OF MAPS

Topography
Gulf of Maine Watershed
Annapolis Valley Watersheds
Bay of Fundy Tides
Tidal Energy
Annapolis Valley Ecozones
Fishery
Forestry
Soil Fertility
Agriculture
Apples
Wineries
Tourism and Parks
Education
Population Density
Population Change
Land Cover
Road Networks



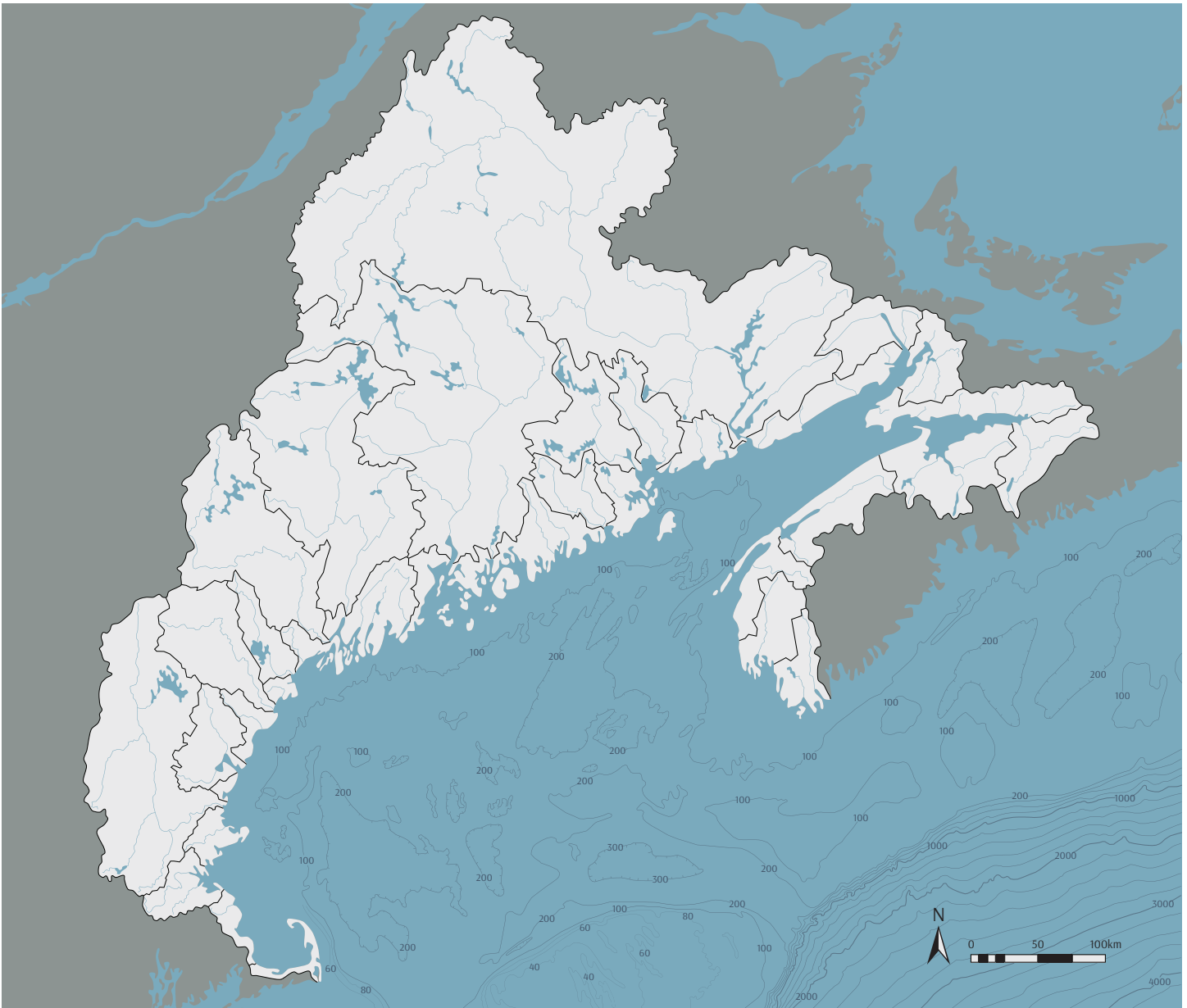
Fig. 2.3.1 - Topographic map of the Annapolis Valley, contours at 5 metre intervals

TOPOGRAPHY

The overall range of elevations in the Annapolis Valley Region stretches from below sea level in the Grand-Pré Dykelands to 275 m above sea level at the highest elevation of the South Mountain, southeast of Berwick near Lake George. The highest elevation on the North Mountain is 235 m above sea level, at Mount Rose, north of Lawrencetown.

The Valley floor varies only slightly in elevation, averaging between 30 and 50 m above sea level.

The North Mountain is characterized by its steeper slopes on both the north and south faces, whereas the South Mountain has a steep northern face with a more gradual decrease along the south towards the far Atlantic coast.



GULF OF MAINE WATERSHED

The Annapolis Valley Region is part of the larger Gulf of Maine watershed. This watershed covers a drainage area from Cape Cod, Massachusetts to Cape Sable, Nova Scotia, and as far inland as the province of Québec. In total, it is an area of over 177 000 km², including 36% of the province of Nova Scotia.¹ River systems in the Gulf of Maine watershed include the Annapolis, the Peticodiac, the Saint John, the Penobscot, the Kennebec, the Saco, and the Merrimack.

The unique marine conditions of the Gulf, namely cold waters and tidal mixing, create a highly productive environment. The Gulf is home to a number of fish species including Haddock, Atlantic Herring, American Lobster, and Acadian Redfish, as well as summering zones for numerous species of whales.²

Fig. 2.3.2 - Gulf of Maine watershed, underwater contour heights as indicated.

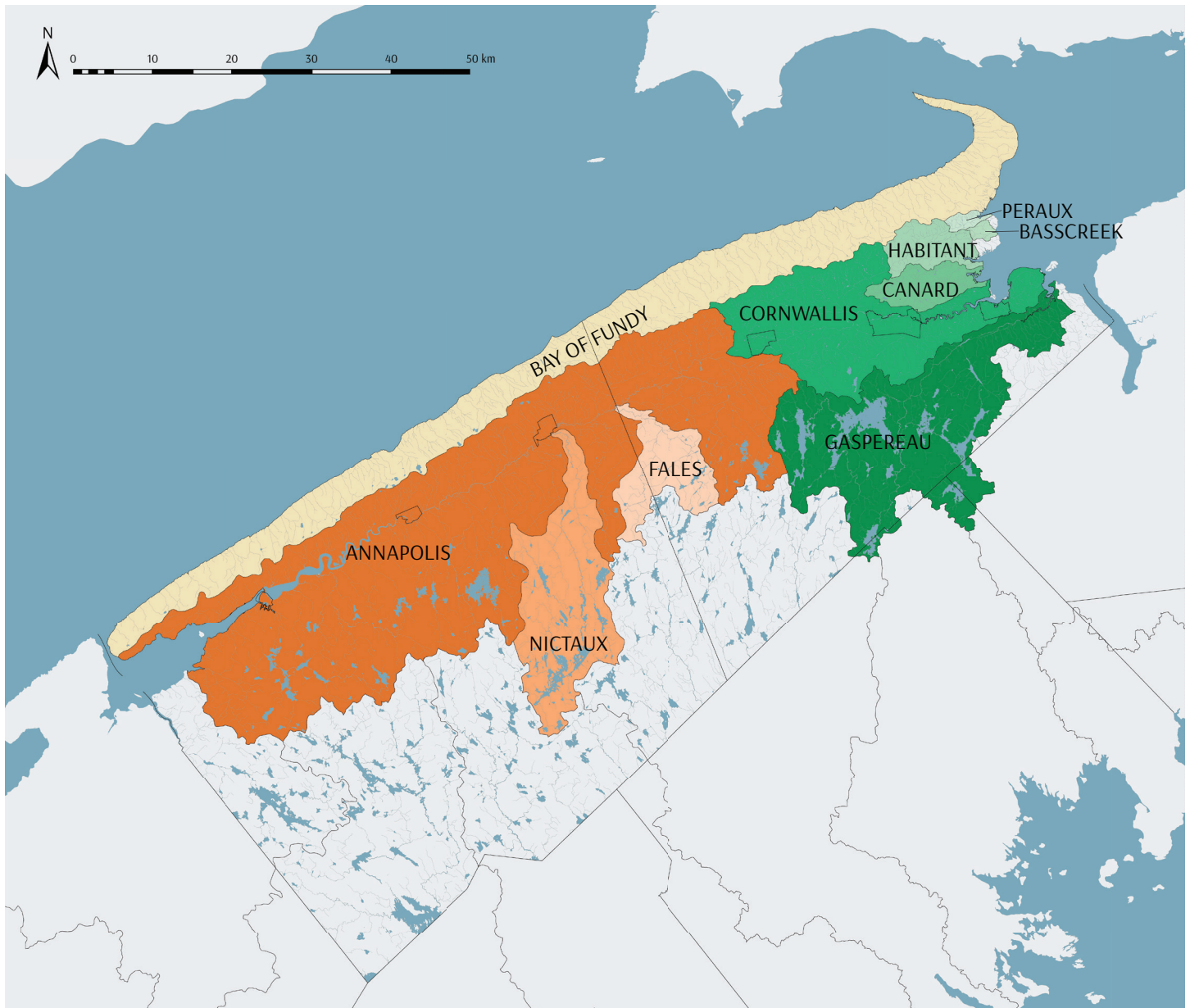
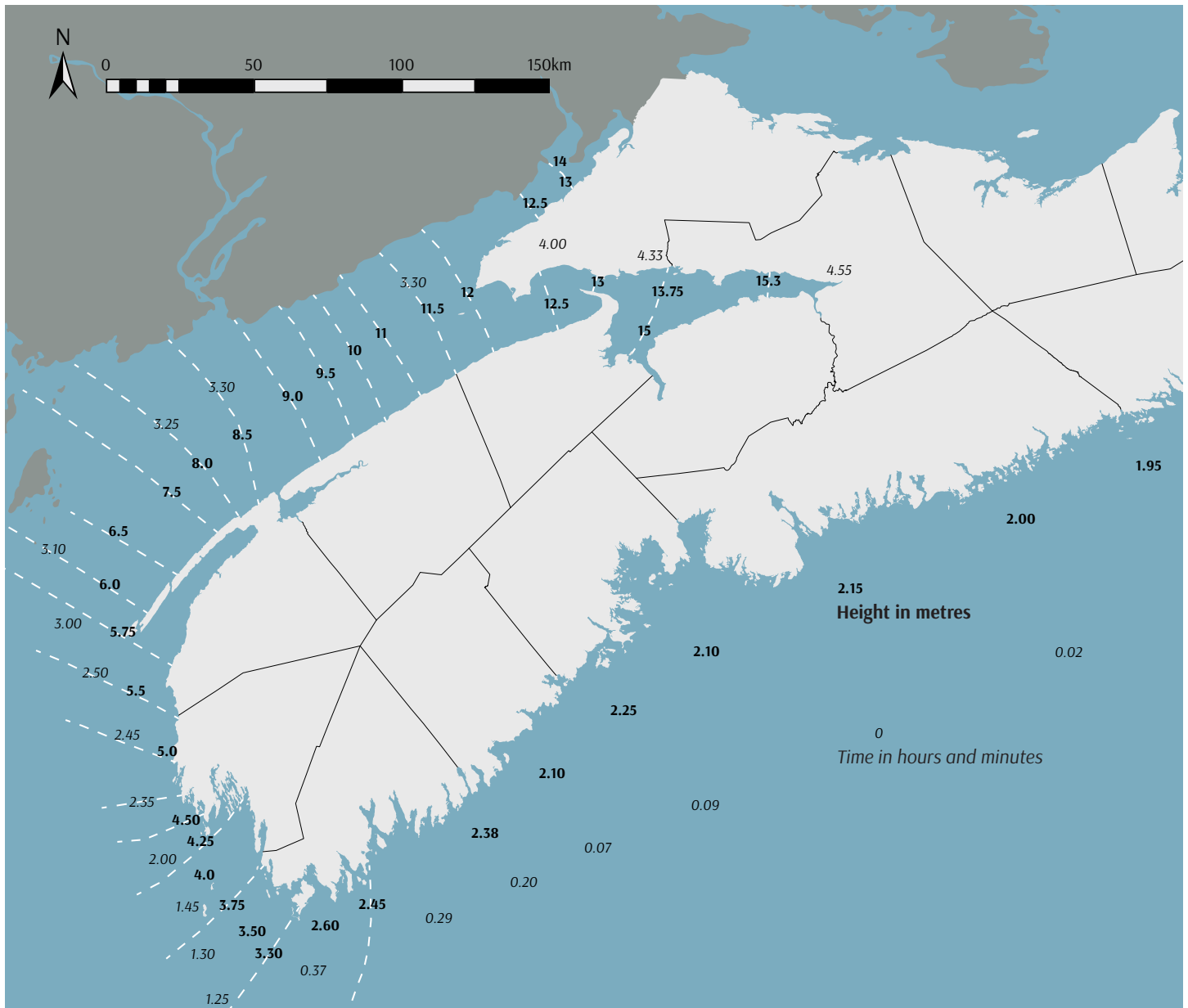


Fig. 2.3.3 - Watersheds of the Annapolis Valley Region

ANNAPOLIS VALLEY WATERSHEDS

The Annapolis Valley Region is dominated by 2 major watershed systems. The Annapolis Basin drainage system is comprised of the Nictaux River and the Fales River subwatersheds which join into the Annapolis River watershed. This river, along with the Bear River, empties into the Annapolis Basin before flowing out of the Digby Gut into the Bay of Fundy. The Minas Basin drainage system is made up of two larger watersheds, the Cornwallis River and the Gaspereau River, and 4 smaller watersheds, the Canard River, the Peraus River, the Habitant River, and Bass Creek,³ as well as a portion of the St. Croix River watershed at the eastern edge of the region.⁴

The northern slopes of the North Mountain drain directly into the Bay of Fundy through many creeks and streams. The southern portions of the region are part of watersheds which eventually join the Atlantic Ocean on Nova Scotia's South Shore.⁵



BAY OF FUNDY TIDES

The highest tides in the world occur in the Bay of Fundy. Due to the tidal period being nearly identical to the oscillation period of the basin of the Bay of Fundy (6h13m and 6h17m respectively) the tidal range is amplified as it travels up the Bay of Fundy.⁶

The largest typical tidal range is around 15 m within the Minas Basin. However, the largest ever recorded was during the October 1869 Saxby Gale, when a height of 21.6m was reached at the head of the bay. This was due to the coincidence of high tide, the storm causing winds driving up the bay, and the Moon being at its closest point to the equator.⁷

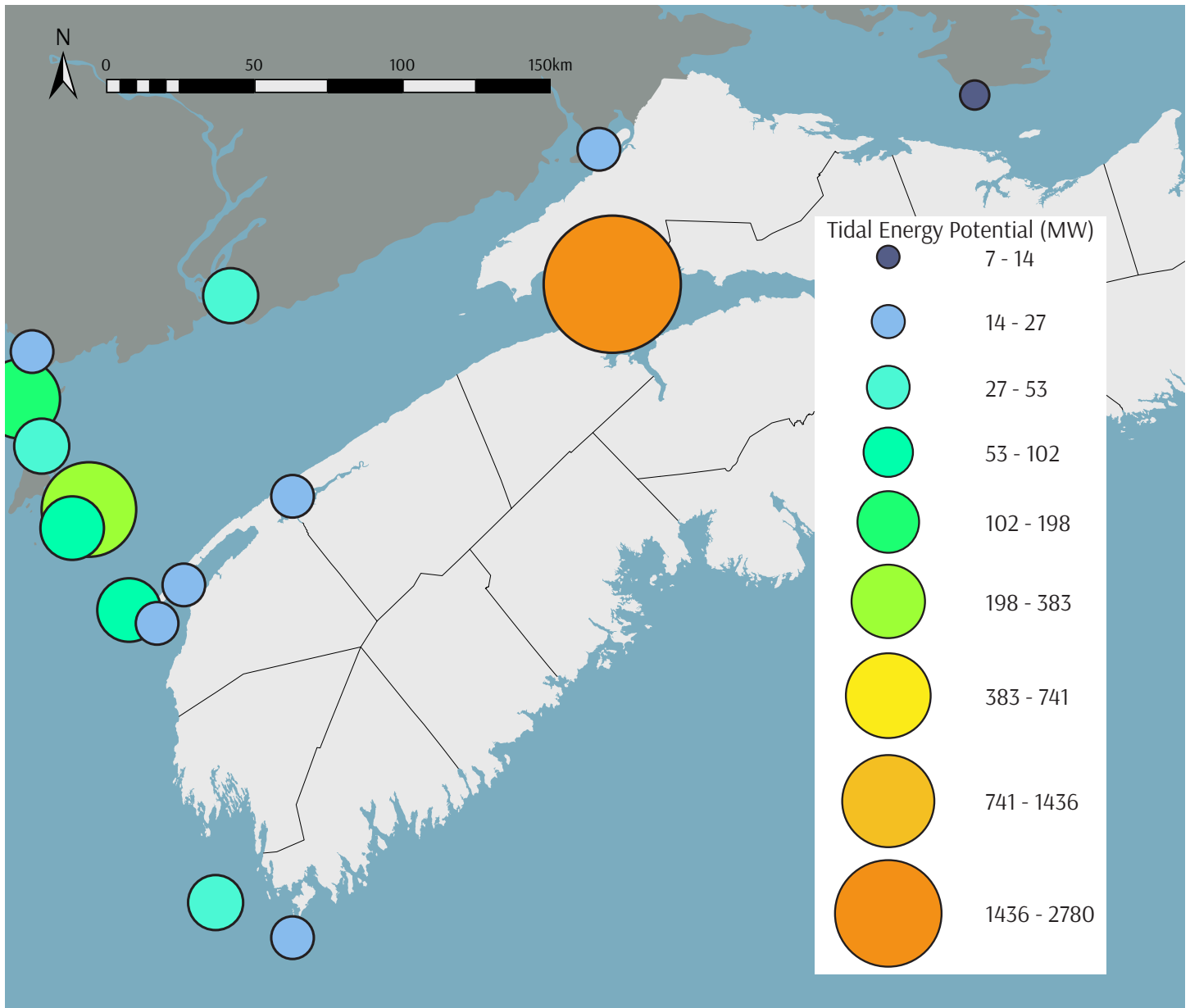
During a typical tide cycle, 160 billion tonnes of seawater moves into the Bay of Fundy, more than four times the combined flow of all the world's freshwater rivers in same time period.⁸

Fig. 2.3.4 - Bay of Fundy tidal patterns

“Boys, brag about your country. When I am abroad, I brag about everything that Nova Scotia is, has, or can produce; and when they beat me at everything else, I turn round on them and I say, ‘How high does your tide rise?’”

The Honourable Joseph Howe,
Nova Scotian journalist and
politician (1804-1873)





TIDAL ENERGY

Because of the large tidal differential in the Bay of Fundy, there is tremendous potential for harnessing this in tidal energy projects. There are currently two locations where this occurs.

The first is the Annapolis Royal Tidal Generating Station at the mouth of the Annapolis River. In operation since 1984, the station is the only tidal power plant in North America. It is a barrage installation, using the causeway to hold back the water and create a height differential at low tide. It can generate approximately 20 MW at a time, with a daily output between 80 and 100 MW.⁹

Currently, experimental instream projects are under development in the Minas Passage. This area has the greatest power potential, but turbines must be especially resilient to endure the forces of the tides. The onshore infrastructure for these installations is located in Cumberland County.¹⁰

Fig. 2.3.7 - Bay of Fundy Tidal Energy Potential

opposite page, from top left:
Fig. 2.3.8 - Aerial: Annapolis Royal Tidal Generating Station

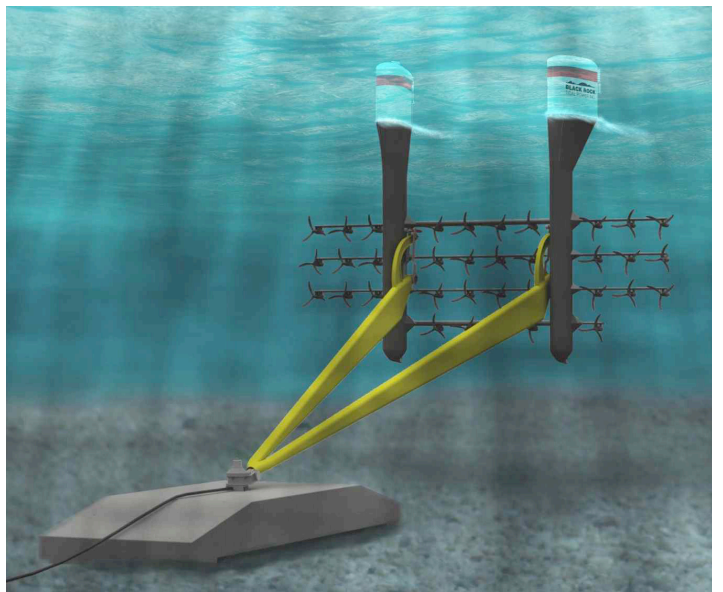
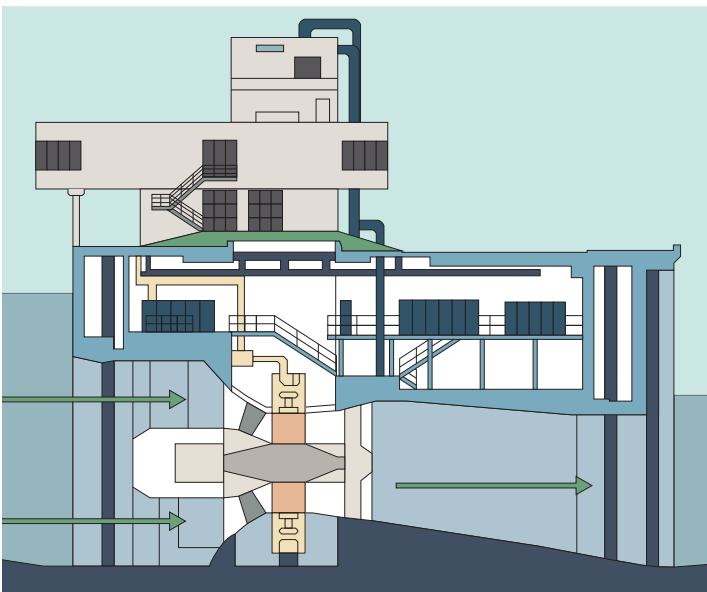
Fig. 2.3.9 - Aerial: Minas Passage

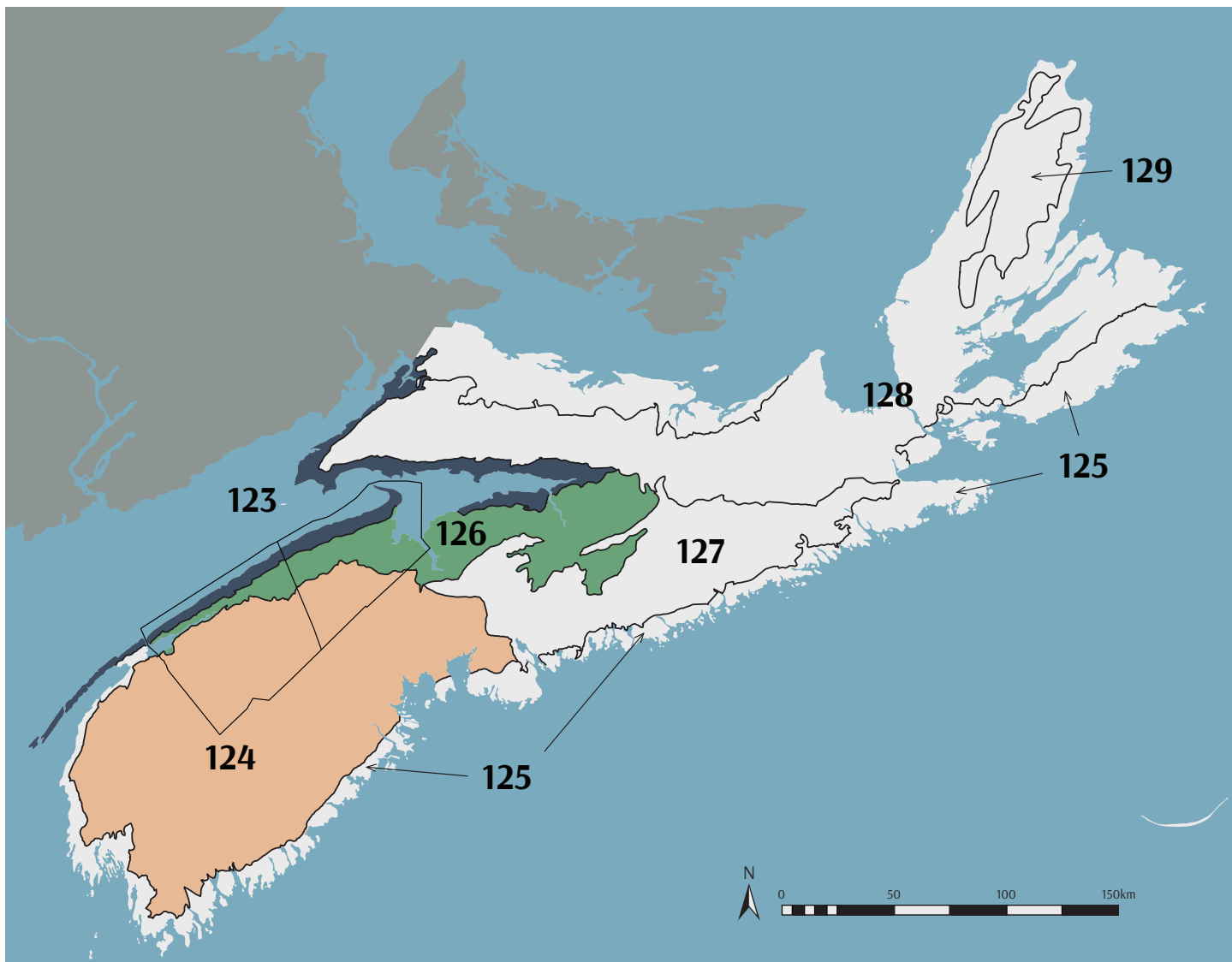
Fig. 2.3.10 - Annapolis Royal Tidal Generating Station

Fig. 2.3.11 - OpenHydro Instream Generator

Fig. 2.3.12 - Section of ARTGS

Fig. 2.3.13 - Black Rock Tidal instream generator





ANNAPOLIS VALLEY ECOREGIONS

FUNDY COAST (123) - The coastal area along the Bay of Fundy, it is greatly influenced by the bay with exposure to high winds, humidity, and fog. The forest is made up of red spruce, balsam fir, and red maple with some white spruce, and white and yellow birch.¹¹

SOUTHWEST NOVA SCOTIA UPLANDS (124) - This ecoregion is representative of the southwestern inlands of the province. Greatly forested, the mix of species includes black spruce, eastern hemlock, white and red pine, white birch, red maple, and red oak. Heavily treed, forestry is a major activity in this ecoregion.¹²

ANNAPOLIS-MINAS LOWLANDS (126) - Protected from the coastal influences to which the Fundy Coast is subjected, this ecoregion has warmer summers, allowing for a large agricultural presence. The Minas Lowlands area has a tendency towards marshy conditions in some areas of poor drainage, as well as significant tidal mud flats.¹³

Fig. 2.3.14 - Nova Scotia ecoregions

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Fig. 2.3.15 - Fundy Coast ecozone

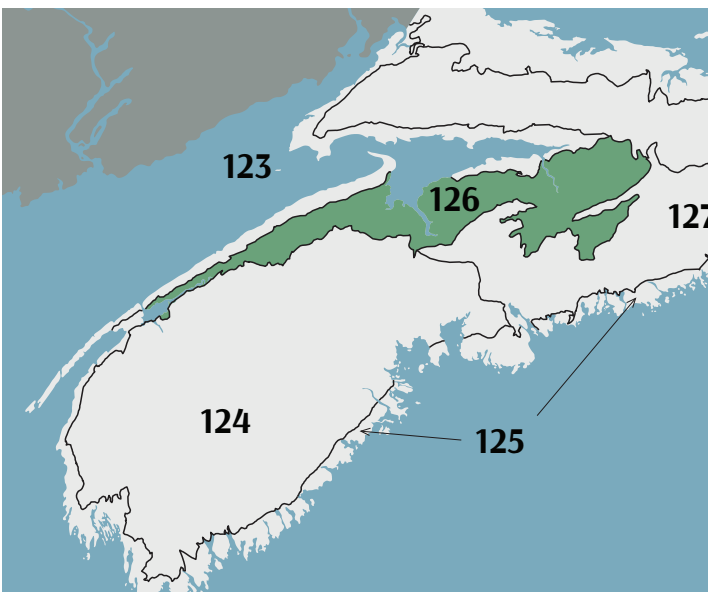
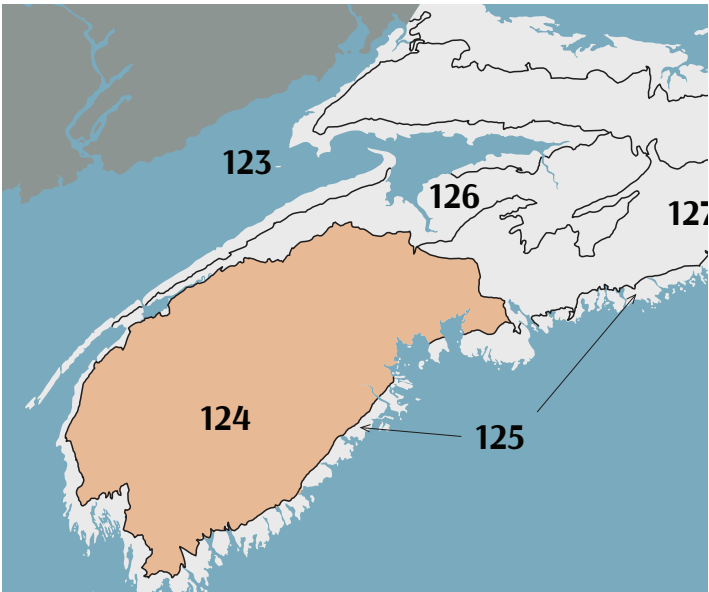
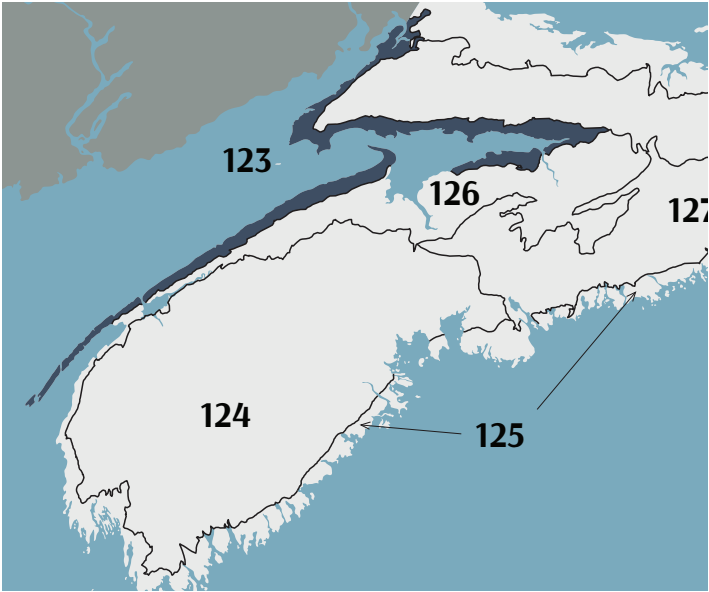
Fig. 2.3.16 - Fundy Coast, Harbourville

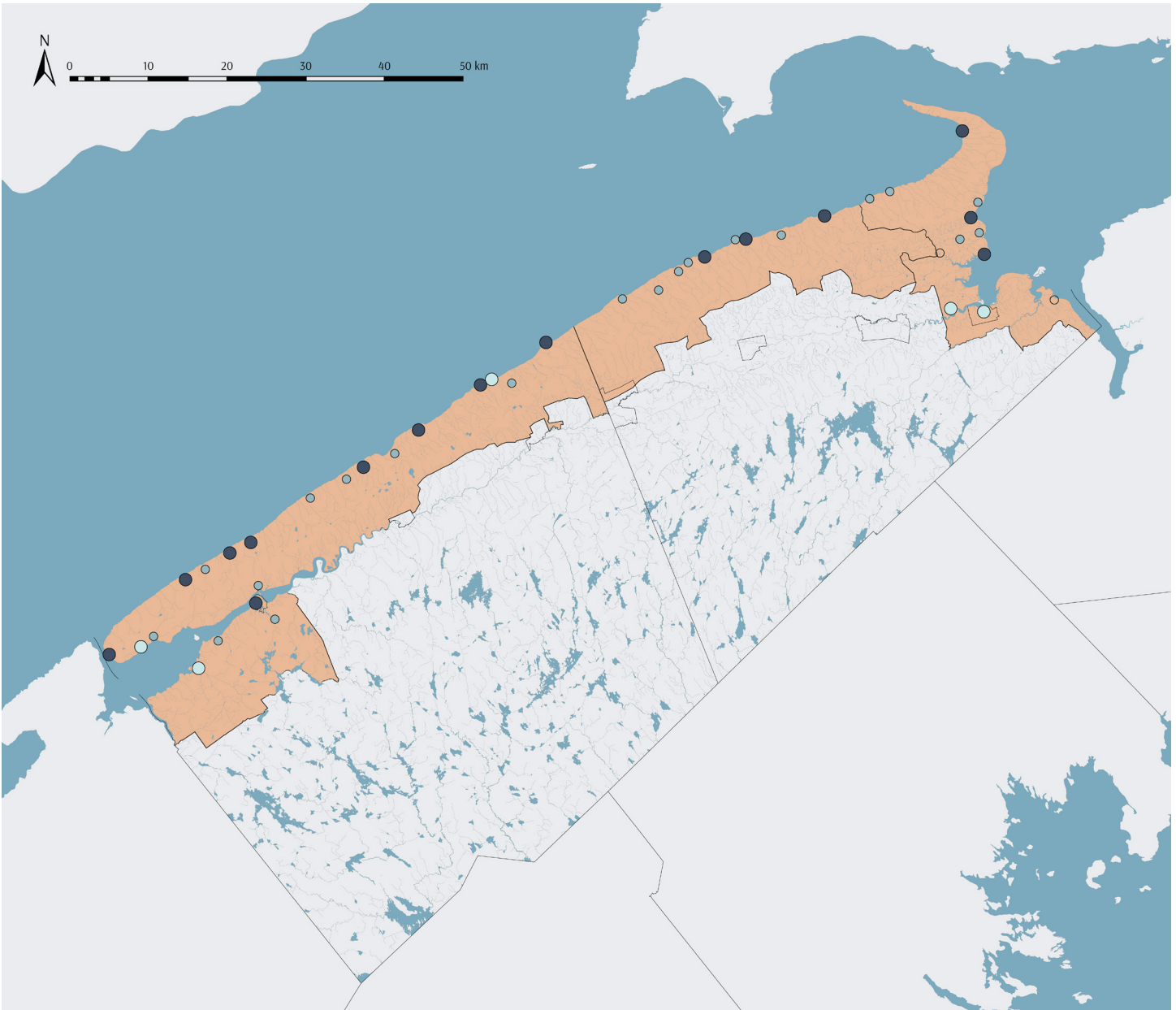
Fig. 2.3.17 - Southwest Nova Scotia Uplands ecozone

Fig. 2.3.18 - Uplands, Aylesford Lake

Fig. 2.3.19 - Annapolis-Minas Lowlands ecozone

Fig. 2.3.20 - Annapolis-Minas Lowlands, from *The Lookoff*





FISHERY

The Annapolis Valley Region has 15 active harbours, distributed through 4 coastal cluster zones. There are also 5 official historic wharf sites.¹⁴ Additionally, there are many sites with an indication of a former fishing presence, either through place names (i.e. -Harbour or Port-) or physical evidence (i.e. wharf piles).

Today, the fishery is a small industry in the Annapolis Valley Region. Each of the coastal clusters produces less than 0.5% of the provincial catch, measured both in landed weight and value.¹⁵ However, it still has a presence locally, both for the small communities along the Fundy Coast and consumers within the region.

Fig. 2.3.21 - Coastal Cluster Zones and Harbour Sites

-  Active Harbour
-  Historic Wharf
-  Historic Fishing Use

Opposite page, from top left:
Fig. 2.3.22-33 - Aerial photos of
the region's harbours



Victoria Beach



Port Lorne



Margaretsville



Scots Bay



Port George



Parkers Cove



Kingsport



Harbourville



Hampton



Halls Harbour



Delaps Cove



Annapolis Royal



FORESTRY

Fig. 2.3.34 - Forested Area

In 2012, the provincial forestry harvest was 3 446 993 cubic meters. Eighty-two percent was softwood. Eleven percent of the total harvest was exported.¹⁶ Within the Annapolis Valley Region, there are fourteen Registered Buyers of primary forestry products who process the raw product in a number of ways. There are 9 sawmills, 3 firewood sales, 1 log home manufacturer, and 1 chip plant sale.¹⁷

Upon the closure of the Bowater paper mill, the provincial government bought the land which the company had owned to supply its operations. 10 725 acres of this purchased land is located in the Annapolis Valley Region.¹⁸ According to the Western Crown Land Planning Process, undertaken following the purchase, most of the lands within the region are not intended for further forestry on a large scale.¹⁹



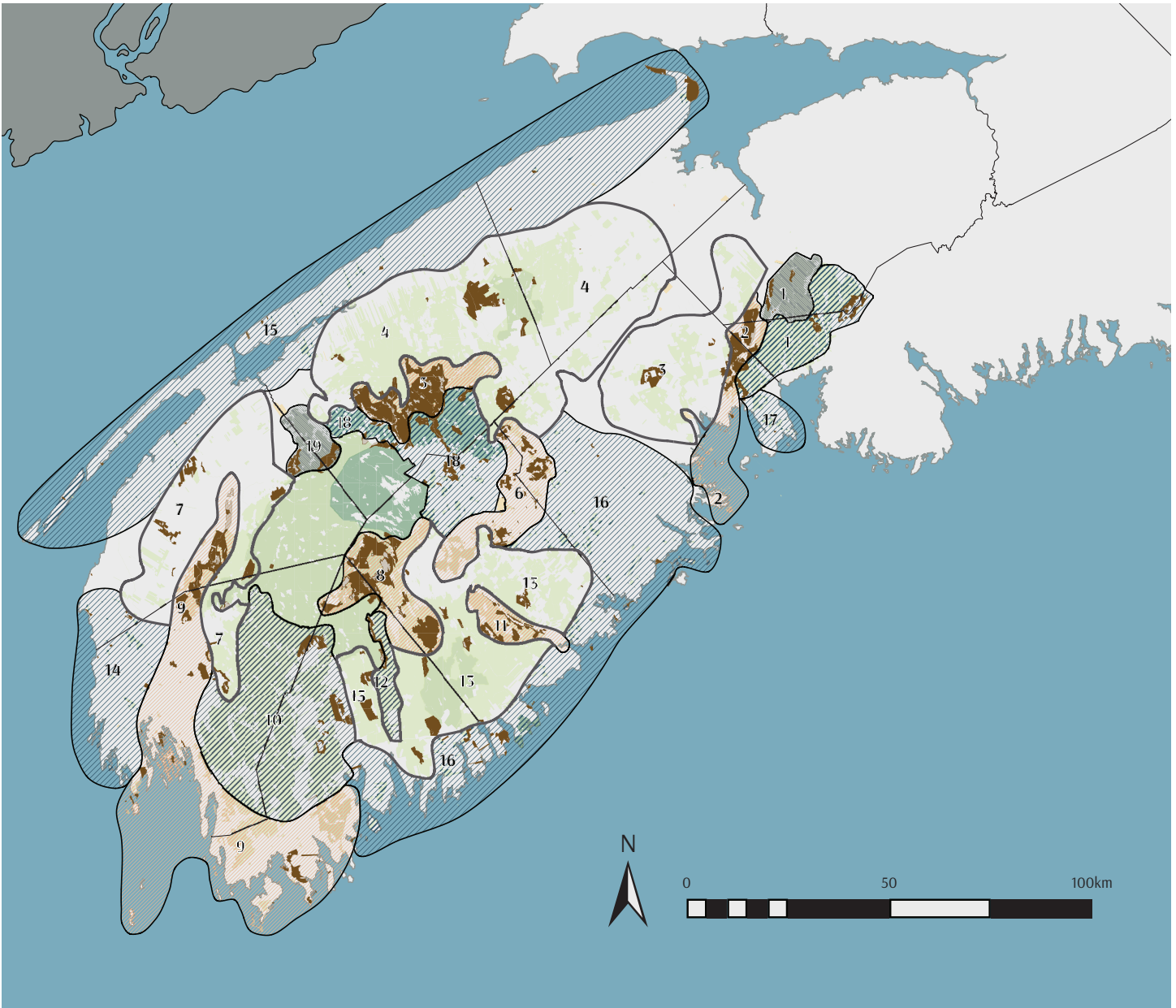
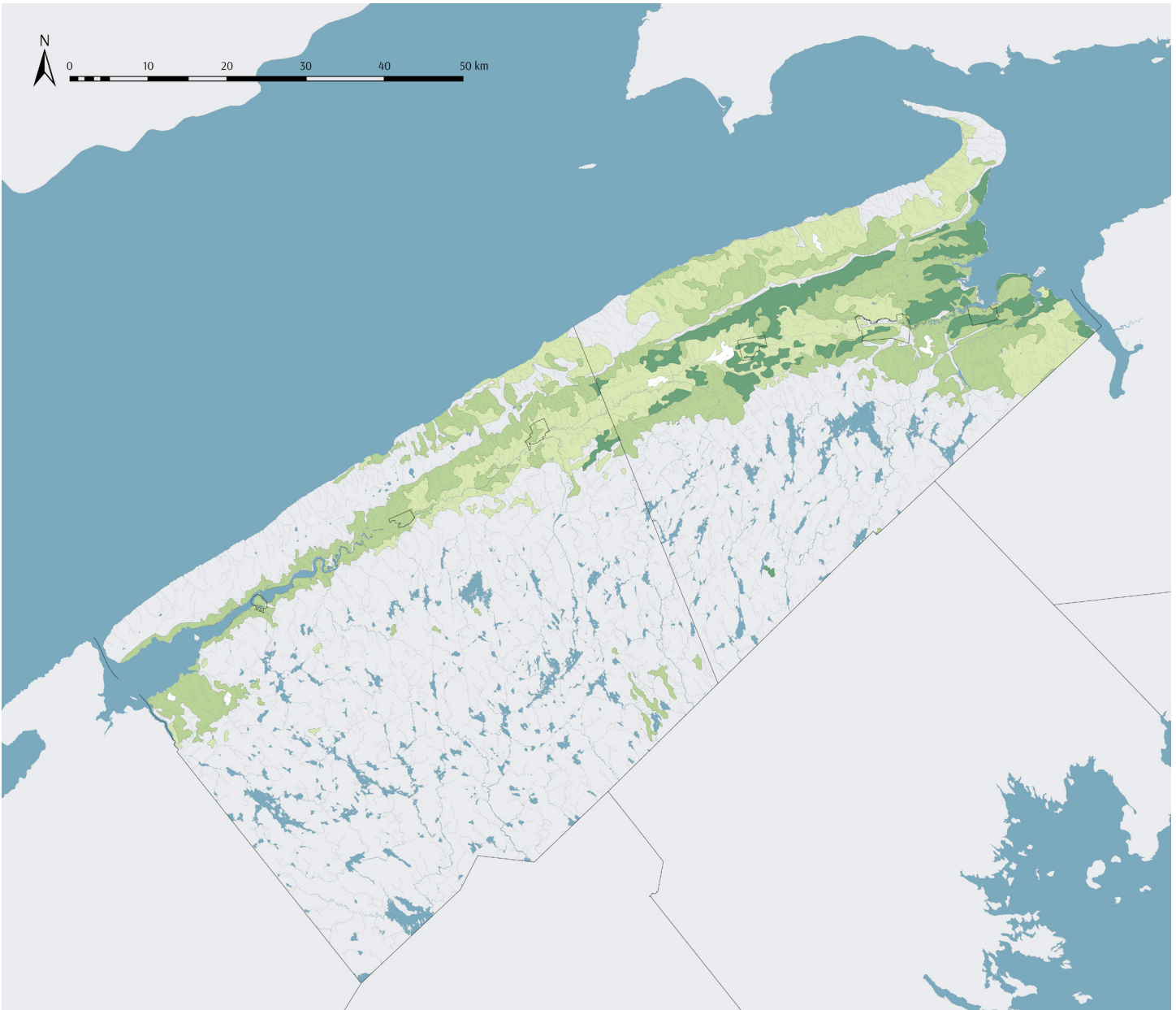


Fig. 2.3.35 - Western Crown Lands Planning Process Zones



WESTERN CROWN LANDS PLANNING PROCESS

- | | |
|---------------------------------|--|
| 1. St. Margarets | Forestry/Minerals/Mi'kmaw/Watershed/Biodiversity/Recreation |
| 2. Panuke | Biodiversity/Recreation |
| 3. East Lunenburg/West Hants | Forestry/Biodiversity/Minerals/Recreation |
| 4. Annapolis/Kings | Biodiversity/Recreation/Tourism/Culture & Heritage/Minerals |
| 5. Medway | Biodiversity/Culture & Heritage/Mi'kmaw |
| 6. Ponthook/Molega | Biodiversity/Mi'kmaw |
| 7. Digby County North/Yarmouth | Biodiversity/Forestry/Culture & Heritage/Minerals/Mi'kmaw |
| 8. Dunraven | Recreation/Wetlands/Agriculture/Biodiversity/Minerals |
| 9. Coastal Plain | Biodiversity/Minerals |
| 10. Yarmouth Barrens | Forestry/Biodiversity/Minerals |
| 11. Lower Mersey | Recreation/Culture & Heritage/Access/Minerals/Mi'kmaw |
| 12. Jordan River | Forestry/Culture & Heritage/Minerals |
| 13. Rossignol | Forestry/Culture & Heritage/Mi'kmaw |
| 14. Western Yarmouth/Digby | Biodiversity/Forestry/Tourism/Recreation |
| 15. North Mountain | Biodiversity/Energy/Forestry/Tourism/Recreation |
| 16. South Shore | Biodiversity/Forestry/Tourism/Recreation/Watershed/Minerals/Mi'kmaw |
| 17. Aspotogan | Biodiversity/Forestry/Tourism/Recreation |
| 18. West Caledonia/South Medway | Biodiversity/Forestry/Tourism/Recreation/Culture & Heritage/Minerals |
| 19. Bear River | Biodiversity/Mi'kmaw/Recreation |

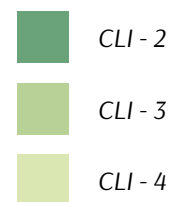


SOIL FERTILITY

Kings County has 12 percent of the province's CLI 2 soils, 4 percent of CLI 3 and 11 percent of CLI 4. Annapolis County has 0.4 percent of the province's CLI 2 soils, 3 percent of CLI 3 and 4 percent of CLI 4.²⁰

Though Annapolis and Kings County together represent under 10% of Nova Scotia's land area, the two counties contain 17% of the province's farmland. Kings and Annapolis are the top two counties in the province for usage of arable land for agriculture: Kings uses 36% of all available CLI 2, 3, and 4 land and Annapolis uses 31% (the overall provincial use is approximately 13%). Kings also uses the greatest percentage of its highest quality land in the province, with 62% of CLI 2 land in agricultural use.²¹

Fig. 2.3.36 - Canada Land Inventory - Soil Capability for Agriculture, Classes 2, 3, and 4



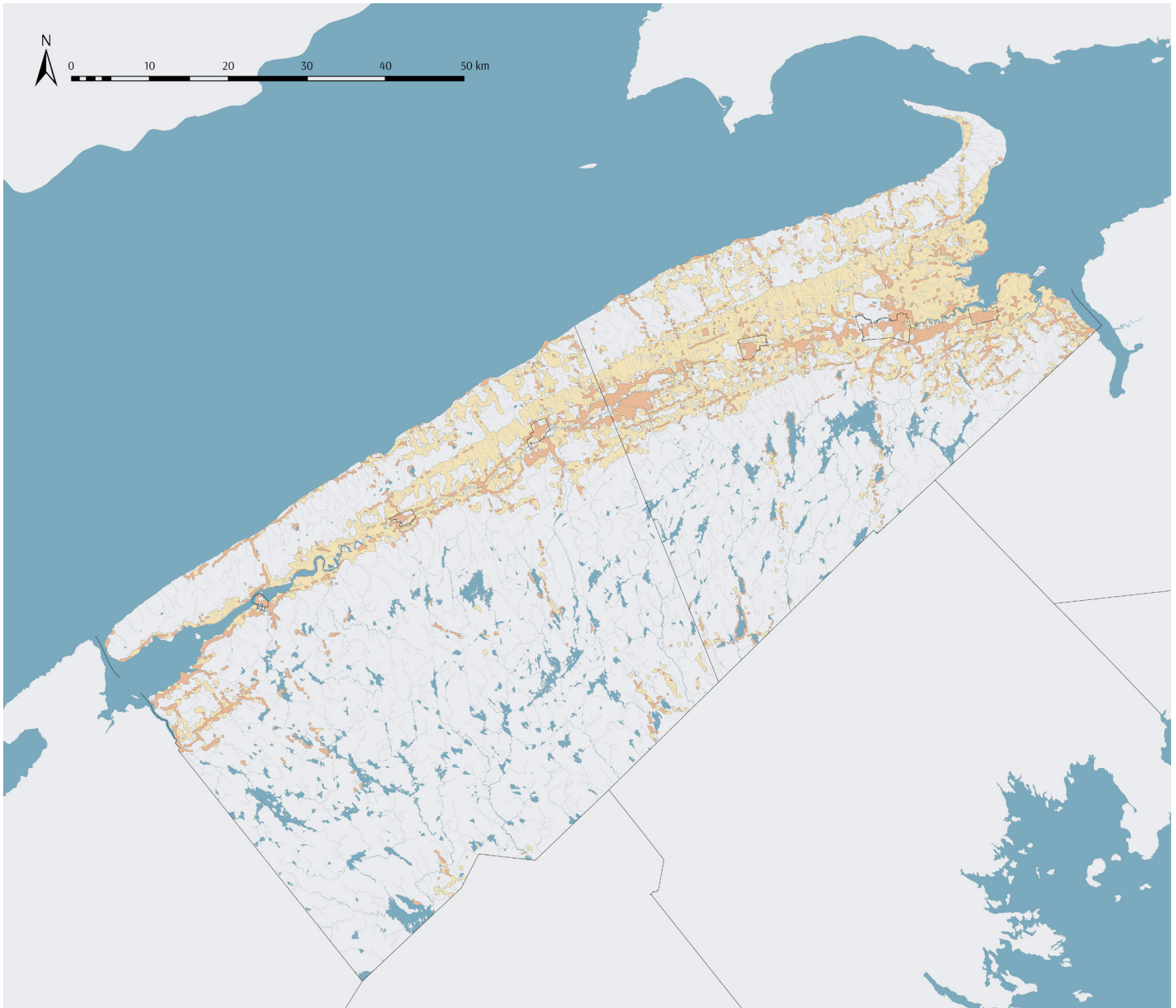


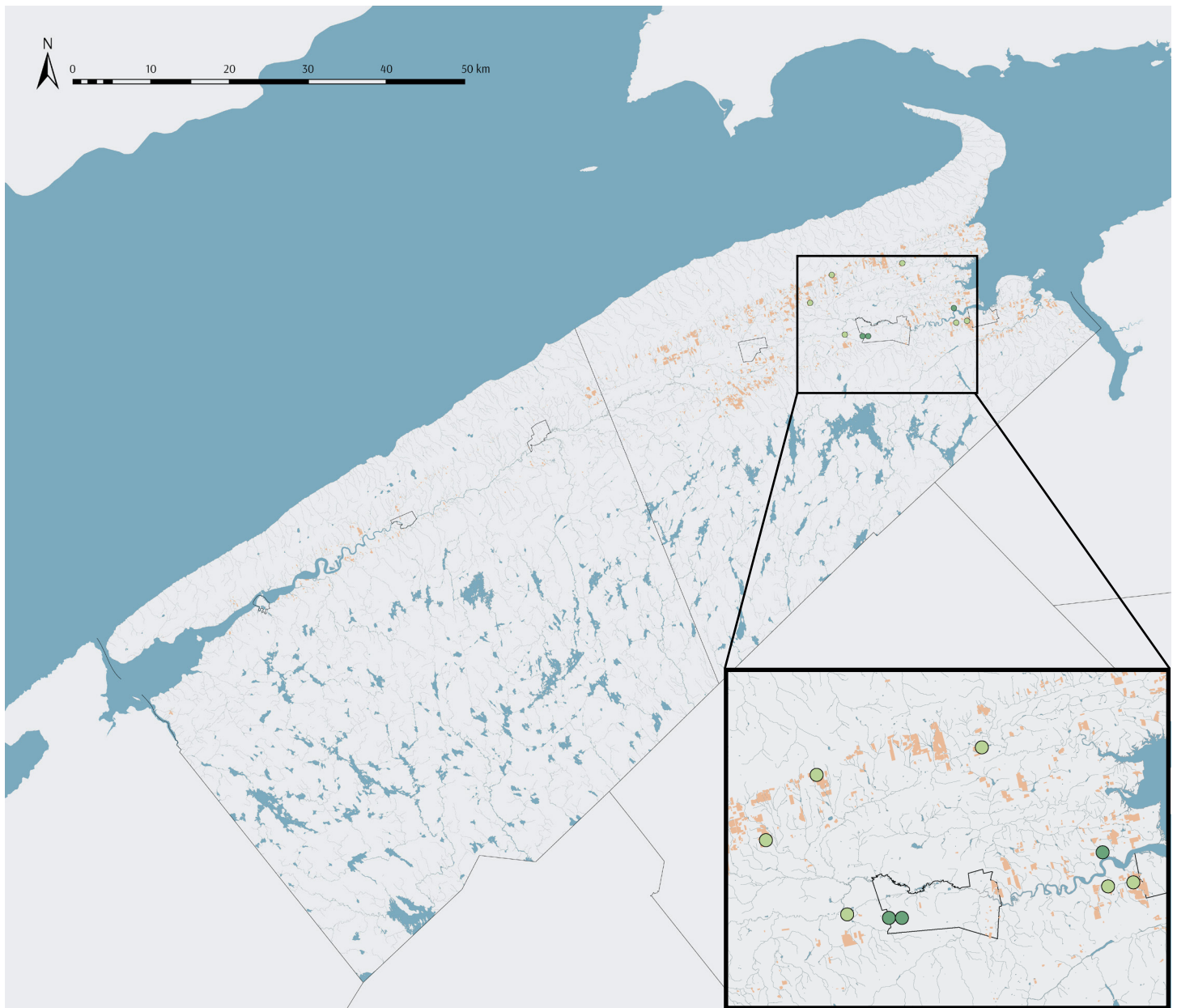
Fig. 2.3.37 - Agriculture and Settlement in the Annapolis Valley (2011)



AGRICULTURE

Known in particular for apple production, the Annapolis Valley yields a diverse range of agricultural products. The region has a longstanding agricultural tradition from its first European settlement. The Acadians were the first farmers, reclaiming the fertile marshes along the rivers and the Minas Basin.²² Ever since, the land has been the lifeblood of the region, sustaining the New England Planters and every generation of farmers until the present day.

In recent years, agriculture has become less of an economic presence in the Annapolis Valley, though it has undeniably left its mark on the landscape. The statistics represent the effects of modernization and optimization on the agriculture industry. The number of farms and the hectares of farm area were both down in the period of 2001-2011 (-46 farms and -14026 hectares) but farm receipts were up by over \$50 000 000.²³



APPLES

The commercial apple industry has existed in the Annapolis Valley since at least the 1860s²⁴, though it is believed that the first apple trees were grown by the early Acadians.

The industry had its heyday early in the twentieth century, when Nova Scotia produced over half of the national apple crop. Preceding World War One, Great Britain was the greatest importer of Nova Scotia apples.²⁵ Today, most apples grown in the province head to the local and domestic markets. On average, a yearly crop yield is approximately 2.35 million bushels of apples (approximately 10% of the Canadian total). This is a farm-gate value of \$14 million.²⁶

Many of the region's apples are processed into added value products. An apple juice plant supplies the A. Lassonde company's Graves, Allen's, and Rougemont brands. The region's two pie making facilities provide over 65% of the Canada's supermarket apple pies.²⁷

Fig. 2.3.38 - Apple Orchards and Processing/Storage Facilities

- Orchards
- Processing
- Storage



Fig. 2.3.39 - Apple orchard in bloom, near Kingston

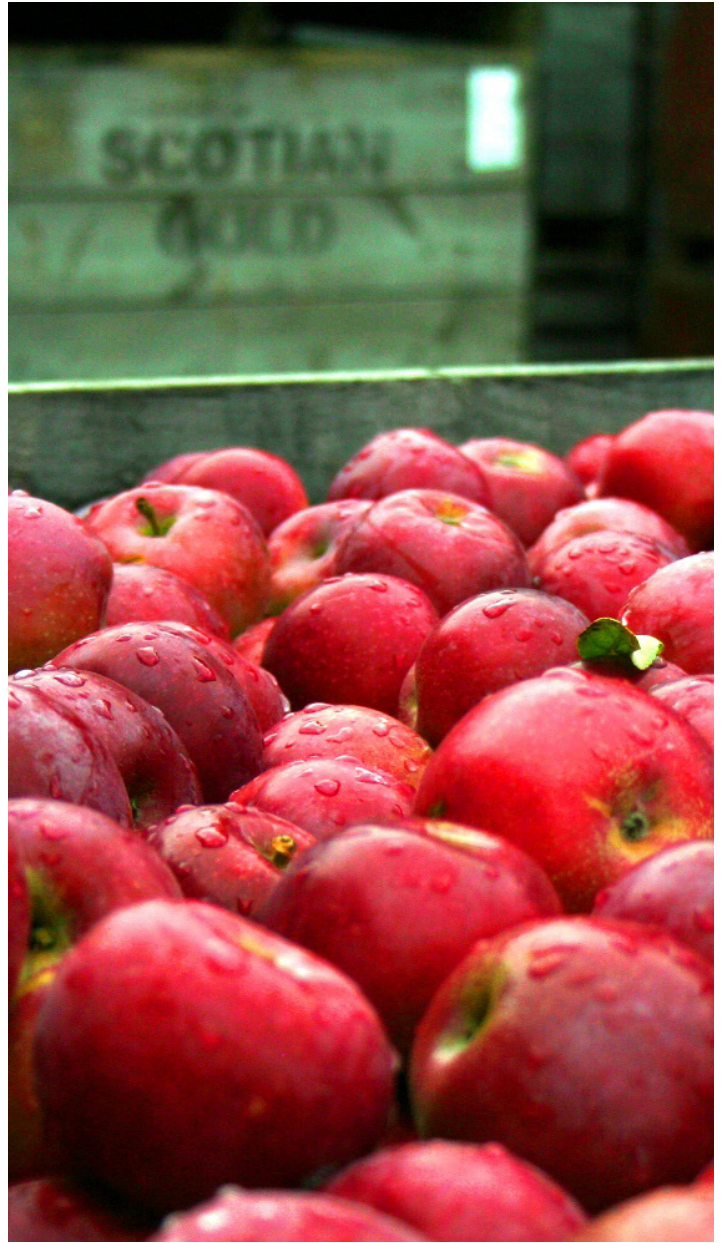
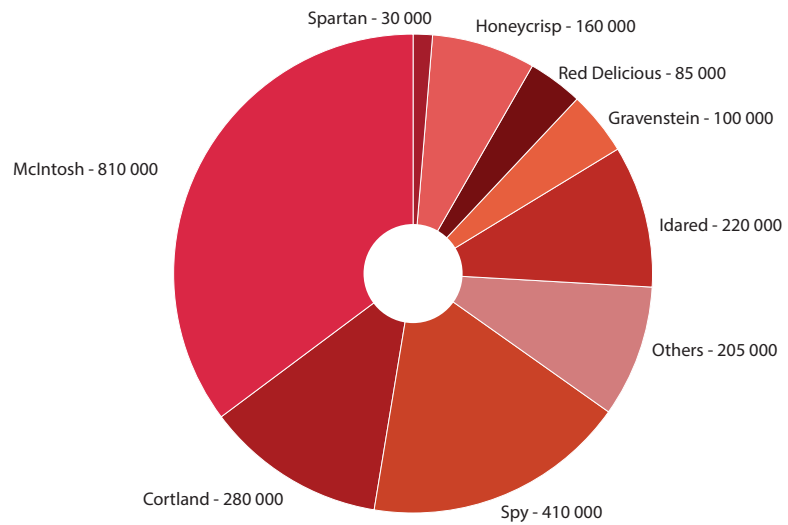
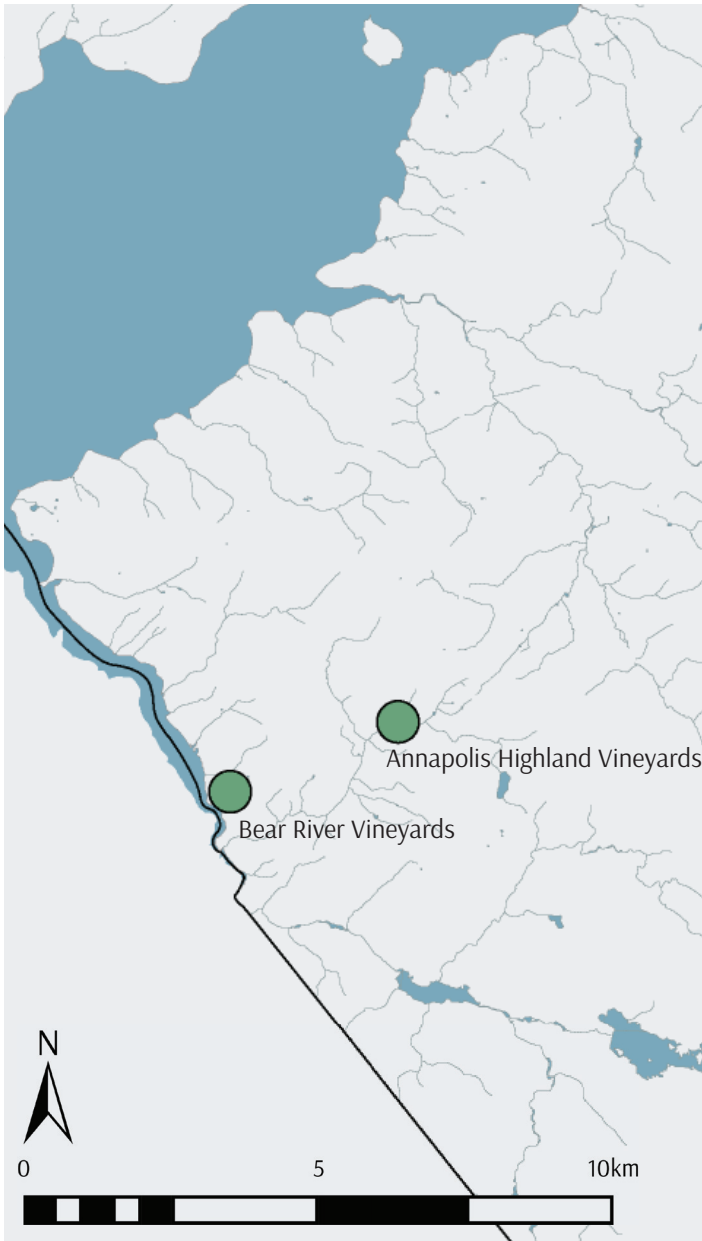


Fig. 2.3.40 - Apples after the harvest

Fig. 2.3.41 - Nova Scotia Apple Crop Bushel Estimates, by Variety (2009)





WINERIES

Nine of Nova Scotia's thirteen wineries are located in the Annapolis Valley Region.²⁸ Wine is a young growing industry in the province: in 1980 there was only one winery in the entire province. Provincially the industry has an economic impact of \$196.3 million. 854 people are employed, directly and indirectly, by the industry. It is estimated that in 2011 approximately 100 thousand tourists visited Nova Scotia wineries, generating \$14.2 million in revenue.²⁹

Some of the most common wines produced by the region's wineries are L'Acadie, Riesling, Tidal Bay (Nova Scotia's specific appellation), and Marechal Foch. A number of the wineries also produce sparkling wines.³⁰

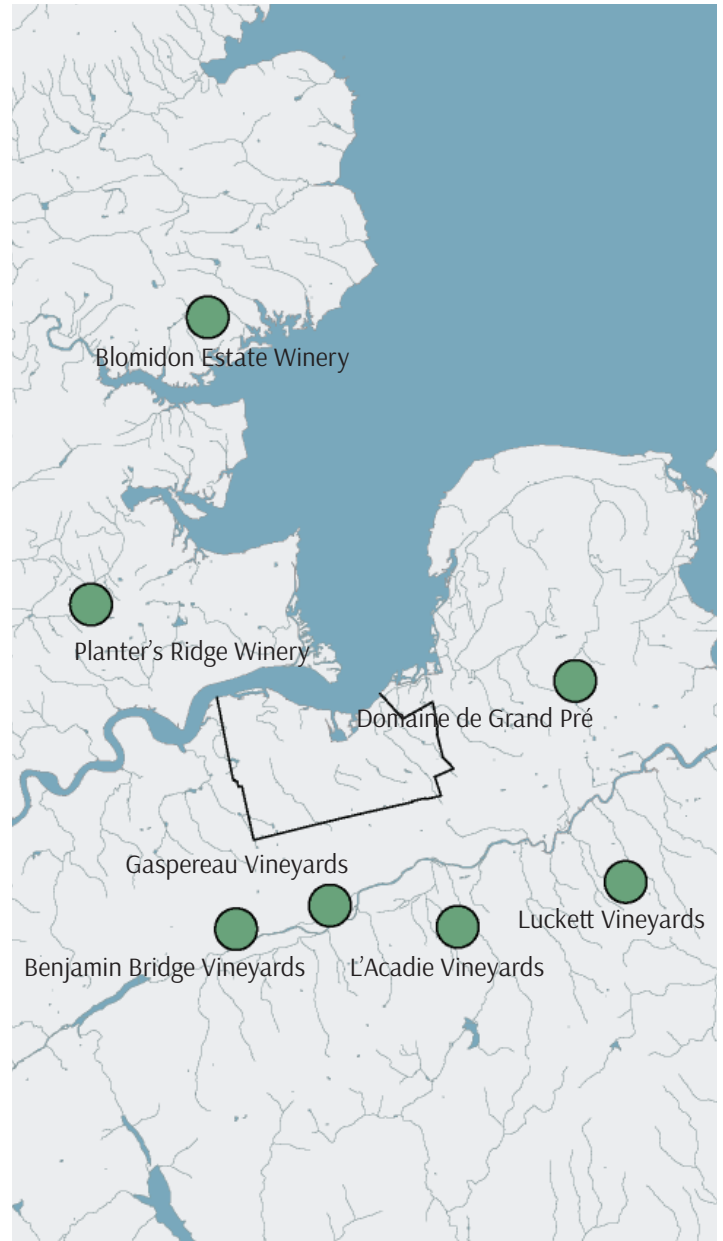


Fig. 2.3.42 - Western Annapolis Valley Region wineries

Fig. 2.3.43 - Eastern Annapolis Valley Region wineries



Fig. 2.3.44 - Bear River Vineyards

Fig. 2.3.45 - Nova 7, Benjamin Bridge Vineyards

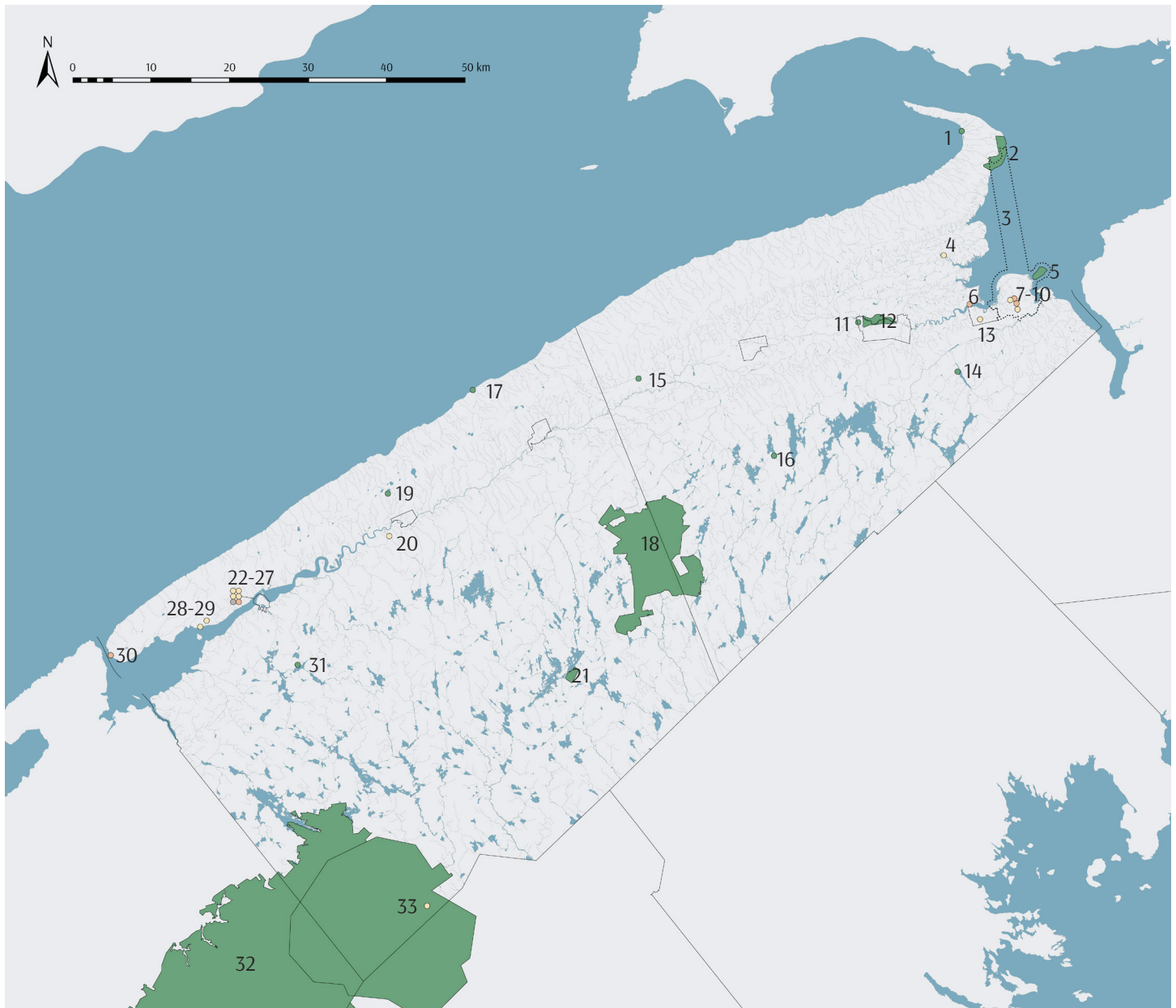
Fig. 2.3.46 - Phone Box Red, Lucket Vineyards

Fig. 2.3.47 - Geisenheim Riesling, Annapolis Highland Vineyards

Fig. 2.3.48 - Brut Reserve, Benjamin Bridge Vineyards

Fig. 2.3.49 - Tidal Bay, Blomidon Estate Winery





- | | |
|---|-------------------------------------|
| 1. Scot's Bay Provincial Park | 17. Cottage Cove Provincial Park |
| 2. Blomidon Provincial Park | 18. Cloud Lake PWA |
| 3. Landscape of Grand Pré, UNESCO | 19. Valleyview Provincial Park |
| 4. Sir Frederick Borden Residence NHS | 20. Bloody Creek NHS |
| 5. Boot Island NWA | 21. McGill Lake PWA |
| 6. Coming of the New England Planters NHE | 22. Fort Anne NHS |
| 7. Grand-Pré NHS | 23. Charles Fort NHS |
| 8. Covenanters' Church NHS | 24. Annapolis County Courthouse NHS |
| 9. Attack at Grand-Pré NHE | 25. Sinclair Inn/Farmer's Hotel NHS |
| 10. Expulsion of the Acadians NHE | 26. Mohawks at Annapolis Royal NHE |
| 11. Coldbrook Picnic Park | 27. CP Railway Station, HRS |
| 12. Kentville Migratory Bird Sanctuary | 28. Melanson Settlement NHS |
| 13. Ladies' Seminary NHS | 29. Port-Royal NHS |
| 14. Lumsden Pond | 30. Pony Express NHE |
| 15. Clairmont Provincial Park | 31. Mickey Hill Provincial Park |
| 16. Lake George Provincial Park | 32. Tobeaic PWA |
| | 33. Kejimkujik NP & NHS |

Fig. 2.3.50 - Parks and Historic Sites

Abbreviations:
 HRS = Heritage Railway Station
 NP = National Park
 NHE = National Historic Event
 NHS = National Historic Site
 NWA = National Wilderness Area
 PWA = Provincial Wilderness Area



Fig. 2.3.51 - Grand-Pré National Historic Site



Fig. 2.3.52 - Blomidon Provincial Park



Fig. 2.3.53 - Covenanters' Church National Historic Site

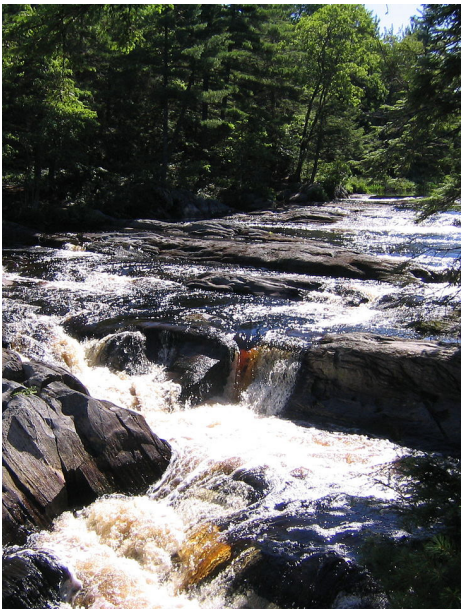


Fig. 2.3.54 - Waterfall, Kejimikujik National Park



Fig. 2.3.55 - Sinclair Inn National Historic Site



Fig. 2.3.56 - Port-Royal National Historic Site

TOURISM & PARKS

Tourism in the province of Nova Scotia is a \$2 billion industry.³¹ Visitors come to the province predominately from other areas in Canada. 53.7% of visitors to Nova Scotia are from the other provinces in Atlantic Canada and 34.8% come from the rest of Canada. 7.9% of visitors are from the United States of America and the remaining 3.6% come from overseas, predominately from the United Kingdom and Germany.³²

Tourism activities in the Annapolis Valley Region draw upon the region's history and landscape. Parks Canada sites include Kejimikujik National Park/Historic Site, Fort Anne National Historic Site, Port-Royal National Historic Site, and Grand-Pré National Historic Site.³³ There are also smaller nationally dedicated sites marked by plaques or operated by community groups. Other areas are protected by provincial parks and wilderness areas such as the Blomidon Provincial Park³⁴ and the Cloud Lake Wilderness Area.³⁵



RECENT TOURISM CHANGES

In recent years, there have been several significant developments in the nature of tourism in the Annapolis Valley. First, the Landscape of Grand-Pré was designated as a World Heritage Site by UNESCO in 2012. The 13 km² area includes the existing National Historic Site as well as the farmed dykelands and marshlands that were first reclaimed by the Acadians.³⁶

Second, with the growth of Nova Scotia’s wine industry, especially in the area surrounding Wolfville, wine tourism has become more common in the Annapolis Valley Region, both by individuals and by organized groups.³⁷

Lastly, in November of 2013, Parks Canada announced a two year partnership with Google to use their Street View technology to document Canada’s National Parks and Historic Sites. As of May 2014, the four major Parks Canada sites in the region are visible on Google Street View. This digital access is intended to be a means of promotion and education about the Parks Canada sites.³⁸

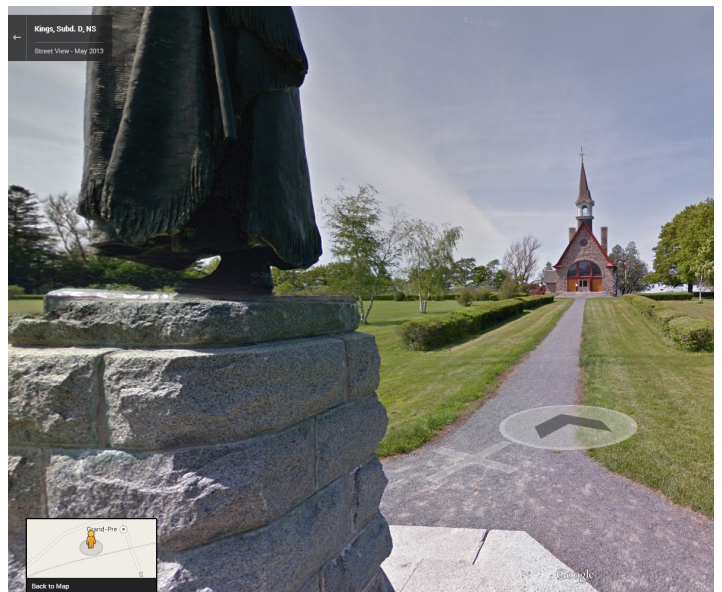
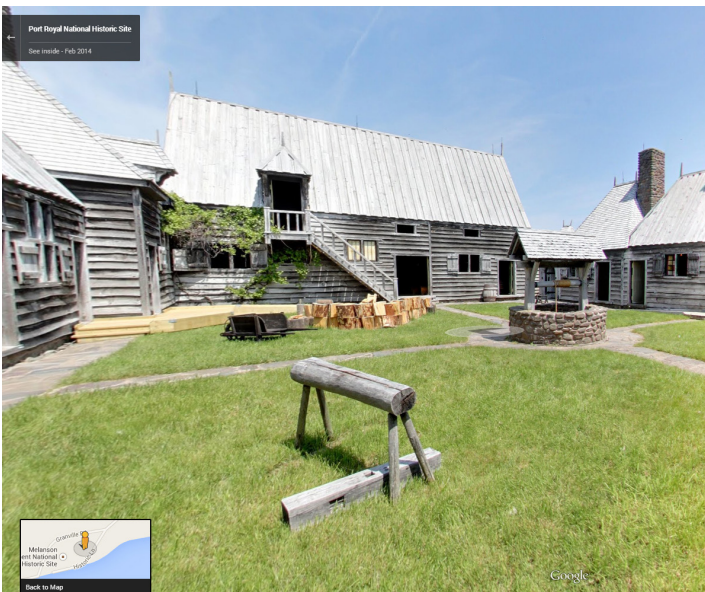
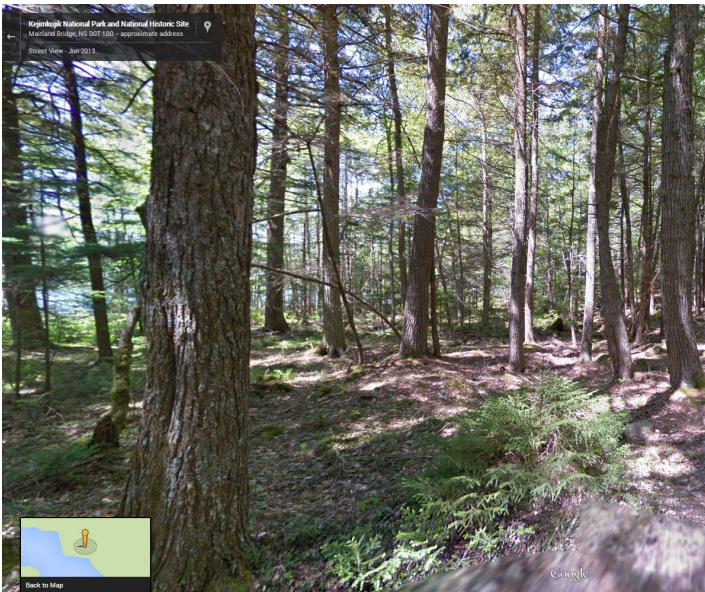
Fig. 2.3.57 - Map of UNESCO Landscape of Grand-Pré

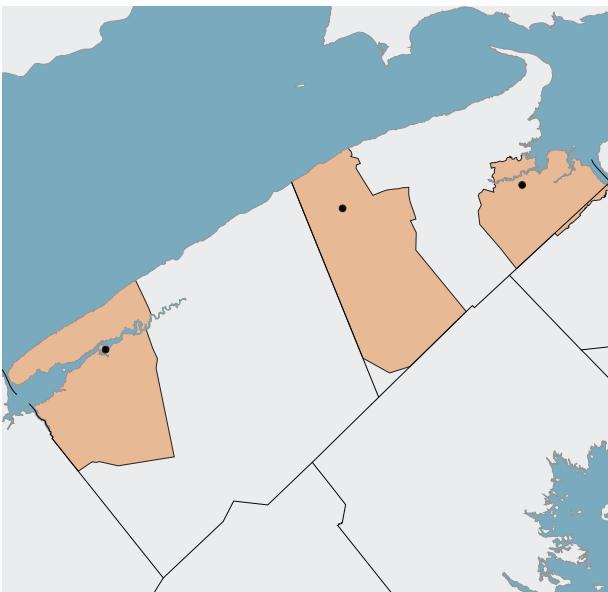
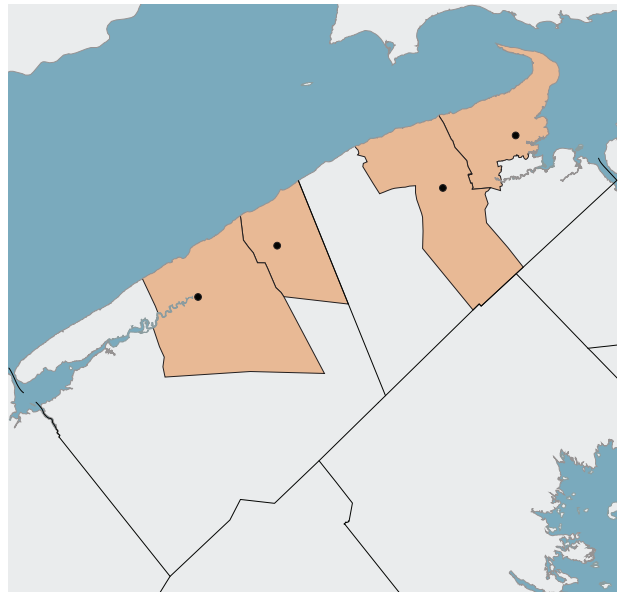
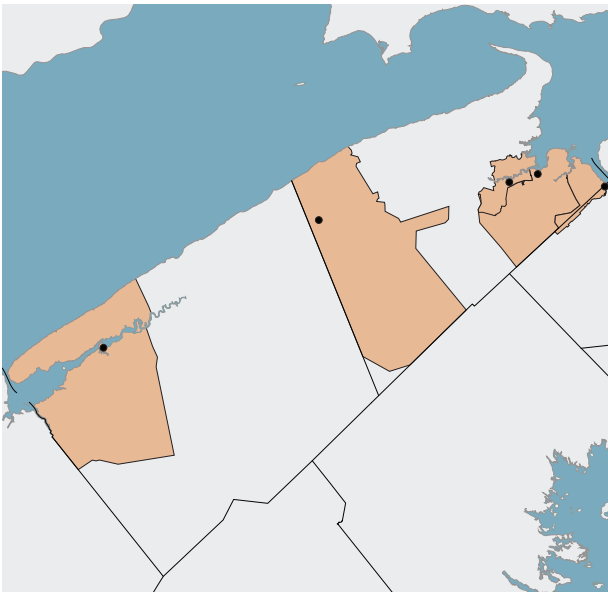
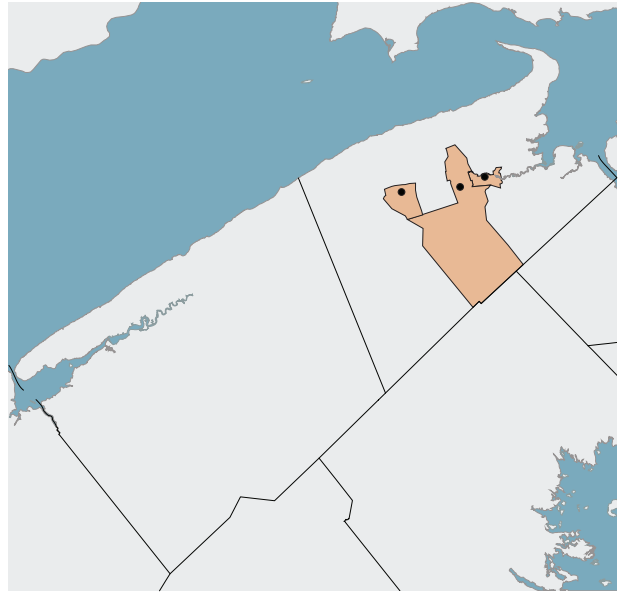
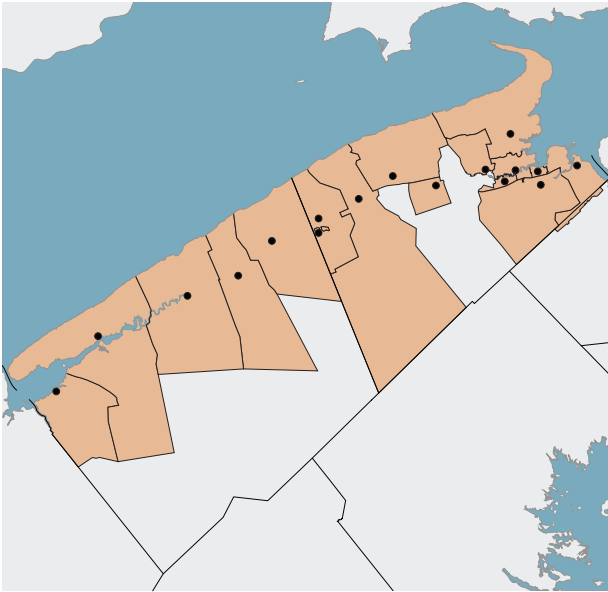
Fig. 2.3.58 - Landscape of Grand-Pré from Parks Canada viewing area

opposite page, from top left:
Fig. 2.3.59 - The Magic Winery Bus at an Annapolis Valley winery

Fig. 2.3.60 - The Magic Winery Bus pickup sign in Wolfville

Fig. 2.3.61-64 - Google Street View of Parks Canada properties in the Annapolis Valley Region





*School Catchment Districts
(from top left)*

Fig. 2.3.65 - Grade primary to grade five schools

Fig. 2.3.66 - Grade primary to grade eight schools

Fig. 2.3.67 - Grade six to grade eight schools

Fig. 2.3.68 - Grade six to grade twelve schools

Fig. 2.3.69 - Grade nine to grade twelve schools



From top left:

Fig. 2.3.70 - Acadia University

Fig. 2.3.71 - NSCC Middleton

Fig. 2.3.72 - NSCC Lawrencetown (COGS)

Fig. 2.3.73 - Annapolis East Elementary School (Grades P-5)

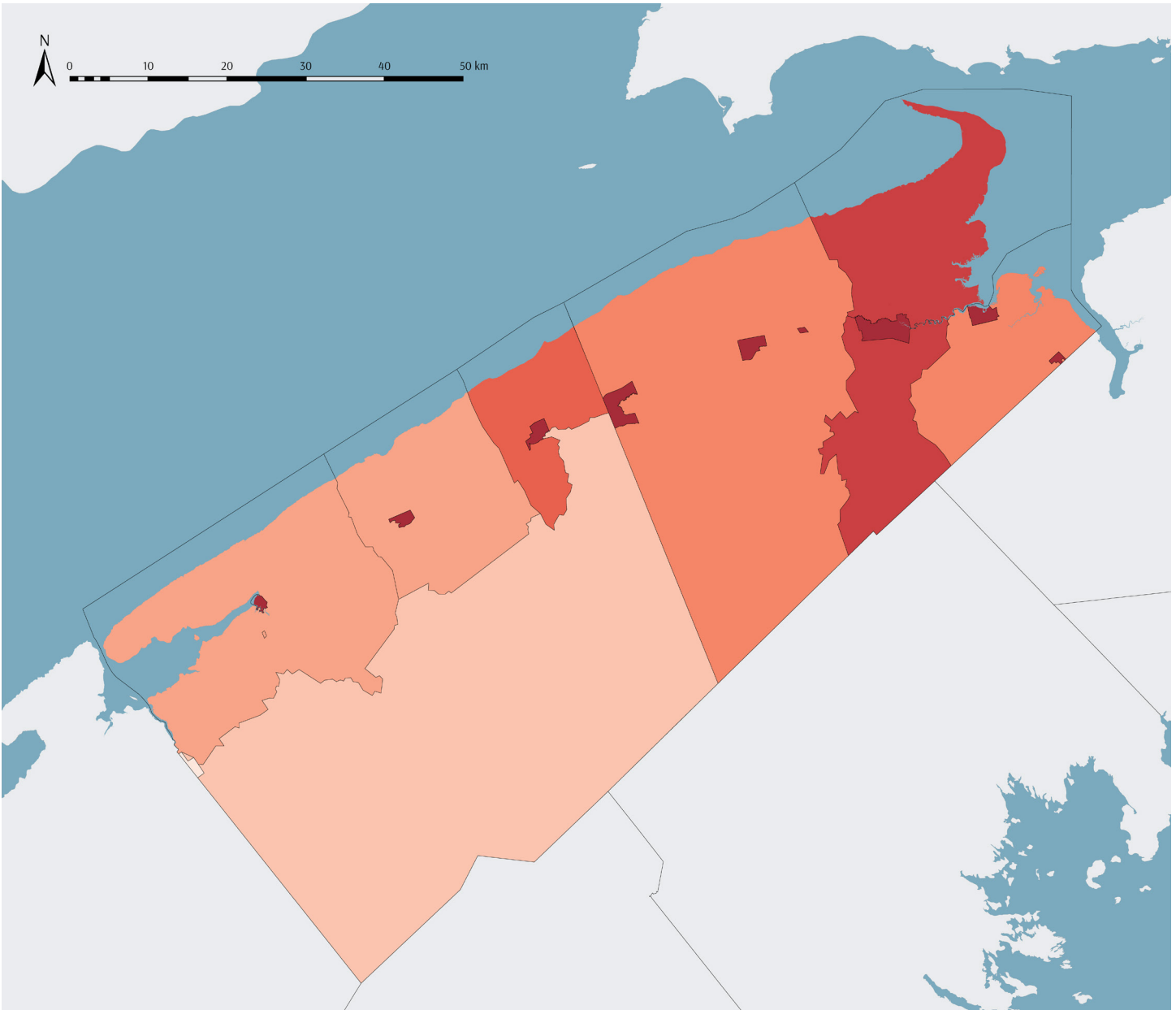
Fig. 2.3.74 - Bridgetown Regional High School (Grades 6-12)

Fig. 2.3.75 - Kings County Academy (Grades P-8)

EDUCATION

Grade school education throughout the Annapolis Valley is provided at 32 public schools: 17 at the primary to grade five level, 3 primary to grade eight, 5 grade six to grade eight, 4 grade six to grade twelve, and 3 grade nine to grade 12.³⁹

Post secondary opportunities are offered at the Nova Scotia Community College Campuses in Kentville, Middleton, and Lawrencetown,⁴⁰ and at Acadia University in Wolfville.⁴¹



POPULATION DENSITY

Total population of the Annapolis Valley is 81 345 residents, over an area of 5 314.59 km², for a population density of 15.3 people/km².⁴² The contrast in densities between towns and their surrounding areas highlights the town and country interaction present in the region.

Kings County is 4.4 times as dense as Annapolis County at 28.5 people/km² versus 6.5 people/km².⁴³

Town Densities:

- Annapolis Royal = 235.8/km²
- Bridgetown = 267.8/km²
- Middleton = 321.6/km²
- Berwick = 368.6/km²
- Kentville = 351.2/km²
- Wolfville = 661.7/km²

Fig. 2.3.76 - Population density (2011)



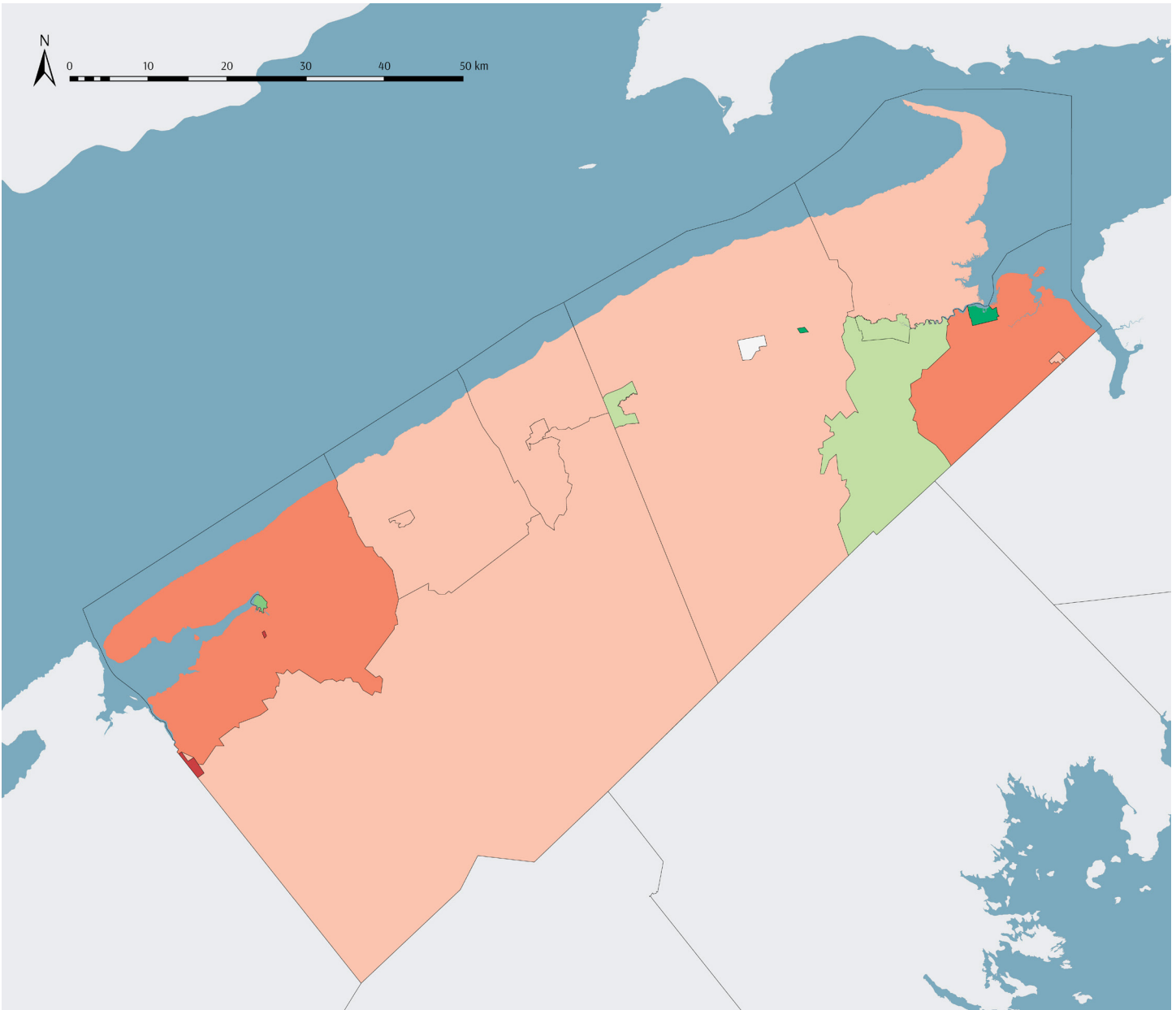


Fig. 2.3.77 - Population change (2006 - 2011)

POPULATION CHANGE

- > 10%
- 5 to 10%
- 0 to 5%
- No change
- 0 to -5%
- 5 to -10%
- < -10%

Wolville shows the largest population increase, gaining 497 residents in five years. Annapolis Subdivision A shows the greatest population decrease, losing 334 residents.⁴⁴

Kings County gained 554 residents and Annapolis lost 682. The net change over the entire area is 128 residents lost.⁴⁵



LAND COVER

The land cover of the Annapolis Valley reflects the landscape conditions that occur in the region. Agriculture and urban activity take place in the valley itself, the easiest to access and most sheltered from the elements. There is small amounts of these uses on both the North and South Mountains, however they remain comparably undeveloped. Forests dominate there, with human effect limited to logging and small settlement along roads.

Fig. 2.3.78 - Land Cover, Annapolis County

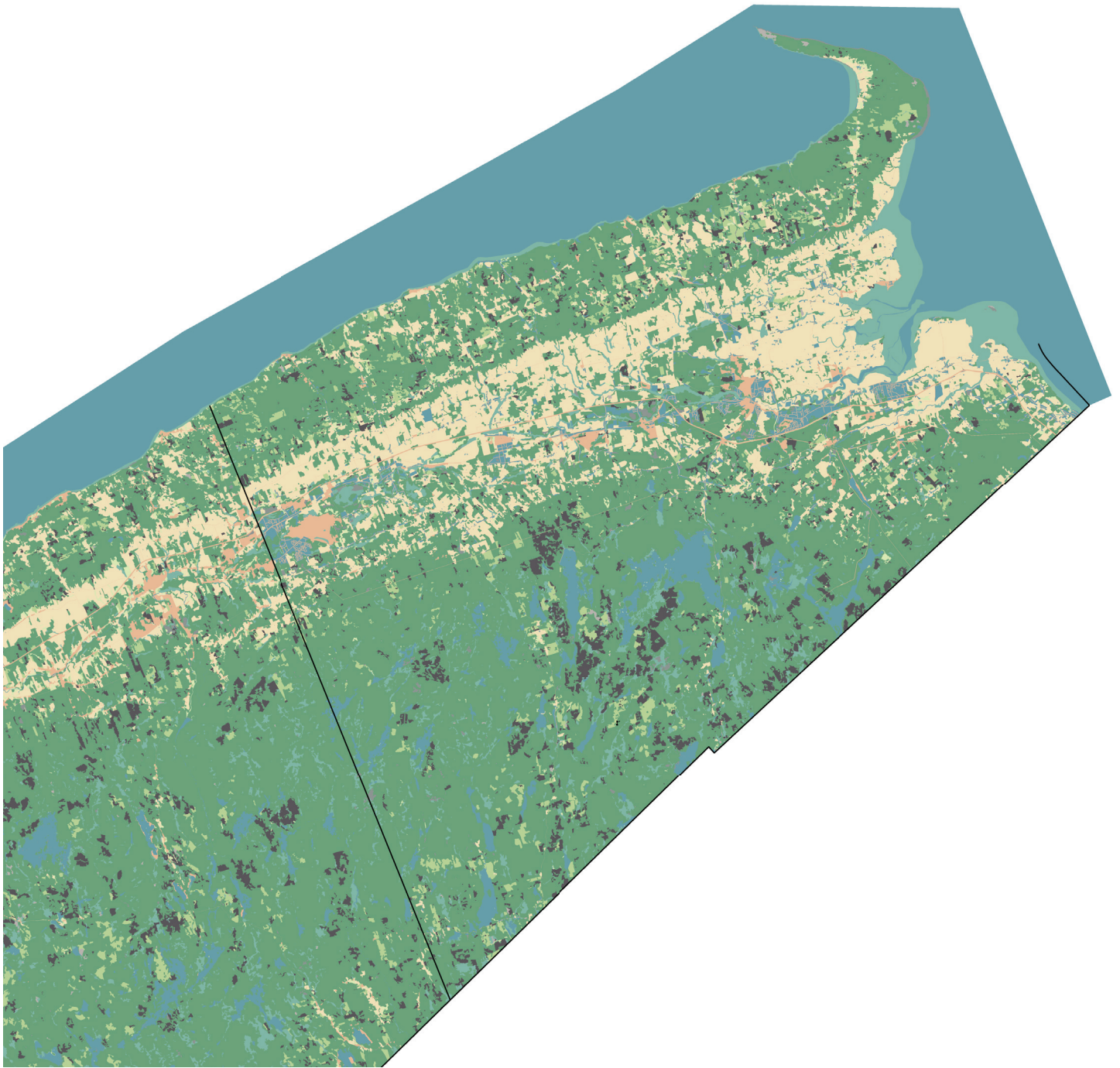


Fig. 2.3.79 - Land Cover, Kings County





ROAD NETWORK

Fig. 2.3.80 - Road Network

Highway 101 is the main highway through the Annapolis Valley. Highways 1 and 201 are the main local roads. All three run roughly parallel to the valley and the flow of the major rivers. Highway 101 allows for swift travel time along the length of the valley, taking an hour and a half to move from one end to the other compared to 2 hours and 15 minute minimum via the local roads.⁴⁶

Highway 101 was constructed from the 1970s onward as a replacement for the closed rail lines.⁴⁷ Highway 1 and 201 have always been important roads, most likely developing along the same approximate paths taken by the very earliest Acadian settlers.⁴⁸

Smaller roads, both paved and gravel-surfaced, provide access to the smaller communities and farmland in the region.

- NS Highway 101
- NS Highways 1 & 201
- Other Major Roads
- Local Roads

Fig. 2.3.81 - Highway 101 at Exit 15, Berwick

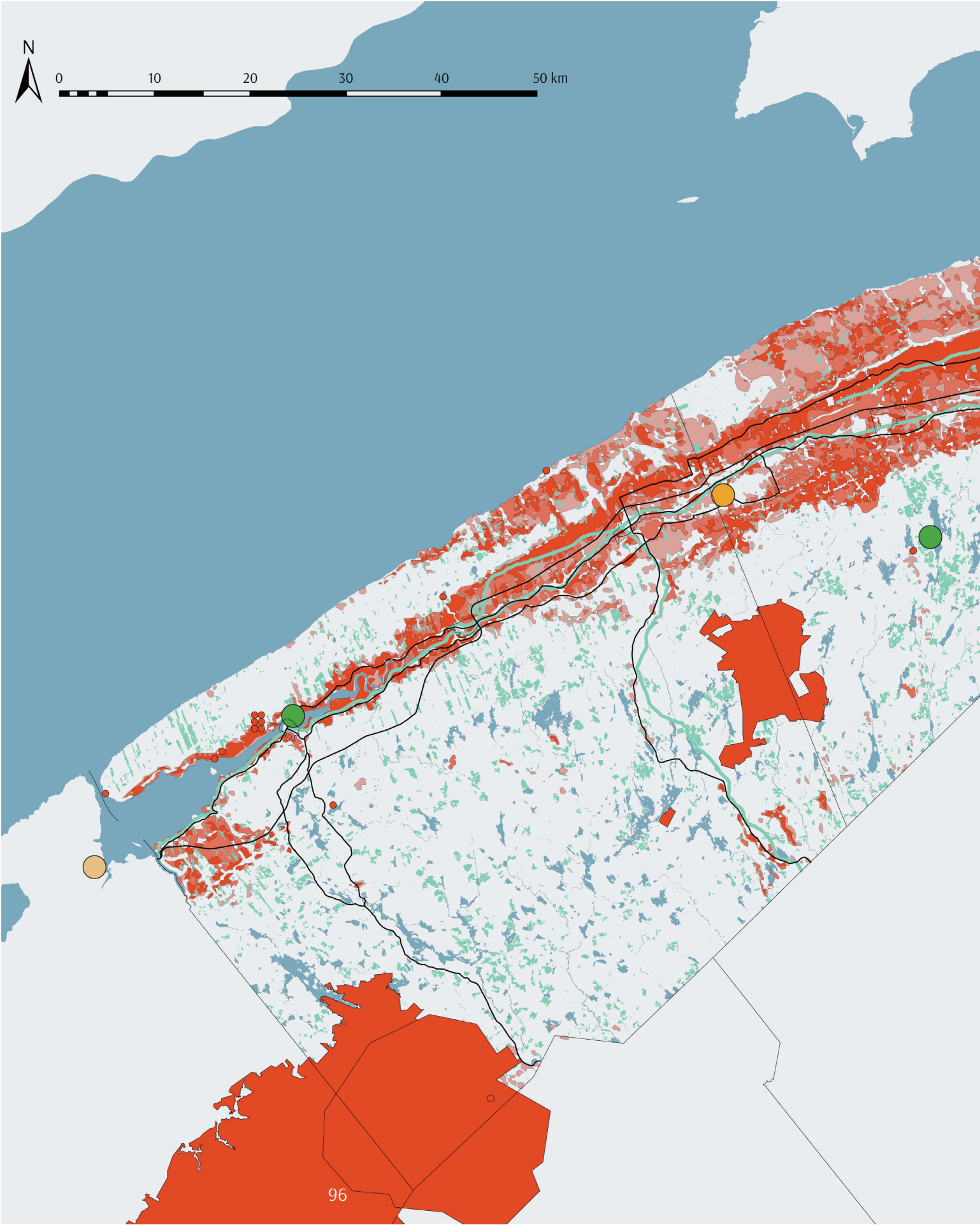


Fig. 2.3.82 - Highway One passing through Middleton

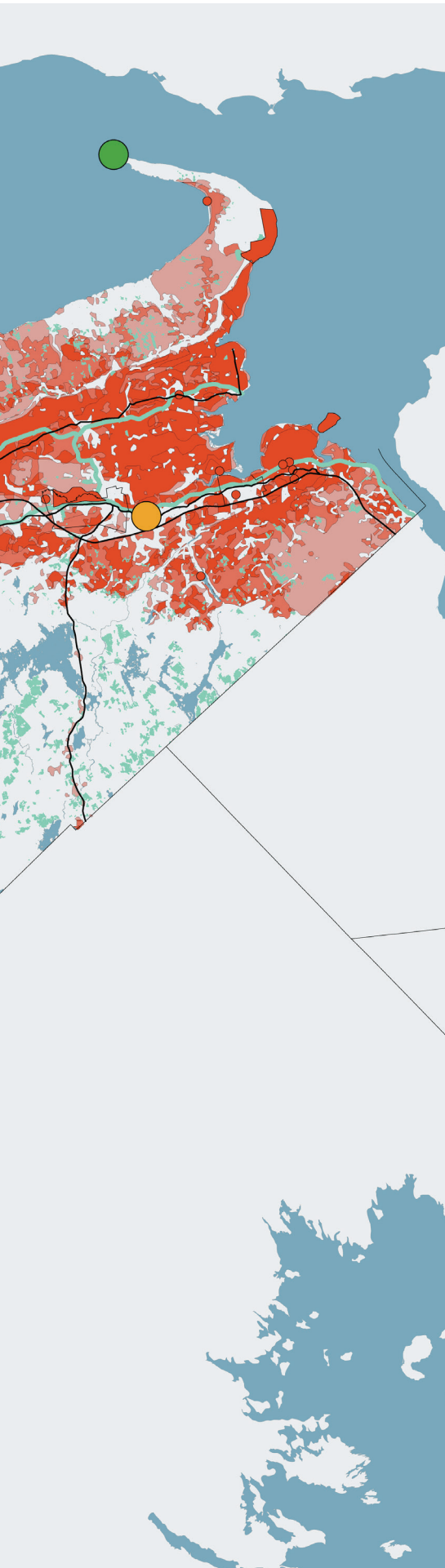


Fig. 2.3.83 - Back road, Mount Rose





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3.1 REGIONAL PLANNING DESIGNATIONS

“What principles can avert spoliation, ensure enhancement, and equal the development values of uncontrolled growth?”

- Ian McHarg, *Design With Nature*¹

Four categories of planning designations have been developed. These categories are intended to be applied on multiple scales.

No-Go: areas in which development will be forbidden or severely limited to preserve the beneficial characteristics of the region.

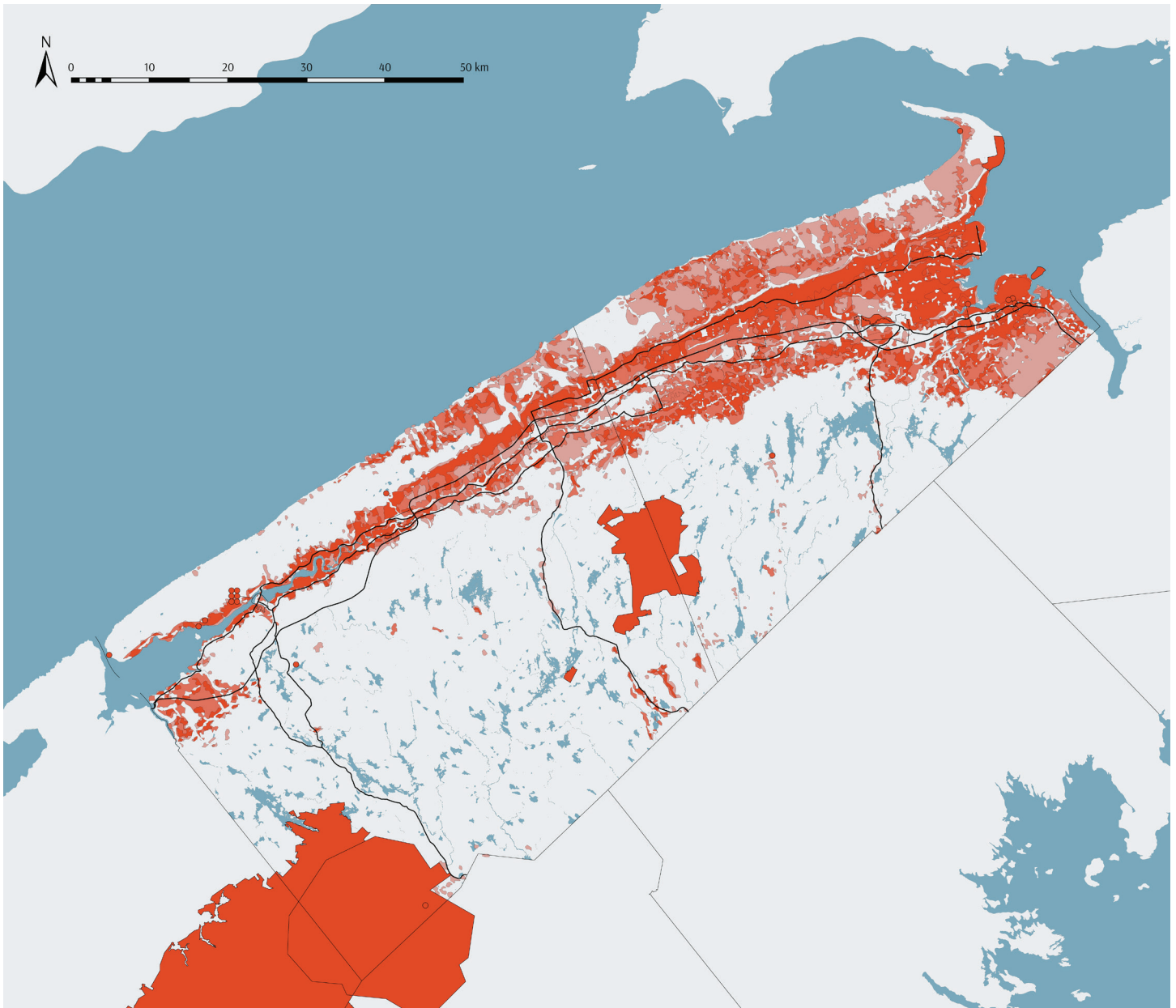
Sacrificial: areas which are allowed to be despoiled in order to service the modern convenience today’s culture has come to expect.

Potentials - Dormant Amenities: the unused and unrecognized resources already present in the area.

Potentials - Damage Improvements: areas which are currently damaged by human processes which will be restored or repurposed to a new use.

Fig. 3.1.1 - Regional Planning Designations





NO-GO

Fig. 3.1.2 - Regional No-Go Areas

Examples of areas which may be designated as No-Go include historic sites, environmentally sensitive areas, land in agricultural production, and land with high agricultural potential. Agricultural No-Go areas are rated on the following gradient, based on the Canada Land Index ratings and the land's current use (agricultural or other)²:

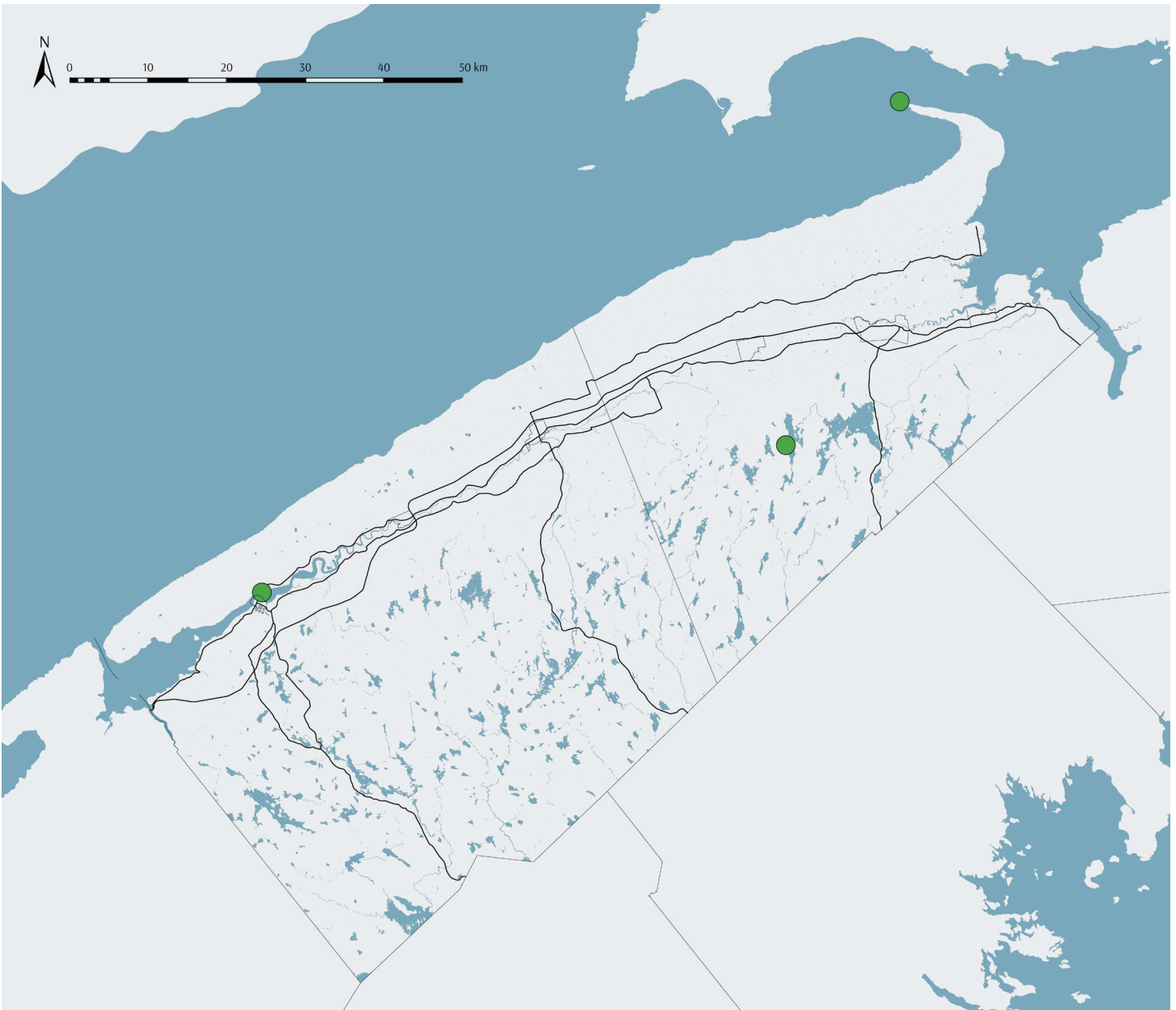
- CLI Class 2 in agricultural production
- CLI Class 3 in agricultural production
- CLI Class 2 not in agricultural production
- CLI Class 4 in agricultural production
- CLI Class 3 not in agricultural production
- Lower CLI classes in agricultural production
- CLI Class 4 not in agricultural production



Fig. 3.1.3 - Regional Sacrificial Sites

SACRIFICIAL

Specific locations for these Sacrificial areas would be located in or adjacent to the existing commercial centres of Greenwood and New Minas. These two communities are the existing hubs for shopping and have the most existing big box stores. Concentrating further development of this type in these areas would increase convenience for the shopper and decrease the negative effects on other areas of the region. At this point, there are no locations determined to be Sacrificial in Annapolis County. It is thought that there may not be need for a large scale Sacrificial area here, as Greenwood is directly adjacent to the north-east border and Digby provides some larger retail adjacent to the south-west border of the county. With this proximity, most residents of Annapolis County would be an hour or less drive from either of these two centres³, with local everyday purchases much closer.



POTENTIALS - DORMANT AMENITIES

Fig. 3.1.4 - Regional Dormant Amenity Sites

There are many areas where the Annapolis Valley Region can capitalize on opportunities that already exist. Bringing these to the forefront can sometimes be very simple, as indicated by existing projects such as Bridgetown’s Cyprus Walk which highlights the architecture and history of the town⁴. Examples of Dormant Amenity strategies include enhancing the interpretative programming at existing sites such as the Annapolis Royal Generating Station and Aylesford Lake, updating recreation facilities which have been neglected, enhancing trails to interesting sites such as Cape Split, and promoting under-recognized historically significant sites.

The sites shown on the map represent only the beginning of potential dormant amenity recognition. Most designations of dormant amenities will be on a site-specific level rather than a regional scale.



Fig. 3.1.5 - Regional Damage Improvement Areas

POTENTIALS - DAMAGE IMPROVEMENTS

While much of the Annapolis Valley Region is lightly touched by humans, there are many areas which have been affected by human activity. These include clear-cutting, contaminated sites, and sprawling development. Projects in this category include reclamation of contaminated sites, development of clear-cut areas into woodland neighbourhoods or cottage lots to avoid additional deforestation, and densification of existing retail.

AN OPPORTUNITY: THE DOMINION ATLANTIC TRAIL

Part of creating a regional identity is enhancing regional connections. For vehicular traffic, the Annapolis Valley Region is already highly accessible. Highway 101 offers high speed movement along the length of the region. The time from one end of the Valley to the other will only decrease as highway twinning projects continue in the future. Also well established is the more scenic Evangeline Trail. This route follows Highway 1 through the Valley Region, passing through or nearby most of the major towns along the Valley floor.

However, the Annapolis Valley Region is lacking a cohesive connection for non-motorized transport. The former railbed of the Dominion Atlantic Railway, which once ran through the Annapolis Valley from Yarmouth to Halifax, provides a prime location for a new transportation network. Much of the rail bed is used informally by locals for walking, cross-country skiing, horseback riding, and off-road vehicles. Some portions of the rail bed have already been transformed into formal trails, as in the towns of Kentville and Annapolis Royal.⁵ Extending this to the entire Valley would provide a new way for both locals and visitors to experience the landscape.

Moving through the landscape at a slower speed, there will be a deeper connection with the Valley's genius locus. Users of the trail will have more time to acknowledge the subtleties of the region than they could from the 100km/h Highway 101 or the 50-80 km/h Evangeline Trail. The Dominion Atlantic Trail will allow access to areas of the landscape which cannot be seen from the roads.

The main line of the Dominion Atlantic Trail would be the first step in the new trail network in the Annapolis Valley Region. The next step in the expansion of this network would be converting branch lines into branch trails. This would expand trail access along the north side of the Annapolis River between Middleton and Bridgetown, and from Kentville to Kingsport and Somerset. After these trails have been established, the next extension of the network will be based off of the road network to access sites not connected to the rail trail network. This would include sites such as Blomidon, Fundy communities, wineries, and Kejimikujik National Park.

The development of a trail network will also require the creation of accompanying infrastructure. This would include things such as tourist information centres, access to restrooms and fresh water, parking for trail access, picnic areas, and food establishments. In some cases, it may be possible to reuse former railway buildings to house these functions. Also, when feasible these services will be located at intersections between the rail trail network and the Evangeline Trail scenic route. This would allow use by the most user groups: rail trail users, Evangeline Trail drivers, and local residents.







Fig. 3.1.7 - Sign warning against current state of railbed



Fig. 3.1.8 - Undeveloped rail trail, Middleton



Fig. 3.1.9 - Converted rail trail, Kentville



Fig. 3.1.10 - Railway bridge, Bridgetown



Fig. 3.1.11 - Wolfville Library in the former railway station



Fig. 3.1.12 - The Cornwallis Inn, formerly a railway hotel, is now apartments

4.0 SIX LOCAL SCENARIOS FOR THE ANNAPOLIS VALLEY'S FUTURE

The six example scenarios each represent a different emblematic condition within the Annapolis Valley. Together they cover the range of conditions present in the Annapolis Valley, showing the variety that creates the genius locus of the region. The Annapolis Valley derives a richness from the juxtaposition and combination of differing conditions: historic centres near woodland lakes, fishing villages with access to commercial strips, rural agriculture connected to Main Street businesses.

Each scenario takes portions of the general mapping presented in the database and focuses on a more local scale. This information is then augmented by smaller scale maps which are specifically produced for the individual concerns of the scenario. This localized analysis would also be connected to the larger database as the Annapolis Valley develops this resource. Several images are included of each area to illustrate the role of the image bank in the scenario-specific analysis of genius locus.

In the same way as the six sites are chosen to illustrate the genius locus of the region, the individual site strategies address the sites' localized genius loci. The strategies distinguish what makes each type of site unique. It is intended that the strategies can be separated and recombined to address additional sites of the six types or hybrid sites involving conditions associated with two or more of the emblematic scenarios. Also, it is important to note that the collection of strategies presented for these six scenarios, like the database they are built upon, are intended to develop and be added to as the Annapolis Valley moves into the future.

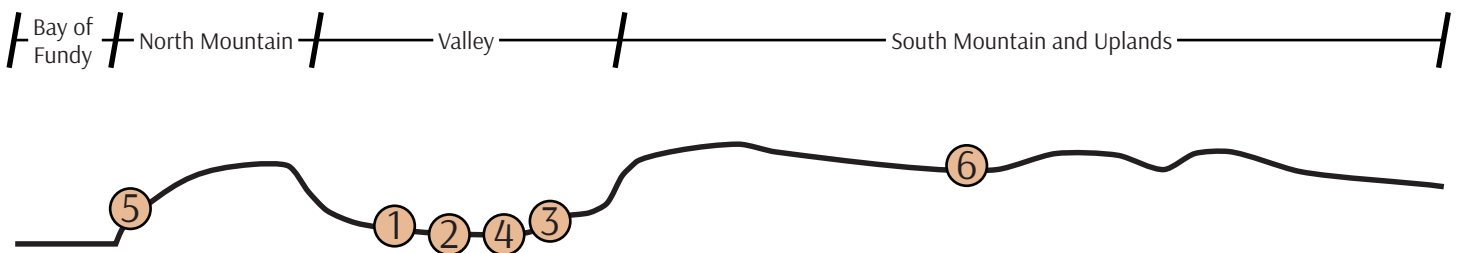
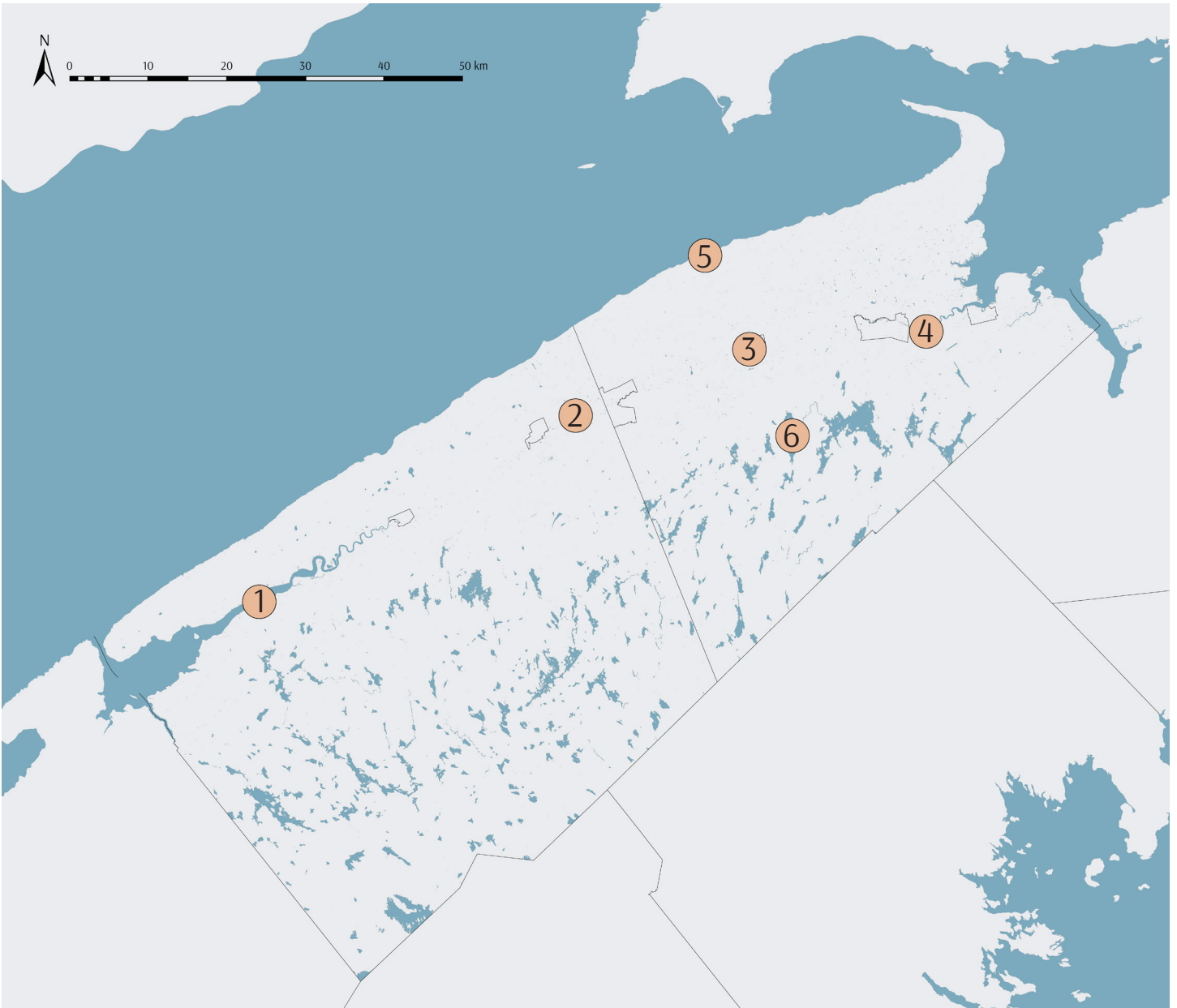
It is a flexible design system. While the thesis focuses on the specific example of the Annapolis Valley Region, aspects are adaptable to other rural scenarios. Other regions could adjust the approach to their own emblematic situations, keeping some of the individual strategies from the Annapolis Valley Region and developing others to address their own specific conditions. Rural areas can all benefit from reconnecting with their intrinsic nature. If they lose their character then they are lost overall, for their attraction is only as strong as their distinctiveness.

SCENARIOS

1. Historic Centre: Annapolis Royal
2. Rural Farming: Wilmot
3. Town Main Street: Berwick
4. Commercial Strip: New Minas
5. Fundy Coastal Hamlet: Harbourville
6. Inland Lake: Aylesford Lake

Fig. 4.0.1 - Design Scenario Key Map

Fig. 4.0.2 - Design Scenario Diagrammatic Section



4.1 HISTORIC CENTRE: ANNAPOLIS ROYAL

SITE DESCRIPTION

The Town of Annapolis Royal is the main town of the western quarter of the Annapolis Valley. The Town itself is home to 481 people. The adjacent communities of Granville Ferry and Lequille are home to 142 and 229 people, respectively. Additionally, Annapolis Royal is the centre for around 6000 rural residents from the surrounding areas. At only 2.04 km², Annapolis Royal is the smallest of the Annapolis Valley's towns and is the least dense overall due to a proportionately large amount of conservation marshlands.¹

Annapolis Royal is home to a number of unique institutions and organizations. Notably, the Fort Anne National Historic Site and the Annapolis Royal Historic Gardens attract tourists.² The town also has several smaller community museums. The Annapolis Royal Farmers and Traders Market, taking place every Saturday year-round and Wednesdays in the summer, is a long-standing Valley tradition.³ The main commercial area along St. George Street hosts a number of upscale gift boutiques, cafés, and other shops, catering to both the town's visitors and Valley residents. Recreation space is found adjacent to both schools in the community, as well as several smaller parks in other areas.

EMBLEMATIC QUALITY

Annapolis Royal is undoubtedly one of the premier heritage centres in the Annapolis Valley Region and in the province of Nova Scotia. First founded by the Scottish in 1629 as Charles Fort, the area was quickly taken over by the French in 1632 and rechristened Port-Royal, the same name as Champlain's original settlement 10 kilometres down river.⁴ The settlement was attacked six times by the British before finally being taken in 1710. Once again, the town was renamed by the British to its current name, Annapolis Royal, to honour Queen Anne.⁵ The French made at least 3 attempts to recapture the town, but were ultimately unsuccessful. Annapolis Royal was the capital of Nova Scotia until the British founded Halifax in 1749.

It was also an important site during the deportation of the Acadians in 1755. Seven ships carrying 1664 Acadians departed Annapolis Royal, heading for various American colonies. One ship, destined for North Carolina, was overtaken by the Acadians onboard and rerouted to the St John River in New Brunswick, where the Acadians onboard joined a group of other refugees from the Deportation.⁶

Fig. 4.1.1 - Downtown St. George Street

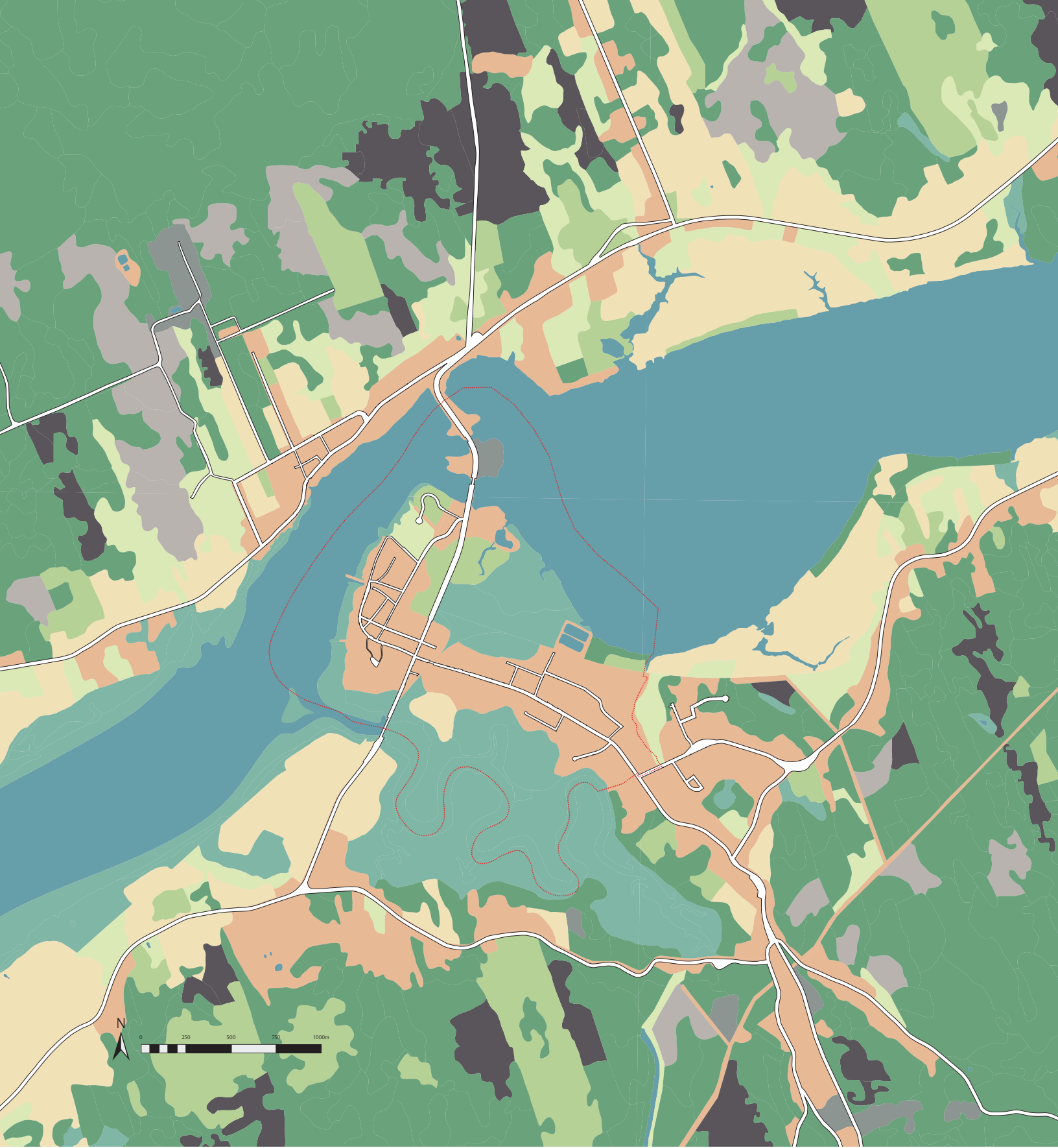


Fig. 4.1.2 - Fort Anne National Historic Site



Fig. 4.1.3 - Boutique Retail, St. George Street





- Agriculture
- Developed
- Wetlands
- Alders

- Natural Stand
- Clearcut/Depleted
- Treated/Planted
- Dead

LAND COVER

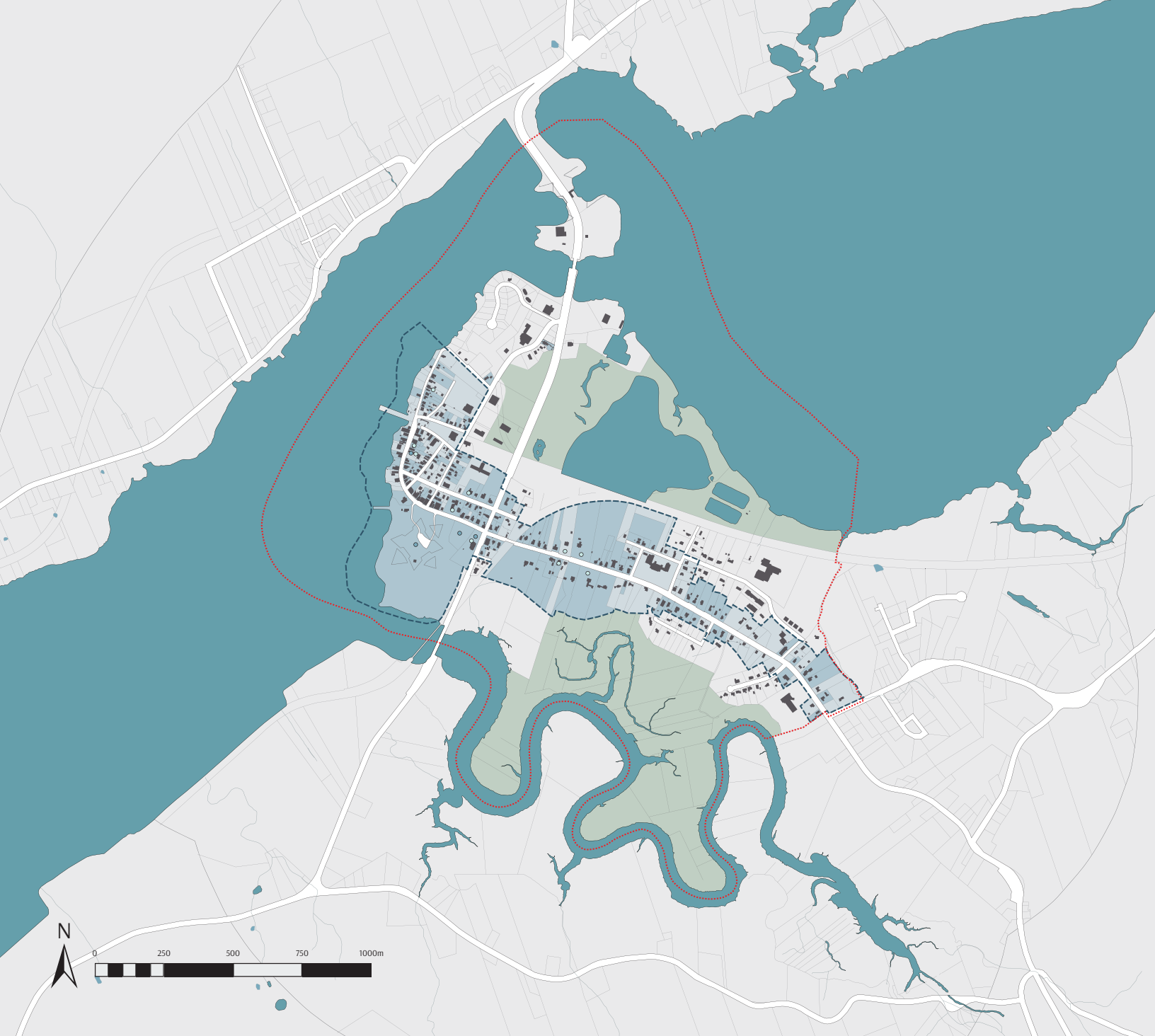
Fig. 4.1.4 - Land Cover



TOPOGRAPHY

Fig. 4.1.5 - Topography

The Town of Annapolis Royal is on a low lying area in the centre of the valley; the elevation of the town ranges from 0 – 25 m above sea level. However, the slopes North and South Mountains both come very close to the town and have a significant presence in views of the surrounding area.








PROTECTED AREAS

A large portion of downtown Annapolis Royal core is part of the Annapolis Royal National Historic District. This designation recognizes the large number of historic buildings that make up the fabric of the town. There are many officially designated heritage properties, mostly at the municipal level, but also a smaller number at the provincial and national levels.

Much of the open space of the town is zoned as Conservation. This includes the area along Allain's River in the south of the town and the low-lying areas along the Annapolis River. This second area includes the Annapolis Marshland trail, a joint project of the Town and Ducks Unlimited.⁷

Fig. 4.1.6 - National Historic District, Heritage Buildings and Conservation Zoning

-  Federal Heritage Building
-  Provincial Heritage Building
-  Municipal Heritage Building
-  Heritage District
-  Conservation

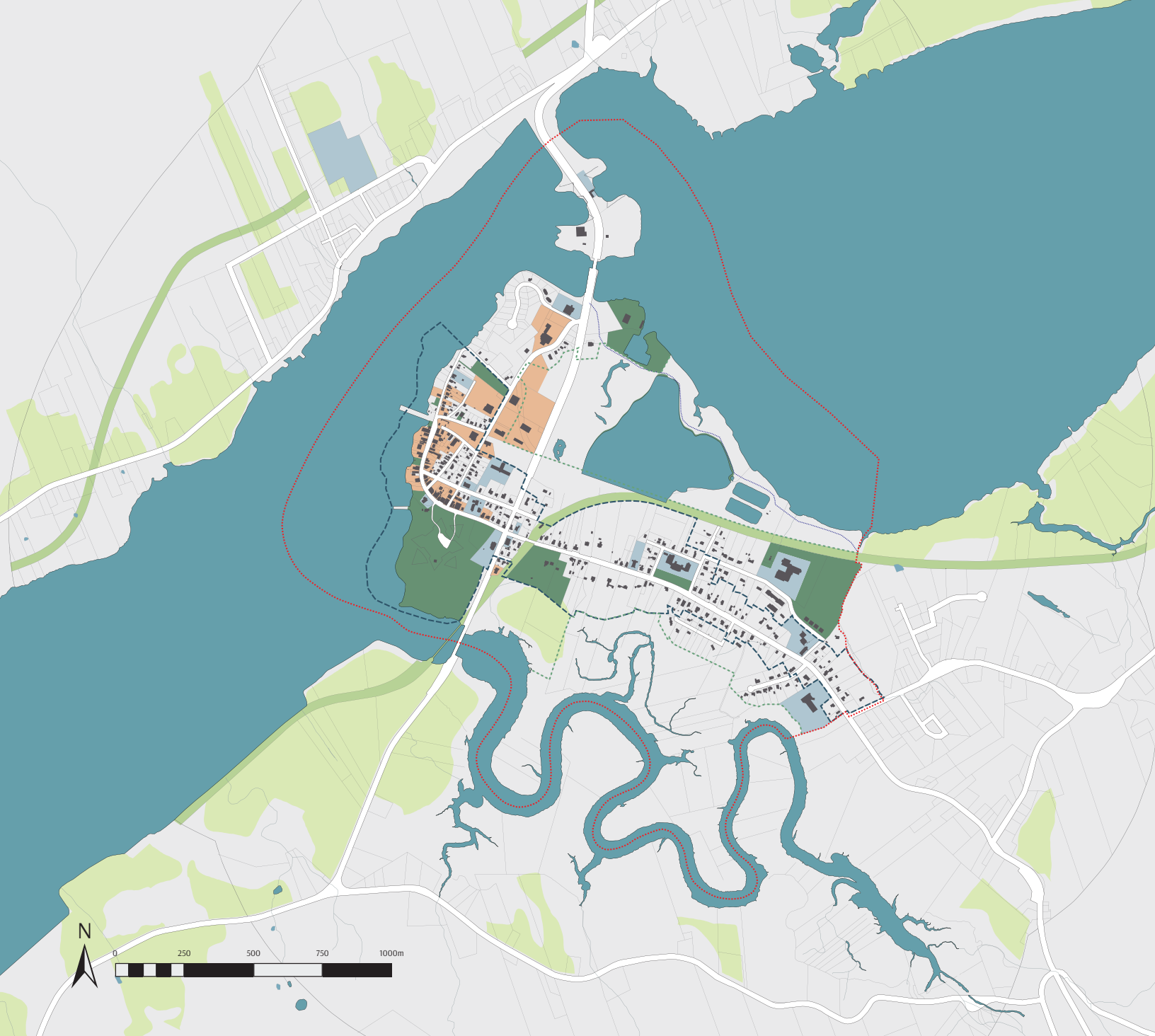


Fig. 4.1.7 - Open Space, Institutional and Commercial Uses; Agriculture and Former Railway

- Commercial
- Institutional
- Open Space
- Agriculture

ZONING

Commercial functions are located nearly exclusively west of Prince Albert Road. Institutional and Open Space properties are more evenly dispersed throughout the town. Also of note, Champlain Elementary School is located nearby in Granville Ferry.⁸

Agriculture within the town limits is minimal. The area adjacent to the Historic Gardens is mowed for hay. Additional agricultural land is located in close proximity to the town, mainly along the banks of the Annapolis River.

DESIGN STRATEGIES

1. Make connections between community attractions and the Dominion Atlantic Trail. (Potentials - Damage Improvements)

Many of Annapolis Royal's main attractions are located directly adjacent or in close proximity to the Dominion Atlantic Trail. The Annapolis Marsh trail is already accessed off the former railbed. The Dominion Atlantic trail will pass directly adjacent to Fort Anne National Historic Site and the Historic Gardens. The new trail will provide an opportunity for a second pedestrian access to Fort Anne, near the bridge crossing Allain's River.

There is also easy access to the town's main commercial area along St. George Street as well as the Farmers and Traders market from either the westward spur path or starting at the intersection of St. George Street and Prince Albert Road (Evangeline Trail/Highway 1).

The trail will also provide a safe walking route for residents of the town. Notably, Annapolis Royal Regional Academy (grades 6 to 8) and Annapolis West Education Centre (grades 9 to 12) are easily accessible from the trail, allowing students to utilize it to travel to school. It can also be used by adults to walk to the town centre for work or errands.

2. Create new recreation and interpretation sites. (Potentials - Dormant Amenities)

The Annapolis Royal Tidal Generating Station is one of only seven existing tidal power stations and the only facility of this kind in North America.⁹ Currently there is only a small interpretive function at the generating station. Expanding this aspect of the identity of Annapolis Royal would act as a compliment to the existing historically focused interpretation.

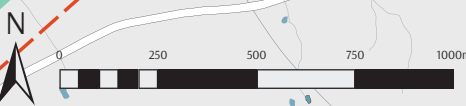
Additional opportunities would be expansion of the environmental interpretation at the Annapolis Marsh trail or the Allain's River area adjacent to the Historic Gardens.

3. Collaborate with adjacent jurisdictions to preserve landscape quality in viewsheds of major sites. (No-Go)

Much of Annapolis Royal is already under some form of development protection, either through the National Historic District or the environmental Conservation zoning around the Annapolis Marsh and Allain's River. The remaining areas of the town are also significantly occupied. As such, the greater threat to landscape quality in this case is in adjacent jurisdictions. Regional planning allows the Town of Annapolis Royal and the Municipality of Annapolis County to work together and introduce measures to protect

Fig. 4.1.8 - Design Strategies



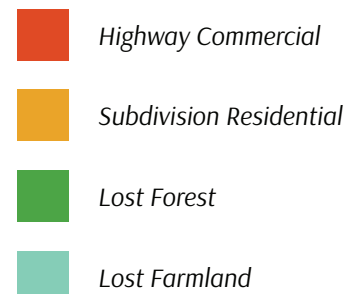


landscape quality in Granville Ferry and along the Dugway Road to protect the major viewsheds from Fort Anne National Historic Site and the Historic Gardens.

4. Discourage suburban-style subdivision development. (No-Go)

This type of development is not in keeping with the existing fabric of the historic core of Annapolis Royal. Currently there are two sites in the Town of Annapolis Royal that fall into this category: the Fortier Mills development¹⁰ in the northwestern area of the town and the Royal View Row seniors duplexes¹¹ on Champlain Drive near AWEC. As these sites are already under development, they will be permitted to continue. However, it is recommended that future development takes the existing town fabric into greater consideration.

Fig. 4.1.9 - Potential Typical Development



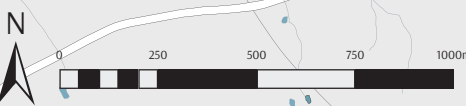
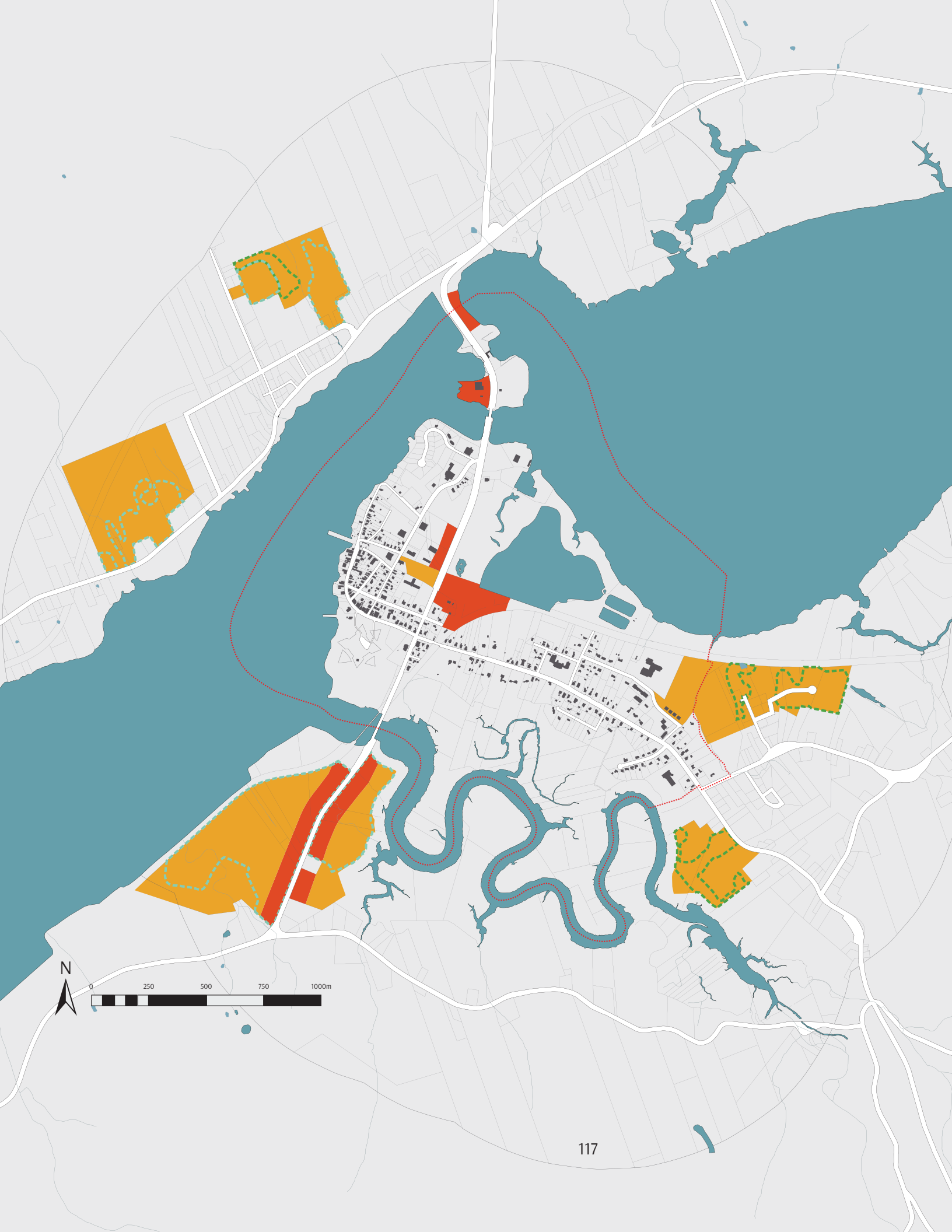




Fig. 4.1.10 - Existing Conditions

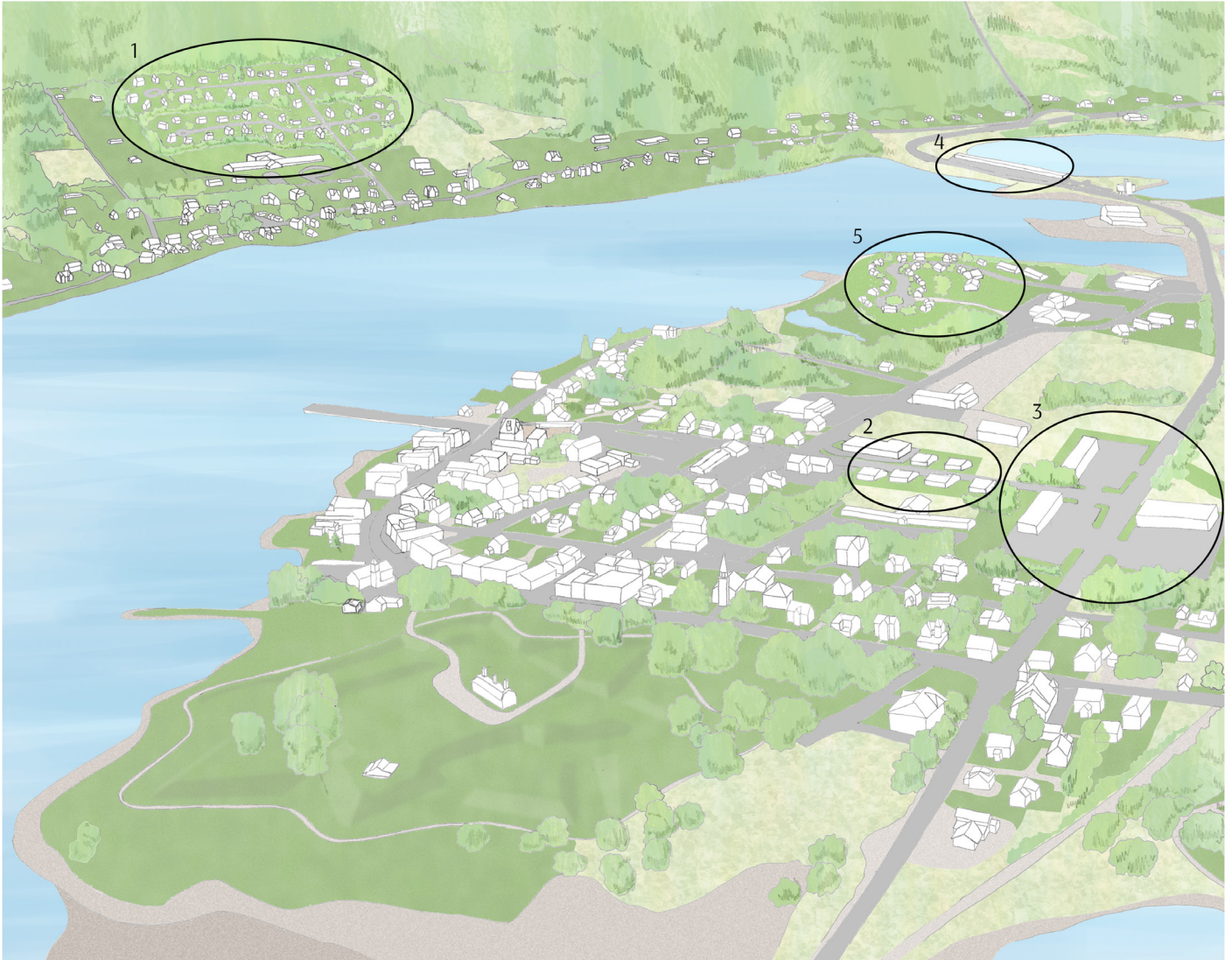


Fig. 4.1.11 - Typical Development Conditions

A subdivision has been constructed behind Champlain Elementary School in neighbouring Granville Ferry. (1) This development is located on the beginning slope of the North Mountain and is visible from the shoreline in downtown Annapolis Royal. Younger families have left the town so their children can walk to the elementary school each day.

The former rail trail extension to the downtown has been turned into a new street, Dominion Lane. Six seniors' duplex apartments have been built along the street. (2)

While downtown St. George Street remains much the same, highway commercial developments have been built both at the intersection of Dominion Lane and Prince Albert Road (3) and on the causeway at the north of town. (4)

The Fortier Mills development has been built out to its full density. (5)



The Dominion Atlantic Trail has been developed throughout the Annapolis Valley. In Annapolis Royal, this has led to a new bicycle shop directly adjacent to the trail on Prince Albert Road (1) and new access points to both Fort Anne National Historic Site (2) and the Annapolis Royal Historic Gardens. (3)

After review by the Town's planning department, the Fortier Mills subdivision plan has been adjusted to be less dense and to better connect into the town, with the road extended to Chapel Street. A second public parking lot has been added to allow access to the shoreline boardwalk. (4) The Town has also entered into an agreement with the Annapolis County municipal planning department to protect viewsheds from the town.

A new park has been opened on the tidal causeway. Interpretive information about the tidal power plant was an important aspect of the park design. (5)

A farmer has purchased land in the middle of Annapolis Royal. This land is within the 100 year flood zone and unsuitable for building. Instead, the farmer has planted a new apple orchard. (6)

Fig. 4.1.12 - Proposed Strategy Conditions

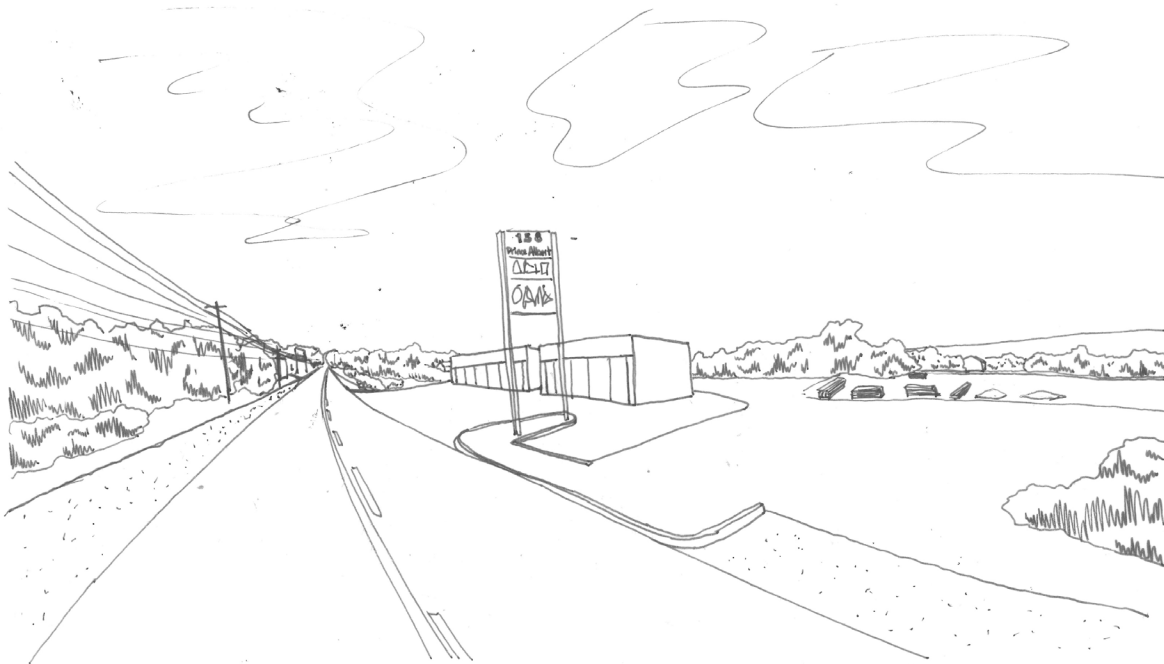


Fig. 4.1.13 - Typical Development Sketch

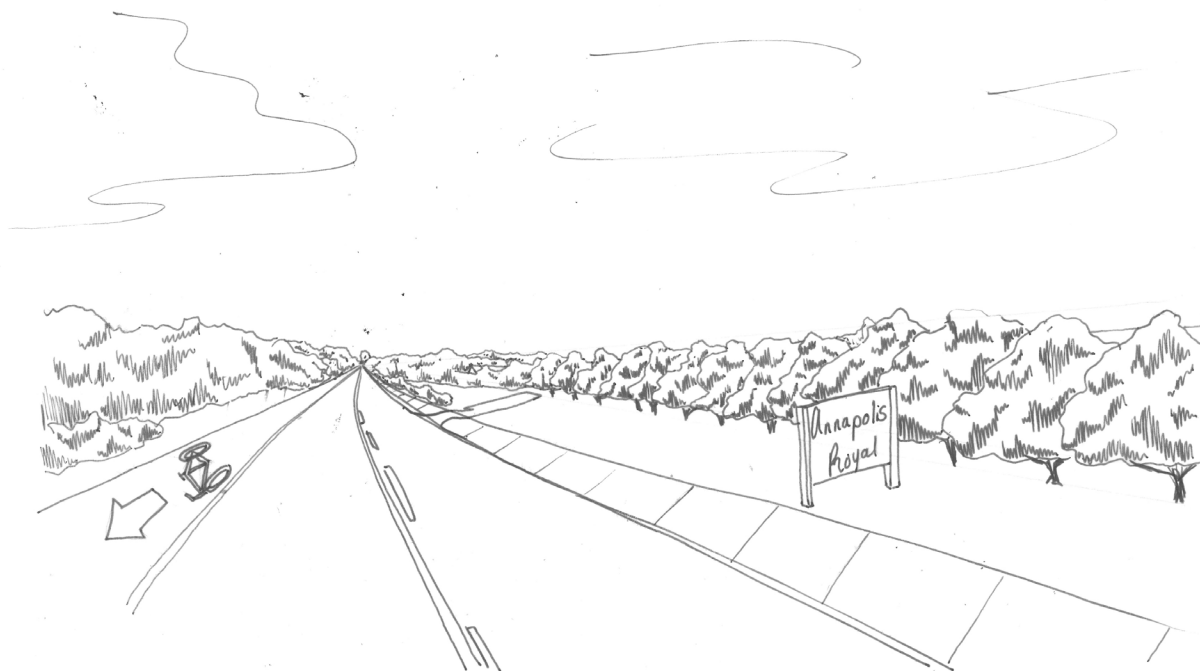


Fig. 4.1.14 - Proposed Strategy Sketch

4.2 RURAL FARMING: WILMOT

SITE DESCRIPTION

The community of Wilmot is located on the eastern edge of Annapolis County, between the larger Town of Middleton and the Village of Kingston.¹ Much of the land in the community is in agricultural use. Historically, much of the production of the area was apples; however the community now produces a variety of agricultural products.

Land use is predominately agricultural and residential. Residential takes two patterns. First, homes are distributed along the major roadways of the area. Second, there are also a number of subdivisions which have been developed in the area at various times over the past 25-30 years. There are also a number of small businesses in Wilmot, nearly all located along Highway One. These include a 'Frenchys' second-hand clothing store², a meat market, a shoe repair and tailor shop, and a convenience store, as well as an empty lot which hosts a long-running weekly flea market.

EMBLEMATIC QUALITY

The mix and relations of agricultural, residential, and commercial use in Wilmot are characteristic of the overall rural fabric throughout the Annapolis Valley Region. Agricultural land tends to exist in large lots with land cover split between cleared active farmland and undeveloped forest. Residential use is not always as dense as in some parts of Wilmot. However, the rural subdivision is becoming more common in the Valley region. Commonly, this type of rural subdivision is the result of a farmer selling agricultural land as higher value residential land. It is not known if that is the case for the subdivisions in Wilmot. Commercial functions not located in a major town or village are usually located along major roads and are often clustered around crossroads.



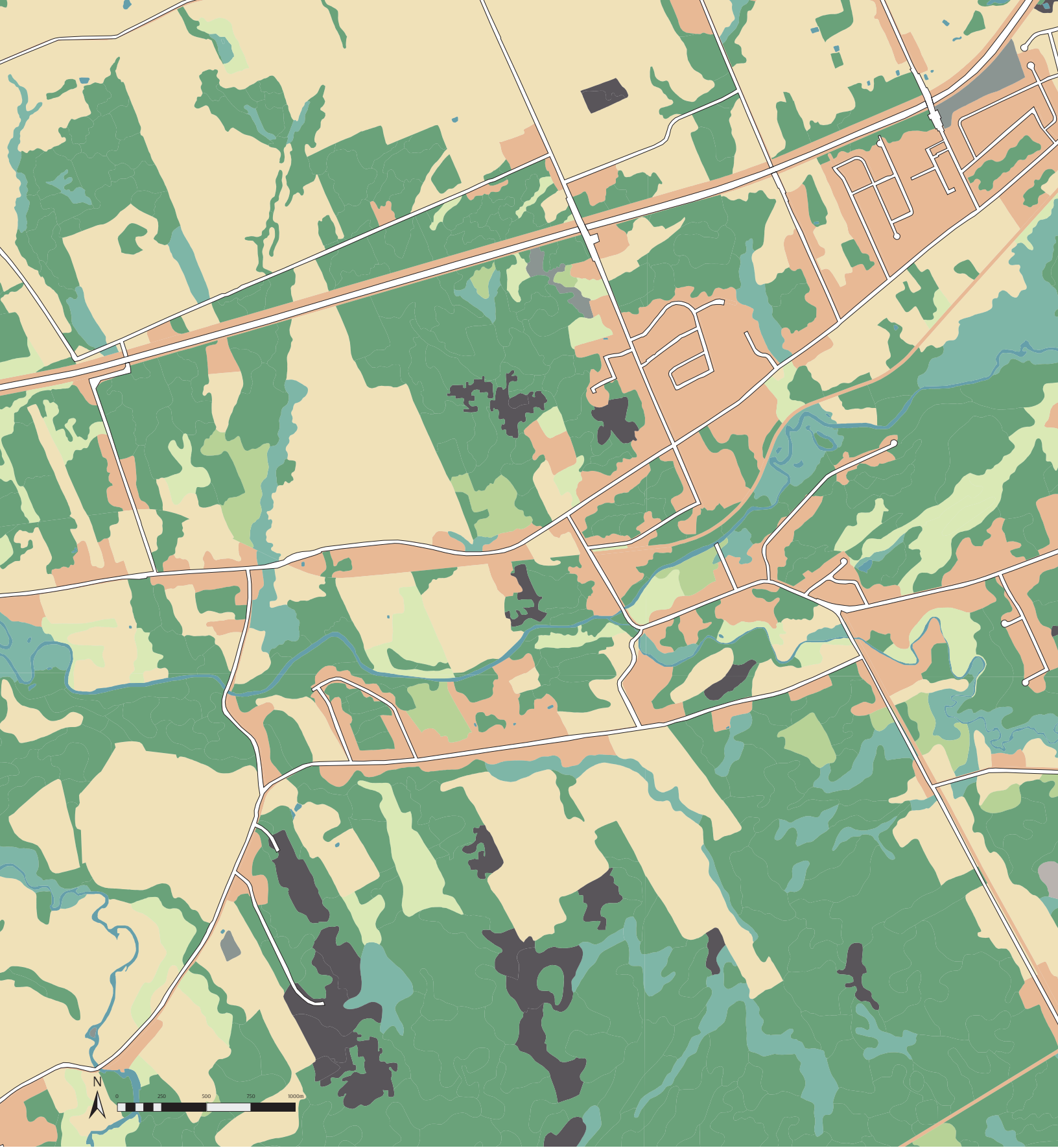
Fig. 4.2.1 - Evans' Family Farm Corn Maze



Fig. 4.2.2 - Wilmot landscape



Fig. 4.2.3 - Weekly yard sale in community core

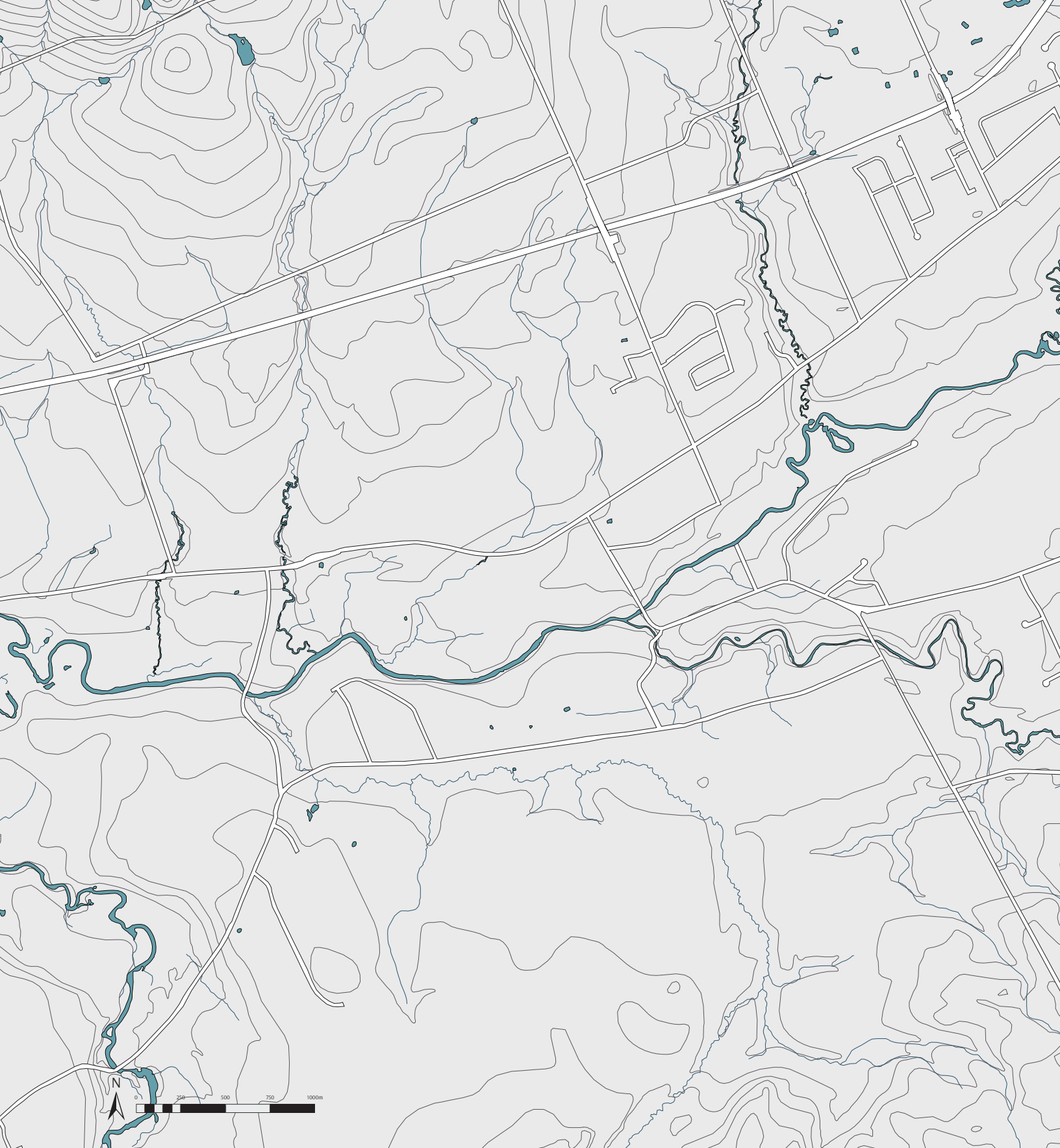


- Agriculture
- Developed
- Wetlands
- Alders

- Natural Stand
- Clearcut/Depleted
- Treated/Planted
- Dead

LAND COVER

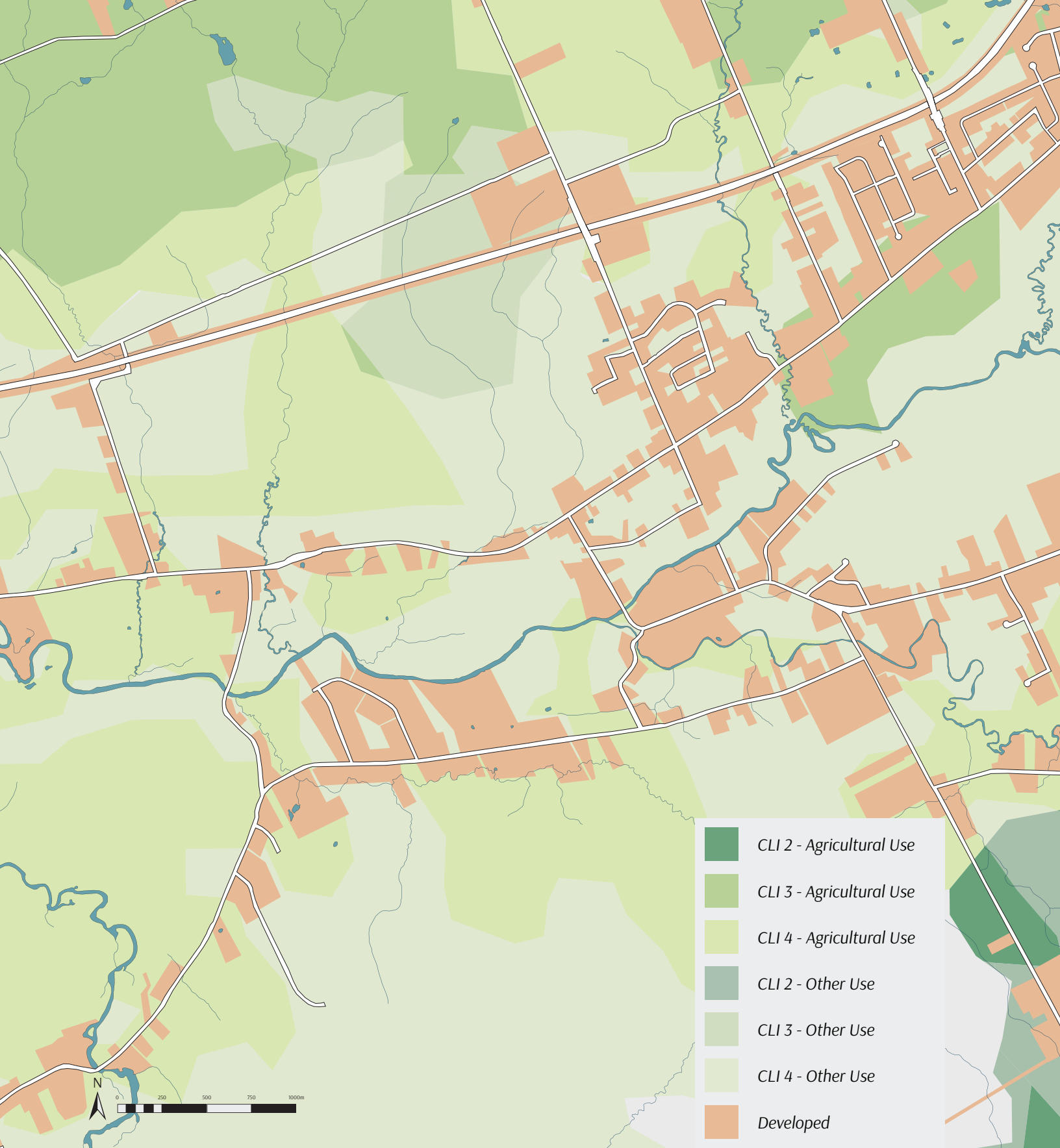
Fig. 4.2.4 - Land Cover



TOPOGRAPHY

Fig. 4.2.5 - Topography

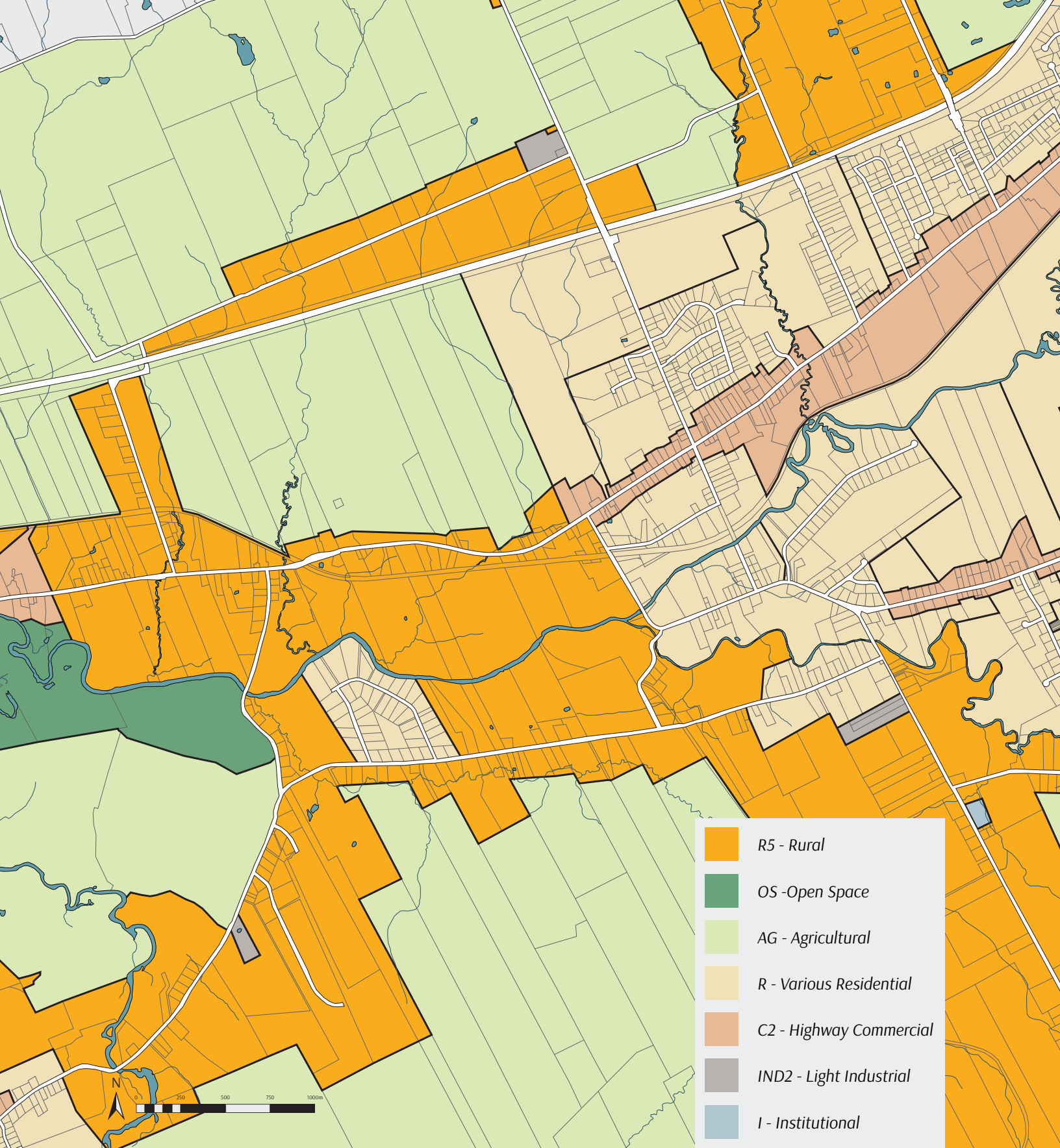
On the Valley floor, the terrain slopes gently up from around 10m above sea level adjacent to the Annapolis River to around 50 m. The mountain sides of the North and South Mountains start from approximately this point with a steeper and increasing slope.



Nearly all the Wilmot land area is Canada Land Index class 2, 3, or 4. Much is already in agricultural production, though a great portion is not in active use. In the developed areas are several subdivision developments.

AGRICULTURE & SETTLEMENT

Fig. 4.2.6 - Agriculture and Settlement Patterns



LOT PATTERNS & ZONING

Fig. 4.2.7 - Lot Patterns

Large portions of Wilmot are zoned R5 -Rural. This zoning is exceedingly permissive, allowing uses as varied as single detached dwellings, mobile home parks, business offices, retail stores, light industry, and resource extraction, while doing little to protect traditional land use.³

DESIGN STRATEGIES

1. Encourage growth of non-agricultural land uses in appropriate areas. (Sacrificial)

New non-agricultural uses should be located to have the least possible effect on the agricultural activity of the Wilmot area. Two site approaches are proposed to achieve this goal:

First, development will be encouraged in any small pockets of land which have been isolated from the greater agricultural fabric. This includes instances where existing residential and commercial functions have surrounded small areas of farmland or forest, as well as any unoccupied small lots.

Second, new building will be used to densify settlement along existing roadways as an alternative to new streets and subdivisions. With the notable exceptions of Highway 1 and Highway 201, most of the roads in Wilmot have a low to medium density of development.

2. All existing agricultural land and all undeveloped Canadian Land Index 2, 3, and 4 land will be zoned agricultural. (No-Go)

Significant portions of active agricultural land in Wilmot are not zoned as Agricultural. This leaves it vulnerable to being developed to other purposes without major restrictions, losing its rural character and scenic value. Extending the Agricultural zoning to include these areas as well as undeveloped highly fertile land will preserve the landscape of the Wilmot area.

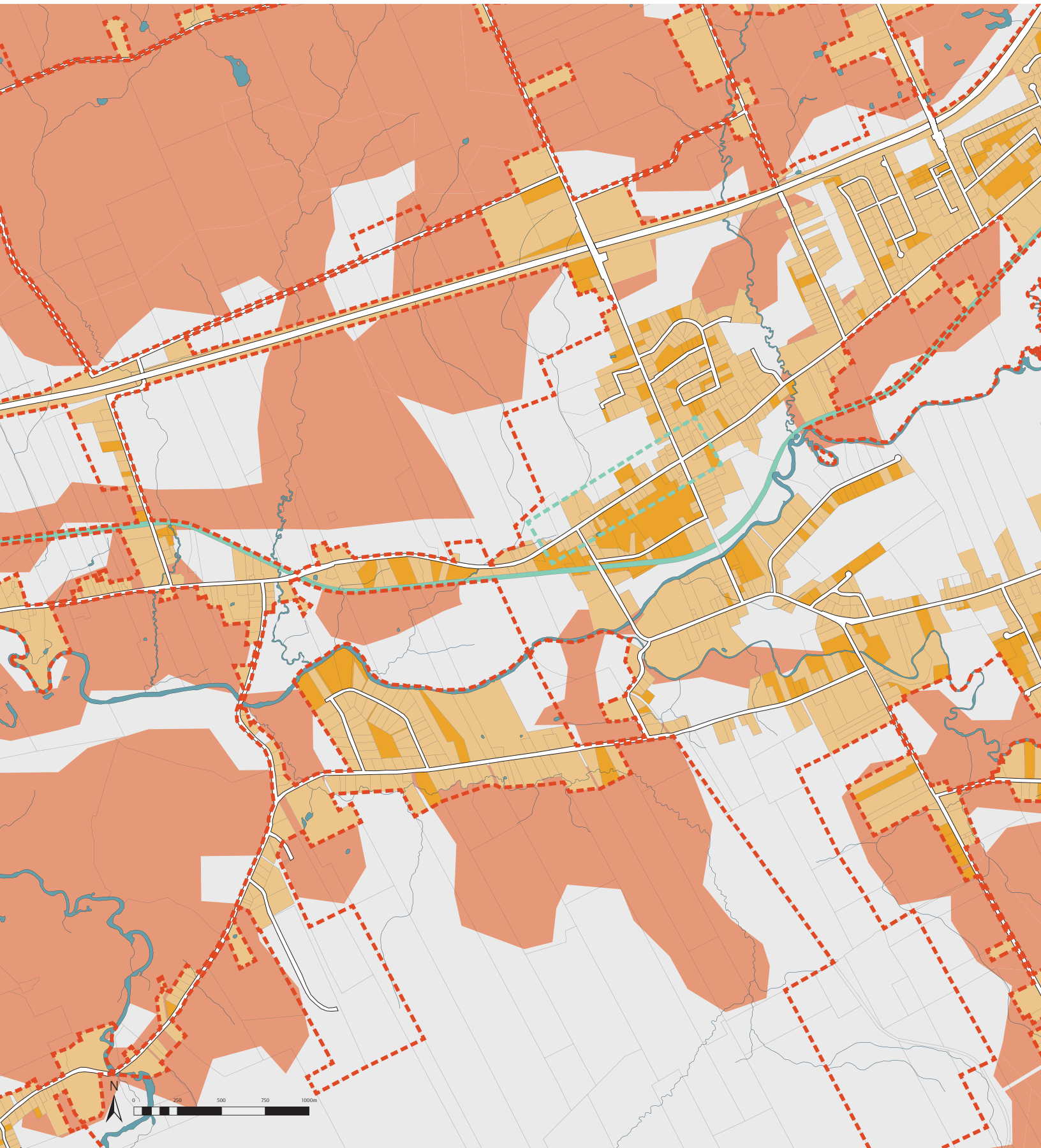
The prioritization of this land will be ordered using a combination of CLI rating and current use, as outlined in the regional No-Go strategies on page 98.

3. Concentrate commercial functions around a key intersection to strengthen the community's core. (Potentials - Damage Improvements)

Currently, the small businesses in Wilmot are spaced loosely along the full length of Highway 1 between Middleton and Kingston. There is a small concentration surrounding the intersections with the Old Mill Road and the Dodge Road. It is suggested that this area be designated the community core. Commercial activity will be encouraged here to promote it as a nucleus for the residents of the community. Preferred businesses would be small-scale and locally owned.

Fig. 4.2.8 - Design Strategies

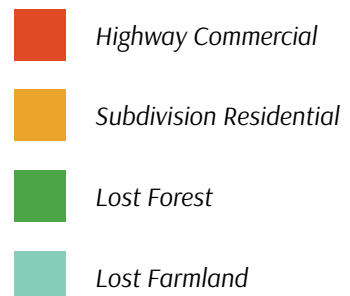




4. Large big-box commercial will be barred from the area. Individual smaller chain retail will be decided by a planning review commission. (No-Go)

Wilmot is in extremely close proximity to the sacrificial retail zones in Kingston and Greenwood. Accordingly, all big-box commercial brands will be forbidden in Wilmot. Smaller brands will be subject to case-by-case planning review before being allowed to build in the rural Wilmot area. These will be evaluated on criteria based around suitability of the product to the daily community life, architectural compatibility in both scale and design, and effect on the landscape. For instance, a typically designed McDonald's would not be permitted but a Royal Bank well sited and designed to fit in with the existing fabric would be allowed.

Fig. 4.2.9 - Typical Development



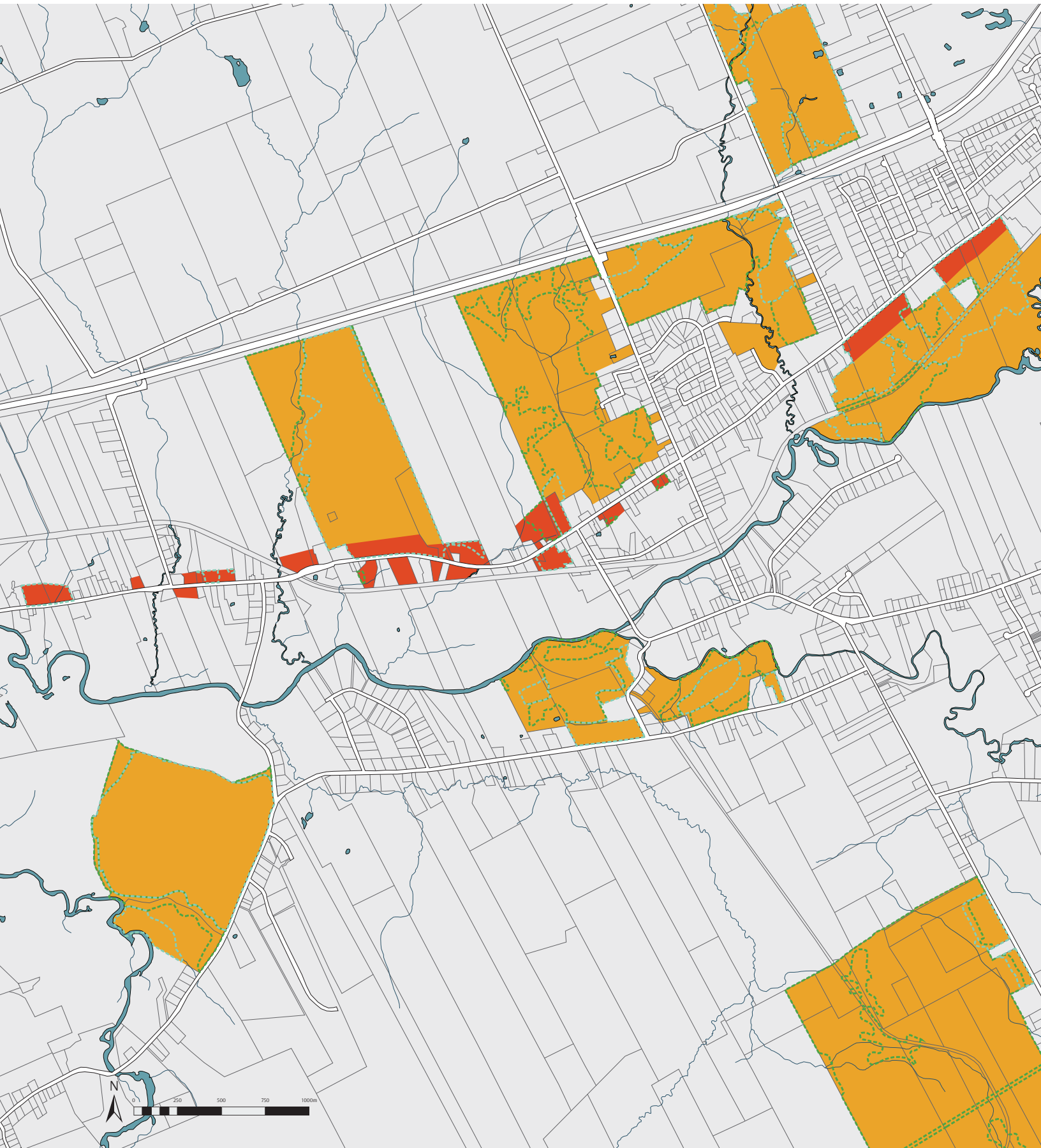




Fig. 4.2.10 -Existing Conditions



Fig. 4.2.11 -Typical Development Conditions

Three new subdivisions have been constructed in the Wilmot area. One has taken over a forested area, destroying many trees. (1) The second took over a large portion of farmland. (2) The farmer continues to use the fields around the development at this time, but used the funds from the subdivision sale to build a new home for himself in the subdivision for when he retires from farming. The third subdivision, like the first, took over a forested lot. (3) This land was highly rated for agricultural fertility though not in agricultural use. Now, homes have been built there including some along the river's edge which block the view for others in the development.

There has also been commercial development in the community core. Four new buildings have been constructed there, (4) as well as one closer to Middleton. (5) All of these buildings are set back from the road with their parking lots in front. They are boxy in shape and have little architectural similarity to the existing local buildings.



Fig. 4.2.12 - Proposed Strategy Conditions

Instead of selling land to become a residential subdivision, several farmers in the area have expanded their fields into highly fertile land which was previously forested (1). On the farm closest to the highway, a buffer of trees was maintained between the new field and Highway 101 to protect the new crops from road salt and other pollutants. This will also reduce act as a windbreak for the highway, improving conditions for drivers.

The existing subdivisions in Wilmot have been densified, with new residents building homes in empty lots rather than developing new residential areas (2).

A new orchard has recently been established on highly fertile land adjacent to the Dominion Atlantic Trail (3). During the harvest time, the owner plans to open it as a U-Pick and hopes to draw customers from the residents of the community and users of the trail.

New commercial buildings have been built in the core of the community (4). Kept similar in scale and design to existing buildings in the area, these new buildings sit close to the street edge with room behind for parking and the continuing weekly flea market.

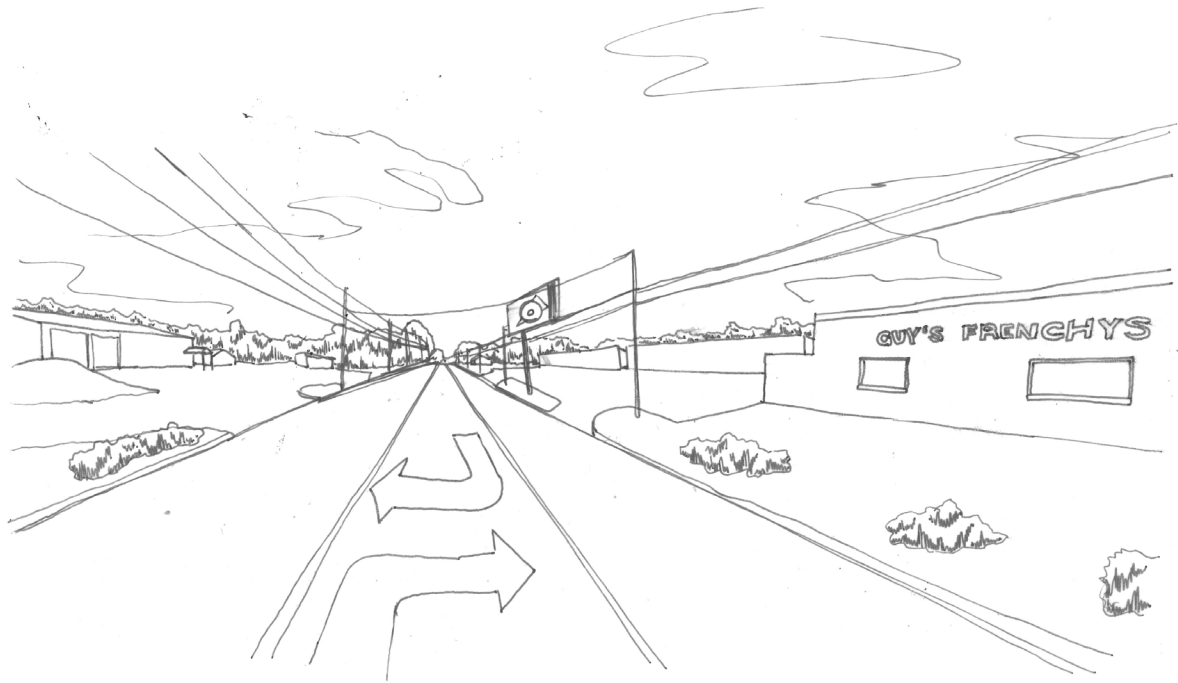


Fig. 4.2.13 - Typical Development Sketch



Fig. 4.2.14 - Proposed Strategy Sketch

4.3 TOWN MAIN STREET: BERWICK

SITE DESCRIPTION

The Town of Berwick is located centrally in Kings County, between the Village of Kingston and the Town of Kentville. With a population of 2 454,¹ it is one of the more significant population centres in the Annapolis Valley and serves a greater area that includes communities such as Harbourville and Somerset.

Berwick has extensive recreation facilities, including the new Kings Mutual Century Centre which provides an ice surface and interior walking track as well as community meeting spaces.² Commercial space is almost exclusively located along Commercial Street between Cottage Street and Ron Smith Drive. Businesses cater to the town and its immediate surroundings with very little that would attract buyers from other parts of the region. Business types include grocery stores, pharmacies, variety stores, small restaurants, gas stations, and a liquor store.

EMBLEMATIC QUALITY

All of the Annapolis Valley Region's small town main streets share similar qualities to Berwick's main street. Most of the commercial functions will cater to the immediate residents, though in some cases there will be specialty shops which aim to draw from a larger client area (i.e. Annapolis Royal's and Wolfville's boutique retail). Usually, the commercial functions are concentrated, either linearly along a single road, as in Berwick, or spreading in several directions from a significant intersection.

The character of Berwick's main street is currently threatened by several types of new development. First, more recent commercial buildings have been constructed back from the street with parking lots located between the building and the street. The majority of these buildings are larger and of different materiality than the older buildings along the main street. Second, residential mini-developments of duplex and small-scale apartment buildings have been constructed directly off of Commercial Street, catering to senior citizens who want to be able to walk to their daily errands. These two types of development both fragment the traditional commercial character of Berwick's main street.



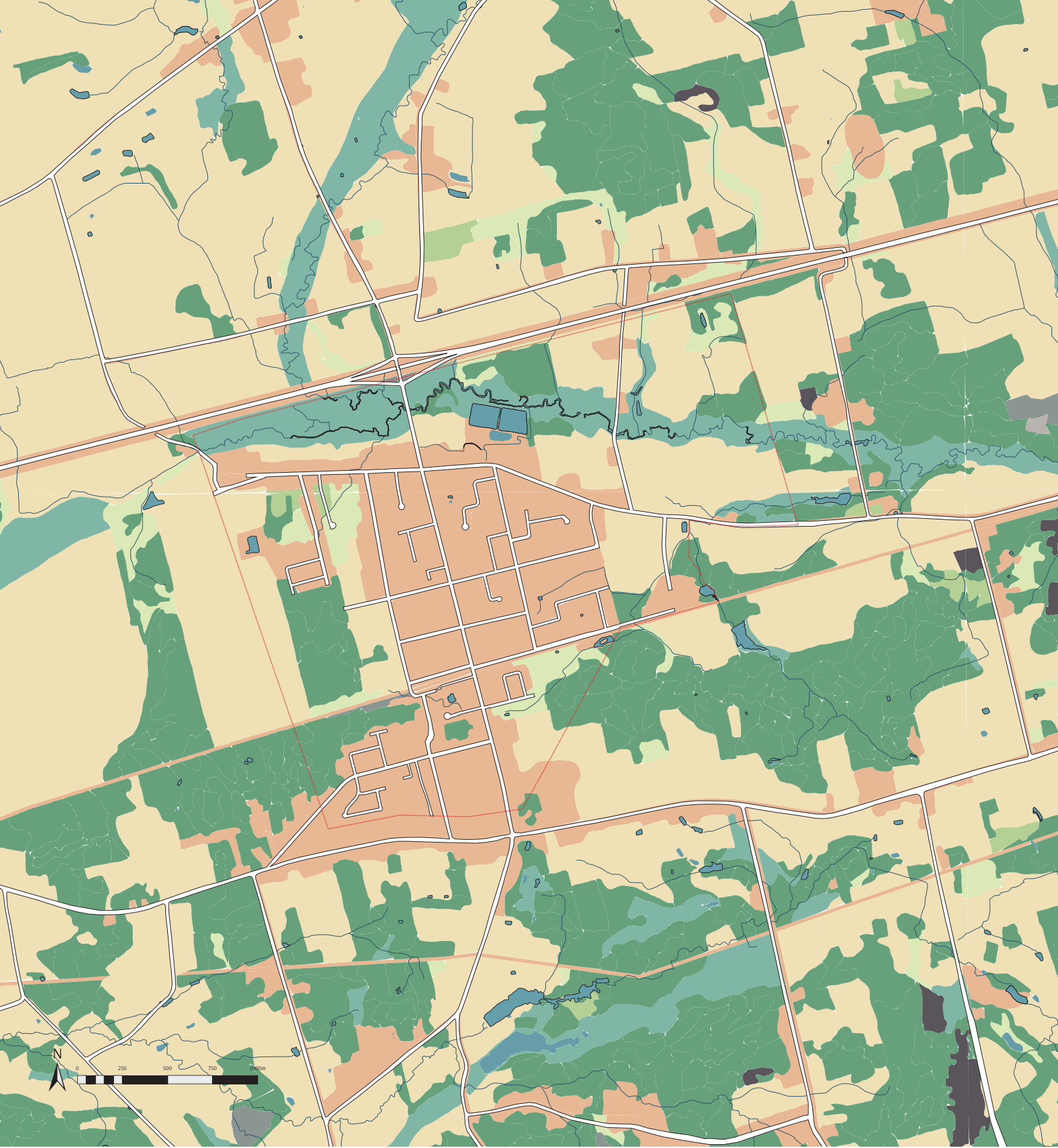
Fig. 4.3.1 - Retail set back from Commercial Street



Fig. 4.3.2 - Small-scale apartment buildings off Commercial Street



Fig. 4.3.3 - Commercial Street retail

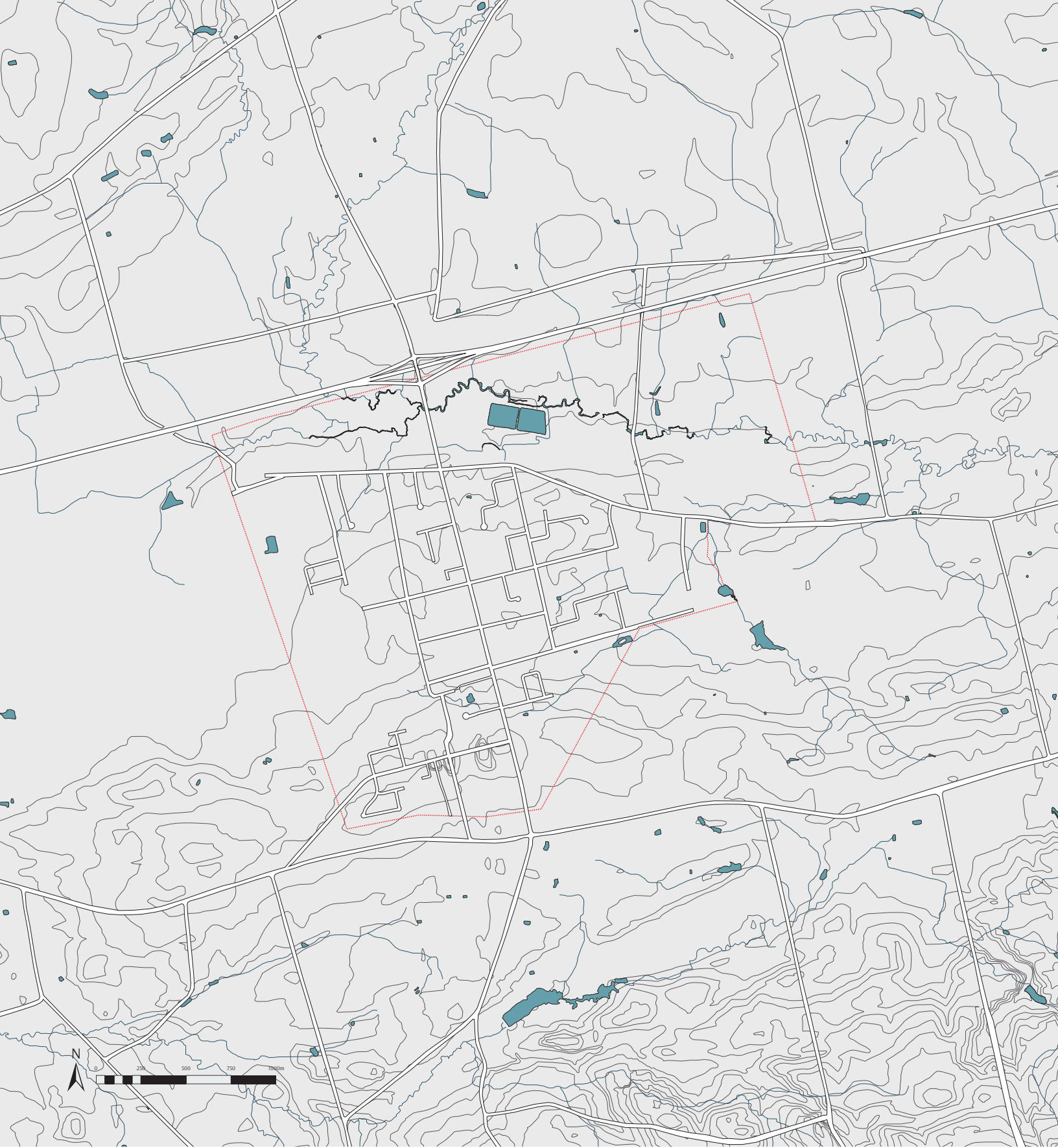


- Agriculture
- Developed
- Wetlands
- Alders

- Natural Stand
- Clearcut/Depleted
- Treated/Planted
- Dead

LAND COVER

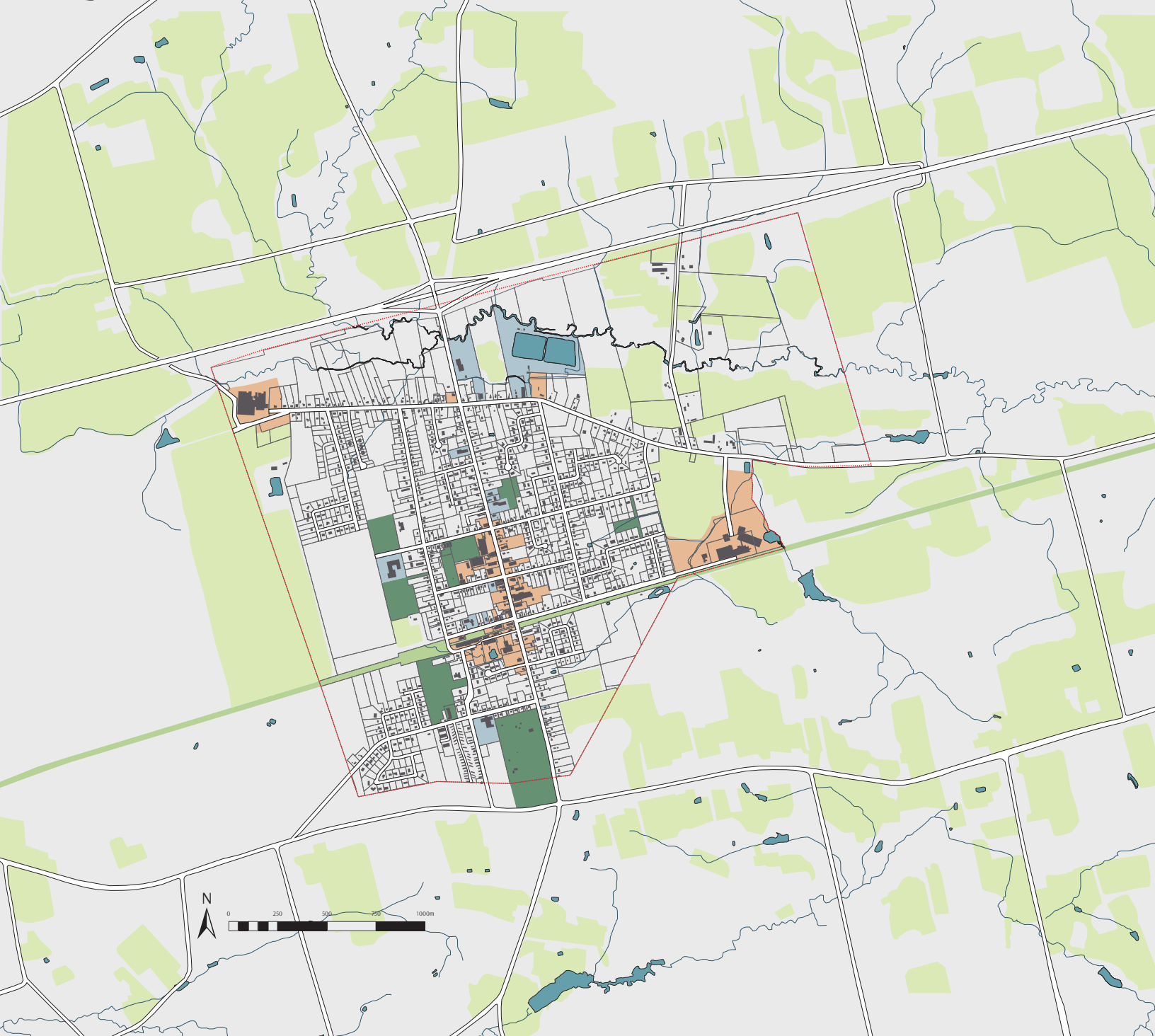
Fig. 4.3.4 - Land Cover



TOPOGRAPHY

Fig. 4.3.5 - Topography

With a range of elevation between 25 m and 60 within town limits, Berwick is located very near to the highest point on the Annapolis Valley floor. Both the Annapolis River (flowing southwest) and the Cornwallis River (flowing northeast) have their sources in the area surrounding Berwick.



LAND USE

Fig. 4.3.6 - Land Use

Commercial enterprise is concentrated in the center of Berwick. The exceptions are the Berwick Industrial Park in the eastern portion of town³ and Eden Valley Poultry Incorporated⁴ on in the far west. Institutional buildings are distributed throughout the town. Notable examples are Kings Mutual Century Centre, the headquarters of the Annapolis Valley Regional School Board, and Berwick and District School⁵. Recreational and open space is also spread around the town.

A large amount of the land surrounding Berwick is in agricultural use, including much of the northwest portion of the town.

- Commercial
- Institutional
- Open Space
- Agriculture



Fig. 4.3.7 - Main street, Berwick

Fig. 4.3.8 - Main street, Middleton

Fig. 4.3.9 - Main street, Annapolis Royal

Fig. 4.3.10 - Main street, Kentville

MAIN STREET COMPARISON

While the components of a traditional 'main street' remain relatively similar in all cases, the overall structure can vary depending on factors such as geography and the history of the town. These differences can be seen in the towns of the Annapolis Valley

Berwick's commercial area falls in a straight line along one major street. Middleton is centered around the intersection of Main Street and Commercial Street. Annapolis Royal's main street follows the line of the shore. Kentville, the largest town in the Annapolis Valley, has a larger commercial district located between the main highway and the river.

DESIGN STRATEGIES

1. Prioritize buildings at the street edge on main street. (Potentials - Damage Improvements)

The quality of a small town main street comes from the use of traditional form. The variables that determine the traditional form of a particular situation include qualities such as scale and the siting of buildings and parking areas. Many of the more recently constructed buildings in Berwick are large and set well back from the street with parking in front, breaking from the traditional patterns.

There are two ways to restore and maintain the small town quality of Commercial Street in Berwick. First, all buildings that currently exist at the front of their lot should be kept. If the building is to be replaced, it will not be permitted to replace a front-of-lot building with a back-of-lot building. Second, when a back-of-lot building is to be replaced, it will be required that the new building be constructed at the front of the lot. In this way, the street edge will be incrementally filled as buildings need to be replaced and finances of the town's businesses permit. Care will have to be taken as this process progresses to make sure access is maintained to back-of-lot parking.

2. Improve existing parking lots which border directly on the sidewalk. (Potentials - Damage Improvements)

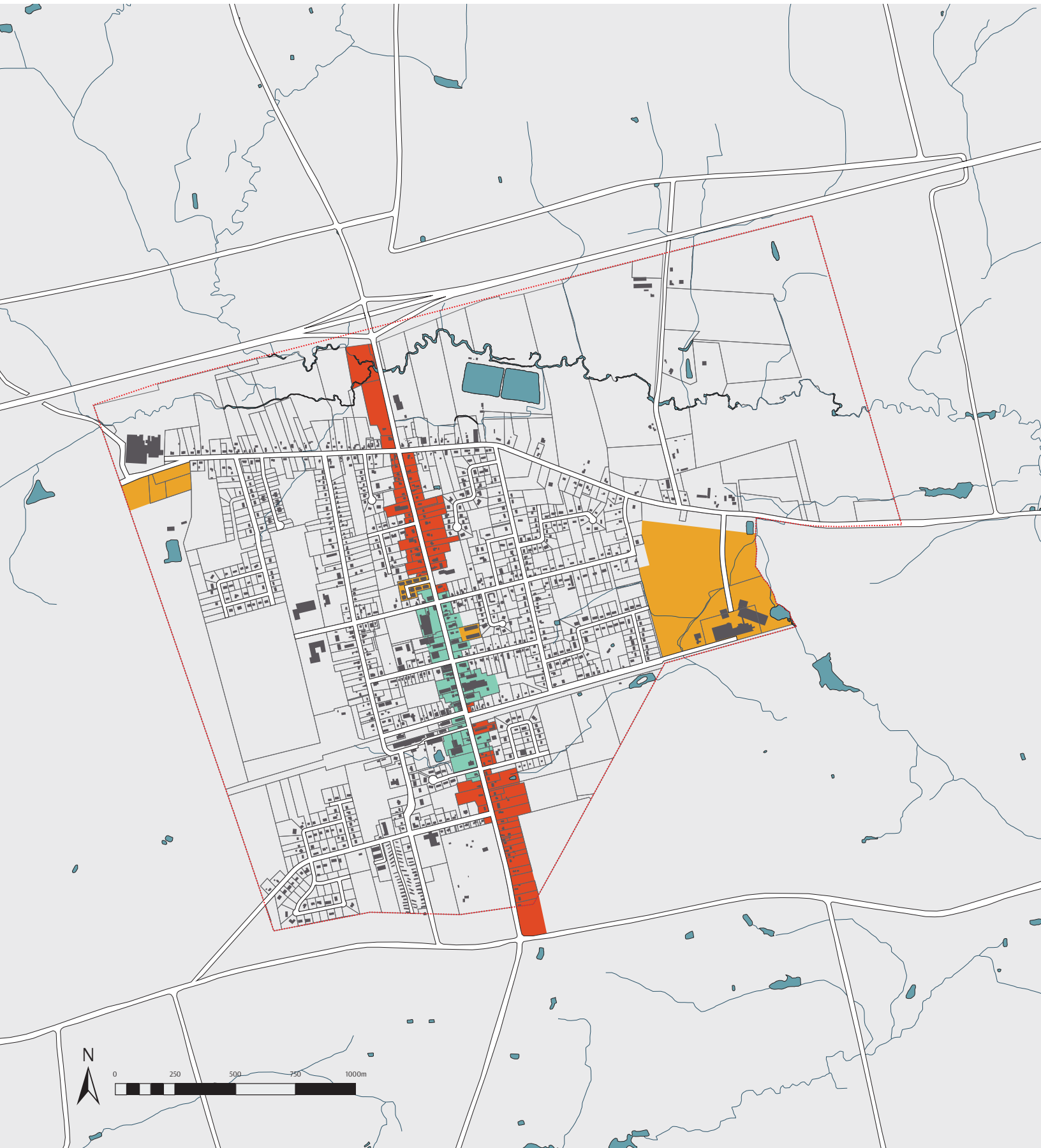
Where parking lots currently exist between buildings and the main street, interim measures will be taken to improve the experience and soften the effect of the expanse of pavement until such a time as the building is replaced with one at the front of the lot. These measures could include trees and plantings directly adjacent to the sidewalk to buffer pedestrians from the lot, shade trees and plants within the lot itself to reduce the heat island effect, and designated pedestrian paths through the parking to the business. If possible, the number of curb cuts will be reduced by joining multiple businesses parking lots together.

3. Discourage residential duplexes and apartments on private streets directly off of main street. (No-Go/Sacrificial)

The two existing residential duplex/apartment developments that are located directly off of Commercial Street are a detriment to the form of the town, as they break up the commercial street fabric. The short dead end

Fig. 4.3.11 - Design Strategies





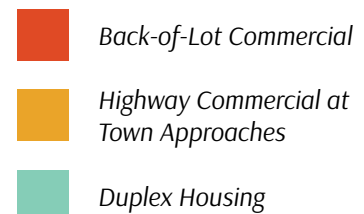
streets are not beneficial to traffic flows.

The numerous other developments of this type throughout the town suggest that there is a growing market for these small houses. However, in the future these will be located in close proximity to Commercial Street rather than on Commercial Street itself. In this way, the main street fabric can be maintained while the residents of these homes can still benefit from being near the commercial district.

4. Designate a location for incompatible commercial away from main street. (Sacrificial)

While it is unlikely that big-box stores will come to Berwick given its proximity to the shopping centres in both Greenwood and New Minas, there is potential that businesses that do not fit in with the small town main street form would wish to locate to the town. These could include car dealerships, gas stations, auto repair shops, larger businesses which would be out of scale with the existing fabric, and light industrial functions. By designating a location for these programs before they present themselves, Berwick can be sure that they will be excluded from the Commercial Street district.

Fig. 4.3.12 - Typical Development



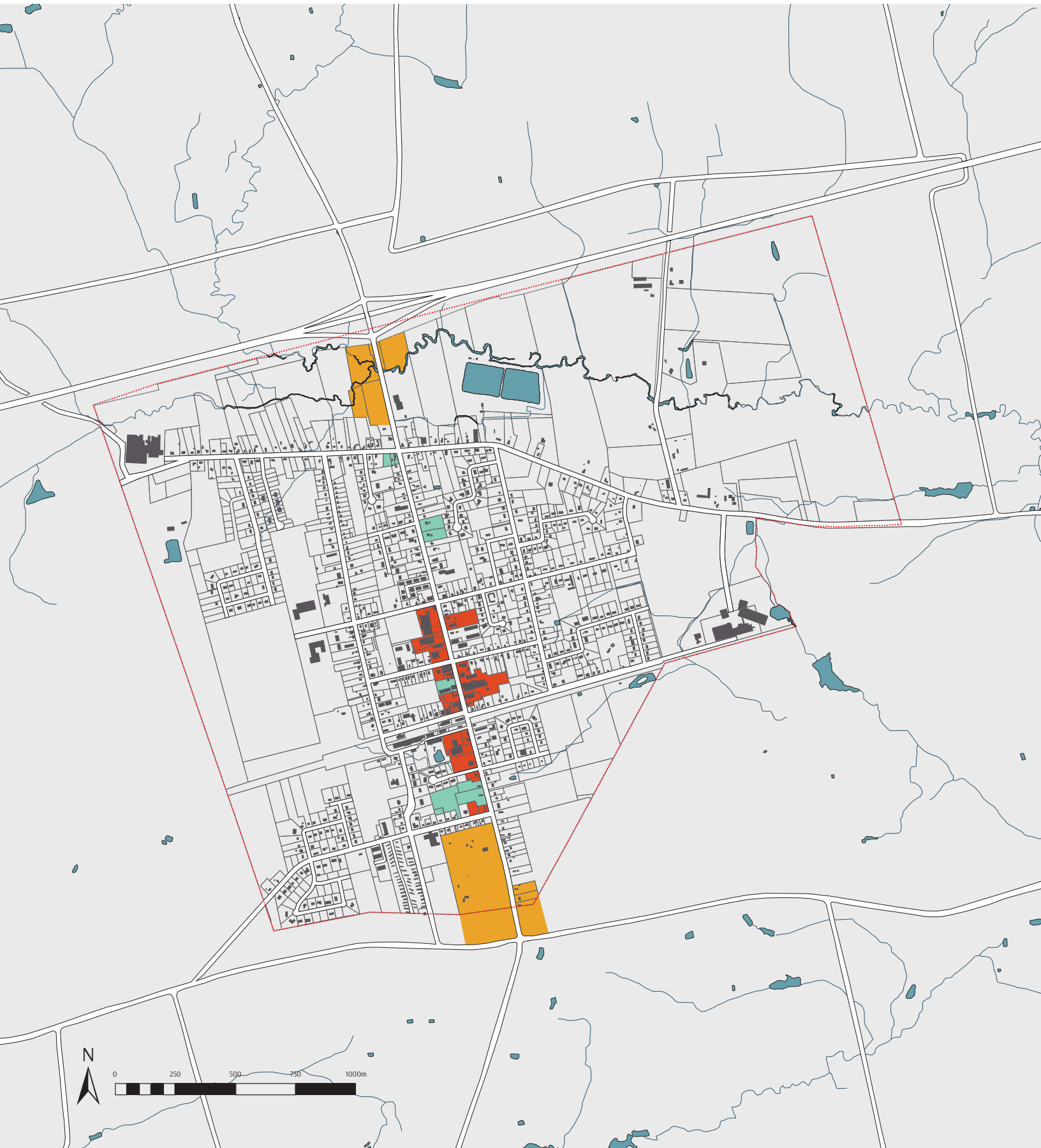




Fig. 4.3.13 - Existing Conditions



Fig. 4.3.14 - Typical Development Conditions

Many of the businesses along Berwick's main street needed to update their facilities. Most opted to construct new buildings instead of renovating their existing facilities. Taking a cue from the new Pharmasave, new buildings were built at the back of lot. The existing front-of-lot buildings could remain open while construction took place. Now, much of the commercial area of Berwick consists of buildings set well back from the street with parking lots in front (1).

A new grouping of seniors' duplexes has been constructed directly off of Commercial Street (2). While these are in a convenient location for older people who like to walk for their errands, this development does little to address the main street and passersby.

New commercial has also been built at the entrance to the town, adjacent to Highway 101 (3). This new construction includes a gas station and a fast food restaurant catering to highway travelers.



Seeing that their town's main street had the potential to lose its character, a group of Berwick business people came together to protect it. They lobbied the town council, who passed measures against back-of-lot commercial buildings along Commercial Street.

Fig. 4.3.15 - Proposed Strategy Conditions

As updates needed to be made to commercial properties, many business owners opted to renovate rather than rebuild (1). The two grocery stores in town both built new buildings: one was a standard-looking grocery store brought forward to the street edge (2) while the other company hired an architect to design a new typology for their small town stores which resembled several smaller traditional buildings attached to each other (3).

Rather than construct a new seniors duplex development, the developer of the Autumn Drive subdivision filled his empty lots with seniors' duplexes (4). Though the homes are slightly further from the downtown, they are better integrated into the town fabric and are part of a neighbourhood with a variety of ages.

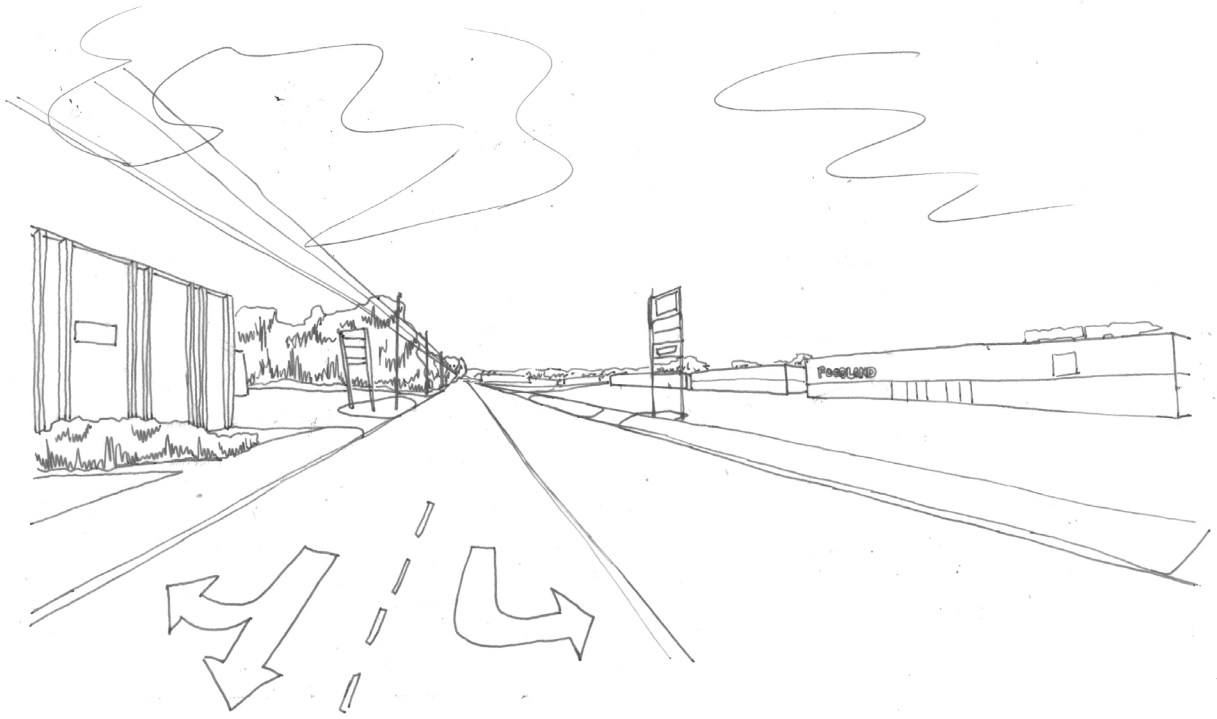


Fig. 4.3.16 - Typical Development Sketch

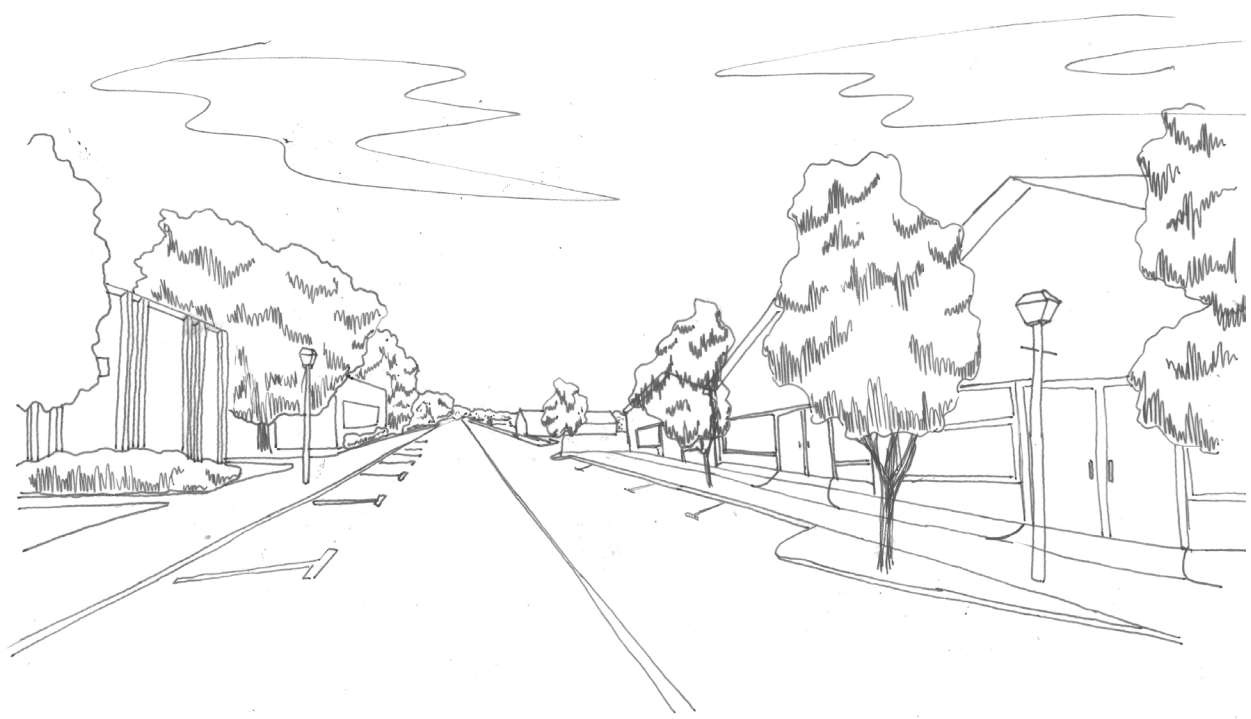


Fig. 4.3.17 - Proposed Strategy Sketch

4.4 COMMERCIAL CENTRE: NEW MINAS

SITE DESCRIPTION

The Village of New Minas is located in the eastern portion of the region, between the towns of Kentville and Wolfville. Founded early in the 1700s by settlers from the nearby Acadian community in Grand-Pré¹, New Minas now has a population of over 4000 people in an area of 10.1 km². The village was incorporated in 1968, just prior to becoming the Valley's main commercial centre due to the development of Highway 101 in the 1970s.²

As it runs through the village, the Evangeline Trail is known as Commercial Street. This is where the majority of commercial functions in the village are located and all of the brand name retail is along the main stretch from the border with the Town of Kentville to the west and Ken-Wo Country Club to the east. There is also an expanding commercial area adjacent to the exit from Highway 101. To the north and south of Commercial Street are the residential areas of the town as well as some industrial functions in the northernmost parts of New Minas, between the residential areas and the Cornwallis River.

EMBLEMATIC QUALITY

New Minas is the Annapolis Valley Region's biggest shopping destination. The Commercial Street shopping district is home to many big national brands, both in County Fair Mall³ and free-standing developments.⁴ In recent years, new construction has expanded the commercial space in the town disregarding significant vacant space in the mall building. The most notable case of this is the Silver Fox Avenue development made up of Home Depot, Future Shop, Winners, Michaels, Giant Tiger, and Lawtons, as well as a number of smaller brand tenants.⁵

The existing commercial layout with its oversized parking lots provides opportunities for densification as an alternative to expanding the commercial district further in the future. The current condition of the Evangeline Trail as it passes through New Minas does not provide a pleasant travel experience for either vehicle passengers or pedestrians, as it is designed to serve the needs of the commercial functions on either side rather than the scenic route.

Fig. 4.4.1 - Retail buildings,
Commercial Street

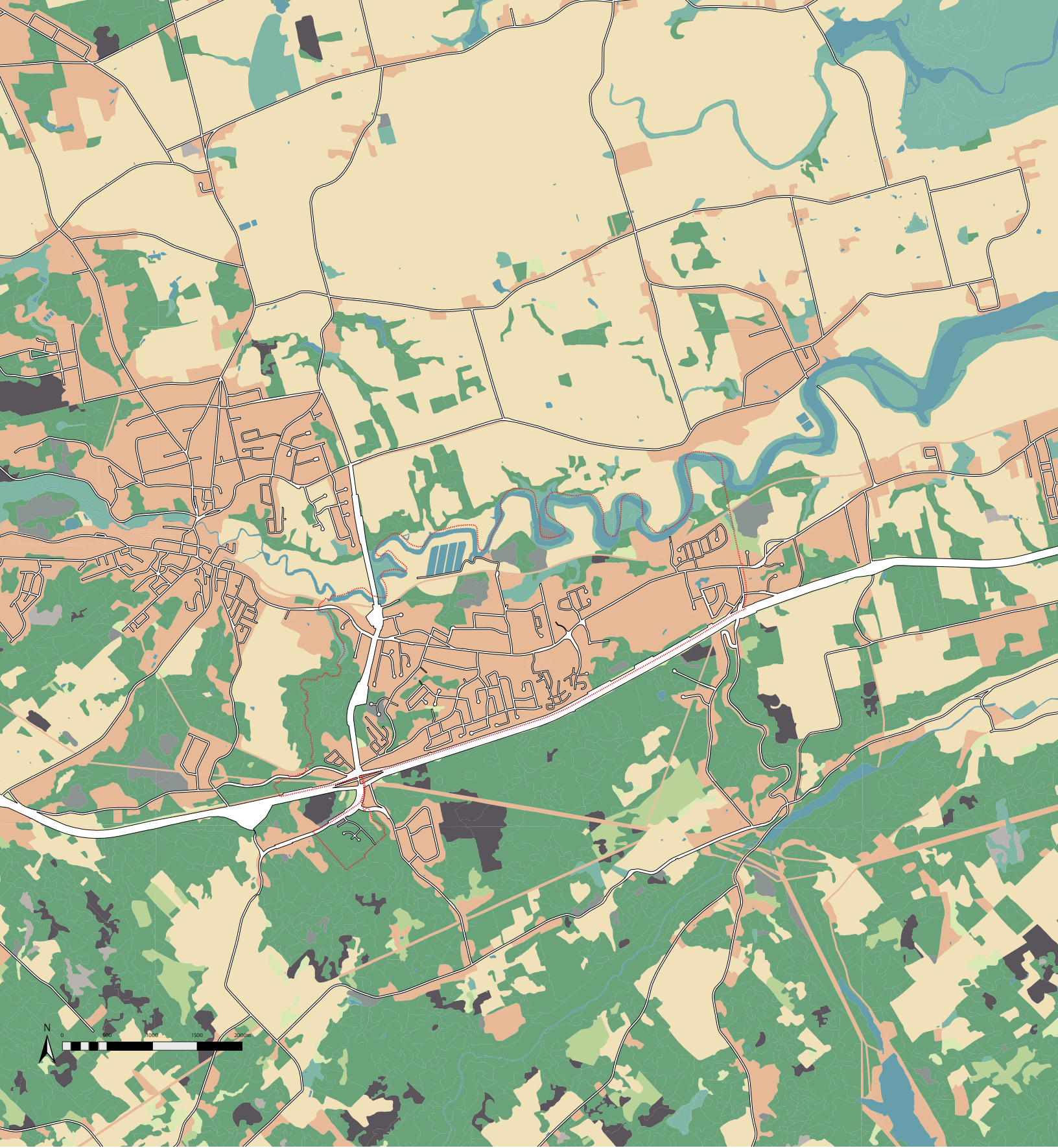


Fig. 4.4.2 - Parking lot of Walmart
and surrounding stores



Fig. 4.4.3 - County Fair Mall





- Agriculture
- Developed
- Wetlands
- Alders

- Natural Stand
- Clearcut/Depleted
- Treated/Planted
- Dead

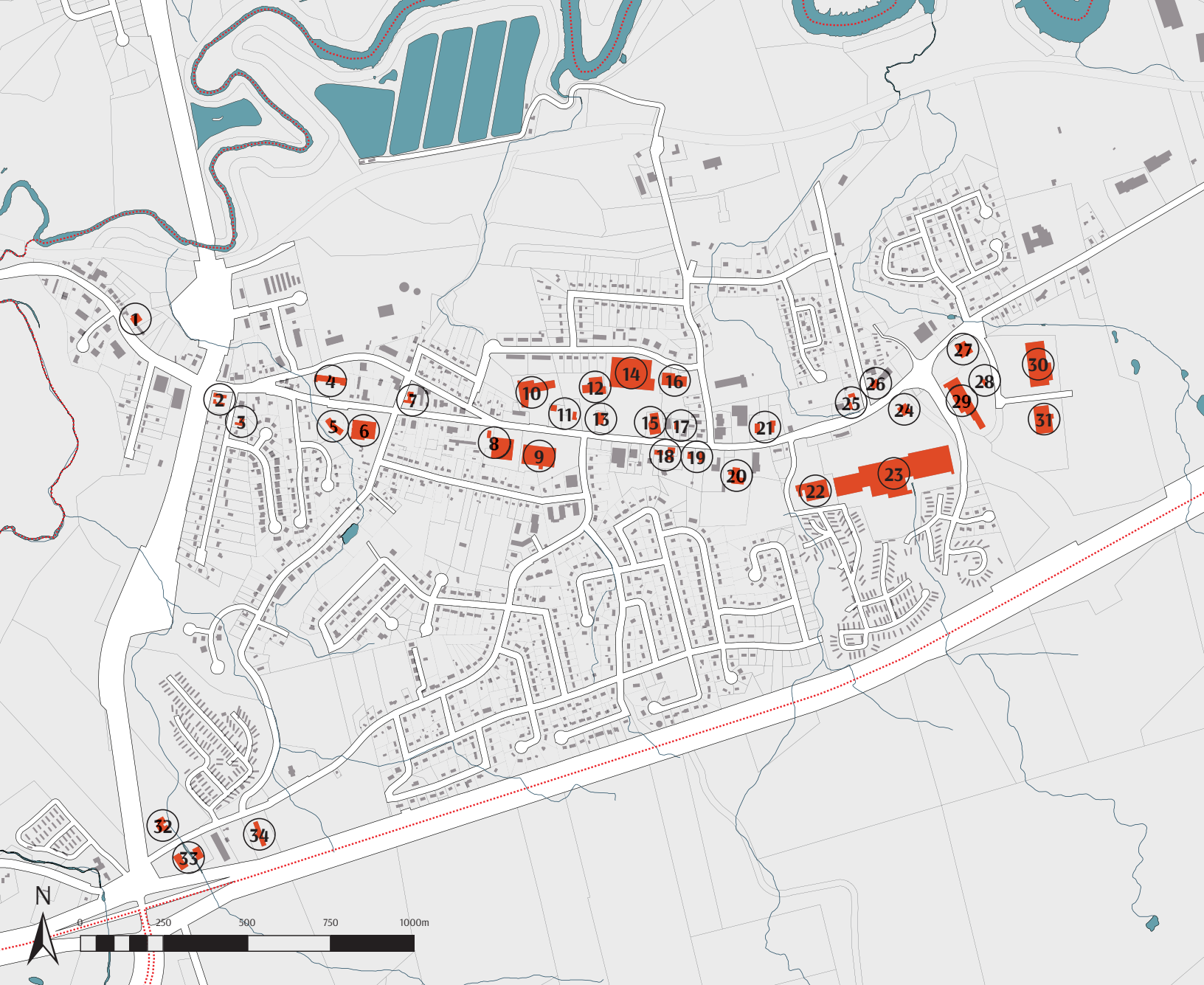
LAND COVER

Fig. 4.4.4 - Land Cover



TOPOGRAPHY

New Minas lies between the Cornwallis River to its north and the beginning slopes of the South Mountain to the south of the village. The commercial area and northern residential areas are relatively flat. However, some of the southern residential streets negotiate significant grade changes.



- | | |
|--|--|
| 1. NAPA Auto Parts | 18. Ultramar |
| 2. Shell | 19. Burger King; Midas |
| 3. Long and McQuade | 20. Chevrolet |
| 4. TD Bank; First Choice Haircutters; Citi Financial | 21. McDonalds; A & W |
| 5. Benjamin Moore Paints | 22. Canadian Tire |
| 6. Cineplex | 23. County Fair Mall |
| 7. Petro Canada | 24. Boston Pizza |
| 8. Pizza Hut; Kent Building Supplies | 25. Enterprise Rent-a-Car; Speedy Auto Glass |
| 9. Atlantic Superstore | 26. Swiss Chalet; Harvey's |
| 10. Cora's; Dollarama; UPS | 27. Lawton's |
| 11. Tim Horton's; Dairy Queen | 28. Payless Shoe Source |
| 12. Staples | 29. Future Shop; Winners; Reitmans; PetValu; Wicker Emporium |
| 13. Cleve's Source for Sports | 30. Home Depot |
| 14. Walmart | 31. Michaels; Giant Tiger |
| 15. EB Games; Pets Unlimited; Bulk Barn; Scotiabank | 32. Irving Gas |
| 16. SportChek; Mark's Work Wearhouse | 33. Nissan; Kia |
| 17. Subway | 34. Slumber Inn |

BRAND DISTRIBUTION

Fig. 4.4.6 - Brand Distribution

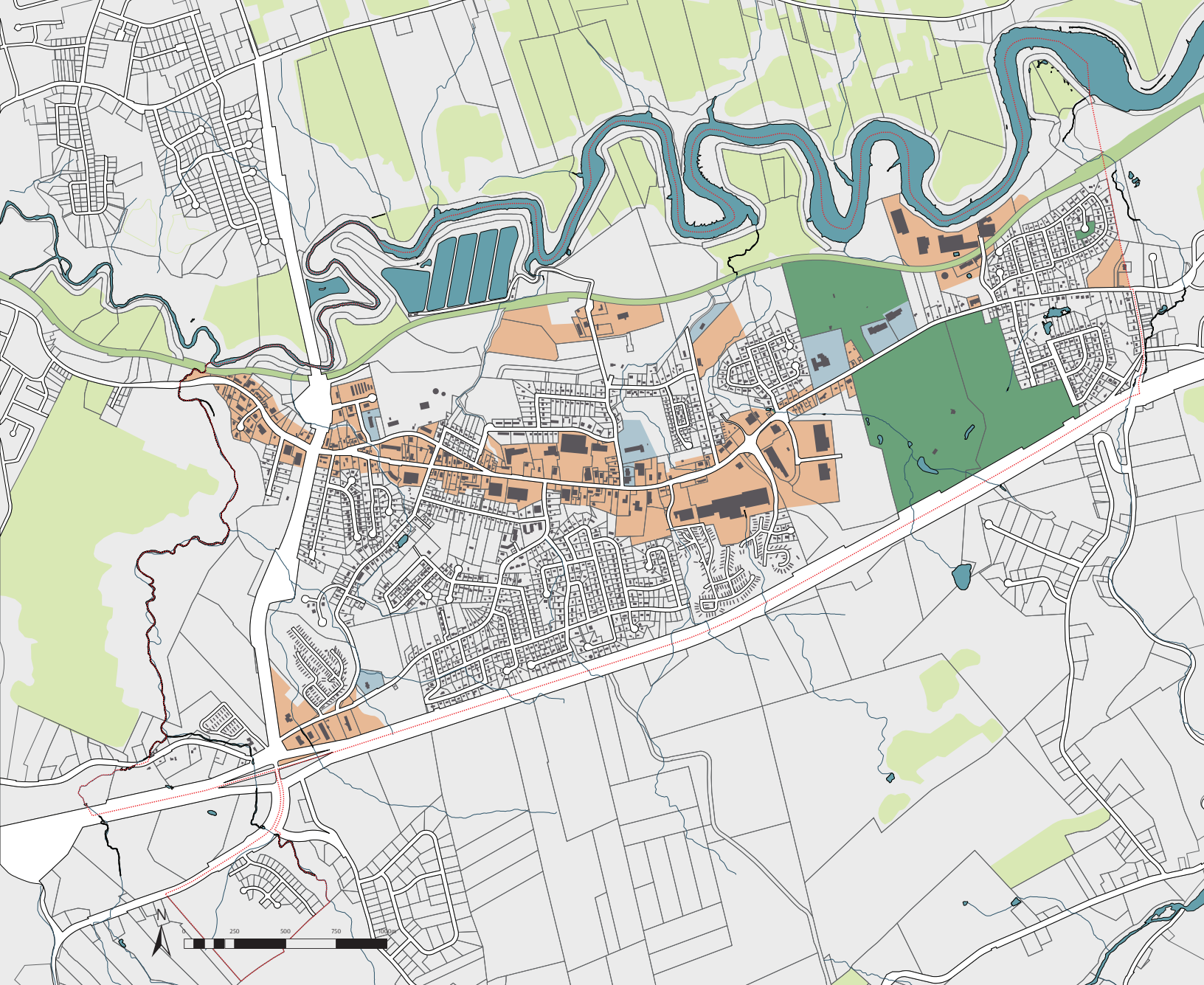


Fig. 4.4.7 - Land Use

LAND USE

- Commercial
- Institutional
- Open Space
- Agriculture

The main street through New Minas is lined with only commercial function for the majority of its length through the village. Many of these are major chain stores, including Walmart, Home Depot, and Atlantic Superstore. More industrial commercial is located off Commercial Street, within close proximity to the former Dominion Atlantic rail line.

There is very little recreational area within the Village of New Minas. The only public recreational space is the small skate park on Commercial Street, across from the County Fair Mall and the larger Lockhart Ryan Memorial Park in the eastern area of town. There is also the private Ken-Wo Golf Club in the same area of the village.

There is a large amount of agricultural land to the north of the Cornwallis River, but very little within New Minas itself.

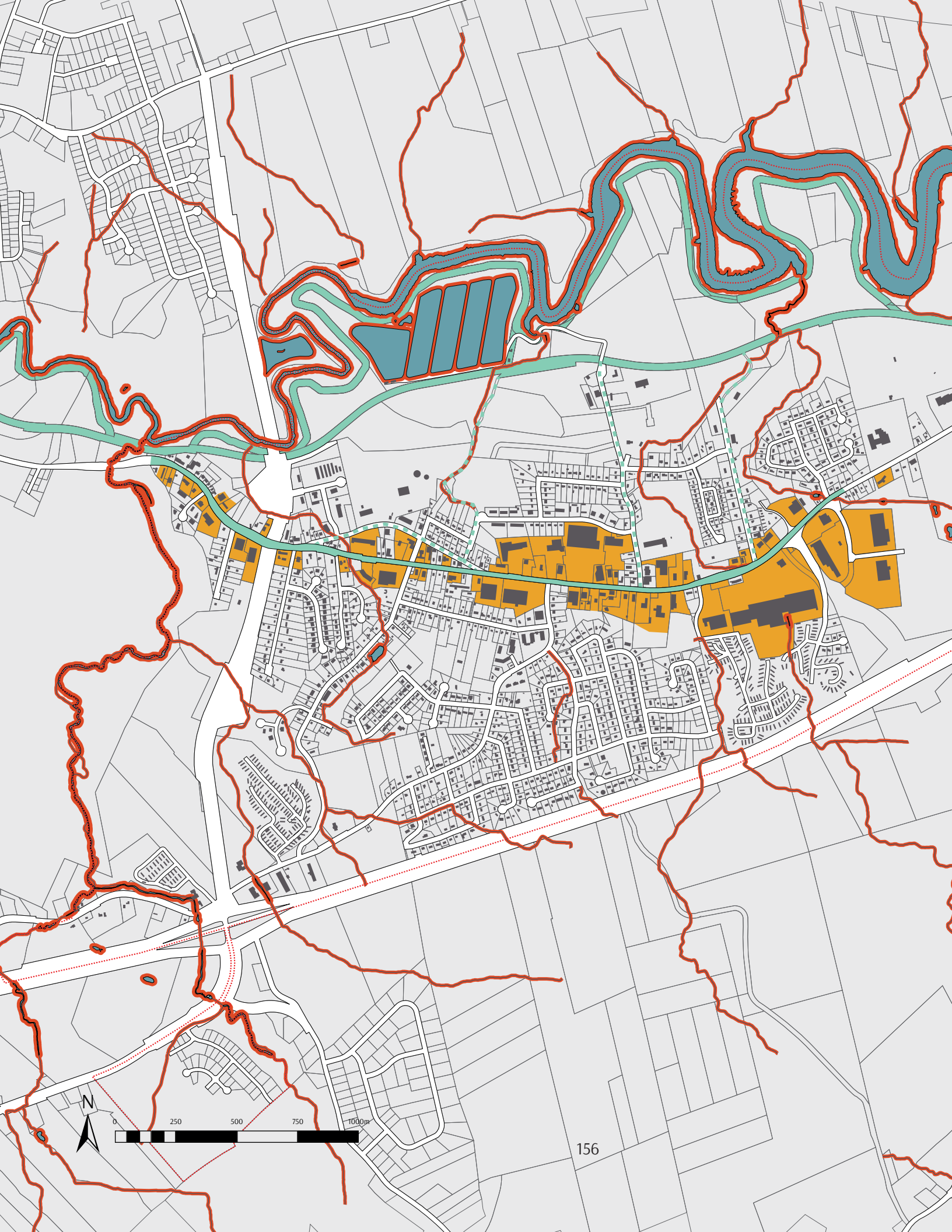




Fig. 4.4.8 - Design Strategies

- No-Go
- Sacrificial
- Dormant Amenities
- Damage Improvements

DESIGN STRATEGIES

1. Designate existing big-box commercial as a sacrificial district. (Sacrificial)

A sacrificial district addresses the issues of big brand sprawl in two ways. The first is densification. Even during the Christmas time rush, there is more than sufficient parking throughout the New Minas shopping district. Therefore, it would be possible to construct additional retail space in what are currently the unused parking lots of other commercial properties. Ideally, this new construction would be smaller scale buildings with varied façades located towards the street. This would provide a street edge at a more human scale, improving the experience of travelling along this part of the Evangeline Trail. Also part of densification is the filling of existing vacant retail space (i.e. in County Fair Mall) and the location of new buildings on vacant lots within the commercial district.

Secondly, in the case that expansion of the district boundary is necessary, there will be designated zones where this is acceptable. These would be determined by assessing the potential impacts on factors such as community structure, traffic flows, and environmental concerns. Where at all possible, these expansion zones would avoid forested areas and could be areas set aside for damage improvements.

2. Connect the Dominion Atlantic Trail to main commercial district with off-shoot trails. (Potentials - Damage Improvements)

Users of the Dominion Atlantic Trail will need access to a specific set of services and businesses. Both short and long trip users will make use of restaurants or grocery stores for food and drink. Bikers and hikers may need access to sport supply stores to repair or replace their equipment. Long trip users would need access to accommodations and laundromats.

All of these functions are already located within the New Minas commercial district. Off-shoot trail connections will lead Dominion Atlantic Trail users to the commercial district. These trails would have appropriate signage so that trail users can take the path that will lead them closest to their needed services. From west to east, the first trail is closest to a grocery store, a laundromat, and a motel. The second leads to Walmart, 2 sports stores, and an assortment of fast food restaurants. The third provides easy access to County Fair Mall and Canadian Tire, as well as a drugstore and more restaurants.

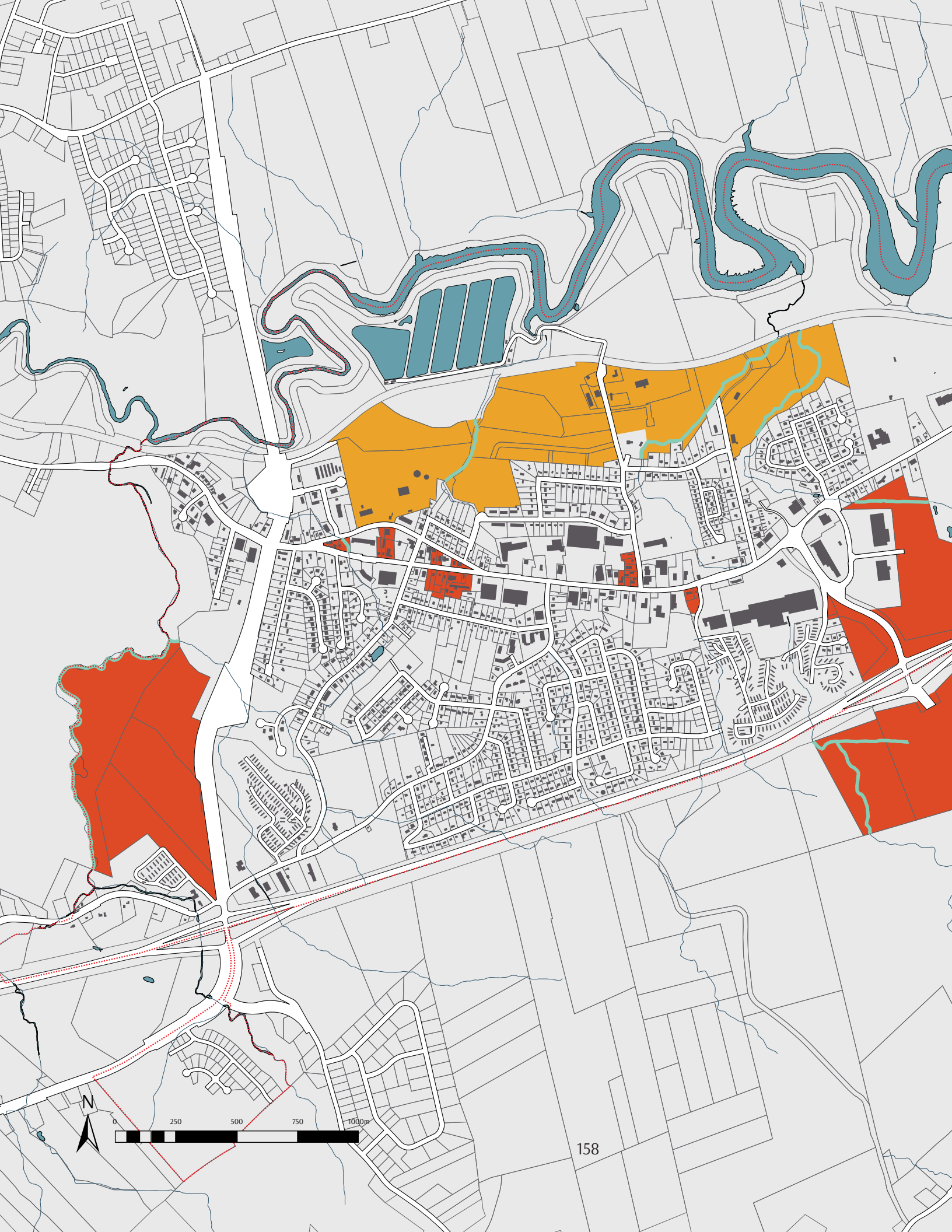




Fig. 4.4.9 - Typical Development

- Expanded Commercial
- Expanded Industry
- Riparian Damage

3. Improve the travel experience along the Evangeline Trail/Commercial Street. (Potentials - Damage Improvements)

The current conditions along the Evangeline Trail through New Minas are far from scenic. The roadway is 3 lanes wide, with a continuous middle turning lane. There is a sidewalk along both sides for most of the commercial district, however much of it is without shade trees and bordered by large parking lots. Visually, the power lines are highly noticeable and the surrounding commercial fabric is not particularly pleasing.

These concerns can be addressed in a multitude of ways. The first priority is to extend the sidewalk past County Fair Mall as far as Silver Fox Avenue, so that the entire commercial district is safely accessible to pedestrians. Also high priority is better pedestrian access into these commercial sites with sidewalks extending through the parking lot and additional pedestrian crossings.

Once safety has been addressed, measures that improve the appearance of the roadway can be undertaken. Some options are smaller scale, such as planting street trees and other varied vegetation besides grass. Others would require more work and expenditure, such as combining commercial driveways so that portions of the turning lane can be turned into green medians or burying all of the power lines to avoid the visual obstruction.

4. Protect riparian systems from commercial lot storm water runoff. (No-Go)

In recent years, the Cornwallis River has become polluted due to adjacent agriculture, sewage, industry, and commercial use. Storm water from the commercial parking lots in New Minas is significant and contains contaminants such as road salt and motor oil. ⁶

To mediate storm water flowing into the riparian systems around New Minas, new parking lots should be designed to include anti-storm water measures such as swales, permeable areas within lots, and permeable paving systems. These should also be installed in any parking lot which is being resurfaced.

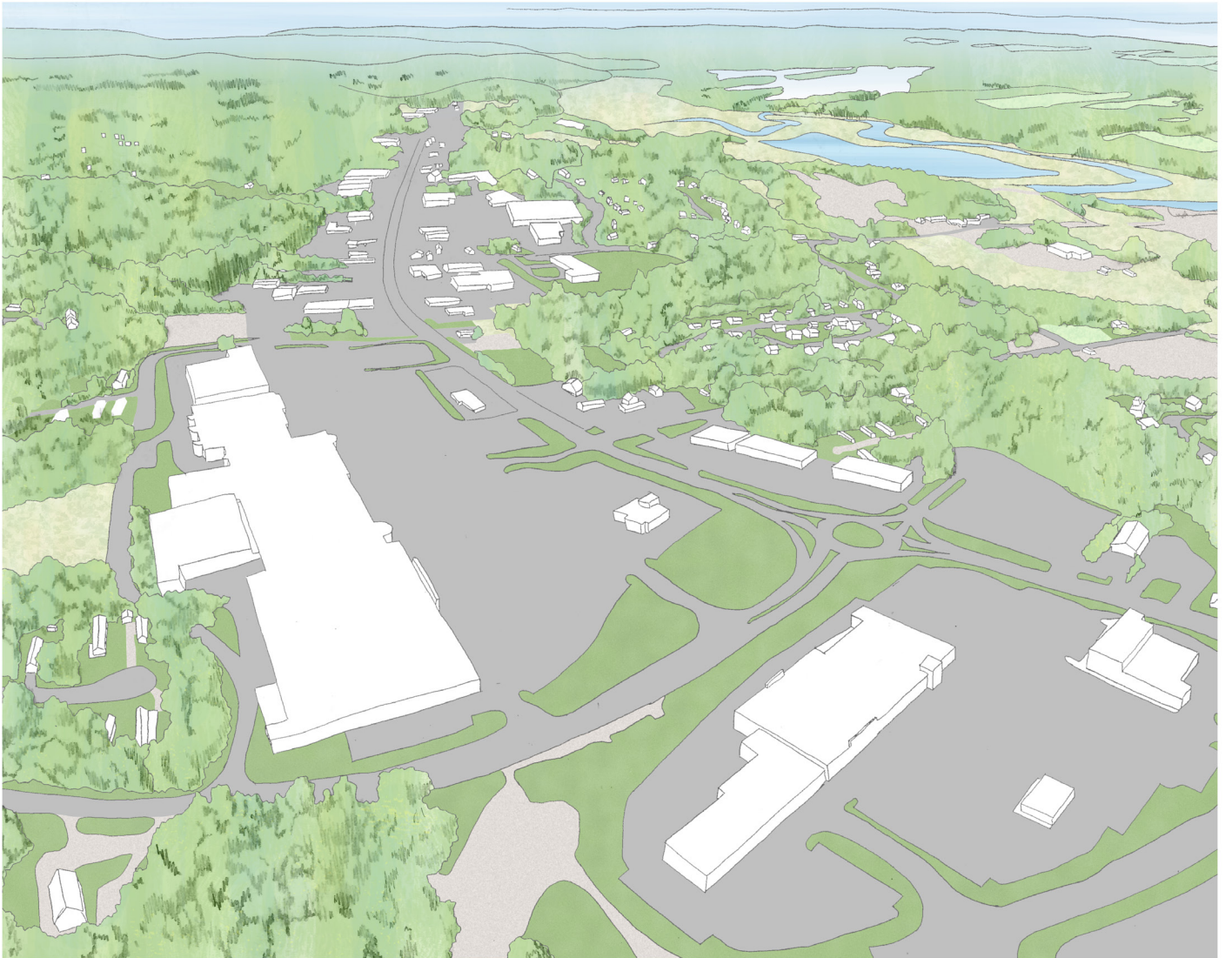


Fig. 4.4.10 - Existing Conditions

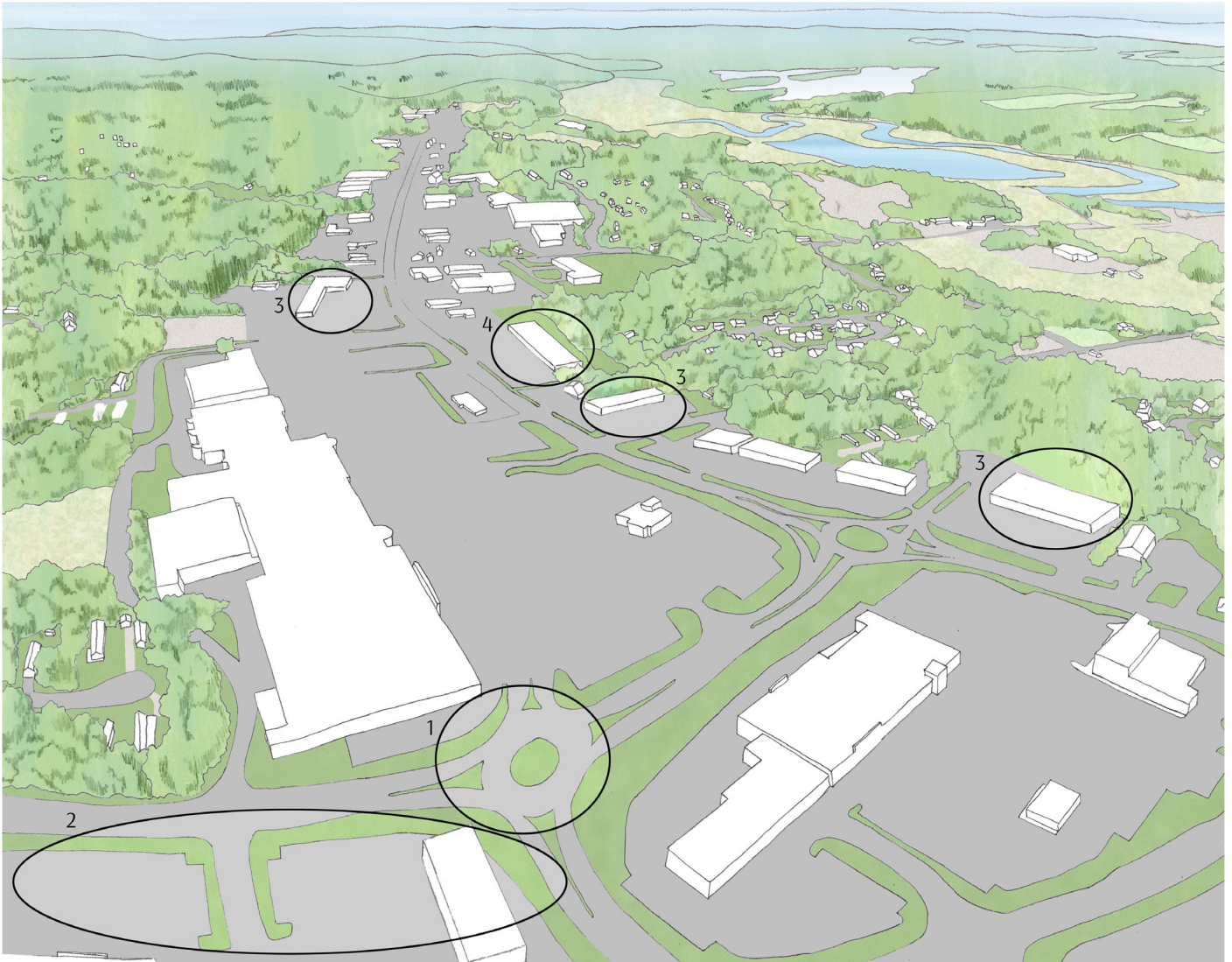


Fig. 4.4.11 - Typical Development Conditions

Following the success of the businesses at the Silver Fox Avenue development, the road between this development and the County Fair Mall was widened and extended to Highway 101 (1), where a new exit was constructed to access the commercial area more directly. Additional large-scale retail was built along this road with large parking lots (2). Plans have been made to expand the town boundaries on the opposite side of Highway 101 to construct additional commercial space.

Along Commercial Street, a number of the smaller buildings have been replaced by larger buildings, back from the street (3). Additionally, the small park and the Lions Club across from County Fair Mall has been replaced with a commercial building (4). The Village used the money from the sale of this land to augment recreation facilities at Lockhart Ryan Memorial Park, further from the village center.



When the success of the Silver Fox Avenue development showed the potential for more retail in the New Minas area, a local developer approached the Village with a proposal to densify rather than expand the commercial zone of New Minas. She built two small buildings as a trial, one on each side of the Boston Pizza in the County Fair Mall parking lot (1).

Following her success, the mall owners built more buildings at the street side of their parking lot (2). They also worked together with the Village to extend pedestrian access past the mall to the Silver Fox development.

The owners of the Silver Fox Avenue development amended their previous expansion plans and instead added new buildings within their existing area (3), with a modest new expansion (4). They also bought the empty lot across Commercial Street and built new retail space there (5).

Fig. 4.4.12 - Proposed Strategy Conditions



Fig. 4.4.13 - Typical Development Sketch

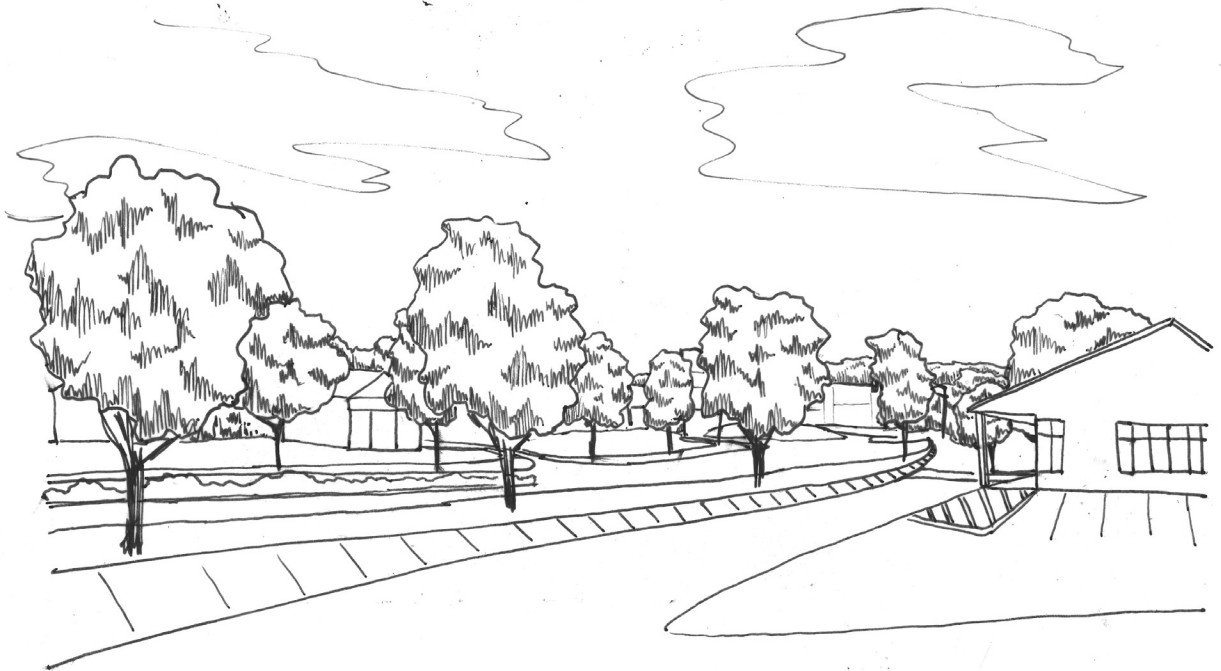


Fig. 4.4.14 - Proposed Strategy Sketch

4.5 FUNDY COASTAL HAMLET: HARBOURVILLE

SITE DESCRIPTION

The coastal community of Harbourville is located on the Fundy Shore, approximately 14 kilometres from the Town of Berwick.¹ It was founded as a fishing community and is therefore centered on its still active harbour. The first wharf was built in 1847 and the community was christened Harbourville in a vote taken in 1860.²

Today, the community is not much changed from its appearance when it was named in 1860. Both the immediate residents of the area and visitors from the rest of the region come to Harbourville to enjoy the cool breezes off the Bay in the summertime. There are rental cottages available for visitors coming from farther afield, run by the same people who own the one restaurant, the Harbourville Schnitzelhaus.³ The only other business is the local fish market⁴.

EMBLEMATIC QUALITY

Harbourville is one of many similar communities located along the Fundy Shore. Many are or were fishing villages and have a wharf or former wharf at their centre. Going outward from the point of the wharf is a scattering of single-family houses. As these are all small communities, none have a large business community and residents are required to go to larger towns in the Valley for most of their purchases.

The Fundy Coast is a rocky landscape.⁵ Most beaches are made up of small smooth rocks, like the one at Harbourville, and the water is cold year round. The steep approach to the water's edge in Harbourville is similar to numerous other points along the coastline. Another of Harbourville's landscape features that is repeated along the coastline is the deep-set stream that comes down into the harbour from the upper slopes of the North Mountain.



Fig. 4.5.1 - Harbourville wharf at low tide



Fig. 4.5.2 - Harbourville Schnitzelhaus



Fig. 4.5.3 - Fundy shoreline at Harbourville

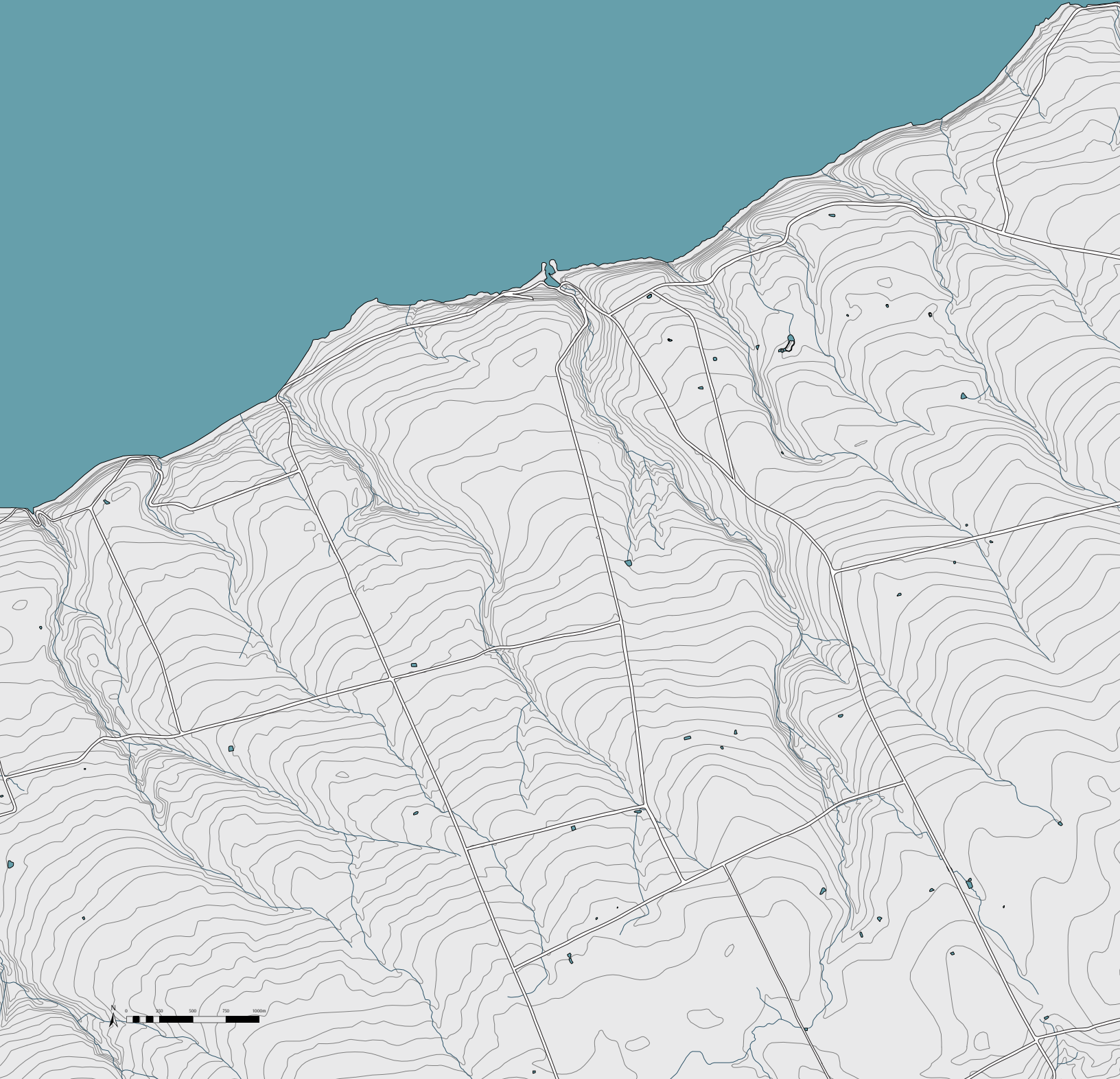


- Agriculture*
- Developed*
- Wetlands*
- Alders*

- Natural Stand*
- Clearcut/Depleted*
- Treated/Planted*
- Dead*

LAND COVER

Fig. 4.5.4 - Land Cover



TOPOGRAPHY

In the centre of the community, the terrain quickly slopes from sea level to 50 m. The highest point of the North Mountain in this vicinity is at an elevation of 215 m.

Fig. 4.5.5 - Topography

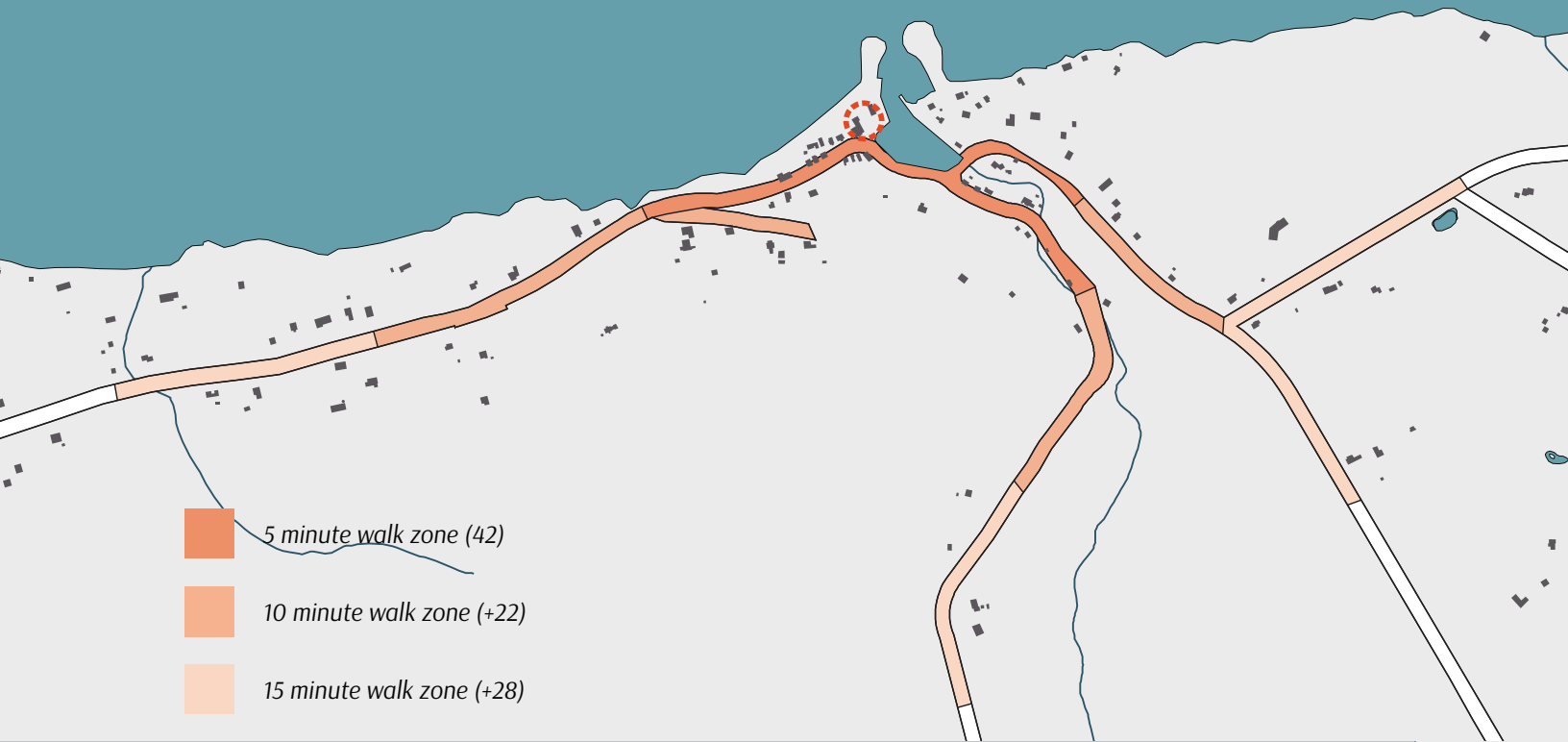


LAND USE

The hamlet of Harbourville is primarily residential. There is a single restaurant as well as a fish market adjacent to the wharf. The wharf is also home to a small commercial fishing fleet. The hamlet's community center is located not far from these other functions. Together, these form the nucleus of the community, with residences being located on the roads which spread out from the harbour. There is also some small scale agriculture in the vicinity.

Fig. 4.5.6 - Land Use

- Commercial
- Institutional
- Open Space
- Agriculture



TRAVEL TIME

Two potential sites for community core enhancement are adjacent to the existing restaurant and fish market, and adjacent to the community hall. Both reach over 85 homes in a 15 minute walking zone.⁶

Fig. 4.5.7 & 4.5.8 -

DESIGN STRATEGIES

1. Designate a potential site(s) for a future general store. (Potentials - Damage Improvements)

One of the negative consequences of living in a community the size of Harbourville is the lack of nearby stores. To combat this, a general store will be located in the hamlet in a central location so as to be within walking distance for the majority of Harbourville's residents. This store will stock basic necessities only but will be a great convenience to residents who will no longer have to travel 15+ minutes each way to Berwick⁷ if they are in need of just a few small things.

This store could also act as a town meeting point and place to post notices. Currently there is a free-standing notice board adjacent to the wharf. However, it is in a place that may be overlooked and this function could be better located at the new general store.

2. Establish shoreline setbacks for buildings to prevent erosion. (No-Go)

Great portions of the shoreline in the area near Harbourville are cliffs. These are particularly sensitive to erosion. With rising sea levels due to global warming, erosion is only going to become a greater issue. As such, measures must be taken both to prevent erosion and to protect human property from being damaged.

Keeping buildings back from the shore edge will help to protect them from being damaged or destroyed due to erosion of the cliff face. In addition to establishing a no-building setback, it is recommended that rules be made regarding the maintenance of trees along the cliff edge as an anti-erosion measure.

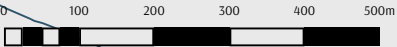
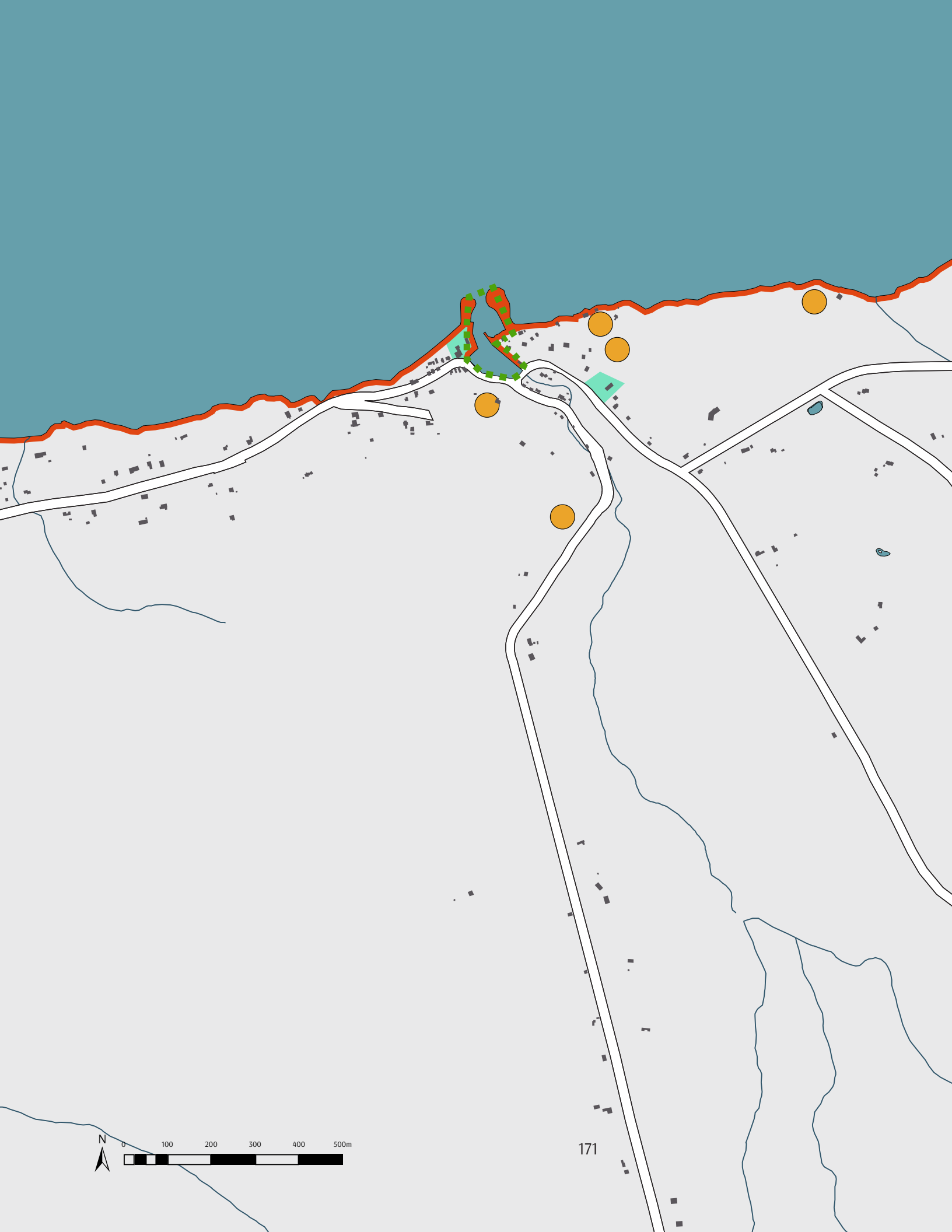
3. Cluster houses to minimize clearing of forests. (Sacrificial)

A great deal of the land surrounding the central core of Harbourville is forested. If more houses are built in the area, they should be placed in groupings to reduce the number of trees that need to be cut down. The sites for these will be chosen by considering not just forest impact, but also views both for the new homes and existing homes in the community, wetland areas, and the community's agricultural areas.

These clusters will be positioned to be within easy walking distance of the new enhanced community core of the restaurant, fish market, community centre, and new general store.

Fig. 4.5.9 - Design Strategies





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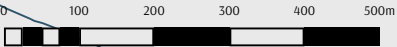
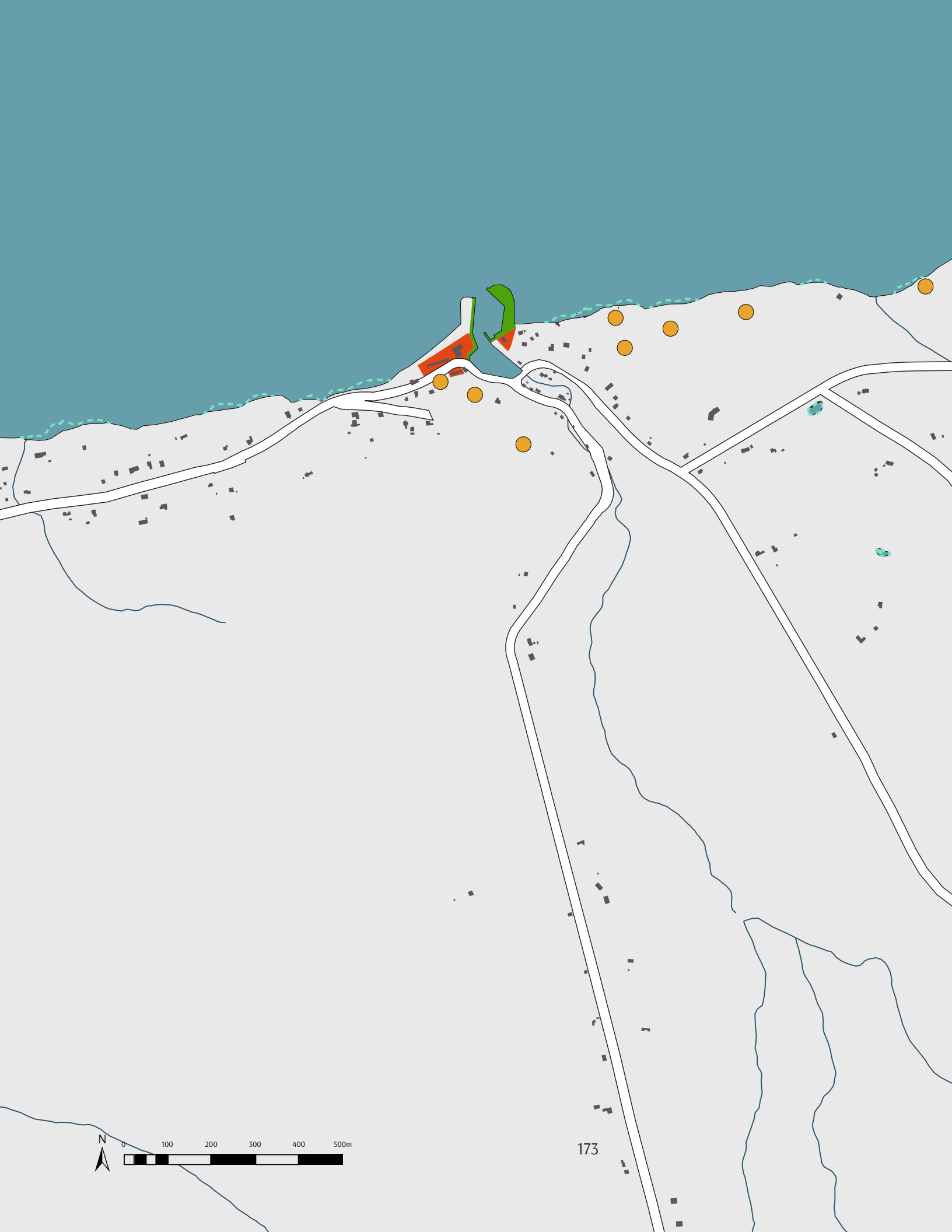
4. Improve the harbour infrastructure to encourage new uses. (Potentials - Dormant Amenities)

Usage of the Harbourville wharves is limited to the traditional Cape Islander fishing boats⁸. Due to the large deviation of the tides, these boats rest on the sea floor twice daily when not in use. These rugged boats can withstand this stress better than many pleasure boats. Accordingly, pleasure boating is not currently a common activity in the Bay of Fundy.

It is recommended that the western arm of the Harbourville wharves be extended and the harbour entrance channel be deepened to allow for docking for boats which cannot hold up to being on the ocean bottom twice daily. This would open up Harbourville to sailing and boating recreationists who may come to enjoy the restaurant and stay at the rental cottages. Also, with the development of the general store, Harbourville could be a restocking stop for recreational boaters as there is little commercial function among the Bay of Fundy coastal communities.

Fig. 4.5.10 - Typical Development





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Fig. 4.5.11 - Existing Conditions

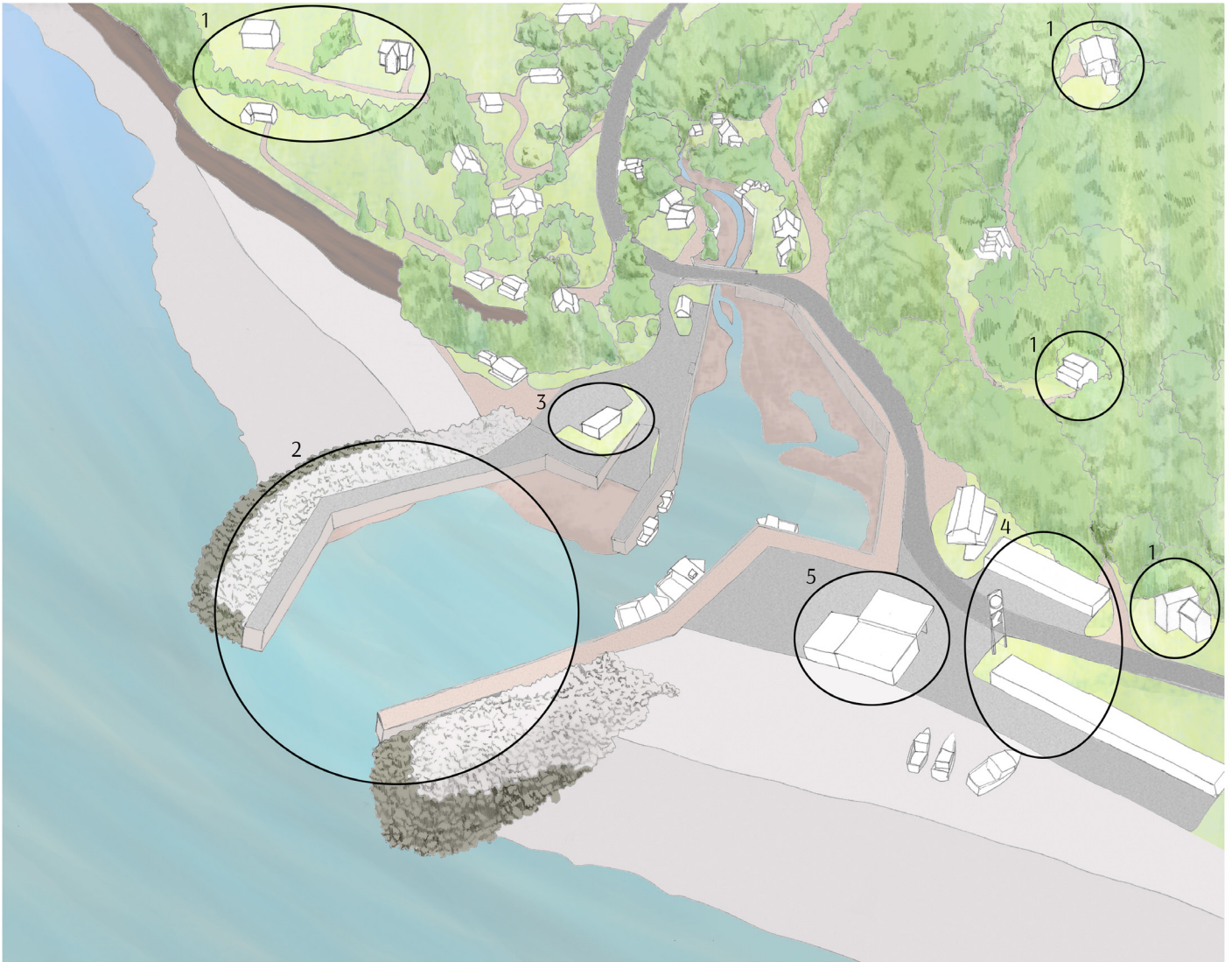


Fig. 4.5.12 - Typical Development Conditions

With its seaside location and quaint charm, Harbourville has become a destination for seasonal residents. A number of “come-from-aways” have built summer homes in the hamlet, some much larger than the homes of the full-time residents (1). The owners have cleared many of the trees around their homes to allow for expansive views of the Bay of Fundy.

A number of these wealthier temporary residents own pleasure boats. To accommodate these vessels, both arms of the Harbourville wharf were extended into deeper water as these boats could not endure sitting on the ocean floor twice daily (2). A marina store also came to the community (3).

As the new residents told others about Harbourville, tourism to the community increased. The owner of the Harbourville Schnitzelhaus and Cottages found that her accommodations were consistently full in the summer months but that many guests commented that they had hoped for more modern accommodations. The owner tore down her cottages and built two small motel buildings (4). Finding that her time was taken with managing these, she sold the restaurant to Irving, who built a gas station and cafe on the lot (5).



Seeing the danger of large homes dominating hamlets such as Harbourville, the Kings County planning department put in place guidelines for new construction in these communities. Newcomers to Harbourville followed these guidelines and built homes of a similar scale as those existing and in clusters so as to minimize landscape impact.(1)

With new residents in the town, there was a demand for a small store providing essential everyday goods. The owners of the Harbourville Schnitzelhaus and the Harbourville Fish Market entered into a partnership to open a new general store, located between their two businesses.(2)

The new seasonal residents included families who enjoyed recreational boating. To accomodate these residents as well as others who boated on the Bay of Fundy, one side of the wharf was extended to provide more berths.(3) Also, the harbour was dredged to deepen it for pleasure craft use.(4)

Fig. 4.5.13 - Proposed Strategy Conditions

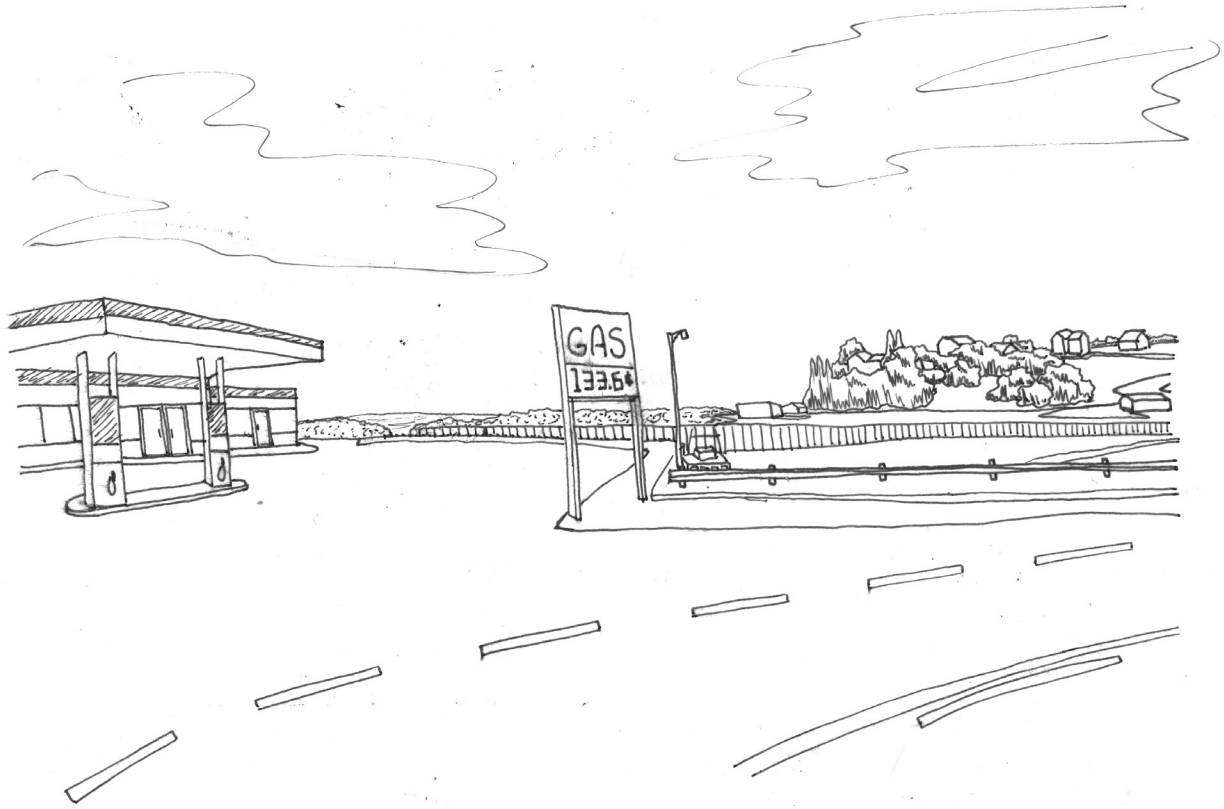


Fig. 4.5.14 - Typical Development Sketch



Fig. 4.5.15 - Proposed Strategy Sketch

4.6 INLAND LAKE: AYLESFORD LAKE

SITE DESCRIPTION

Aylesford Lake is located on the South Mountain of the Annapolis Valley, approximately 10 kilometres southeast of the Town of Berwick. By road, the nearest community is Aylesford at just over 20 kilometres distance for a one-way trip, nearly a half hour drive.¹ It has a long tradition as a place for recreation, as evidenced by photos of people boating on the lake as early as 1911.²

Today, the lakeshore is home to a mix of seasonal and year-round residents, who are mostly located around the northern portion of the lake as well as on the western side. Also on the lake are the Aylesford Lake Yacht Club³ and the Aylesford Lake Public Beach⁴, providing public access to the lake for non-residents. This provides access for a variety of recreational activities, including swimming, boating, and fishing. Lastly, on the eastern side of the lake is Camp Brigadoon, a camp for children with chronic illnesses and special needs.⁵

EMBLEMATIC QUALITY

The varied functions around Aylesford Lake encompass the most common lakeside activities in the Annapolis Valley Region. The mix of year-round and seasonal residents is common on lakes throughout the region. A number of the other lakes also provide public access at parks (municipal, provincial, and national), public beaches, and boat launches. Aylesford has the unique program at Camp Brigadoon, though other lakes have less specialized camp facilities owned by groups like the Girl Guides and Boy Scouts. Recreational activities are similar to other lakes.

The land immediately adjacent to Aylesford Lake has only been partially taken up by residential use. This offers opportunities to guide future use in ways to allow development while maintaining landscape quality and public access for non-residents. The varied land cover in the area surrounding the lake also enables a variety of strategies to deal with the differing conditions; clear-cut lots, forested areas, and wetlands must all be addressed in different ways. In this scenario, all are present in close proximity to the lake.

Fig. 4.6.1 - South end of Aylesford Lake

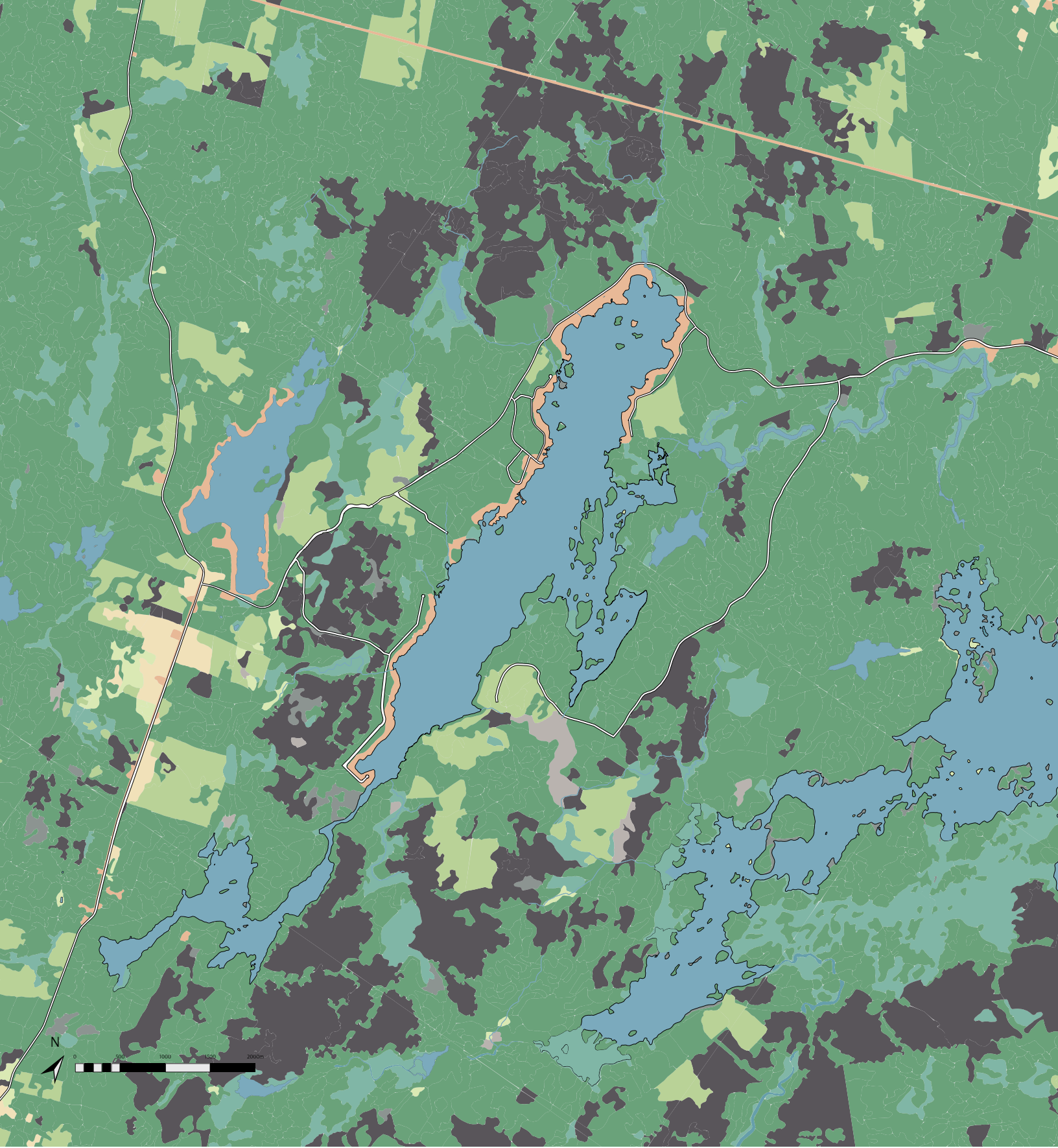


Fig. 4.6.2 - Aylesford Lake Public Beach



Fig. 4.6.3 - Clearcut forest with new brush growing, near beach



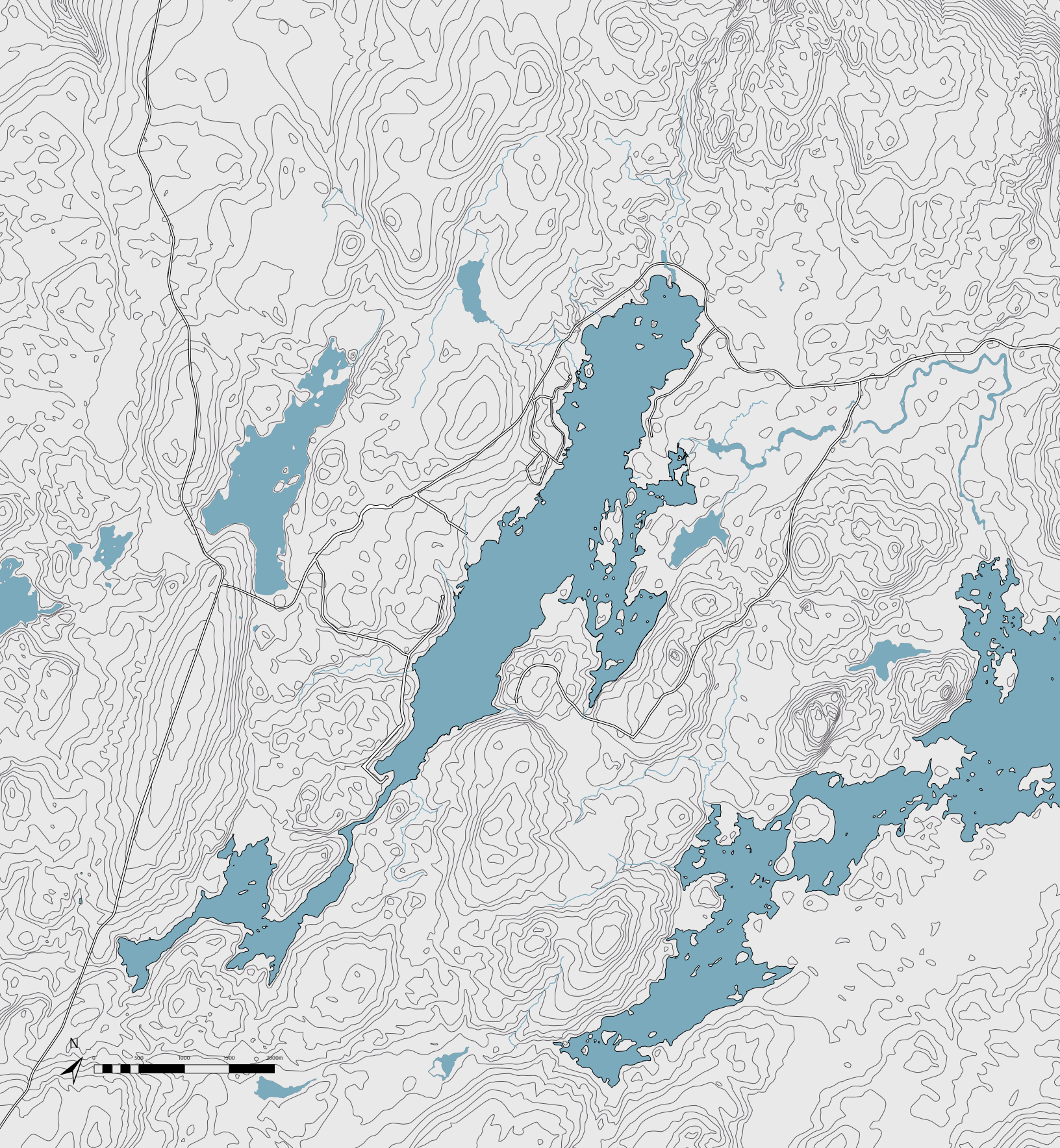


- Agriculture
- Developed
- Wetlands
- Alders

- Natural Stand
- Clearcut/Depleted
- Treated/Planted
- Dead

LAND COVER

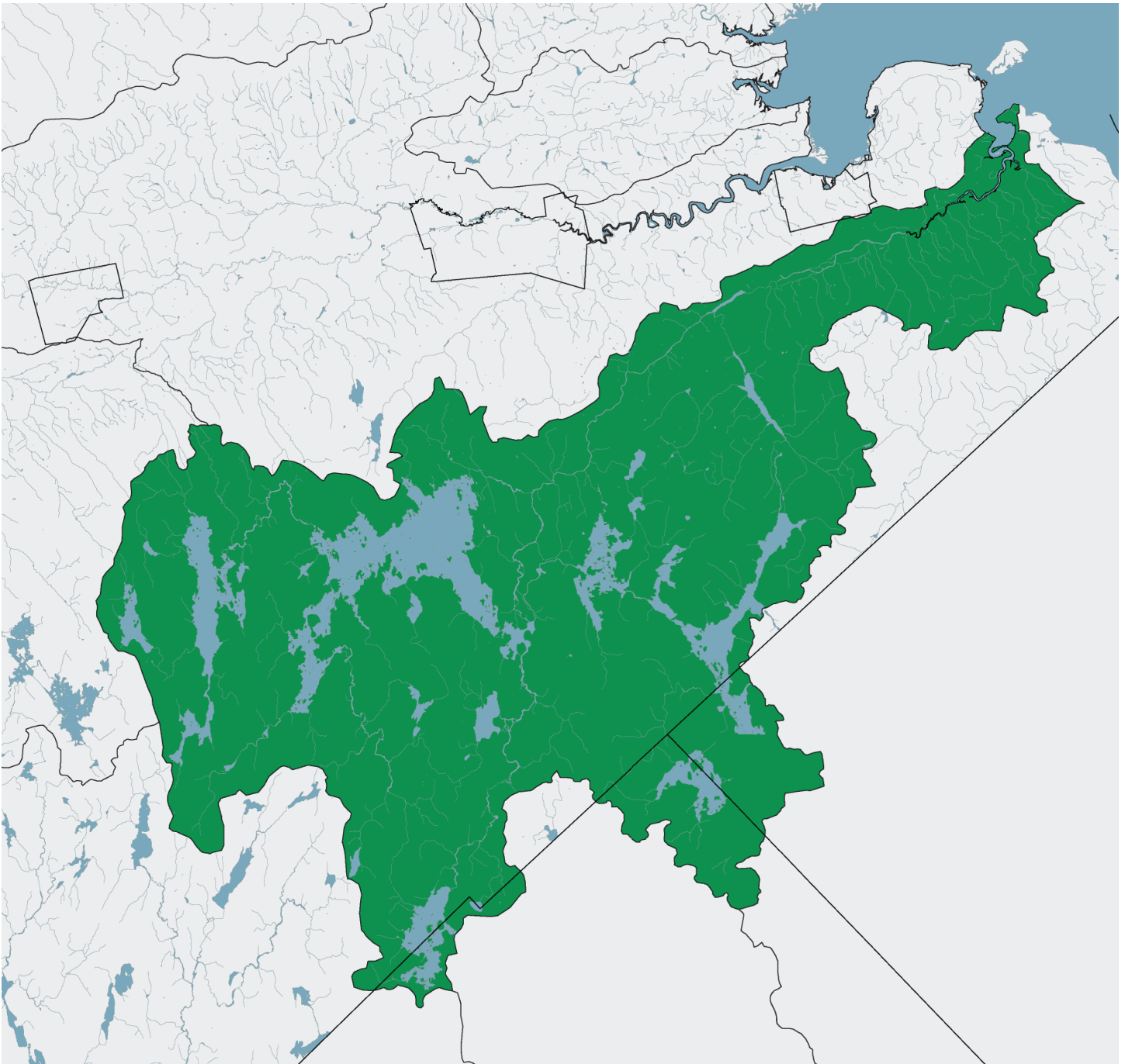
Fig. 4.6.4 - Land Cover



TOPOGRAPHY

The area surrounding Aylesford Lake is made up of the rolling hills characteristic of the South Mountain uplands. Elevation ranges from 199 to 275 metres above sea level.

Fig. 4.6.5 - Topography

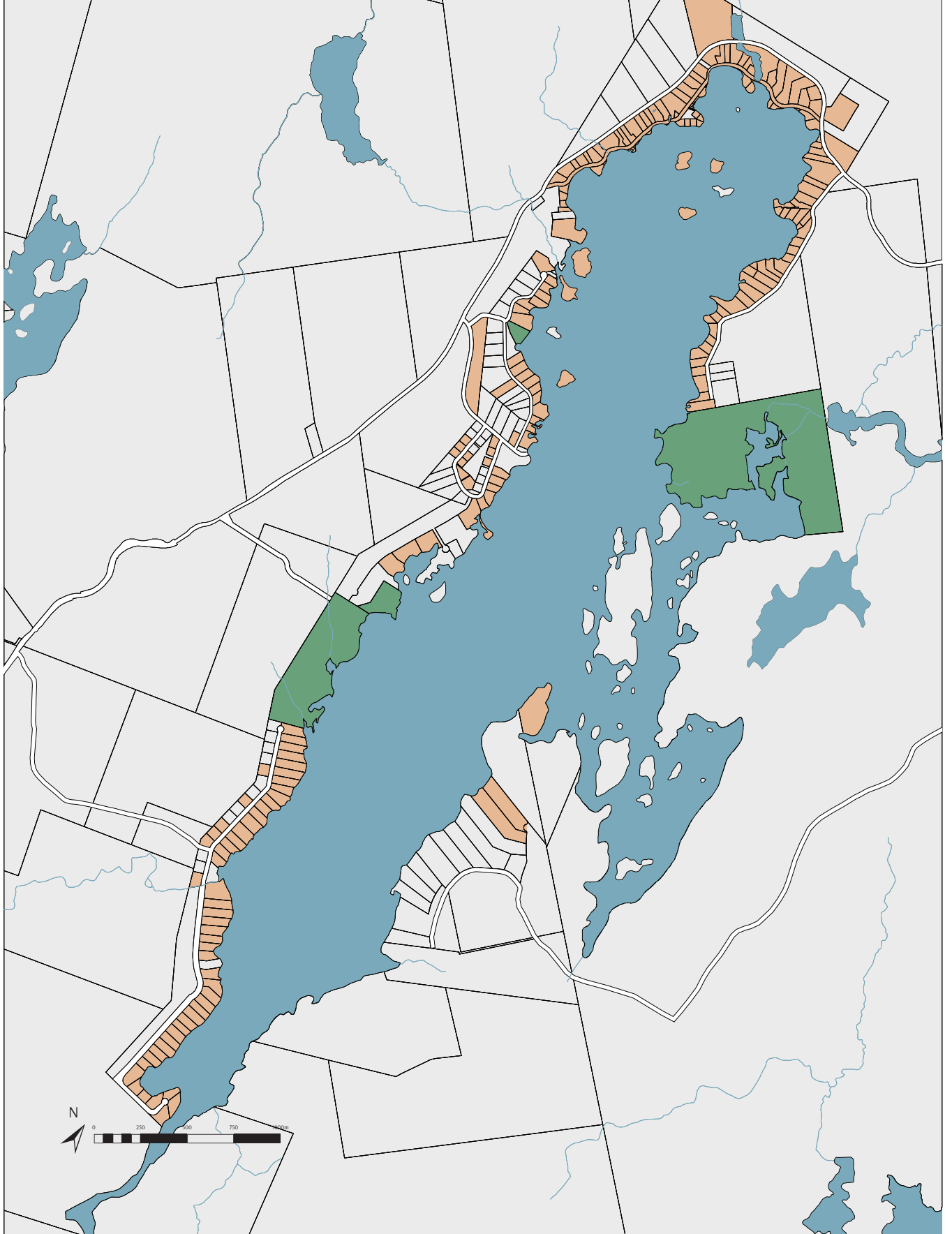


GASPEREAU RIVER WATERSHED

Fig. 4.6.6 - Gaspereau River Watershed

The Gaspereau River Watershed covers over 520 square kilometers⁶, mostly in Kings County with small portions in Lunenburg and Hants County.

This watershed includes numerous lakes, including Aylesford Lake, Lake George, Gaspereau Lake, and Black River Lake, and many smaller streams, all feeding Gaspereau River. Originating on the South Mountain, the river drains into the Minas Basin just east of Grand-Pré after flowing down the mountain and passing through an agricultural area which includes four of the region's wineries.



LAND USE

- Residential
- Recreation

Use of Aylesford Lake is residential with the exception of the Aylesford Lake Public Beach, Aylesford Lake Yacht Club, and Camp Brigadoon. However, much of the lakeshore is not currently in use, offering ample room for expansion of use.

DESIGN STRATEGIES

1. *Increase recreation opportunities in both quantity and variety, with a focus on landscape interpretation. (Potentials - Dormant Amenities)*

While the existing recreational areas provide a variety of different experiences, there is room for expansion of recreation at Aylesford Lake. The existing Aylesford Lake Public Beach could expand its experiences to better acknowledge the wetlands and forests on its site. Particular focus should be given to explaining the features of the landscape at both the micro scale of vegetation, fauna, and site variations, as well as the macro scale of the larger regional landscape of the Southwest Nova Scotia Uplands⁷.

2. *Preserve wetlands and establish riparian buffers. (No-Go)*

Protecting the wetlands and riparian areas upstream of Aylesford Lake will help to improve water quality within the lake. In recent years, the lake has been one of eleven lakes monitored as part of the Kings County Lake Monitoring Program. In 2011, Aylesford Lake was one of the top two lakes exceeding the recommended guideline, falling outside of the acceptable range in four of eight qualities. It was also rated as having “marginal” water quality.⁸

It is also important to consider the downstream effects after the water leaves the lake, as Aylesford Lake is part of the greater Gaspereau River watershed.

3. *Prioritize continuous forested edge along the lakeshore. (No-Go)*

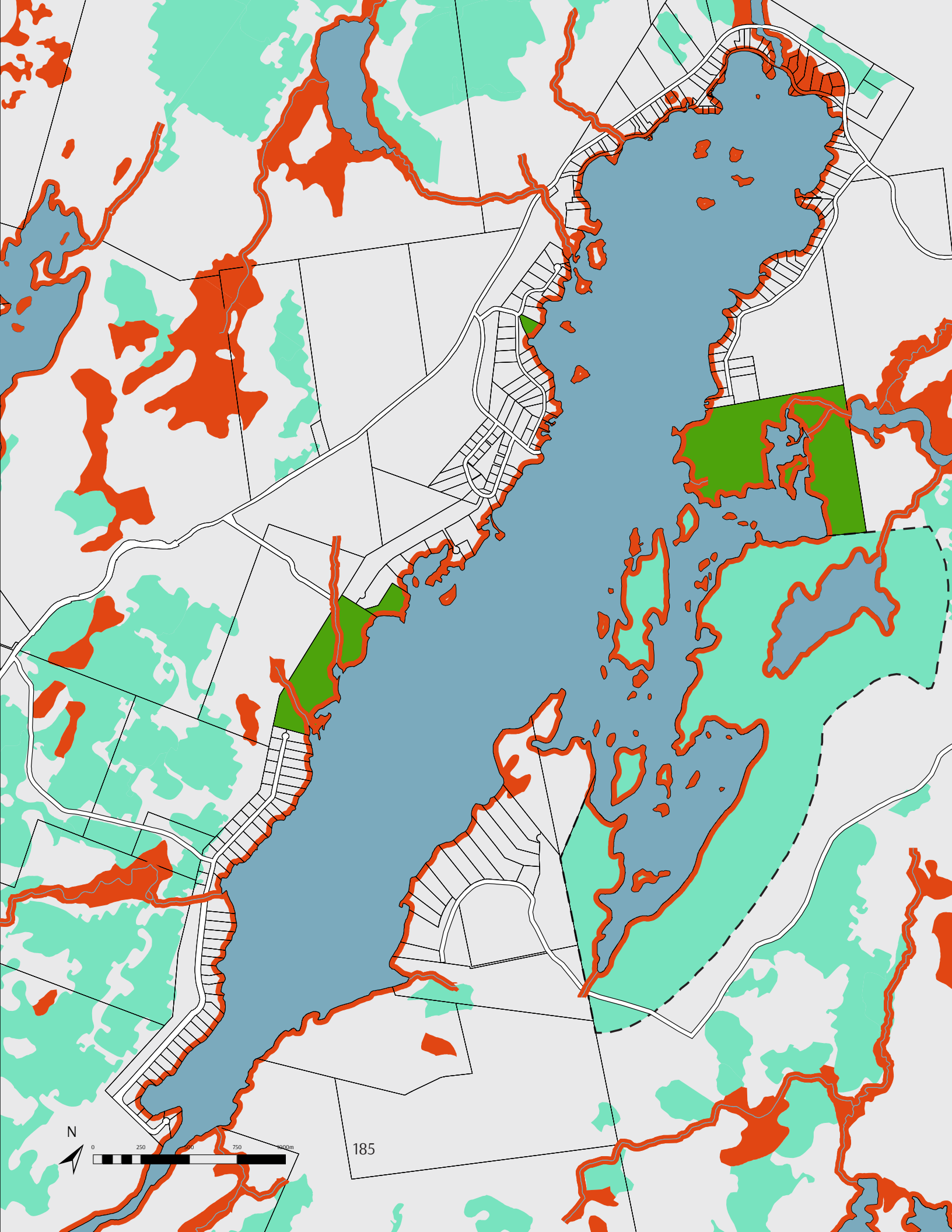
For most, the attraction of a woodland lake is the landscape quality of the combination of woods and water. To preserve this, the lake edge must be maintained in a forested condition. A balance must be struck between removing trees to allow views out from the shore and retaining enough to screen the view from across and on the lake. A vegetated edge would also help prevent erosion, though it is unclear if this is a concern at Aylesford Lake.

4. *Encourage damage improvements in areas which have been clear-cut. (Potentials - Damage Improvements)*

Clear-cut forestry has an obvious detrimental effect on the landscape

Fig. 4.6.8 - Design Strategies



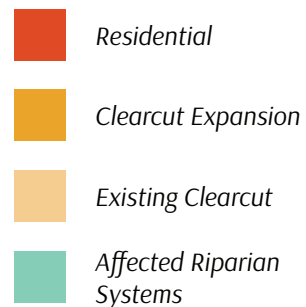


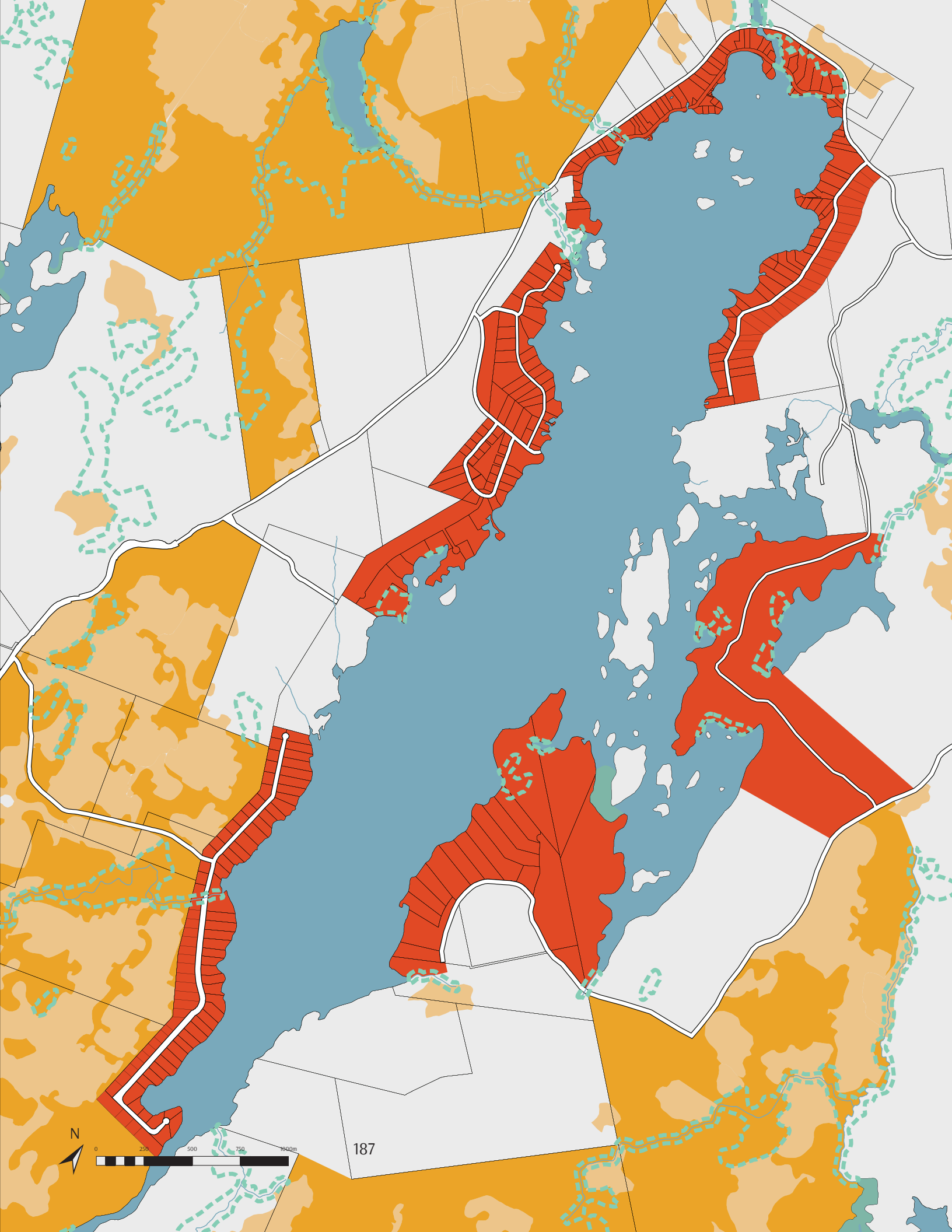
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both visually and environmentally. These areas are visually displeasing as the forestry companies are usually more preoccupied with profit margins than leaving a tidy site behind them once trees have been removed. Environmentally, the areas become susceptible to erosion, wildlife lose valuable habitat, and it can contribute to habitat fragmentation which disrupts species movement through the greater landscape.

The clear-cutting in the area surrounding Aylesford Lake does not directly impact the lake edge. However, it does come in close proximity in several areas such as the southwestern edge of the lake and the most northern part. Instead of seeing these damaged areas as a disadvantage, they should be rehabilitated. This could include a variety of strategies used separately or together. Areas could be replanted to initiate forest regrowth. The already cleared areas could be used for new residential development, rehabilitating the damage and preventing the destruction of additional forest.

Fig. 4.6.9 - Typical Development





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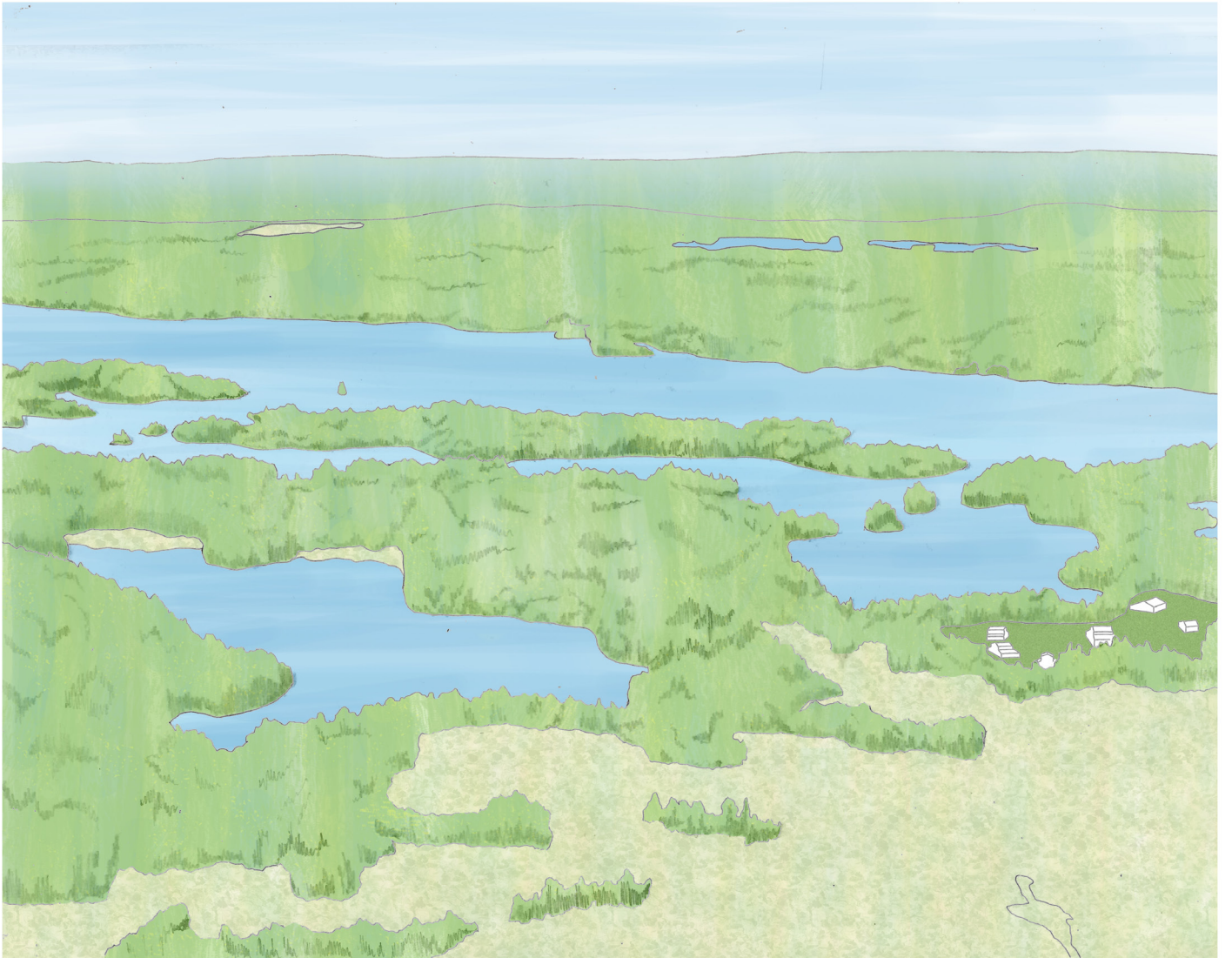


Fig. 4.6.10 - Existing Conditions

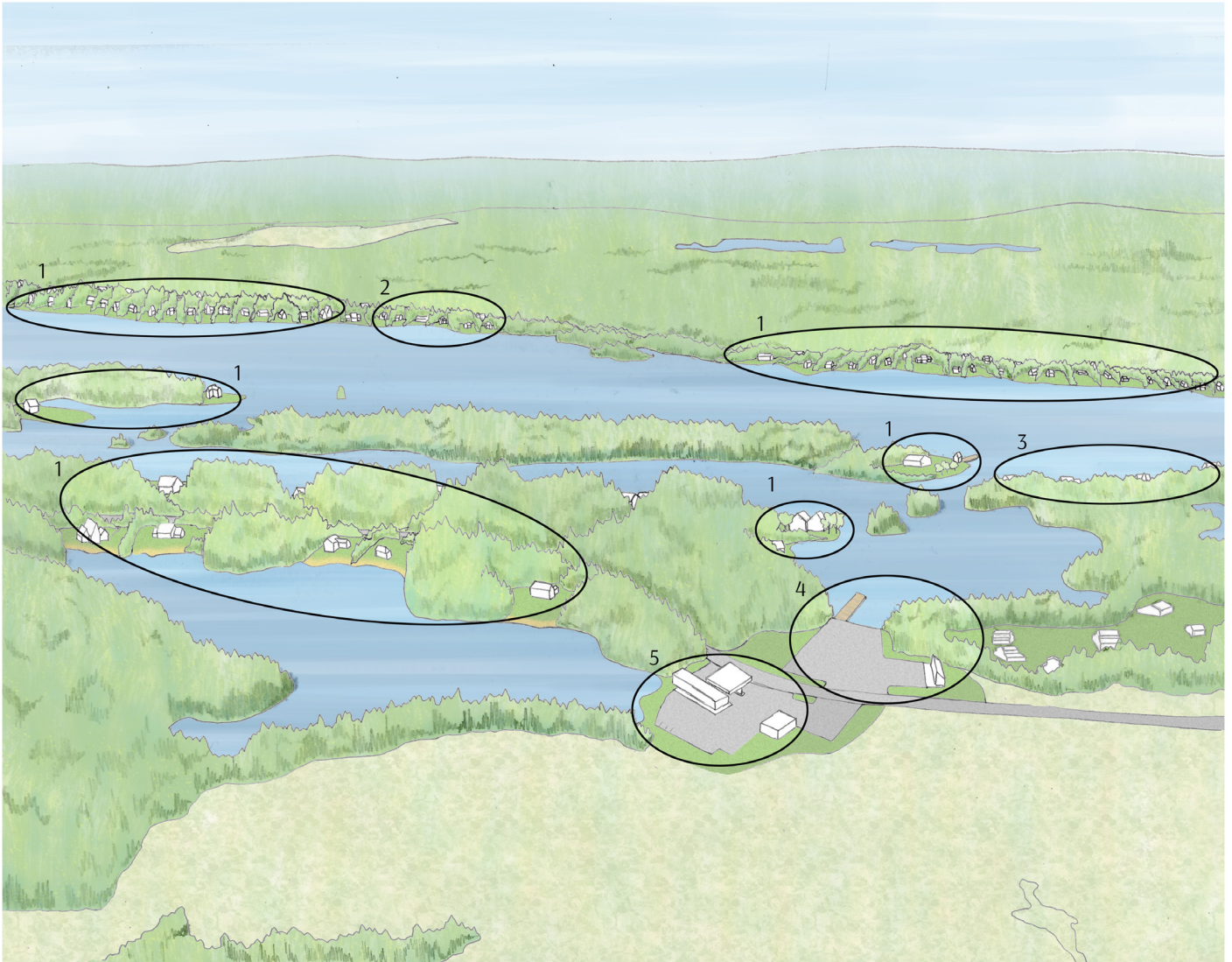


Fig. 4.6.11 - Typical Development Conditions

Aylesford Lake has become a popular destination for both permanent and summer homes, given it's woodland setting in close proximity to the more populated Valley. More and more homes have been built on the lake shore. Many residents have cleared the greater portion of their lot to better see the lake and most homes are now visible when boating on the lake (1).

Both Camp Brigadoon and Kings County have sold portions of their properties to fund other projects. The County has sold some of the land adjacent to the Aylesford Lake Beach to be converted into residential use (2). Camp Brigadoon has sold lakefront lots to individuals (3) as well as a larger portion to the owners of a boating supply store, who have constructed a public dock and boat launch (4).

To support the increased number of residents in the area, a gas station with an attached convenience store has been built near the boating store. Also in this commercial area is a small outlet of the Nova Scotia Liquor Corporation (5).



Long-term residents of the Aylesford Lake area were concerned that unrestrained development around the lake would both lessen their enjoyment of the area and damage the water quality of the lake. Working with planners and environmentalists, they compiled the Aylesford Lake Area Plan. This document outlined measures for protecting the riparian systems surrounding the lake, as well as strategies governing site clearing and positioning of buildings in relation to the lake edge. This allowed for increased residential use around the lake without great impacts on the quality of experience (1).

The Fancy Cove Nature Preserve was established along the eastern edge of Aylesford Lake (2). This area provides additional recreation with hiking trails and a more natural beach area than the Aylesford Lake Beach. A small interpretive centre (3) provides information on the flora and fauna present and the reforestation efforts (4) taking place within the nature preserve's boundaries.

Fig. 4.6.12 - Proposed Strategy Conditions

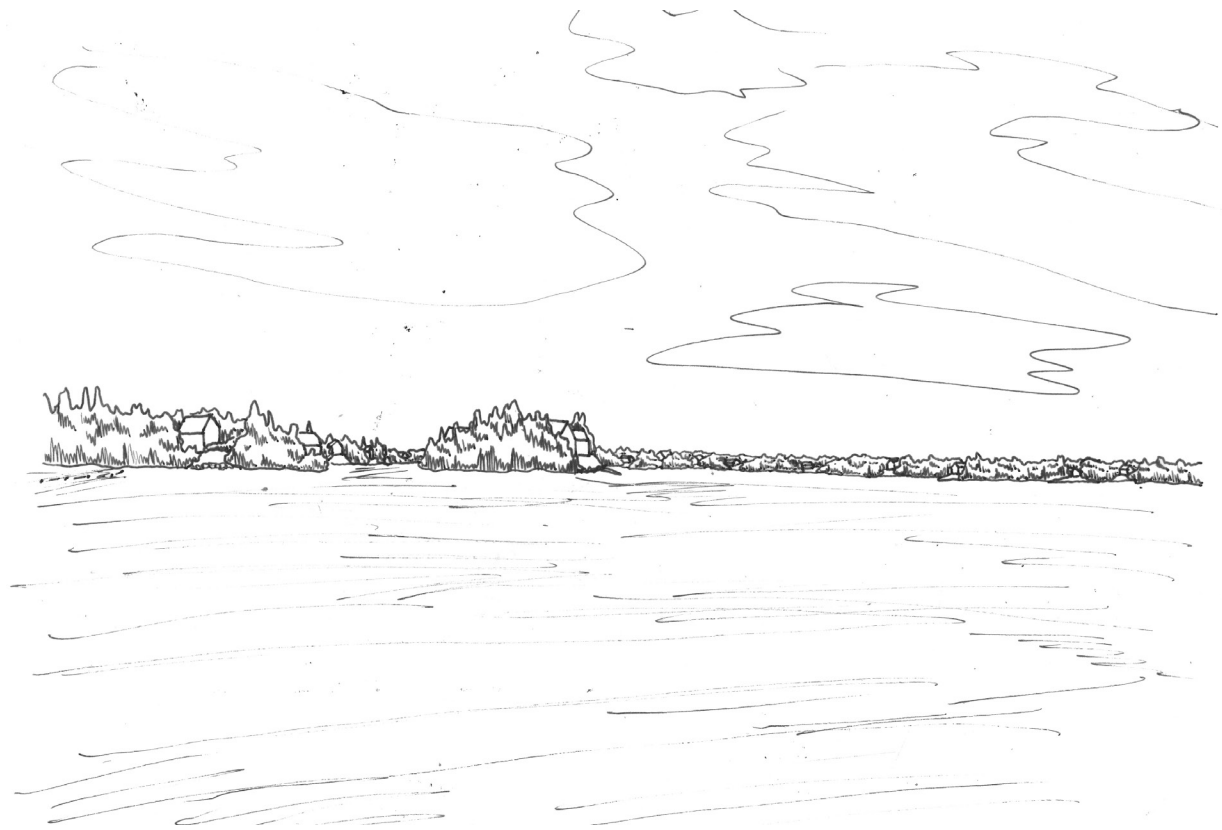


Fig. 4.6.13 - Typical Development Sketch

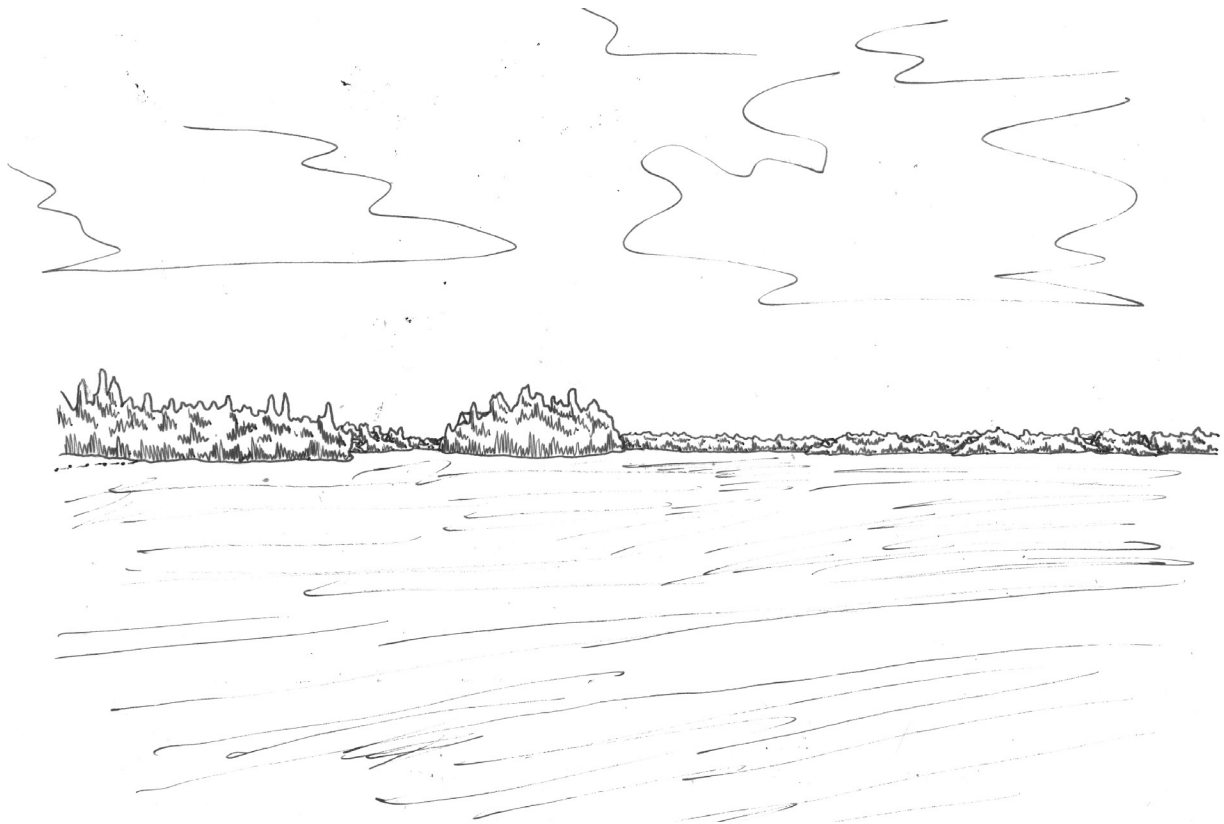


Fig. 4.6.14 - Proposed Strategy Sketch





5.1 CONCLUSION

The Annapolis Valley stands at the tipping point. On one hand, if the region continues in its current ways of lax planning and site ignorance, the status quo will be maintained until the Annapolis Valley succumbs to the slow crisis of stagnation. On the other hand lies change and risk, but an opportunity to forge a new path and a new focus for the Valley region to attract new residents and visitors.

To do this, the Annapolis Valley must attract a new type of person. It is especially important to try to entice young people away from urban areas, including those who have left the Valley for their education. There is a certain authenticity which is attractive to those people who can afford to buy organic or gourmet food instead of conventional grocery store fare or who choose to stay in a local bed-and-breakfast rather than a chain hotel. These people are often young urban professionals: the patrons of craft breweries, artisanal bakeries, and locally-sourcing restaurants. Blake Lively, the 26-year-old actress and founder of the Web site *Preserve*, explains her generation's fascination with the authentic in this way:

My theory is that people used to love that they could go anywhere in the world and find the same cup of coffee. They could be in the most rural place and - surprise! - there's a Starbucks. But something's shifted. People want to get back to the magic of smaller, special, and handmade. We grew up getting every bit of information we needed instantly. So we want to know the backstory; we want to know *why* something is the way it is. And if there's no answer other than because it's big, because it makes money, because it's corporate - we don't connect with that. People want things with meaning.¹

This desire to experience the authentic applies not only to products but also to places. Thus, the genius locus, the spirit of the place, can allow the Annapolis Valley to position itself to attract this type of person who desires a deeper connection with the place they inhabit. The genius locus can be the most effective tool for bringing these new people to the Annapolis Valley Region. The Annapolis Valley will never be able to offer the same range of amenities and cultural institutions as Toronto or New York City. Those things are authentic to major urban centres not rural areas. If the Annapolis Valley Region is truly authentic to itself, it does not need these attractors to bring new people to the region.

Taking into consideration McHarg's comprehensive view of genius locus as an evolving understanding of a dynamic site, this call to authenticity is not demanding a strict return to the traditions of years gone by. While these





traditions can be important, the authentic genius locus can also take into account new ways of producing from the land, like the wine industry, and new ways of experiencing the land, like bicycle tourism or ecotourism, to name several growing or potential activities in the Annapolis Valley.

If the unique aspects of the Annapolis Valley will attract people then the proliferation of the generic will repulse them. For this reason, the expansion of big box retail must be contained. It will likely never be eradicated as these stores have become essential to how people purchase goods today. Yet it cannot be allowed to continue spreading across the Annapolis Valley, crushing local businesses in its wake. The recent increases of retail space in the region have not been as a result of a greater purchasing power of Valley residents; many square metres of older retail space sit empty, such as the vacant anchor store (formerly a Zellers) in the County Fair Mall.² Suburban style residential must also be controlled. Rows of near-identical homes on cleared lots with scattered trees are becoming more and more common, as are the seniors' duplexes mentioned earlier in the thesis. Instead of these options, new housing should take its cues from the existing fabric of the communities in the region and aim to have as little detrimental impact on the environment as possible.

By rejecting these urban advances, the rural can forge a more meaningful relationship with the urban. The rural Annapolis Valley's value to the urban is that it is different and separate. As a facsimile of the urban/suburban condition, the region is of little use to urbanites. However if the region can distinguish itself from the urban, the Annapolis Valley in particular is well suited to take advantage of the urban connection. Although it is rural, the Annapolis Valley is not remote. Even the furthest points from Halifax, like Victoria Beach and Kejimikujik National Park, are still less than a 3 hour drive to both downtown Halifax and the Halifax Stanfield International Airport.³ A direct flight from Toronto to Halifax is only 2 hours from gate to gate.⁴ Highways as well as the ferries in Yarmouth and Digby allow travelers by car to reach the Annapolis Valley from a variety of destinations. This ease of access is an important asset for the Annapolis Valley Region.

While access is important, it is more essential that the Annapolis Valley cultivates its genius locus to guide development. It will be attractive to urban residents as a vacation destination, a summer retreat, or a full-time residence because the landscape will reflect this effort. The Annapolis Valley is close to being a great region in any estimation; it simply needs to highlight its authenticity and the value of its simple slow-paced yet modernly connected style of living to those who come from away.

A great region attracts business minds with its economic resources and promise of success and wealth. It attracts scientists with a nature to be studied, laboratories to implement their investigations, and other scientists to stimulate their minds. It attracts agriculturalists with its soil, its climate, with what grows there, with what can be established there. It attracts writers with wonders to describe, events to record, great libraries to assist them, other minds to excite them. It attracts painters with a nature that arouses them, fellow artists they respect and emulate, museums to inform them, galleries to exhibit their work and a public that buys it. It attracts musicians with great orchestras, discriminating and appreciative audiences, places to perform, and fees to live on. It attracts architects with building activity, wealth to be implemented, clients who want the best and who lay on the architect the heaviest and most intelligent demands for the best.

A great region may or may not have exceptional natural resources, a benign climate, or great natural beauty. Natural riches are important; they are especially important in the beginning; but they are far from everything. Most important are the people – people who are fascinated by what they find there and determined to employ all the ideas, materials, and techniques their time affords – or they can invent – to realize whatever possibilities exist there.

A great region is a place where people are interested in physical and social betterment – where people's minds are free from niggardliness in thinking and smallness in planning – where people are determined to have the best and not to settle for the merely bearable or even the second rate.

-From "Regionalism" by Harwell Hamilton Harris⁵

The Annapolis Valley does not yet meet all of Harris' requirements for a 'great region'. But given the raw resources of the area, it is not too optimistic to think that this is possible someday soon. This region has potential in nearly every category Harris names:

Many small businesses operate successfully in the Annapolis Valley. There are also a growing number of people who have creative business ideas and use the internet to contact a greater consumer base.

Acadia University as well as the Nova Scotia Community College and the College of Geographic Sciences provide academic and research opportunities.

Farmers and vintners throughout the Valley, as well as scientists at the Atlantic Food and Horticulture Research Centre in Kentville, are innovating with new plant species and techniques, making use of the climate and soil quality of the region to grow and process high-quality products.

Many local writers, artists, and musicians have drawn inspiration from their surroundings in the Annapolis Valley, bringing the stories, images and sounds of the Valley to a wider audience.

Galleries, theatres, libraries, and bookstores provide venues for creators to share their work with the public.

Several architects already practice in the Valley, working mostly on small-scale commercial and private residential projects.

Citizen involvement is high and community volunteerism is prevalent. Residents are eager to be involved in the improvement of the region, as seen through initiatives such as the Georgetown Conference.

Harris stresses that people who "are determined to have the best and not to settle for the merely bearable,"⁶ are the most important aspect of a great region. The people of the Annapolis Valley are not the type to settle and will hopefully take advantage of the nascent prospects outlined above. The proposed alternative to the status quo is to amplify and reveal these components: the natural resources as well as the human contributions that are built up on them. All together, these are the genius locus. The spirit of the Annapolis Valley is an amalgamation of diverse aspects coming together to comprise a unique regional identity. However, to use this identity as a generator of change, action must be taken by the people who have chosen to live in the Annapolis Valley.

The database in this thesis, which catalogues the genius locus so it can be known and understood, is the first step towards this change. It is an examination of the Annapolis Valley's genius locus, made up of both the image bank and the cartographic analysis. It identifies the unique combination of





elements that make up the Annapolis Valley's regional character. The genius locus database allows for the development of strategies which combat environmental uniformity and increase and preserve the authenticity of the Annapolis Valley Region. Preservation and enhancement of place specificity will then in turn reduce, and ideally reverse, the depopulation of the Annapolis Valley.

For the database to be an effective tool for regional change, a management system is necessary to support and guide it. Currently, planning responsibilities in the Annapolis Valley Region are divided according to municipal jurisdictions. There is no single organization or partnership which could be given responsibility for the database. Overall regional change would only be possible with a cross-jurisdictional approach. Also, if the database is administered by a single group, it is more likely that it will be updated and expanded to further the knowledge it contains.

Virtual governance methods, as described in the work of James Kay, can provide the necessary structure for regional scale changes.⁷ Virtual governance will promote new partnerships between the planning jurisdictions as well as other regional entities to build regional support for the development of strategies drawing from the information in the database. The cooperative management structure created with virtual governance will enforce the idea of regional solutions to regional problems, and will enable the region to come together around a shared genius locus.

The knowledge of the genius locus that this thesis offers through the aspects of the database will allow for a balance between the Valley's history, its existing practices, and its future. The connection between past and future was addressed by Octavio Paz, Nobel Laureate in Literature 1990, in his Nobel Lecture "In Search of the Present":

I am not sure whether this unexpected historical lesson has been learnt by all: between tradition and modernity there is a bridge. When they are mutually isolated, tradition stagnates and modernity vaporizes; when in conjunction, modernity breathes life into tradition, while the latter replies with depth and gravity.⁸

While Paz was speaking in general terms, the relationship he described can provide insight to landscape and planning situations like the Annapolis Valley. When traditions run deep, there is a risk that they will be seen as holding the region back, but modernization on too large a scale will eliminate the sense of place. Instead, the region must embrace both preservation and progress to accomplish large but appropriate changes. The genius locus of the Annapolis Valley provides the guidelines within which these changes will occur.

Several steps remain before the Valley's guided transformation can begin. The maps presented in this thesis, while in vector format, are not





formatted for use in a GIS. The conversion process is an uncomplicated but time-consuming process. GIS conversion is necessary for future continuous use and expansion of the mapping database. GIS will allow the information about the Annapolis Valley Region to be easily cross-referenced and shared. Different organizations working together in a virtual governance structure can share data in a common format, without the need for conversion. The database will continue to grow and develop as information is passed between stakeholders and organizations, revealing new relationships between data topics.

Similarly, the image bank must also be viewed as a dynamic resource. Most of the photographs in this document were taken by the author during a research trip in the summer of 2013 as well as additional photos taken July 2014. Due to limitations of time and manpower, this is an incomplete documentation of the Annapolis Valley. Adding to this portion of the database could happen in a number of ways. Photographers posting images of the Annapolis Valley on websites such as Flickr⁹ could be contacted to add their existing and future photographs to the image bank. Digitization of archival photographs from private and museum collections would add a historic component. New photos could be generated through calls for photo submission, photo contests, or photographer-in-residence programs. As projects based on the database are implemented, they would be photo-documented and added to the database. Over time, the image bank would expand and become a record of change within the Annapolis Valley.

Once the residents of the region recognize both that the current generic development is damaging the genius locus of the Annapolis Valley and that the genius locus can be a tool in making a new future for the Valley, they can begin to engage and invest in the opportunities provided by the unique qualities of place that are present in their landscape. As this takes place, the database will chronicle the growing excellence of the Annapolis Valley Region and will provide a greater wealth of information with each project that draws from it. The database will be a record of the past, present, and potential futures of the Annapolis Valley, an all-encompassing Encyclopedia Annapolisa as it were. With this resource at hand, the residents of the Valley Region can change the course of the Annapolis Valley away from generic development to a new set of strategies centered on the genius locus.

Too often, the gut reaction to the problems of rural regions like the Annapolis Valley is to focus on what is lacking: there are not enough jobs, there are not enough people, or there is not enough money. This attitude often results in proposals that are well-intentioned but are in essence knee-jerk responses. These strategies address the symptoms but do not take the time to fully understand what causes these issues. Accordingly, they lack a true connection to the Annapolis Valley and its unique circumstances, and generally fail to have any lasting effect.

While this thesis does not dispute that jobs, population, and economics

are among the serious problems which rural regions face, it chooses to focus primarily on what already exists in the Annapolis Valley. The history, culture, industry, and landscape of the Annapolis Valley can all be taken advantage of to a greater extent and used to better address that which ails the region. The Annapolis Valley Region can enact the necessary changes that will attract a new group of people by bringing these qualities to the forefront. Drawing in new residents with the authentic genius locus of the region, the Annapolis Valley can find a new way forward. Enabled by the database which uncovers the aspects of the region and the strategies which are derived from this knowledge, this new outlook will allow the Annapolis Valley Region to stay relevant and connected to the world at large while holding onto its own true character.





APPENDIX 1: ENDNOTES

FRONT MATTER

1 Ernest Buckler, *The Mountain and the Valley* (Toronto, ON: McClelland & Stewart Ltd., 2010), 132.

1.2 THE ANNAPOLIS VALLEY

1 Statistics Canada. 2012. *Kentville, Nova Scotia (Code 1207012)* (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed January 30, 2014).

2 Statistics Canada. 2012. *Annapolis, Nova Scotia (Code 1205) and Kings, Nova Scotia (Code 1207)* (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed January 30, 2014)

3 Ibid.

4 Laura Fraser, "Theirs was once a boom town. Now it's anything but," *Chronicle Herald* (Halifax, NS), Oct. 16, 2011.

5 Kate Beaton, "Let's Move Towards a Revitalization of Rural Canada, Starting With This Special Place," *The Huffington Post Canada*, May 5, 2014, http://www.huffingtonpost.ca/kate-beaton/nova-scotia_b_5267748.html

6 Ibid.

7 Mike Hanlon, "World Population Becomes More Urban Than Rural," *Gizmag*, May 28, 2007, <http://www.gizmag.com/go/7334/>.

8 Kelly Toughill, "The Chosen Land," in *Nova Scotia: Visions of the Future*, ed. Lesley Choyce (East Lawrencetown, NS: Pottersfield, 2009), 232.

9 *Unknown road to Halifax Stanfield International Airport* [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". < <https://goo.gl/maps/JOGw1> > January 30, 2014.

10 Lewis Mumford, "Regional Planning," (presentation, Address to Round Table on Regionalism, University of Virginia, Charlottesville, VA, July 8, 1931), quoted in *Architectural Regionalism*, ed. Vincent B. Canizaro (New York, NY: Princeton Architectural Press, 2007), 242.

11 Statistics Canada. 2012. *Annapolis, Nova Scotia (Code 1205) and Kings, Nova Scotia (Code 1207)* (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed January 30, 2014)

12 Michael Mainelli and Ian Harris, *The Price of Fish* (London: Nicholas Brealey Publishing, 2011), 99-102.

- 13 Statistics Canada. 2012. *Annapolis, Nova Scotia (Code 1205) and Kings, Nova Scotia (Code 1207)* (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed January 30, 2014)
- 14 “Planning Services,” *Municipalities of Annapolis Royal, Bridgetown and Middleton*, accessed February 21, 2013, <http://www.avliu.ca/adpcweb/home.htm>.
- 15 Mike Hanlon, “World Population Becomes More Urban Than Rural,” *Gizmag*, May 28, 2007, <http://www.gizmag.com/go/7334/>.
- 16 Errol Sharpe, “Nova Scotia - A Future,” in *Nova Scotia: Visions of the Future*, ed. Lesley Choyce (East Lawrencetown, NS: Pottersfield, 2009), 191.
- 17 “Find a Market,” *Farmers’ Markets of Nova Scotia*, accessed August 23, 2014, <http://farmersmarketsnovascotia.ca/find-a-market/>.
- 18 Aimee Carson, “Securing your Summer/Fall local eats: CSA List 2014!,” *Adventures in Local Food*, March 4, 2014, <http://adventuresinlocalfood.wordpress.com/2014/03/04/securing-your-summerfall-local-eats-csa-list-2014/>.
- 19 Alisa Smith and J.B. MacKinnon, *The 100-Mile Diet: A Year of Local Eating* (Toronto: Random House Canada, 2007).
- 20 “Etsy - Your place to buy and sell all things handmade, vintage and supplies,” *Etsy*, accessed August 23, 2014, www.etsy.com.
- 21 Joe O’Connor, “Nova Scotia’s future looks grim as its economy stagnates, but for optimistic residents it remains the ‘time of our lives,’” *National Post* (Toronto, ON), April 4, 2014.
- 22 Horace Hurlburt, “Bridgetown Mayor responds to National Post article,” *The Annapolis County Spectator* (Middleton, NS), April 27, 2014.
- 23 Don Mills, “Don Mills on ‘Town-sizing,’” YouTube video, 1:0, posted by “OurNewEconomyNS,” February 6, 2013, <http://www.youtube.com/watch?v=gnsVXmk8EU>.
- 24 Zita Cobb, “Opening Keynote Rural Community Commitment and Success,” *The Georgetown Conference*, Ustream video, 1:24:31, posted by “GeorgetownConferenceLive,” October 3, 2013, <http://www.ustream.tv/recorded/39493363>.

1.3 METHODOLOGY AND STRUCTURE

- 1 Rural Communities Impacting Policy Project. *Painting the Landscape of Rural Nova Scotia*. (2003) 58.
- 2 Canada, Nova Scotia, Coastal Secretariat, *The 2009 State of Nova Scotia’s Coast Report: Public Coastal Access* (Halifax, NS: 2009), http://www.novascotia.ca/coast/documents/state-of-the-coast/WEB_PCA.pdf
- 3 Canada, Nova Scotia, Department of Economic and Rural Development and Tourism, *Nova Scotia 2014 Doers and Dreamers Travel Guide* (Halifax, NS: 2014), 153.
- 4 Karen Blotnick, e-mail message to author via Lauren Perry, October 31, 2013.
- 5 “Quote by Confucius: ‘To know that we know what we know, and that we...,’” *Goodreads*, accessed June 14, 2014, <http://www.goodreads.com/quotes/23540-to-know-that-we-know-what-we-know-and-that>.

ENDNOTES (cont.)

1.4 LITERATURE REVIEW

- 1 Christian Norberg-Schulz, *Genius Loci: towards a phenomenology of architecture*(New York: Rizzoli International Publications, Inc., 1980), 18.
- 2 Alexander Pope, *An epistle to the Right Honourable Richard Earl of Burlington ... The second edition*, (London, UK: G. Faulkner, 1732), page 5, lines 7-14.
- 3 Ian McHarg, *Design With Nature* (Garden City, NY: Doubleday & Company, Inc., 1971), 29.
- 4 Ian McHarg, *Design With Nature* (Garden City, NY: Doubleday & Company, Inc., 1971), 175.
- 5 Juhani Pallasmaa, "Tradition and Modernity: The Feasibility of Regional Architecture in Post-Modern Society," *The Architectural Review*, May 1988, 26-34, quoted in *Architectural Regionalism*, ed. Vincent B. Canizaro (New York, NY: Princeton Architectural Press, 2007), 130.
- 6 Alan Colquhoun, "The Concept of Regionalism," in *Postcolonial Space(s)*, eds. Gulsum Baydar Nalbantoglu and Wong Chong Thai (New York, NY: Princeton Architectural Press, 1997), 13-23, quoted in *Architectural Regionalism*, ed. Vincent B. Canizaro (New York, NY: Princeton Architectural Press, 2007), 150.
- 7 Harwell Hamilton Harris, "Regionalism," *North Carolina Architect*, January-February 1978, 10-11, quoted in *Architectural Regionalism*, ed. Vincent B. Canizaro (New York, NY: Princeton Architectural Press, 2007), 67.
- 8 Wallace-McHarg Associates, *Plan for the Valleys* (Philadelphia, PA: 1963), 2.
- 9 Donald Canty, "Origins, Evolutions, and Ironies," in *The Sea Ranch*, ed. Donlyn Lyndon and Jim Alinder (New York: Princeton Architectural Press, 2004), 32.
- 10 Center for Rural Massachusetts, *Dealing with Change in the Connecticut River Valley: A Design Manual for Conservation and Development* (Amherst, MA: 1990), 6.
- 11 Center for Rural Massachusetts, *Dealing with Change in the Connecticut River Valley: A Design Manual for Conservation and Development* (Amherst, MA: 1990), 8.

2.1 PREFACE

- 1 Dewey Thorbeck, *Rural Design: A New Design Discipline*. (New York, NY: Routledge, 2012), 85.

2.3 CARTOGRAPHIC ANALYSIS

- 1 "GM-WICS Political Map," *Gulf of Maine Watershed Information and Characterization System*, accessed June 14, 2014, <http://www.gm-wics.sr.unh.edu/html/polmaps.html>.
- 2 "NECWA - Marine Wildlife of the Gulf of Maine," *New England Coastal Wildlife Alliance*, accessed June 14, 2014, <http://www.necwa.org/gulf-animals.html>.
- 3 Canada, Nova Scotia, Department of Environment, *1:10000 Secondary and Shore Direct Watersheds of Nova Scotia* (Halifax, NS: 2011) <http://www.novascotia.ca/nse/water>.

strategy/docs/WaterStrategy_NSWatershedMap.Secondary.pdf.

4 Canada, Nova Scotia, Department of Environment, *1:10000 Primary Watersheds of Nova Scotia* (Halifax, NS: 2011) https://www.novascotia.ca/nse/water.strategy/docs/WaterStrategy_NSWatershedMap.pdf

5 Ibid.

6 Albert E. Roland, *Geological Background and Physiography of Nova Scotia* (Halifax, NS: Ford Publishing Co., 1982), 108.

7 Albert E. Roland, *Geological Background and Physiography of Nova Scotia* (Halifax, NS: Ford Publishing Co., 1982), 112.

8 “The Bay of Fundy,” *Fundy FORCE*, accessed April 2, 2014, <http://fundyforce.ca/renewable-and-predictable/the-bay-of-fundy/>.

9 “Annapolis Tidal Station,” *Nova Scotia Power*, accessed March 31, 2014, <https://www.nspower.ca/en/home/about-us/how-we-make-electricity/renewable-electricity/annapolis-tidal-station.aspx>.

10 “Technology,” *Fundy FORCE*, accessed April 2, 2014, <http://fundyforce.ca/technology/>.

11 “Fundy Coast,” *Ecoregions of Canada*, accessed April 16, 2014, <http://ecozones.ca/english/region/123.html>.

12 “Southwest Nova Scotia Uplands,” *Ecoregions of Canada*, accessed April 16, 2014, <http://ecozones.ca/english/region/124.html>.

13 “Annapolis-Minas Lowlands,” *Ecoregions of Canada*, accessed April 16, 2014, <http://ecozones.ca/english/region/126.html>.

14 “Coastal Clusters,” *Coastal Communities Network - Between the Land and the Sea*, accessed February 21, 2014, http://www.database.coastalcommunities.ns.ca/coastal_clusters.asp.

15 “Coastal Currents - Maps and Downloads,” *Coastal Communities Network - Between the Land and the Sea*, accessed February 21, 2014, <http://www.database.coastalcommunities.ns.ca/maps.asp>.

16 “Registry of Buyers Annual Report,” *Nova Scotia Department of Natural Resources*, accessed February 22, 2014, http://novascotia.ca/natr/forestry/registry/ann_report.asp.

17 Canada, Nova Scotia, Department of Natural Resources, *Registry of Buyers of Primary Forest Products* (Halifax, NS: 2012) <http://novascotia.ca/natr/forestry/registry/annual/2013/2012AnnualReport.pdf>.

18 Nigel G. Turner, *Valuation Report – Bowater Woodland Parcels Nova Scotia* (Halifax, NS: 2012) <http://novascotia.ca/natr/land/bowater2012/pdf/Turner%20Drake%20report.pdf>.

19 Canada, Nova Scotia, Department of Natural Resources, *Crown Land Management: A Conceptual Plan for Western Nova Scotia* (Halifax, NS: 2014) <http://novascotia.ca/natr/land/western-land/pdf/western-crown-lands-update-March19.pdf>.

20 Canada, Nova Scotia, Department of Agriculture - Research and Statistics, *County Profiles* (Halifax, NS: 2011) <http://novascotia.ca/agri/programs-and-services/research-and-statistics/county-profiles/>.

ENDNOTES (cont.)

- 21 Ibid.
- 22 “History of Annapolis Royal,” *Annapolis Heritage Society*, accessed June 14, 2014, <http://www.annapolisheritagesociety.com/history-ar.html>.
- 23 Canada, Nova Scotia, Department of Agriculture - Research and Statistics, *County Profiles* (Halifax, NS: 2011) <http://novascotia.ca/agri/programs-and-services/research-and-statistics/county-profiles/>.
- 24 “History of the NSFGA,” *Nova Scotia Fruit Growers' Association*, accessed June 14, 2014, http://www.nsapples.com/history_of_nsfga.html.
- 25 Canada, Agriculture and Agri-Food Canada, *Kentville's Century of Science*, (Ottawa: 2011) http://www5.agr.gc.ca/resources/prod/doc/re/centres/Kentville/kentville100_eng.pdf.
- 26 Gordon Delaney, “N.S. growers say no to GMO apples,” *Chronicle Herald* (Halifax, NS), March 8, 2014.
- 27 “Apple Processors of Nova Scotia Apples,” *Nova Scotia Apples*, accessed March 16, 2014, <http://www.nsapples.com/processr.htm>.
- 28 “Nova Scotia Wineries,” *Winery Association of Nova Scotia*, accessed April 5, 2014, <http://winesofnovascotia.ca/wineries/>.
- 29 Frank, Rimerman + Co. LLP, *The Economic Impact of the Wine and Grape Industry in Canada 2011*, (St. Helena, CA: 2013) <http://winesofnovascotia.ca/wp-content/uploads/2013/04/CVA-WANS-Economic-Impact-Study.pdf>.
- 30 “Our Specialties,” *Winery Association of Nova Scotia*, accessed April 5, 2014, <http://winesofnovascotia.ca/about/types-of-wine-and-sparkling-wines/>.
- 31 “Getting Back to Business at the 2013 Tourism Summit,” *Tourism Industry Association of Nova Scotia*, accessed April 28, 2014, <http://www.tians.org/news-and-media/129-getting-back-to-business-at-the-2013-tourism-summit>.
- 32 Canada, Nova Scotia, Department of Economic and Rural Development and Tourism, *Nova Scotia Visitor Origin - January - December 2013*, (Halifax, NS: 2014) https://novascotiaturismagency.ca/sites/default/files/page_documents/english_visits_jan_dec.pdf.
- 33 “Planning Your Visit - Atlantic Canada,” *Parks Canada*, accessed April 23, 2013, <http://www.pc.gc.ca/eng/voyage-travel/index/Atlantic/t1.aspx>.
- 34 “Fundy Shore & Annapolis Valley Region Parks,” *Nova Scotia Provincial Parks*, accessed May 2, 2014, <http://parks.gov.ns.ca/misc/fundyshore.asp>.
- 35 Canada, Nova Scotia, Department of Environment and Labour, *Nova Scotia's Protected Areas Program*, (Halifax, NS: 2009) http://www.novascotia.ca/nse/protectedareas/docs/ProtAreas_map_color.pdf.
- 36 Grand Pré World Heritage Stewardship Board, *World Heritage Nomination Proposal for the Landscape of Grand Pré*, (Kentville, NS: 2011) <http://www.nominationgrandpre.ca/Dossier/UNESCO%20dossier%20english%20chapter%201.pdf>.
- 37 “Magic Winery Bus,” *The Wolfville Magic Winery Bus*, accessed June 3, 2014, <http://www.wolfvillemagicwinerybus.ca/>.
- 38 “Canada's parks and historic sites now on Google Street View,” *CBC News*, last modified November 20, 2013, <http://www.cbc.ca/news/technology/canada-s-parks-and->

historic-sites-now-on-google-street-view-1.2433431.

39 “Annapolis Valley Schools,” *Annapolis Valley Regional School Board*, accessed January 22, 2014, http://www.avrsb.ca/school_directory?tid=157.

40 “Annapolis Valley Campus,” *Nova Scotia Community College*, accessed January 27, 2014, <http://www.nsc.ca/explorensc/campuses/annapolis/>.

41 “Acadia University,” *Acadia University*, accessed January 27, 2014, <http://www2.acadiau.ca/index.php>.

42 Statistics Canada. 2012. *Annapolis, Nova Scotia (Code 1205) and Kings, Nova Scotia (Code 1207)* (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed January 30, 2014)

43 Ibid.

44 Statistics Canada. 2012. *Wolfville, Nova Scotia (Code 1207024) and Annapolis, Subd. A, Nova Scotia (Code 1205004)* (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed January 30, 2014)

45 Statistics Canada. 2012. *Annapolis, Nova Scotia (Code 1205) and Kings, Nova Scotia (Code 1207)* (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed January 30, 2014)

46 *Nova Scotia 101, Hantsport NS to Evangeline Trail, Digby NS* [map]. Scale undetermined; generated by Caitlin Perry; using “GoogleMaps”. < <https://goo.gl/maps/DMUV5> > June 14, 2014.

47 “Highway 101 Opens, Berwick - Aylesford - 1 January 1970 to 31 December 1979,” *History of Nova Scotia*, accessed June 14, 2014, <http://newscotland1398.ca/hist/nshistory22.html>.

48 Jean Daigle, “Acadian Marshland Settlement, 1671-1714,” in *Concise Historical Atlas of Canada*, eds. W.G. Dean, Geoffrey J. Matthews, and Byron Moldofsky (Toronto, ON: University of Toronto, 1998), Plate 47.

3.1 REGIONAL PLANNING DESIGNATIONS

1 Ian McHarg, *Design With Nature* (Garden City, NY: Doubleday & Company, Inc., 1971), 81.

2 Canada, Nova Scotia, Department of Agriculture - Research and Statistics, *County Profiles* (Halifax, NS: 2011) <http://novascotia.ca/agri/programs-and-services/research-and-statistics/county-profiles/>.

3 *5349-5765 Shore Rd W, Paradise to Greenwood Shopping Mall* [map]. Scale undetermined; generated by Caitlin Perry; using “GoogleMaps”. < <https://goo.gl/maps/MvcDc> > June 14, 2014.

4 “Historic Cyprus Walk,” *Bridgetown, Nova Scotia*, accessed October 23, 2012, <http://www.bridgetownnovascotia.com/about-bridgetown/cyprus-walk>.

5 “Parks and Trails,” *The Town of Kentville*, accessed June 14, 2014, <http://kentville>.

ENDNOTES (cont.)

ca/community/parks-rec/parks-trails/#kentville-trail.

4.1 HISTORIC CENTRE: ANNAPOLIS ROYAL

1 Statistics Canada. 2012. *Annapolis Royal, Nova Scotia (Code 1205008), Annapolis, Subd. A, Nova Scotia (Code 1205004), Granville Ferry, Nova Scotia (Code 120021) and Lequille, Nova Scotia (Code 120034)* (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed January 30, 2014)

2 "Attractions and Museums," *Town of Annapolis Royal*, accessed June 14, 2014, <http://annapolisroyal.com/what-to-see-do/attractions-and-museums/>.

3 "Home," *Annapolis Royal Farmers and Traders Market*, accessed June 14, 2014, <http://www.annapolisroyalfarmersmarket.com/>.

4 "Nova Scotia is Born," *Parks Canada – Fort Anne National Historic Site*, accessed June 15, 2014, <http://www.pc.gc.ca/eng/lhn-nhs/ns/fortanne/natcul/histor/histor2.aspx>

5 "The Wars to Take Acadia," *Wars and Battles pertaining to Acadia*, accessed June 15, 2014, <http://www.acadian-home.org/the-wars.html>.

6 "War and the Great Upheaval," *Parks Canada – Fort Anne National Historic Site*, accessed June 15, 2014, <http://www.pc.gc.ca/eng/lhn-nhs/ns/fortanne/natcul/histor/histor5.aspx>.

7 "Wetland Restoration," *Ducks Unlimited Canada*, accessed February 4, 2014, <http://www.ducks.ca/what-we-do/your-land/atlantic-programs/wetland-restoration/>

8 "Annapolis Valley Schools," *Annapolis Valley Regional School Board*, accessed January 22, 2014, http://www.avrsb.ca/school_directory?tid=157.

9 "Annapolis Tidal Station," *Nova Scotia Power*, accessed March 31, 2014, <https://www.nspower.ca/en/home/about-us/how-we-make-electricity/renewable-electricity/annapolis-tidal-station.aspx>.

10 "Home," *Fortier Mills*, accessed April 3, 2014, <http://www.fortiermills.com/index.php>.

11 *158 Champlain Drive, Annapolis Royal NS* [image]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps Street View". < <https://www.google.ca/maps/place/158+Champlain+Dr/@44.738815,-65.501543,3a,90y,23.18h,83.36t/data=!3m4!1e1!3m2!1sWNzMKxF-jmwwdPj31d8kEA!2e0!4m2!3m1!1s0x4b57ff4fdf95c975:0xe0645a2202756446!6m1!1e1>> June 14, 2014.

4.2 RURAL FARMING: WILMOT

1 *Wilmot NS* [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". < <https://goo.gl/maps/8k7cl>> June 14, 2014.

2 "Wilmot, NS," *Guy's Frenchys Family Clothing Outlet*, accessed April 30, 2014, <http://www.guysfrenchys.com/store-locations/nova-scotia-stores/40-wilmot-nova-scotia>.

3 "East End Area Land Use Bylaw," *County of Annapolis*, accessed April 29, 2014, <http://annapoliscounty.ca/property-development/41-zoning-development-control-unlisted/275-east-end-area-land-use-bylaw>.

4.3 TOWN MAIN STREET: BERWICK

1 Statistics Canada. 2012. *Berwick, Nova Scotia (Code 1207004)* (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed January 30, 2014)

2 “Home,” *Kings Mutual Century Centre*, accessed April 29, 2014, <http://kmccberwick.ca/>.

3 “The Berwick Industrial Park,” *Bargain Harley’s The Everything Store*, accessed April 29, 2014, <http://www.bargainharleys.com/park.html>.

4 “Home,” *Eden Valley Poultry Incorporated*, accessed April 30, 2014, <http://www.edenvalleypoultry.com/home>.

5 “Annapolis Valley Schools,” *Annapolis Valley Regional School Board*, accessed January 22, 2014, http://www.avrsb.ca/school_directory?tid=157.

4.4 COMMERCIAL CENTRE: NEW MINAS

1 “History,” *Village of New Minas*, accessed April 28, 2014, <http://www.newminas.com/history/>.

2 “Home,” *Village of New Minas*, accessed April 28, 2014, <http://www.newminas.com/>.

3 “Welcome to County Fair Mall,” *County Fair Mall*, accessed April 27, 2014, <http://www.countyfair.ca/>.

4 “New Minas, NS,” *SmartCentres*, accessed April 29, 2014, <http://www.smartcentres.com/locations/new-minas-ns>.

5 “Silver Fox Plaza,” *Plaza Retail REIT*, accessed May 5, 2014, http://www.plaza.ca/portfolio/Nova_Scotia/New_Minas/Silver%20Fox%20Plaza%20New%20Minas%20portfolio%20June%2023%202011.pdf.

6 Dr. David F. Duke, Acadia University, *An Examination of Kentville’s Environmental History: A Report for the Town of Kentville Integrated Community Sustainability Planning Group*, (Wolfville, NS: 2010) http://history.acadiau.ca/tl_files/sites/history/Documents/ICSP%20REPORT%20-%20FINAL.PDF

4.5 FUNDY COASTAL HAMLET: HARBOURVILLE

1 *Berwick NS to Harbourville NS* [map]. Scale undetermined; generated by Caitlin Perry; using “GoogleMaps”. < <https://goo.gl/maps/jnQcm> > June 15, 2014.

2 “Harbourville’s History,” *The Official Website of Harbourville, Nova Scotia*, accessed March 17, 2014, <http://www.harbourville.ednet.ns.ca/historical.htm>.

3 “A Brief Overview,” *Harbourville Cottages & Schnitzelhaus*, accessed March 17, 2014, <http://www.harbourville.com/>.

4 “Our Business Community,” *The Official Website of Harbourville, Nova Scotia*, accessed March 17, 2014, <http://www.harbourville.ednet.ns.ca/buscom.htm>.

ENDNOTES (cont.)

- 5 "Fundy Coast," *Ecoregions of Canada*, accessed April 16, 2013, <http://ecozones.ca/english/region/123.html>.
- 6 *Harbourville NS to 3088 Long Point Road* [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". < <https://goo.gl/maps/TacbX> > June 15, 2014.
- 7 *Berwick NS to Harbourville NS* [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". < <https://goo.gl/maps/jnQcm> > June 15, 2014.
- 8 "The History of the Nova Scotia Cape Island Trawler," *Anchor Yacht & Ship Sales*, accessed June 6, 2014, <http://www.anchoryachts.com/cihistory.php>.

4.6 INLAND LAKE: AYLESFORD LAKE

- 1 *Aylesford NS to Aylesford Lake Yacht Club* [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". < <https://goo.gl/maps/tHfjV> > June 15, 2014.
- 2 "Scene on Aylesford Lakes," *British Library – Digitized Manuscripts*, accessed April 18, 2014, <http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=HS85/10/24828>.
- 3 "Aylesford Lake Yacht Club," *Aylesford Lake Yacht Club*, accessed April 18, 2014, <http://members.accesswave.ca/~danowlan/index.html>.
- 4 "Aylesford Lake Beach," *Municipality of the County of Kings*, accessed April 18, 2014, <http://www.county.kings.ns.ca/common/pars/beach.aspx>.
- 5 "Brigadoon," *Brigadoon*, accessed April 18, 2014, <http://www.brigadoonvillage.org/>.
- 6 Canada, Nova Scotia, Department of Environment, *1:10000 Primary Watersheds of Nova Scotia* (Halifax, NS: 2011) https://www.novascotia.ca/nse/water.strategy/docs/WaterStrategy_NSWatershedMap.pdf
- 7 "Southwest Nova Scotia Uplands," *Ecoregions of Canada*, accessed April 16, 2013, <http://ecozones.ca/english/region/124.html>.
- 8 "Lake Monitoring Program-Results for the 2011 Season," *Municipality of the County of Kings*, accessed April 12, 2014, http://www.county.kings.ns.ca/upload/All_Uploads/Residents/LakeMonitoring/Data/KCWQ%202011%20Report%20Card.pdf.

5.1 CONCLUSION

- 1 Blake Lively, interview with Jonathan Van Meter, "Pioneer Spirit," *Vogue*, August 2014, 158.
- 2 "Floor Plan - County Fair Mall," *Crombie REIT*, accessed July 25, 2014, http://www.crombiereit.com/en/lease_floorplan.aspx?PID=12.
- 3 *Unknown road to Halifax Stanfield International Airport* [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". < <https://goo.gl/maps/JOGw1> > January 30, 2014.
- 4 *Halifax Stanfield International Airport to Toronto Pearson International Airport* [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". < <https://goo.gl/maps/jWmZK> > July 29, 2014.

5 Harwell Hamilton Harris, "Regionalism," *North Carolina Architect*, January-February 1978, 10-11, quoted in *Architectural Regionalism*, ed. Vincent B. Canizaro (New York, NY: Princeton Architectural Press, 2007), 68.

6 Ibid.

7 David Waltner-Toews and James Kay, "The Evolution of an Ecosystem Approach: the Diamond Schematic and an Adaptive Methodology for Ecosystem Sustainability and Health," *Ecology and Society* 10, no. 1 (2005).

8 "Octavio Paz - Nobel Lecture: In Search of the Present". *Nobelprize.org*. Nobel Media AB 2013. Web. 11 Jun 2014. <http://www.nobelprize.org/nobel_prizes/literature/laureates/1990/paz-lecture.html>

9 "Flicker Search: Annapolis Valley," *Flickr*, accessed July 6, 2014, <https://www.flickr.com/search?sort=relevance&text=Annapolis%20Valley>.

APPENDIX 2: BIBLIOGRAPHY

Aconcagua. Kejimikujik NP Nova Scotia 2. 2005, Digital Image. Available from: Wikimedia Commons. Accessed May 24, 2014. http://commons.wikimedia.org/wiki/File:Kejimikujik_NP_Nova_Scotia_2.jpg?uselang=fr.

Alexei & Verne Stakhanov / Стаханов. Untitled. 2009, Digital Image. Available from: Flickr. Accessed July 30, 2014. <https://flic.kr/p/6FeGn2>.

Beaton, Kate. "Let's Move Towards a Revitalization of Rural Canada, Starting With This Special Place." *The Huffington Post Canada*, May 5, 2014. http://www.huffingtonpost.ca/kate-beaton/nova-scotia_b_5267748.html.

Blotnicky, Karen. E-mail message to author via Lauren Perry. October 31, 2013.

Buckler, Ernest. *The Mountain and the Valley*. Toronto, ON: McClelland & Stewart Ltd., 2010.

Canty, Donald. "Origins, Evolutions, and Ironies." In *The Sea Ranch*, edited by Donlyn Lyndon and Jim Alinder, 22-33. New York: Princeton Architectural Press, 2004.

Carson, Aimee. "Securing your Summer/Fall local eats: CSA List 2014!" *Adventures in Local Food*. March 4, 2014. <http://adventuresinlocalfood.wordpress.com/2014/03/04/securing-your-summerfall-local-eats-csa-list-2014/>.

Center for Rural Massachusetts. *Dealing with Change in the Connecticut River Valley: A Design Manual for Conservation and Development*. Amherst, MA: 1990.

Charest, Remy. "Nova Scotia Sparkling Wine: Big Time Bubbles from the Edge." *Palate Press – The Online Wine Magazine*. May 26, 2011. Accessed May 24, 2014. <http://palatepress.com/2011/05/wine/nova-scotia-sparkling-wine-big-time-bubbles-from-the-edge/>.

Cobb, Zita. "Opening Keynote Rural Community Commitment and Success." *The Georgetown Conference*. Ustream video. Posted by "GeorgetownConferenceLive," October 3, 2013. <http://www.ustream.tv/recorded/39493363>.

Colquhoun, Alan. "The Concept of Regionalism." In *Postcolonial Space(s)*, edited by Gulsum Baydar Nalbantoglu and Wong Chong Thai, 13-23. New York, NY: Princeton Architectural Press, 1997. Quoted in *Architectural Regionalism*, edited by Vincent B. Canizaro, 146-155. New York, NY: Princeton Architectural Press, 2007.

Crystal and Adriana. "A toast to Shelley Mitchell." *Argyle Fine Art*. October 8, 2011. Accessed May 24, 2014. <http://argylefineart.blogspot.com/2011/10/toast-to-shelley-mitchell.html>.

Daigle, Jean. "Acadian Marshland Settlement, 1671-1714." In *Concise Historical Atlas of Canada*, edited by W.G. Dean, Geoffrey J. Matthews, and Byron Moldofsky. Toronto, ON: University of Toronto, 1998.

Delaney, Gordon. "N.S. growers say no to GMO apples." *Chronicle Herald* (Halifax, NS), March 8, 2014.

Duke, Dr. David F. Acadia University. *An Examination of Kentville's Environmental History: A Report for the Town of Kentville Integrated Community Sustainability Planning Group*. [Wolfville, NS], 2010. http://history.acadiau.ca/tl_files/sites/history/Documents/ICSP%20REPORT%20-%20FINAL.PDF.

Frank, Rimerman + Co. LLP. *The Economic Impact of the Wine and Grape Industry in Canada 2011*. St. Helena, CA: 2013. <http://winesofnovascotia.ca/wp-content/uploads/2013/04/CVA-WANS-Economic-Impact-Study.pdf>.

Fraser, Laura. "Theirs was once a boom town. Now it's anything but." *Chronicle Herald* (Halifax, NS), Oct. 16, 2011.

Grand Pré World Heritage Stewardship Board. *World Heritage Nomination Proposal for the Landscape of Grand Pré*. [Kentville, NS], 2011. <http://www.nominationgrandpre.ca/Dossier/UNESCO%20dossier%20english%20chapter%201.pdf>.

Grant is a Grant. Annapolis Valley Exhibition 2013. 2013, Digital Image. Available from: Flickr. Accessed February 21, 2014. <https://www.flickr.com/photos/thegrantyouknow/9546902620/>.

Halprin, Lawrence. *The Sea Ranch: Diary of an Idea*. Berkeley, CA: Spacemaker Press, 2002.

Hanlon, Mike. "World Population Becomes More Urban Than Rural." *Gizmag*, May 28, 2007. <http://www.gizmag.com/go/7334/>.

Harris, Harwell Hamilton. "Regionalism." *North Carolina Architect*, January-February (1978): 10-11. Quoted in *Architectural Regionalism*, edited by Vincent B. Canizaro, 66-69. New York, NY: Princeton Architectural Press, 2007.

Hjortshøj, Rasmus. Sea Ranch Community. 2012, Digital Image. Available from: Behance. Accessed October 27, 2013. <https://www.behance.net/gallery/Sea-Ranch/6328075>.

Hurlburt, Horace. "Bridgetown Mayor responds to National Post article." *The Annapolis County Spectator* (Middleton, NS), April 27, 2014.

Illsley, Paul. "Aerial Images of Kings County, Nova Scotia, Canada." *Paul Illsley*. Accessed March 17, 2014. http://www.paulillsley.com/Kings_County/Aerial_Images/index.html.

Illsley, Paul. "Annapolis Royal, Annapolis Valley, Nova Scotia." *Paul Illsley*. Accessed May 13, 2014. <http://www.paulillsley.com/airphoto/AnnapolisRoyal.html>.

Illsley, Paul. "Berwick, Annapolis Valley, Nova Scotia." *Paul Illsley*. Accessed May 13, 2014. <http://www.paulillsley.com/airphoto/Berwick.html>.

Illsley, Paul. "COGS Award Banquet (May 03, 2013)." *Paul Illsley*. Accessed April 2, 2014. <http://www.paulillsley.com/cogs/awards2013/>.

Lyndon, Donlyn and Jim Alinder, editors. *The Sea Ranch*. New York: Princeton Architectural Press, 2004.

Lynch, Allan. "Wolfville's Magic Winery Bus: sampling in the sun." *Allan Lynch, a wandering scribbler*. September 23, 2012. Accessed May 24, 2014. <http://allanlynch.wordpress.com/2012/09/23/wolfvilles-magic-winery-bus-sampling-in-the-sun-2/>.

MacDonald, Janet. "A Stroll Through Bridgetown Today." *A-Schnitzel-and-a-glass-of-wine*. September 28, 2011. Accessed March 18, 2013. <http://a-schnitzel-and-a-glass-of-wine.blogspot.ca/2011/09/stroll-through-bridgetown-today.html>.

MacLean, Natalie. "Great Canadian Wine Match Celebrates Wines from Coast to Coast." *CTV News Ottawa*. July 3, 2013. Accessed April 2, 2014. <http://ottawa.ctvnews.ca/features/natalie-maclean-s-wine-of-the-week/great-canadian-wine-match-celebrates-wines-from-coast-to-coast-1.1352119>.

Mainelli, Michael and Ian Harris. *The Price of Fish*. London: Nicholas Brealey Publishing, 2011.

BIBLIOGRAPHY (cont.)

- McHarg, Ian. *Design With Nature*. Garden City, NY: Doubleday & Company, Inc., 1971.
- Mills, Don. *Don Mills on 'Town-sizing'*. YouTube video. Posted by "OurNewEconomyNS," February 6, 2013. <http://www.youtube.com/watch?v=gnsWVXmK8EU>.
- Mumford, Lewis. "Regional Planning." Presentation at the Round Table on Regionalism, Institute of Public Affairs, University of Virginia, Charlottesville, VA, July 8, 1931. Quoted in *Architectural Regionalism*, edited by Vincent B. Canizaro, 236-243. New York, NY: Princeton Architectural Press, 2007.
- Norberg-Schulz, Christian. *Genius Loci: towards a phenomenology of architecture*. New York: Rizzoli International Publications, Inc., 1980.
- O'Connor, Joe. "Nova Scotia's future looks grim as its economy stagnates, but for optimistic residents it remains the 'time of our lives'." *National Post* (Toronto, ON), April 4, 2014.
- Pallasmaa, Juhani. "Tradition and Modernity: The Feasibility of Regional Architecture in Post-Modern Society." *The Architectural Review*, May 1988, 26-34. Quoted in *Architectural Regionalism*, edited by Vincent B. Canizaro, 128-139. New York, NY: Princeton Architectural Press, 2007.
- Pope, Alexander. *An epistle to the Right Honourable Richard Earl of Burlington ... The second edition*. London, UK: G. Faulkner, 1732.
- Roland, Albert E. *Geological Background and Physiography of Nova Scotia*. Halifax, NS: Ford Publishing Co., 1982.
- Rural Communities Impacting Policy Project. *Painting the Landscape of Rural Nova Scotia*. 2003.
- Sharpe, Errol. "Nova Scotia - A Future." In *Nova Scotia: Visions of the Future*, edited by Lesley Choyce, 189-195. East Lawrencetown, NS: Pottersfield, 2009.
- Smith, Alisa and J.B. MacKinnon. *The 100-Mile Diet: A Year of Local Eating*. Toronto: Random House Canada, 2007.
- Tarbotton, Michael and Max Larson, Triton Consultants Ltd. *Canada Ocean Energy Atlas (Phase 1) Potential Tidal Current Energy Resources Analysis Background*. Vancouver, BC: 2006. <http://www.marinerenewables.ca/wp-content/uploads/2012/11/Canada-Ocean-Energy-Atlas-Phase-1-Potential-Tidal-Current-Energy-Resources-Analysis-Background.pdf>.
- Thorbeck, Dewey. *Rural Design: A New Design Discipline*. New York, NY: Routledge, 2012.
- Toughill, Kelly. "The Chosen Land." In *Nova Scotia: Visions of the Future*, edited by Lesley Choyce, 230-243. East Lawrencetown, NS: Pottersfield, 2009.
- Turner, Nigel G. *Valuation Report – Bowater Woodland Parcels Nova Scotia*. [Halifax, NS], 2012. <http://novascotia.ca/natr/land/bowater2012/pdf/Turner%20Drake%20report.pdf>.
- Vallis, Stephen. Annapolis Valley Gold. 2012, Digital Image. Available from: Flickr. Accessed July 31, 2014. <https://flic.kr/p/ddwTKm>.
- Wallace-McHarg Associates. *Plan for the Valleys*. Philadelphia, PA: 1963.
- Waltner-Toews, David and James Kay. "The Evolution of an Ecosystem Approach: the Diamond Schematic and an Adaptive Methodology for Ecosystem Sustainability and Health." *Ecology and Society* 10 (2005).
- willis966. Windy Hill. 2013, Digital Image. Available from: Panoramio. Accessed April 28, 2014. <http://www.panoramio.com/photo/103332215>.

Wines of Nova Scotia. "Nova Scotia Wineries." *Google Maps*. Accessed February 12, 2014. <http://goo.gl/maps/kx6Go>.

"About the Gulf > Maps and Other Resources." *Gulf of Maine Council on the Marine Environment*. Accessed February 25, 2013. <http://www.gulfofmaine.org/knowledgebase/aboutthegulf/maps/mapsandphotos.php>.

"A Brief Overview." *Harbourville Cottages & Schnitzelhaus*. Accessed March 17, 2014. <http://www.harbourville.com/>.

"Acadia University." *Acadia University*. Accessed January 27, 2014. <http://www2.acadiau.ca/index.php>.

"Annapolis-Minas Lowlands." *Ecoregions of Canada*. Accessed April 16, 2014. <http://ecozones.ca/english/region/126.html>.

"Apple Industry." *Growing Nova Scotia*. Accessed October 26, 2013. <http://www.growingnovascotia.ca/opportunity-profiles/apple-industry>.

"Apple Processors of Nova Scotia Apples." *Nova Scotia Apples*. Accessed March 16, 2014. <http://www.nsapples.com/processr.htm>.

"Annapolis Tidal Station." *Nova Scotia Power*. Accessed March 31, 2014. <https://www.nspower.ca/en/home/about-us/how-we-make-electricity/renewable-electricity/annapolis-tidal-station.aspx>.

"Annapolis Valley Campus." *Nova Scotia Community College*. Accessed January 27, 2014. <http://www.nsc.ca/explorensc/campuses/annapolis/>.

"Annapolis Valley Schools." *Annapolis Valley Regional School Board*. Accessed January 22, 2014. http://www.avrsb.ca/school_directory?tid=157.

"Ariel [sic] View of Corn Maze." *Evans' Family Farm Market*. Accessed April 28, 2014. <http://www.evansfamilyfarmmarket.com/corn-maze.html>.

"Attractions and Museums." *Town of Annapolis Royal*. Accessed June 14, 2014. <http://annapolisroyal.com/what-to-see-do/attractions-and-museums/>.

"Aylesford Lake AND Lake Nicholas!," *Tradewinds Realty*. Accessed April 30, 2014. <http://www.tradewindsrealty.com/cgi-bin/listings.cgi?key=7358>.

"Aylesford Lake Beach." *Municipality of the County of Kings*. Accessed April 18, 2014. <http://www.county.kings.ns.ca/common/pars/beach.aspx>.

"Aylesford Lake Yacht Club." *Aylesford Lake Yacht Club*. Accessed April 18, 2014. <http://members.accesswave.ca/~danowlan/index.html>.

"Black Rock Tidal Power." *Fundy FORCE*. Accessed May 4, 2014. <http://fundyforce.ca/technology/black-rock-tidal-power/>.

"Brigadoon." *Brigadoon*. Accessed April 18, 2014. <http://www.brigadoonvillage.org/>.

"Canada's parks and historic sites now on Google Street View." *CBC News*. Last modified November 20, 2013. <http://www.cbc.ca/news/technology/canada-s-parks-and-historic-sites-now-on-google-street-view-1.2433431>.

"Coastal Clusters." *Coastal Communities Network - Between the Land and the Sea*. Accessed February 21, 2014. http://www.database.coastalcommunities.ns.ca/coastal_clusters.asp.

"Coastal Currents - Maps and Downloads." *Coastal Communities Network - Between the Land and the Sea*. Accessed February 21, 2014. <http://www.database.coastalcommunities>.

BIBLIOGRAPHY (cont.)

ns.ca/maps.asp.

“Download Brochure.” *The Landscape of Grand Pré*. Accessed June 14, 2014. <http://www.landscapeofgrandpre.ca/download-brochure.html>.

“East End Area Land Use Bylaw.” *County of Annapolis*. Accessed April 29, 2014. <http://annapoliscounty.ca/property-development/41-zoning-development-control-unlisted/275-east-end-area-land-use-bylaw>.

“Etsy - Your place to buy and sell all things handmade, vintage and supplies.” *Etsy*. Accessed August 23, 2014. www.etsy.com.

“Flicker Search: Annapolis Valley.” *Flickr*. Accessed July 6, 2014. <https://www.flickr.com/search?sort=relevance&text=Annapolis%20Valley>.

“Find a Market.” *Farmers' Markets of Nova Scotia*. Accessed August 23, 2014. <http://farmersmarketsnovascotia.ca/find-a-market/>.

“Floor Plan - County Fair Mall.” *Crombie REIT*. Accessed July 25, 2014. http://www.crombiereit.com/en/lease_floorplan.aspx?PID=12.

“Fundy Coast.” *Ecoregions of Canada*. Accessed April 16, 2014. <http://ecozones.ca/english/region/123.html>.

“Fundy FORCE.” *FORCE*. Accessed April 27, 2014. <http://fundyforce.ca>.

“Fundy Shore & Annapolis Valley Region Parks.” *Nova Scotia Provincial Parks*. Accessed May 2, 2014. <http://parks.gov.ns.ca/misc/fundyshore.asp>.

“Getting Back to Business at the 2013 Tourism Summit.” *Tourism Industry Association of Nova Scotia*. Accessed April 28, 2014. <http://www.tians.org/news-and-media/129-getting-back-to-business-at-the-2013-tourism-summit>.

“GM-WICS Political Map.” *Gulf of Maine Watershed Information and Characterization System*. Accessed June 14, 2014. <http://www.gm-wics.sr.unh.edu/html/polmaps.html>.

“Greenwood.” *Places to Fly*. Accessed February 16, 2014. http://archive.copanational.org/PlacesToFly/airport_view.php?ap_id=330.

“Harbourville’s History.” *The Official Website of Harbourville, Nova Scotia*. Accessed March 17, 2014. <http://www.harbourville.ednet.ns.ca/historical.htm>.

“Highway 101 Opens, Berwick - Aylesford - 1 January 1970 to 31 December 1979.” *History of Nova Scotia*. Accessed June 14, 2014. <http://newscotland1398.ca/hist/nshistory22.html>.

“Historic Cyprus Walk.” *Bridgetown, Nova Scotia*. Accessed October 23, 2012. <http://www.bridgetownnovascotia.com/about-bridgetown/cyprus-walk>.

“History of Annapolis Royal.” *Annapolis Heritage Society*. Accessed June 14, 2014. <http://www.annapolisheritagesociety.com/history-ar.html>.

“History of the NSFGA.” *Nova Scotia Fruit Growers' Association*. Accessed June 14, 2014. http://www.nsapples.com/history_of_nsfga.html.

“History.” *Village of New Minas*. Accessed April 28, 2014. <http://www.newminas.com/history/>.

“Home.” *Annapolis Royal Farmers and Traders Market*. Accessed June 14, 2014. <http://www.annapolisroyalfarmersmarket.com/>.

“Home.” *Eden Valley Poultry Incorporated*. Accessed April 30, 2014. <http://www.edenvalleypoultry.com/home>.

“Home.” *Fortier Mills*. Accessed April 3, 2014. <http://www.fortiermills.com/index.php>.

“Home.” *Kings Mutual Century Centre*. Accessed April 29, 2014. <http://kmccberwick.ca/>.

“Home.” *Village of New Minas*. Accessed April 28, 2014. <http://www.newminas.com/>.

“Kings County Academy P-6.” *Fowler Bauld & Mitchell*. Accessed May 4, 2014. <http://www.fbm.ns.ca/projects/SelectedProjects.aspx#entry=113>.

“Lake Monitoring Program-Results for the 2011 Season.” *Municipality of the County of Kings*. Accessed April 12, 2014. http://www.county.kings.ns.ca/upload/All_Uploads/Residents/LakeMonitoring/Data/KCWQ%202011%20Report%20Card.pdf.

“Magic Winery Bus.” *The Wolfville Magic Winery Bus*. Accessed June 3, 2014. <http://www.wolfvillemagicwinerybus.ca/>.

“Marketing Information – Apple Processors.” *Nova Scotia Apples*. Accessed February 12, 2014. http://www.nsapples.com/apple_processors.html.

“Marketing Information - Packers and Shippers.” *Nova Scotia Apples*. Accessed February 12, 2014. http://www.nsapples.com/packer_and_shippers.html.

“NECWA - Marine Wildlife of the Gulf of Maine.” *New England Coastal Wildlife Alliance*. Accessed June 14, 2014. <http://www.necwa.org/gulf-animals.html>.

“New Brunswick.” *Backroad Mapbooks Outdoor Recreation Guides*. Accessed May 22, 2014. http://backroadmapbooks.org/images/coverage_images/NBNB-K.jpg.

“New Minas, NS.” *SmartCentres*. Accessed April 29, 2014. <http://www.smartcentres.com/locations/new-minas-ns>.

“Nova Scotia is Born.” *Parks Canada – Fort Anne National Historic Site*. Accessed June 15, 2014. <http://www.pc.gc.ca/eng/lhn-nhs/ns/fortanne/natcul/histor/histor2.aspx>

“Nova Scotia Wineries.” *Winery Association of Nova Scotia*. Accessed April 5, 2014. <http://winesofnovascotia.ca/wineries/>.

“Nova 7.” *Benjamin Bridge*. Accessed May 25, 2014. <http://benjaminbridge.com/wines/nova-7>.

“N.S. government announces \$4 million for tidal energy projects.” *CTV News Atlantic*. March 28, 2014. Accessed May 4, 2014. <http://atlantic.ctvnews.ca/n-s-government-announces-4-million-for-tidal-energy-projects-1.1750497>.

“Octavio Paz - Nobel Lecture: In Search of the Present.” *Nobelprize.org*. Nobel Media AB 2013. Web. 11 Jun 2014. http://www.nobelprize.org/nobel_prizes/literature/laureates/1990/paz-lecture.html.

“OSI Helps Eight Massachusetts Groups for Conservation.” *Open Space Institute*. Accessed January 15, 2014. <http://tinyurl.com/knbra78>.

“Our Business Community.” *The Official Website of Harbourville, Nova Scotia*. Accessed March 17, 2014. <http://www.harbourville.ednet.ns.ca/buscom.htm>.

“Our Specialties.” *Winery Association of Nova Scotia*. Accessed April 5, 2014. <http://winesofnovascotia.ca/about/types-of-wine-and-sparkling-wines/>.

“Parks and Trails.” *The Town of Kentville*. Accessed June 14, 2014. <http://kentville.ca/community/parks-rec/parks-trails/#kentville-trail>.

“Place-names and Places of Nova Scotia.” *Nova Scotia Archives*. Accessed October 12, 2012. <http://novascotia.ca/archives/virtual/places/>.

BIBLIOGRAPHY (cont.)

“Planning Services.” *Municipalities of Annapolis Royal, Bridgetown and Middleton*. Accessed February 21, 2013. <http://www.avliu.ca/adpcweb/home.htm>.

“Planning Your Visit - Atlantic Canada.” *Parks Canada*. Accessed April 23, 2013. <http://www.pc.gc.ca/eng/voyage-travel/index/Atlantic/t1.aspx>.

“Port William’s Tidelapse.” Vimeo video. Posted by “Jordan Crowe.” September 10, 2010. <http://vimeo.com/14911681>.

“Quote by Confucius: ‘To know that we know what we know, and that we...’” *Goodreads*. Accessed June 14, 2014. <http://www.goodreads.com/quotes/23540-to-know-that-we-know-what-we-know-and-that>.

“Reconstitution de l’habitation de Samuel Champlain.” *La «Nouvelle France»*. Accessed March 18, 2013. <http://www.henriiv.culture.fr/>.

“Registry of Buyers Annual Report.” *Nova Scotia Department of Natural Resources*. Accessed February 22, 2014. http://novascotia.ca/natr/forestry/registry/ann_report.asp.

“Scene on Aylesford Lakes.” *British Library – Digitized Manuscripts*. Accessed April 18, 2014. <http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=HS85/10/24828>.

“Silver Fox Plaza.” *Plaza Retail REIT*. Accessed May 5, 2014. http://www.plaza.ca/portfolio/Nova_Scotia/New_Minas/Silver%20Fox%20Plaza%20New%20Minas%20portfolio%20June%2023%202011.pdf.

“Southwest Nova Scotia Uplands.” *Ecoregions of Canada*. Accessed April 16, 2014. <http://ecozones.ca/english/region/124.html>.

“Technology.” *Fundy FORCE*. Accessed April 2, 2014. <http://fundyforce.ca/technology/>.

“The Bay of Fundy.” *Fundy FORCE*. Accessed April 2, 2014. <http://fundyforce.ca/renewable-and-predictable/the-bay-of-fundy/>.

“The Berwick Industrial Park.” *Bargain Harley’s The Everything Store*. Accessed April 29, 2014. <http://www.bargainharleys.com/park.html>.

“The History of the Nova Scotia Cape Island Trawler.” *Anchor Yacht & Ship Sales*. Accessed June 6, 2014. <http://www.anchoryachts.com/cihistory.php>.

“The Wars to Take Acadia.” *Wars and Battles pertaining to Acadia*. Accessed June 15, 2014. <http://www.acadian-home.org/the-wars.html>.

“Tidal Bay – Blomidon Estate Winery.” *Wines of Nova Scotia*. Accessed May 24, 2014. <http://winesofnovascotia.ca/tidal-bay/blomidon-estate-winery/>.

“Tidal Power.” *Nova West Eco Site*. Accessed March 31, 2014. http://www.collectionscanada.gc.ca/eppp-archive/100/200/301/ic/can_digital_collections/west_nova/tidal.html.

“War and the Great Upheaval.” *Parks Canada – Fort Anne National Historic Site*. Accessed June 15, 2014. <http://www.pc.gc.ca/eng/lhn-nhs/ns/fortanne/natcul/histor/histor5.aspx>.

“Welcome to County Fair Mall.” *County Fair Mall*. Accessed April 27, 2014. <http://www.countyfair.ca/>.

“Wetland Restoration.” *Ducks Unlimited Canada*. Accessed February 4, 2014. <http://www.ducks.ca/what-we-do/your-land/atlantic-programs/wetland-restoration/>

“Wilmot, NS.” *Guy’s Frenchys Family Clothing Outlet*. Accessed April 30, 2014. <http://www.guysfrenchys.com/store-locations/nova-scotia-stores/40-wilmot-nova-scotia>.

“Wolfville Magic Winery Bus.” *Devour! The Food Film Fest*. November 15, 2013. Accessed May 24, 2014. <http://www.devourfest.com/program/wolfville-magic-winery-bus-15a/>.

GOVERNMENT SOURCES

Canada. Agriculture and Agri-Food Canada. *Kentville's Century of Science*. [Ottawa], 2011. http://www5.agr.gc.ca/resources/prod/doc/re/centres/Kentville/kentville100_eng.pdf.

Canada. Agriculture and Agri-Food Canada and Environment Canada. *Terrestrial Ecozones, Ecoregions and Ecodistricts – New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland*. [Ottawa], 1995. http://sis.agr.gc.ca/cansis/publications/maps/eco/all/districts/eco_all_districts_3m_atlantic.jpg.

Canada. Natural Resources Canada – Earth Sciences Sector: Mapping Services Branch – Centre for Topographic Information. *Land Cover, circa 2000-Vector*. [Sherbrooke, QC], 2009. <http://www.geobase.ca/geobase/en/search.do?identifiant=®ion=ns&produit=csc2000v&language=en>.

Canada. Parks Canada. *Directory of Federal Heritage Designations - Nova Scotia*. Accessed March 24, 2013. http://www.pc.gc.ca/apps/dfhd/results-resultats_eng.aspx?p=1&m=10&ct100%24Main%24PageSearch1%24txtKeyword=&desCheck=NHS&desCheck=EVENT&desCheck=HRS&c=&ct100%24Main%24PageSearch1%24ddlProvince=100025&dey=&ct100%24Main%24PageSearch1%24ddlCustodian=

Canada. Nova Scotia. Coastal Secretariat. *The 2009 State of Nova Scotia's Coast Report: Public Coastal Access*. [Halifax, NS], 2009. http://www.novascotia.ca/coast/documents/state-of-the-coast/WEB_PCA.pdf.

Canada, Nova Scotia, Department of Agriculture - Research and Statistics, *County Profiles* (Halifax, NS: 2011) <http://novascotia.ca/agri/programs-and-services/research-and-statistics/county-profiles/>.

Canada. Nova Scotia. Department of Economic and Rural Development and Tourism. *Nova Scotia 2014 Doers and Dreamers Travel Guide*. [Halifax, NS], 2014.

Canada. Nova Scotia. Department of Economic and Rural Development and Tourism. *Nova Scotia Visitor Origin - January - December 2013*. [Halifax, NS], 2014. https://novascotiaturisimagency.ca/sites/default/files/page_documents/english_visits_jan-dec.pdf.

Canada. Nova Scotia. Department of Environment and Labour. *Nova Scotia's Protected Areas Program*. [Halifax, NS], 2009. http://www.novascotia.ca/nse/protectedareas/docs/ProtAreas_map_color.pdf.

Canada. Nova Scotia. Department of Environment. *1:10000 Primary Watersheds of Nova Scotia*. [Halifax, NS], 2011. https://www.novascotia.ca/nse/water.strategy/docs/WaterStrategy_NSWatershedMap.pdf

Canada. Nova Scotia. Department of Environment. *1:10000 Secondary and Shore Direct Watersheds of Nova Scotia*. [Halifax, NS], 2011. http://www.novascotia.ca/nse/water.strategy/docs/WaterStrategy_NSWatershedMap.Secondary.pdf.

Canada. Nova Scotia. Department of Natural Resources. *Crown Land Management: A Conceptual Plan for Western Nova Scotia*. [Halifax, NS], 2014. <http://novascotia.ca/natr/land/western-land/pdf/western-crown-lands-update-March19.pdf>.

Canada. Nova Scotia. Department of Natural Resources. *Forest Inventory – Geographic Information Systems*. [Halifax, NS], 2007. http://novascotia.ca/natr/forestry/gis/dl_forestry.asp.

BIBLIOGRAPHY (cont.)

Canada. Nova Scotia. Department of Natural Resources. *Registry of Buyers of Primary Forest Products*. [Halifax, NS], 2012. <http://novascotia.ca/natr/forestry/registry/annual/2013/2012AnnualReport.pdf>.

Canada. Nova Scotia. Department of Natural Resources. *Western Crown Lands Planning Process*. [Halifax, NS], 2014. <http://novascotia.ca/natr/land/western-land/pdf/planning/WCLPP-March2014.pdf>.

Canada. Nova Scotia. Service Nova Scotia and Municipal Relations. *Nova Scotia Topographic Database*. Accessed August 25, 2013, via GeoNova Data Download Service. <http://gis8.nsgc.gov.ns.ca/datadownload/main.aspx>.

Canada. Nova Scotia. Municipality of the County of Annapolis. *Annapolis County East End Area - Schedule A Zoning Map*. [Annapolis Royal, NS], 2012. <http://annapoliscounty.ca/images/stories/Planning/eastendzoningaug162012.jpg>.

Canada. Nova Scotia. Municipality of the County of Kings. *Growth Centres: New Minas - Future Land Use Sector Plan*. [Kentville, NS], 2010. http://www.county.kings.ns.ca/upload/all_uploads/Residents/planning/nmsp/maps/NewMinas_SectorPlan.pdf.

Canada. Nova Scotia. Municipality of the County of Kings. *Hamlets Land Use Bylaw: Harbourville - Schedule 7H*. [Kentville, NS], 2010. http://www.county.kings.ns.ca/upload/All_Uploads/residents/planning/LUB/Hamlets/Harbourville%20-%20Schedule%207h.pdf.

Canada. Nova Scotia. Municipality of the County of Kings. *Shoreland District Zoning: Aylesford Lake - Schedule 3S*. [Kentville, NS], 2010. http://www.county.kings.ns.ca/upload/All_Uploads/residents/planning/LUB/Lakeshore/Aylesford%20Lake%20-%20Schedule%203S.pdf.

Canada. Nova Scotia. Town of Annapolis Royal. *Annapolis Royal - Schedule A Zoning Map*. [Annapolis Royal, NS], 2009. http://www.avliu.ca/adpcweb/pdf/AR/AR_zone.pdf.

Canada. Nova Scotia. Town of Annapolis Royal. *Annapolis Royal - Map G Heritage Properties*. [Annapolis Royal], 2000. http://www.avliu.ca/adpcweb/pdf/AR/AR_herit.pdf.

Canada. Nova Scotia. Town of Berwick. *Land Use Bylaw: Town of Berwick - Zoning Map*. [Berwick, NS], 2012. http://www.town.berwick.ns.ca/component/option,com_docman/Itemid,363/gid,208/task,cat_view/.

Canada. Nova Scotia. Town of Kentville. *Town of Kentville - Zoning Map*. [Kentville, NS], 2012. <http://kentville.ca/wp-content/uploads/2012/12/landuse.pdf>.

Canada. Nova Scotia. Town of Middleton. *Town of Middleton - Schedule A Zoning Map*. [Middleton, NS], 2011. http://www.avliu.ca/adpcweb/pdf/MT/MT_zone.pdf.

Statistics Canada. 2012. *Annapolis, Nova Scotia (Code 1205) and Kings, Nova Scotia (Code 1207)* (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed January 30, 2014).

Statistics Canada. 2012. *Annapolis Royal, Nova Scotia (Code 1205008), Annapolis, Subd. A, Nova Scotia (Code 1205004), Granville Ferry, Nova Scotia (Code 120021) and Lequille, Nova Scotia (Code 120034)* (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed January 30, 2014).

Statistics Canada. 2012. *Berwick, Nova Scotia (Code 1207004)* (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed January 30, 2014).

Statistics Canada. 2012. *Kentville, Nova Scotia (Code 1207012)* (table). Census Profile.

2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed January 30, 2014).

Statistics Canada. 2012. *Nova Scotia (Code 12) and Canada (Code 01)* (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed January 30, 2014).

Statistics Canada. 2012. *Wolfville, Nova Scotia (Code 1207024) and Annapolis, Subd. A, Nova Scotia (Code 1205004)* (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed January 30, 2014).

Statistics Canada. 2011. "Nova Scotia". *Dissemination Area Reference Maps, by Census Subdivisions, for areas outside Census Metropolitan Areas and Census Agglomerations. 2011 Census. Statistics Canada* Catalogue no. 92-145-X. Ottawa, Ontario. <http://www12.statcan.gc.ca/census-recensement/2011/geo/map-carte/ref/csd-sdr/CSD-SDR-b2011-eng.cfm?PRCODE=12> (accessed May 11, 2013).

Statistics Canada. 2012. Census Profiles. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> (accessed January 30, 2014).

ONLINE MAPPING WEBSITES

14384 *Evangeline Trail* [Street View image]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://www.google.ca/maps/@44.958441,-65.004964,3a,75y,77.24h,94.36t/data=!3m4!1e1!3m2!1su0sit5vANJZKk5wFLxFKOQ!2e0!6m1!1e1>> July 22, 2014.

1483-1491 *Hamilton Rd, Berwick, NS BOP 1E0 to 1025-1483 Hamilton Rd, Berwick, NS BOP 1E0* [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://goo.gl/maps/YTHsF>> May 7, 2014.

1483-1491 *Hamilton Rd, Berwick, NS BOP 1E0 to 164-520 Russia Rd, Berwick, NS BOP 1E0* [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://goo.gl/maps/7G6W1>> May 7, 2014.

1483-1491 *Hamilton Rd, Berwick, NS BOP 1E0 to 3088-3180 Long Point Rd, Berwick, NS BOP 1E0* [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://goo.gl/maps/BXOVh>> May 7, 2014.

1483-1491 *Hamilton Rd, Berwick, NS BOP 1E0 to Unnamed Rd, Berwick, NS BOP 1E0* [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://goo.gl/maps/lNnv6>> May 7, 2014.

156-166 *Prince Albert Rd* [Street View image]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://www.google.ca/maps/@44.747196,-65.512872,3a,75y,236.65h,85.87t/data=!3m4!1e1!3m2!1sYg9dKn2iaCIG8Y4IsC8lGw!2e0>> July 22, 2014.

158 *Champlain Drive, Annapolis Royal NS* [image]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps Street View". <<https://www.google.ca/maps/place/158+Champlain+Dr/@44.738815,-65.501543,3a,90y,23.18h,83.36t/data=!3m4!1e1!3m2!1sWNzMKxF-jmwwdPj31d8kEA!2e0!4m2!3m1!1s0x4b57ff4fdf95c975:0xe0645a2202756446!6m1!1e1>> June 14, 2014.

BIBLIOGRAPHY (cont.)

227 *Commercial Street* [Street View image]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://www.google.ca/maps/@45.045216,-64.736105,3a,75y,187.53h,90.2t/data=!3m4!1e1!3m2!1s2djs4AI6VD3mAaXG2LALGQ!2e0>> July 22, 2014.

3275-3281 *Long Point Rd, Berwick, NS BOP 1E0 to 1025-1483 Hamilton Rd, Berwick, NS BOP 1E0* [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://goo.gl/maps/D0XqW>> May 7, 2014.

3275-3281 *Long Point Rd, Berwick, NS BOP 1E0 to 3026-3046 Long Point Rd, Berwick, NS BOP 1E0* [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://goo.gl/maps/LXEXj>> May 7, 2014.

3275-3281 *Long Point Rd, Berwick, NS BOP 1E0 to Unnamed Rd, Berwick, NS BOP 1E0* [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://goo.gl/maps/JMvq2>> May 7, 2014.

3280 *Long Point Rd* [Street View image]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://www.google.ca/maps/@45.151456,-64.811883,3a,75y,40.85h,90.46t/data=!3m4!1e1!3m2!1sGU80ayHFSrIKcreSb3HkfA!2e0>> July 22, 2014.

38 *Prince Albert Rd - Fort Anne National Historic Site* [Street View image]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://www.google.ca/maps/@44.740955,-65.519005,3a,75y,25.77h,77.17t/data=!3m5!1e1!3m3!1si3If7oQRWyNXjuZBAtd-A!2e0!3e5>> May 24, 2014.

5349-5765 *Shore Rd W, Paradise to Greenwood Shopping Mall* [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://goo.gl/maps/MvcDc>> June 14, 2014.

Annapolis Royal [aerial image]. Scale undetermined; generated by Caitlin Perry; using "Bing Maps". <<http://binged.it/Xulbxl>> February 21, 2014.

Annapolis Royal Tidal Generating Station [aerial image]. Scale undetermined; generated by Caitlin Perry; using "Bing Maps". <<http://binged.it/1ng6K4W>> February 23, 2014.

Aylesford NS to Aylesford Lake Yacht Club [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://goo.gl/maps/tHfjv>> June 15, 2014.

Berwick NS to Harbourville NS [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://goo.gl/maps/jnQcm>> June 15, 2014.

Delaps Cove [aerial image]. Scale undetermined; generated by Caitlin Perry; using "Bing Maps". <<http://binged.it/Xul7gT>> February 21, 2014.

Halifax Stanfield International Airport to Toronto Pearson International Airport [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://goo.gl/maps/jWmZK>> July 29, 2014.

Halls Harbour [aerial image]. Scale undetermined; generated by Caitlin Perry; using "Bing Maps". <<http://binged.it/1ngabso>> February 21, 2014.

Hampton [aerial image]. Scale undetermined; generated by Caitlin Perry; using "Bing Maps". <<http://binged.it/1nga9kh>> February 21, 2014.

Harbourville [aerial image]. Scale undetermined; generated by Caitlin Perry; using "Bing Maps". <<http://binged.it/XukOmt>> February 21, 2014.

Harbourville NS to 3088 Long Point Road [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://goo.gl/maps/TacBX>> June 15, 2014.

Kejimikujik National Park and National Historic Site [Street View image]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <https://www.google.ca/maps/@44.451311,-65.264771,3a,75y,265.39h,80.72t/data=!3m5!1e1!3m3!1s_Qjbt0k8hoBu075pROakG!2e0!3e5> May 24, 2014.

Kingsport [aerial image]. Scale undetermined; generated by Caitlin Perry; using "Bing Maps". <<http://binged.it/1nZvhjN>> February 21, 2014.

Kings, Subd. D, NS - Grand Pre National Historic Site [Street View image]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://www.google.ca/maps/@45.10922,-64.311914,3a,75y,339.84h,83.07t/data=!3m5!1e1!3m3!1sgX36BUU1WJmgmvYPHsrLHW!2e0!3e5>> May 24, 2014.

Margaretsville [aerial image]. Scale undetermined; generated by Caitlin Perry; using "Bing Maps". <<http://binged.it/1ng8LhI>> February 21, 2014.

Minas Passage [aerial image]. Scale undetermined; generated by Caitlin Perry; using "Bing Maps". <<http://binged.it/UTH8ns>> May 4, 2014.

New Minas [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://goo.gl/maps/uHLLv>> May 7, 2014.

Nova Scotia 101, Hantsport NS to Evangeline Trail, Digby NS [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://goo.gl/maps/DMUV5>> June 14, 2014.

Unknown road to Halifax Stanfield International Airport [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://goo.gl/maps/JOGw1>> January 30, 2014.

Parkers Cove [aerial image]. Scale undetermined; generated by Caitlin Perry; using "Bing Maps". <<http://binged.it/XukELJ>> February 21, 2014.

Port George [aerial image]. Scale undetermined; generated by Caitlin Perry; using "Bing Maps". <<http://binged.it/1ng9EGN>> February 21, 2014.

Port Lorne [aerial image]. Scale undetermined; generated by Caitlin Perry; using "Bing Maps". <<http://binged.it/XujPT7>> February 21, 2014.

Port Royal National Historic Site [Street View image]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <https://www.google.ca/maps/@44.711795,-65.609055,3a,75y,298.16h,87.09t/data=!3m5!1e1!3m3!1sAbLx_3u2-tEAAAAGozG4lw!2e0!3e2> May 24, 2014.

Scots Bay [aerial image]. Scale undetermined; generated by Caitlin Perry; using "Bing Maps". <<http://binged.it/1ng9uzt>> February 21, 2014.

Victoria Beach [aerial image]. Scale undetermined; generated by Caitlin Perry; using "Bing Maps". <<http://binged.it/XujCzk>> February 23, 2014.

Wilmot NS [map]. Scale undetermined; generated by Caitlin Perry; using "GoogleMaps". <<https://goo.gl/maps/8k7cl>> June 14, 2014.

