

2010

Torbay Open Space Management Strategy



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Executive Summary

This Open Space Management Strategy was developed for the Town of Torbay based on a recommendation from the Torbay Recreation Master Plan (2009). While the Recreation Master Plan was the main source of inspiration for this strategy, this document is really a synthesis of recommendations from a number of plans created for Torbay. This document is meant to be a single source of guiding policy for open space management for the Town.

Within this document, a four step process has been laid out in order to identify open space needs and opportunities for the Town of Torbay. These four steps are to: identify, inventory, assess and recommend. Land management techniques have also been identified for the Town to aid the Town in the successful implementation of this strategy.

After following this process, the main recommendation for the Town of Torbay's open space management strategy includes the creation of an Outer Loop Corridor and an Inner Loop Corridor. These open space corridors provide the opportunity to develop a proposed multi-purpose trail system that is designed to meet many of the needs, demands, and open space requirements that have been identified in previous plans and confirmed in this strategy. In addition to these two open space corridors, a number of supplementary projects for the preservation and appropriate utilization of open spaces have also been identified.

1.0 Introduction

1.1 About Open Space Management

An Open Space Management Strategy Is...

Open Space Management Strategy aims to provide the governing bodies of a community with an overall direction for land development that is achieved through policy and regulations related to open spaces and land use in general. This Open Space Management Strategy is a policy document that guides the identification, development, protection, and management of open space in the Town of Torbay.

All communities must provide a variety of open space types as a fundamental means to fulfilling government objectives of social inclusion and community cohesion. Open spaces are public spaces designed to provide an opportunity for all citizens, regardless of their socioeconomic background or physical ability, to be able to recreate and socialize. These spaces make a valuable contribution to the quality of life for residents of a community. It is essential to defining the character of a place, making it a place where people want to live, work and visit. The Town of Torbay already has a well defined character and the preservation of the elements, such as open space, that the residents find valuable will only further allow the community to thrive.

An Open Space Management Strategy will help ensure the health and general wellbeing of the residents of Torbay. In a coordinated effort, along with other plans, this strategy aims to enforce the principles of sustainable development and integrate them into the Town's policies so that the maximum benefit can be realized.

An Open Space Management Strategy is an essential management tool. Without a clear strategy, it will be difficult for the Town to prioritize, spend and plan resources which are critical to its implementation. The process of developing a strategy is an excellent way to gain greater community involvement and supportive 'buy-in' from a range of partners.

What are Open Spaces?

- Woodland
- Wetlands and grassland
- Ponds and streams
- Agricultural fields
- Cemeteries
- Cultural landmarks
- Historic sites
- Playgrounds
- Neighbourhood parks
- Gardens
- Sports fields and courts
- Camp sites
- Picnic areas
- Paths and trails
- Streets
- Parking lots
- Hydro corridors
- Grassed intersections
- And more...

What do Open Spaces do?

- Promote permeability and continuity
- Protect natural resources
- Encourage biodiversity
- Provide places for recreation and leisure
- Provide social gathering places
- Promote public health benefits
- Support protection and promotion of cultural resources
- Enhancement of sense of place and identity
- Improve community pride
- Prevent unwanted development

An Open Space Management Strategy Will...

...provide the Town of Torbay with an action plan for delivery of quality open space to its residents which incorporates principles of sustainability to make Torbay a more livable and complete community;

....promote cross-departmental and governmental cooperation and form strategic partnerships within the community to maximize the effectiveness of open spaces within Torbay;

...make Torbay a leader in the Province being known as a forward thinking community and thereby solidifying its regional role and strengthen its local identity;

...maintain and enhance the physical character by placing value on the visual amenities the Town holds and increasing the attractiveness of Torbay;

...boost the local economy by attracting new residents to the Town while creating an environment that supports tourism, leisure and cultural activities in the area;

...connect the community's open spaces and link physically and socially through a comprehensive network of trails and facilities that support educational and recreational opportunities by promoting healthy lifestyles while improving social inclusion for residents of all ages, abilities and social-economic backgrounds;

...provide an environmental infrastructure that will protect natural and sensitive ecological areas, such as watersheds and wetlands while promoting biodiversity through policies and regulations that will guide existing and future development.

1.2 Benefits of Open Space

One of the main objectives of the Open Space Management Strategy is to make Torbay a more complete community so that the needs of its residents are met. Keeping this in mind and adapting from key learnings from previous open space plans, open space assessment takes place within three realms: environmental, economic, and social. Adding governance and cultural realms to the assessment, based on the five pillars of sustainability, this assessment model is a good starting point to developing an evaluation of the benefits of open spaces.



Figure 1: Five Realms of Benefits of Open Space

Environmental

- Aids in the protection of the natural environment and critical flora and fauna biodiversity which foster essential life sustaining qualities of the ecosphere of which the human community depend upon;
- Having designated parks and open space, backed by strong policies and regulation, indicates forward thinking and a sincere dedication to environmentalism, green development, and sustainability;
- Preserving natural lands is recognized as a wise investment, an essential part of integrated landscape management that plans for long term environmental protection.

Social

- Creates a unique and quality community that acts as the benchmark for quality of life for its residents;
- Fosters an environment of inclusion for all residents of all ages, abilities and socio-economic backgrounds to participate in health options and social activities;

- Promotes healthy living and active lifestyles by encouraging residents to be active within their community;
- Creates community cohesion and allows for some citizens to become leaders and champions within their community.

Economic

- As quality of life increases, so to do property values. Increasing parks, gardens, green spaces and trail networks makes neighbourhoods more livable and desirable to prospective buyers;
- Green enhancements increase economic vitality and in turn it attracts tax-paying new businesses to the area;
- Tourism based businesses benefit from having beautiful surroundings and green spaces which are enjoyed by both visitors and residents alike;
- Recreational based businesses benefit from having recreation amenities at their doorsteps.

Cultural

- Designated heritage and cultural landmark can be enjoyed by all residents and preserved for future generations by learning about their collective past;
- Provides the community with a sense of identity and civic pride shown through citizens interaction with others and with their environment;
- Cultural cohesions, achieved through a socially and physically connected community, can break down cultural barriers by fostering an environment of acceptance.

Governance

- Cross departmental cooperation is developed as everybody is striving towards a common goal;
- Coordinated efforts between governing bodies and community groups fosters an environment of understanding and allows the strategy to have a better chance of being followed and utilized to its fullest potential.

1.3 About Torbay

The Town of Torbay is located along the northeast side of the Avalon Peninsula. The Town is north of the provincial capital city of St. John's and is surrounded by Logy Bay- Middle Cove, Outer Cove to the south east, Flatrock to the north, and Portugal Cove-St. Philips to the west. The geographic location and proximity to these communities places Torbay in a good position within the region as it is close to many urban amenities while still maintain many rural characteristics. Torbay is considered to be an urbanizing community within the Northeast Avalon Region as the City of St. John's grows to meet the Town's boundaries and many of Torbay's residents commute to the capital city for work and play.

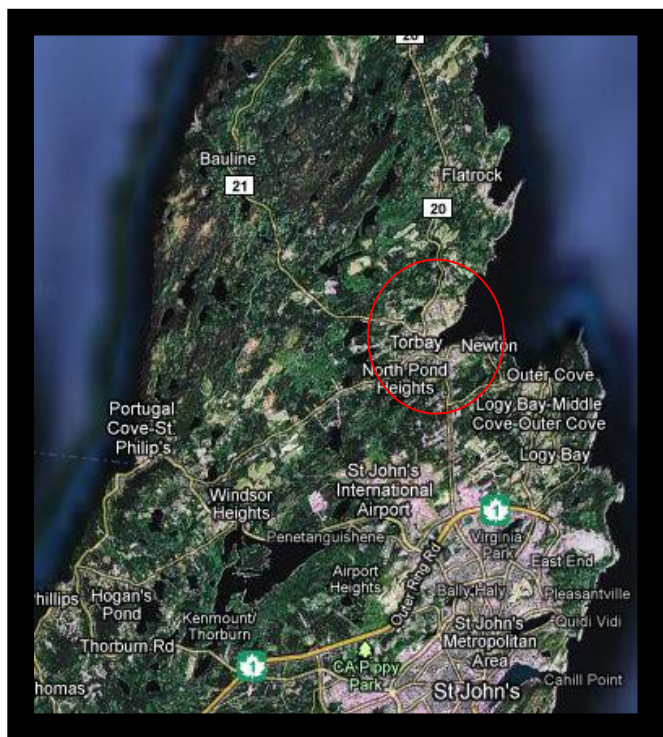


Figure 3: Map of Torbay. Source: Google Maps

Figure 2: Torbay: Source Flickr

The History of Torbay

To gain a better understanding of where Torbay is heading, it is important to understand where it is coming from. During the mid 1600s, the Town was visited by migrant fishers who would travel to Newfoundland to fish during the summer months only to return to Europe in the winter months with their salted catches. The area, now known as Torbay, was named by West County fishermen after Torbay in Devon England due to the geographic similarities shared by the two town-sites with their high cliffs and steep bay.



Figure 4: John Mason's map of Newfoundland, 1617. One of the earliest detailed maps of Newfoundland in which the Town of Torbay is noted. Source: Centre for Newfoundland Studies, Memorial University of Newfoundland.

While the site was considered to be a good location for the inshore cod fishery, it lacked a harbour with large vessel docking abilities. There were only two locations at which boats could dock: one was along the beach, with the other at Tapper's Cove along the north side. Early settlement was influenced by the ease of access to the ocean which is why settlement occurred along the north side first leaving the south side to be populated last. Torbay began to see permanent settlement in the latter half of the 1600s as fishing stages were built along the water's edge. By the late 1600s to early 1700s, the area was frequented by approximately 150 migrant fishers, with 18 fulltime residents who established 3 permanent fishing stages¹. By the end of the eighteenth century, the population had risen to approximately 200 full time residents with the majority of those being of English decent and Protestant faith. While there was somewhat of an Irish influence in earlier years, the nineteenth century brought Irish settlers to the area in greater numbers. Many of the Irish came from farming backgrounds which began to shape the land in Torbay in new ways. Large lots of land were cleared to accommodate root crop farming while the highlands were used as grazing lands for livestock such as sheep and cattle. With farming fields above and fishing stages below, the local agriculture and marine economy began to give Torbay a distinct identity.

¹ Source: Encyclopedia of Newfoundland and Labrador



Figure 5: Torbay circa 1930-40s. Note the amount of pasture and farm land above and the fishing stages below. Source: Flickr

It should also be noted that in mid 1700s Torbay was the site of an important North American military conflict. In 1762, British troops landed in Torbay, under the command of Col. William Amherst, and marched to St. John's to the Battle of Signal Hill (part of the larger Seven Year War) whereby the English recaptured the Hill from French occupiers. Torbay was chosen as strategic landing site for the English troops due to its proximity to St. John's as it was far enough away for the French not to notice them landing, but close enough that the men could march to Signal Hill in a relatively short time and under the cover of darkness.

Connections to St. John's were very important to the residents of Torbay early on in the Town's history. Due to the lack of suitable docking sites in Torbay Bight, large merchant schooners were not able to load and unload goods in Torbay. This meant that the local fisher and farmers had to travel to St. John's in order to buy and sell their goods. In the 1820s, a road was established between the two communities, although the condition of the road was described as not being very good. In addition, because the Bight did not support large ships, there was a lack of high class merchants in Torbay further increasing the dependence of the residents of Torbay on the commercial abilities of St. John's. During the mid 1800s many Torbay families began to move to St. John's as the population of Torbay leveled off at around 1600 people.

The population remained relatively stable for approximately 100 years until the start of the Second World War in the 1940s. It was during this time that the Royal Canadian Air Force established an airbase south of Torbay. The advent of this new development enticed many of the resident fishers and farmers to give up their traditional trades and pursue new jobs in the construction, carpentry, and transportation fields. As farmers began to abandon their profession, so too did they abandon their fields which were quickly being developed into new subdivisions needed to accommodate the new residents of the Town. By the 1960s, much of the Town's growth could be attributed to transportation improvements linking Torbay to St. John's as commuting became easier for the residents.

Present Day Torbay

The population of Torbay in the 1980s was around 4000 people and twenty years later in 2000 the population had risen to around 5500 residents. In the most recent 2006 census, the Town of Torbay has just over 6000 residents and is continuing to grow. This growth has continued to place pressure on the lands in and around Torbay as new subdivision development expands into rural area and traditional agricultural lands.

As the Town transforms from a rural community to a (sub)urban town, the need for strategic community and open space planning arises. This Open Space Management Strategy is part of the larger planning efforts that the Town of Torbay has been undertaking to prepare for management of urban growth and development.

The municipal planning area of the Town of Torbay is approximately 36 square kilometers. Within the boundaries, Torbay has 14 ponds, (1 of which is used for municipal water supply and 2 that are under watershed protection), the trail head to the East Coast Trail at Gallows Cove, two municipal parks, four playgrounds and bordering a popular golf course. Due to the hilly topography of the area, the Town also boasts some spectacular views of Torbay Bight and surrounding areas.

Biophysical Characteristics of Torbay

The Northeast Avalon is part of the larger Maritime Barrens Eco-region which extends from the east coast of Newfoundland to the west coast through the south central portion of the island (see figure 6 below). Due to its geographic location with its exposure to the North Atlantic Ocean, the summers within this eco-region are characterized by having cooler temperatures than any other eco-region within the island portion of the Province. The region often experiences strong winds and periods of thick fog. The winters tend to be mild compared to other regions of the Province with some snow cover which is intermittent along the coastline. The average annual precipitation is approximately 1250 mm².

² Source: Provincial Department of Natural Resources, Forest Resource branch



Figure 6: Ecoregion of Newfoundland. The orange area depicts the Maritime Barren Ecoregion. Subregion A is the Northeastern Barren of which Torbay is a part of.

Source: Provincial Department of Natural Resources, Forest Resource branch.

The landscape of the Maritime Barrens eco-region is characterized by vegetation growth that is stunted due to the short growing season. Balsam Fir is a dominant tree species in the region in which good forest growth is contained along long slopes. As its name suggests, the Maritime Barrens is a barren or 'heathland' noted for low growing shrubs and minimal soil cover. The heaths are dominated by sheep laurel (*Kalmia angustifolia*) on protected slopes where snow accumulates and by cushions of blueberry and crowberry (*Empetrum nigrum* or *Empetrum easmesii*) on windswept ridges and headlands³.

The Town of Torbay is part of the smaller Northeastern Barrens Subregion (A) which is characterized by lower fog frequency and somewhat warmer summers compared to subregions B and C. The landscape is extensively

forested with local heath vegetation particularly along the coast. As the glaciers rolled back and forth over the Island of Newfoundland, the ice scraped the land resulting in shallow soils and exposed bedrock. The glacial tills in the area are generally a shallow rolling ground moraine with sandy loam to loam texture⁴.

³ Ibid

⁴ Ibid



Figure 7: The landscape and flora of the Northeastern Barrens Ecoregion
 Top left- Northeastern Barren (source: Flickr)⁰; Top right- Sheep laurel (source: Wikipedia);
 Bottom Right-Crowberry (source: Wikipedia); Bottom right- Balsam Fir (source: mta.ca)

2.0 Study Approach and Methodology

2.1 Strategic Planning Process

The planning process for the Open Space Management Strategy has followed a linear route which allows for the most effective assessment and relevant recommendations to be made. The strategy has followed a four set process: identify, inventory, assess and recommend.

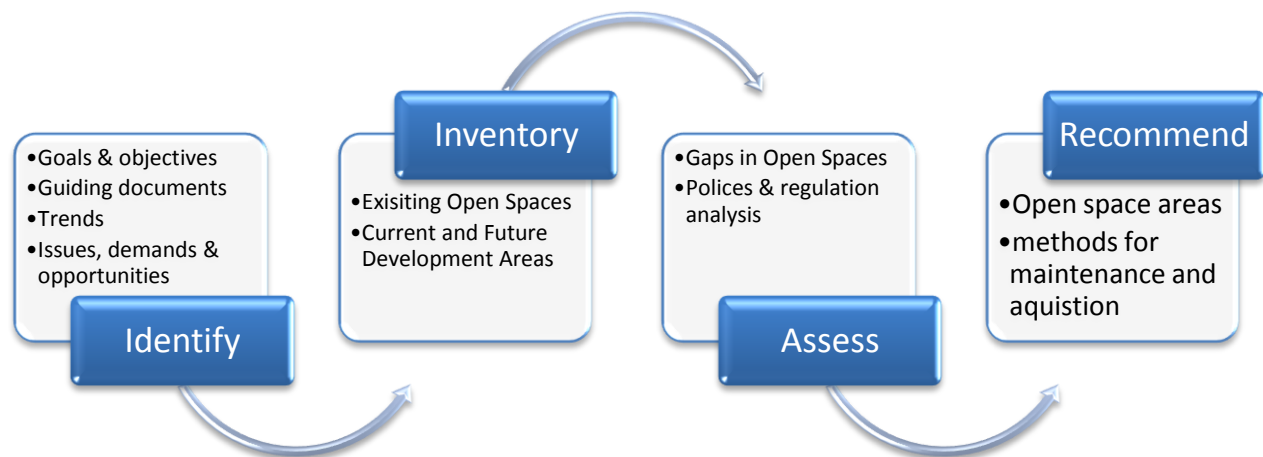


Figure 8: Open Space Strategic Planning Process

The first step in creating the strategy is to **identify** the main goals and objectives of the strategy; key supporting documents and plans which will work in tandem with the strategy; key planning, open space and demographic trends; and open space issues, demands, and opportunities. This will be covered in section 3.0 of the report.

The second step is to do an **inventory** of open spaces in Torbay. This is done by investigating what is in Torbay by doing both detail background research and a ground truthing assessment. Open spaces that will be included in the inventory are such things as parks, recreational spaces/facilities, ponds, trail network, special viewsheds, historical and cultural landmarks and sites of significance. This will be covered in section 4.0 of the report.

The third step is to **assess** the information that came out of the inventory stage of the strategy. Once we know what we have, it will be easier to see the gaps within the open spaces in Torbay. Main areas of focus for the gap analysis will be on current land use zoning and ownership issues as they relate to the proposed Open Space Management Strategy. This step is also where key policies and regulation that guide open spaces will be identified and built upon. This will be covered in section 5.0 of the report.

Finally, the fourth step in developing the strategy is to **recommend** future open space and recreation areas for conservation, preservation and development. This will be covered in

section 6.0 of the report. The strategy will also identify methods that the Town of Torbay can use to maintain the current designated open spaces and acquire future open spaces needed to fulfill the recommendations of the strategy. This will be covered in section 7.0 of the report.

3.0 Identify

3.1 Goals and Objectives

The Torbay Open Space Management Strategy is a single, comprehensive source of policy that will guide the development, acquisition and use of open space. The role of the plan will be to provide an overall vision for open space supporting Torbay in becoming a sustainable, livable and complete community. A complete community is one that meets all the requirements of its residents from economic, social, cultural, educational, health and spiritual needs. The Open Space Management Strategy aims to touch on all of these aspects in one way or another to support the 'complete community' goal.

To Guide Development...

The strategy will work in tandem with Torbay's Municipal Plan and Development Regulations. The goal of the strategy is to provide the Town of Torbay with an overall vision of open spaces within the community that will guide future development. This vision aims to be used as a template for planning open spaces, parks, and trails to be enforced at the beginning of the land use planning process, rather than integrating them at the backend of the process with the left over land. The current Municipal Plan has policies in place that support open space, recreational, rural, watershed, conservation and agricultural lands and this strategy will work in tandem with those policies.

To Guide Acquisition...

By identifying lands that should be set aside for current or future open space and recreation, the Town of Torbay will have a clear understanding of its role and responsibility regarding land entitlement and acquisition. The development of a land bank or trust may be established in order to maintain control over land that may otherwise be encroached upon by private development. Maintaining the rights of first refusal, identifying lands to expropriate and developing a land bank are all strategies that may be implored by the Town to realize the open space vision as identified in this strategy.

To Guide Use...

Once land is designated under the scope of open space and recreational uses, there will be a set standard of allowable uses for each designation. These designations are meant to be clear definition of the precise permitted and non-permitted uses of each type of open space and recreation land.

The overall goals of the Open Space Management Strategy Plan will be to provide policies and strategies to:

1. Identify and classify open spaces in Torbay and to identify ways in which these lands can become a linked network;
2. Provide strategic direction to address long term open space needs
3. Ensure the efficient, coordinated use of Open space through policy development

Coordination of policies and actions across all government departments and community efforts will be paramount in achieving the goals of this strategy.

3.2 Guiding Documents

The Open Space Management Strategy will take direction and guidance from other plans and management strategies that have been developed in the past. Some of the guiding documents have direct policy implications, such as the Municipal Plan and Development Regulations, Integrated Community Sustainability Plan, and the St. John's Urban Region Development Area Review; while others are aligned with the goals and objectives of this strategy and provide valuable insights and resources towards its development. The most influential guiding documents are:

- Torbay Municipal Plan and Development Regulations (2007)
- Torbay Integrated Community Sustainability Plan (2010)
- St. John's Urban Region Development Review (2008)
- Torbay Recreation Master Plan (2009)
- Torbay Heritage Plan (2009)
- Torbay Comprehensive Tourism Plan (2010)
- Torbay Habitat Management Plan (2001)

Torbay Municipal Plan and Development Regulations

The Municipal Plan and Development Regulations, updated in 2007, outline specific goals, objectives, general regulations and development standards for land use and development for the Town of Torbay. As such, it is a valuable resource for the purposes of this strategy as it will guide policy development regarding open space.

The various bylaws and regulations within the Development Regulations manage site developments has a major impact on the natural and built environment. Consideration is given to natural habitats and environmental sensitive areas as well as the different values and relationships that the community members share with their surrounding environment, regarding historical and cultural significance.

When assessing the following goals and objectives, certain themes or core values are apparent. The Town places high value on their natural environment in which access to natural resources such as ponds, rivers, and scenic views are important. This value is supported by development restrictions that are placed on sensitive lands and scenic areas that are seen as special to the residents. The Town and its residents are stewards of their environment and their deep commitment to its protection is evident in the Municipal Plan and Development Regulations. The preservation of traditional way of rural life is also apparent in the goals and objectives below. Farming practices as well as access to traditional hunting, fishing and wood harvesting lands are seen as important for residents. The Town has aligned these values within their planning documents to ensure that the rural way of life is not lost as urban development begins to unfurl upon Torbay. Maintaining these core values while assessing the open spaces in Torbay will be key to the Open Space Management Strategy's success.

The following table (table 1) outlines Torbay's goals and objectives within their Municipal Plan that relate to open space planning. From this table, it is evident that the Town of Torbay holds value in maintaining environmentally sensitive lands, scenic views, traditional right-of ways, and economic viability of its Town. In terms of open space management, it is important to align this strategy's goal and recommendations with the goals and objectives that have already been laid out by the Town's Municipal Plan to ensure successful 'by-in' from the Town, residents and key stakeholders.

CATEGORY	GOALS	OBJECTIVES
Physical Structure:	<ul style="list-style-type: none"> To control future growth of the Town such a manner as to develop a balanced and attractive community 	<ul style="list-style-type: none"> To allocate land for future development on the basis of its best use considering its physical characteristics and location
	<ul style="list-style-type: none"> To preserve the rural character of the Town, allowing residents to maintain their small-scale traditional agriculture uses without hindering other development or creating problems to neighboring residents 	<ul style="list-style-type: none"> To ensure that natural areas such as drainage courses, shoreline and steep slopes are protected from development to preserve environmental resources and the rural characteristics of the Town
	<ul style="list-style-type: none"> To identify hazardous areas prone to landslides and coastal erosion 	<ul style="list-style-type: none"> To preserve scenic views of the shoreline, ponds and hills, recognizing their value to residents and visitors for recreation and tourism
Economic Opportunities		<ul style="list-style-type: none"> To promote the development of facilities and attractions in promoting the tourism industry within Torbay, particularly the East Coast Trail and scenic lookouts
Transportation		<ul style="list-style-type: none"> To reserve lands for future access to backlands
Community and Social Services		<ul style="list-style-type: none"> To ensure that land is reserved throughout the Town for recreational open space
		<ul style="list-style-type: none"> To ensure public access to the major natural features of the planning area such as the ponds, streams, and ocean shoreline
Environment		<ul style="list-style-type: none"> To discourage development in areas with slopes greater than 15 percent, recognizing that development in such areas can result in environmental damages and higher costs for servicing and maintenance
	<ul style="list-style-type: none"> To protect and enhance the natural environment for its aesthetics, recreational, and resource value as reflected in the Habitat Management Plan 	<ul style="list-style-type: none"> To prevent development within the municipal watersheds
		<ul style="list-style-type: none"> To maintain a minimum 15 metre buffer of land from the high-water mark of ponds, lakes and streams to be kept generally free from development
		<ul style="list-style-type: none"> To protect natural resources from degradation including water, air soils and agricultural lands, forests and scenic areas
		<ul style="list-style-type: none"> To govern activities that threaten wetlands within the Stewardship Zone to ensure that negative impacts to the wetlands are minimized
Recreation and Tourism		<ul style="list-style-type: none"> Encourage public participation in the planning of recreational open space lands and encourage events such as festivals, sporting events and other attractions
Agriculture	<ul style="list-style-type: none"> Encourage the agricultural use of lands designated as agriculture and protect agriculture land from non-compatible development 	

Table 1: Goals and Objectives of the Municipal Plan that relate to Open Space Management

Torbay Integrated Community Sustainability Plan

Integrated Community Sustainability Plans (ICSPs) were developed as part of the Provincial-Federal Gas Tax Agreement which allocated gas tax funds to municipal infrastructure projects

with an overall goal of creating cleaner air and water and lowering greenhouse gases. The foundation of the ICSP was based on the five pillars of sustainability: environmental, economic, social, cultural and governance. Based on these principles, the Town of Torbay was assessed and specific goals and actions were laid out to make the Town a more complete and sustainable community.

Keeping in mind the objectives of the Open Space Management Strategy, Torbay's ICSP was assessed for relevant goals and actions for open space development. Below is a table illustrating the initiative outlined in Torbay's ICSP as they relate to open space management for the Town of Torbay.

PILLAR	ELEMENT	POTENTIAL INITIATIVES
Cultural	Heritage Interpretation Program	<ul style="list-style-type: none"> • Link sites for tourism attraction
	Active Living	<ul style="list-style-type: none"> • Walking and biking trails around the Town • Nature hiking trails (outdoor recreational experiences) • More playgrounds and recreation parks • ATV Trails
Social	Drinking Water Quality/Quantity	<ul style="list-style-type: none"> • Long term supply • Water conservation • Capacity to support growth
	Roads	<ul style="list-style-type: none"> • Maintenance and upgrading
	Alternative Mobility	<ul style="list-style-type: none"> • Sidewalks and accessible urban trails
	Environmental Conservation	<ul style="list-style-type: none"> • Protect natural areas including coastline
	Municipal Plan and By-laws	<ul style="list-style-type: none"> • Subdivision development by-law (lot size, green space, trail) • Buffers around wetlands and waterways • Enforce by-laws that protect environment • More green space and conservation areas
Environmental	Agriculture	<ul style="list-style-type: none"> • Conserve agricultural areas for farming
	Tourism	<ul style="list-style-type: none"> • Sustainable tourism that does not negatively impact the Town
	Municipal Plan and By-laws	<ul style="list-style-type: none"> • Locate business park away from main road as well as residential and coastal areas
Economic	Municipal Plan and By-laws	<ul style="list-style-type: none"> • Strategically planned development
Governance		

Table 2: ICSP Community Assets that relate to Open Space Planning

St. John's Urban Region Agricultural Development Area Review

The St. John's Urban Region Agricultural Development Area (SJURADA) was established in 1973 by the Government of Newfoundland and Labrador in response to the increasing demand for land traditionally used for agriculture to be used for alternative uses, especially subdivision development. When SJURADA was established in 1973, 60,600 acres of land in the Northeast

Avalon was designated for agricultural use, in 1991 this number was reduced to 42,000 acres and by 1993 to 30,000 acres.

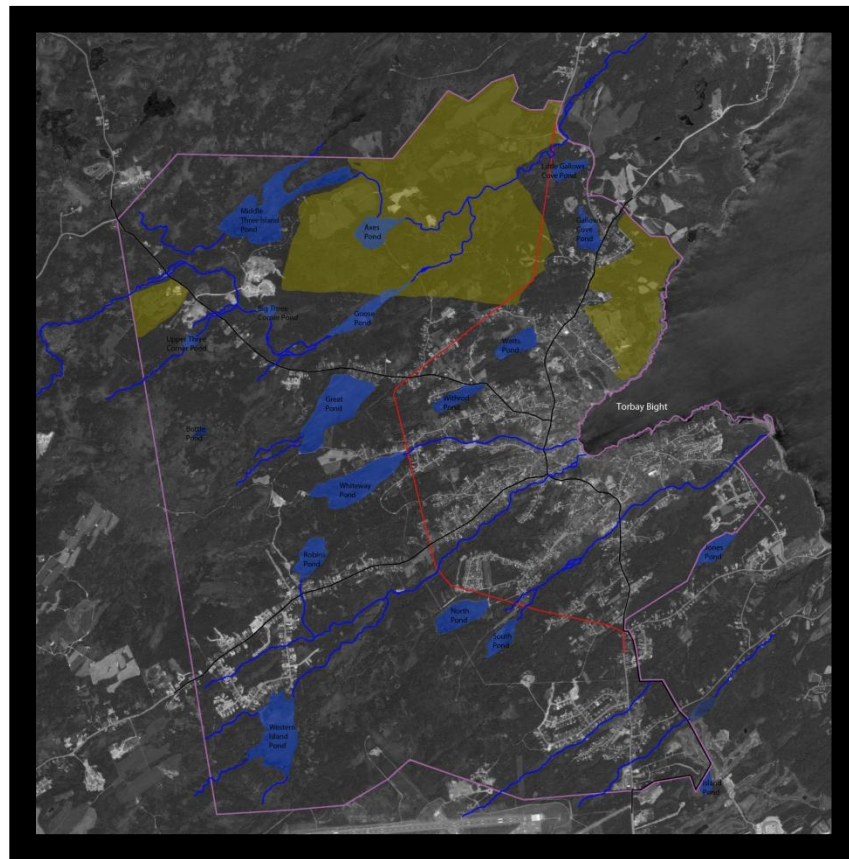


Figure 9: Shaded areas indicate the Agriculture Development Areas in Torbay

Land use planning within the Northeast Avalon Region has been managed through the St. John's Urban Region Regional Plan since 1976. While there have been some significant amendments to the Regional Plan over the years, it has not been subjected to a comprehensive review since its adoption.

- Establishing urban limits and a development hierarchy

- Identifying major transportation plans, such as the Outer Ring Road
- Establishing parameters for regional water and sewer infrastructure
- Protecting existing and future water supply areas
- Identifying areas for regional industrial growth
- Preventing inappropriate growth in the airport environs

The Plan also reflects a number of provincial interests such as

- Protection of regionally significant aggregate resources
- Preservation of agricultural lands
- Identifying and reserving existing and future provincial and federal parks and natural areas

The 1976 Regional Plan envisioned urban development concentrated in the regional centre of St. John's and Mount Pearl. Conception Bay South was identified as a sub-regional centre. Development in the other communities in the region was to occur within the limits of existing infrastructure through infilling. Major industrial lands were identified in Paradise and around the airport environs of which Torbay is included.

Much of the infrastructure envisaged in the Regional Plan has been put in place, including roads, water treatment and distribution systems, and trunk sewerage services. The Northeast Avalon Regional Plan being developed right now will pick up from the existing Regional Plan, ensure it reflects the current realities of today and plan for a sustainable future.

Torbay Recreation Master Plan

The Torbay Recreation Master Plan was developed to guide the development of parks and recreational sites and facilities in Torbay. The plan inventoried the Town's current recreational facilities and identified weaknesses and gaps within these facilities. Through public and stakeholder consultation, the Recreation Plan was able to identify issues, demands and priorities for recreational needs in Torbay. Based on this knowledge, specific recommendations were made to improve recreational opportunities, access, and facilities in the Town; (refer to section 3.4 of this report).

One of the recommendations of the Recreation Plan was to develop an Open Space Management Strategy to work in tandem with other recommendations within the report. There are many references to open space issues, needs and demands within the Recreation Master Plan that have been very beneficial to the creation of this strategy. Throughout this strategy, reference made to information from the Recreation Master Plan will be made.

Torbay Heritage Plan

The Torbay Heritage Plan is a strategic plan that outlines various historical and cultural landmarks in Torbay and methods for their preservation and presentation for the residents of Torbay. Because the Open Space Management Strategy takes into account the cultural and

historical landmarks within Torbay, review of the Torbay Heritage Plan was essential to the strategy. Creating connections, cultural and physical, to Torbay's key landmarks was apparent within the pages of the report. Open space allocation and management is critical to the fulfillment of the recommendations made within the Heritage Plan.

Torbay Comprehensive Tourism Plan

The Torbay Comprehensive Tourism Plan outlines specific things that Torbay must focus on in order to improve upon and further develop their tourism industry. Through product and market development, Torbay has the ability to attract visitors to the St. John's metro region.

The proposed products development and marketing priorities as they relate to open space in Torbay include:

- Adoption of direction from a Torbay Beautification Plan
- Torbay as a gateway to the East Coast Trail
- Further Develop simple physical assets that promote tourism, while beautifying the Town in a unique and aesthetically pleasing manner
- Development of linear system to link assets
- Implement Heritage Plan's "placemaking strategy" - Town Centre
- Assessment of Park Development
- Creation of water-based activities

As with all guiding documents, the Open Space Management Strategy aims to align the open space objectives and recommendations with those that have been made in previously agreed upon plans. The relevance of the Tourism Plan in relation to the Open Space Management Strategy is to define open spaces in Torbay in such a way that it can be capitalized upon and support tourism industry development. In turn, what is good for the residents is also good for visitors and as such strategic planning of the development of amenities will aid both the overall quality of life for residents, but also provide tourism opportunities for visitors.

Torbay Habitat Management Plan

The Torbay Habitat Management Plan, written in 2001, is a joint effort between the Town of Torbay, Eastern Habitat Joint Venture (EHJV), and the provincial Department of Environment and Conservation's Inland Fish and Wildlife Division. The plan recognizes that there has been a significant loss of biodiversity in North America over the last 50 years which can partly be attributed to the loss of habitat to urban, industrial and agricultural development. Wetlands, in particular, experience the greatest threat of being lost to urban expansion and therefore need protection. The aim of the plan is to identify and protect valuable wetlands and the Town of Torbay has been identified as having significant wetland areas with "hot spots" of waterfowl habitat.

Through Municipal Stewardship Agreements, like the one signed by the Town of Torbay and the Government of Newfoundland and Labrador in 1997, the protection of wetlands within the Town's boundaries are managed with technical direction provided by the EHJV. The plan provides the Town with valuable information such as an inventory of sensitive wetlands and wildlife species, while providing tools and methods for their protection.

THE HABITAT MANAGEMENT PLAN	
The Plan's Purpose:	The Town of Torbay will use the Habitat Management Plan as a guide to govern activities within the Stewardship Zone and ensure that negative impacts to wetlands are minimized. These recommendations are provided to the Town for the best management of these wetlands, and in particular the designated Management Units
The Plan's Goals:	<ol style="list-style-type: none"> 1) To protect and conserve wetlands within the Stewardship Zone 2) To maintain and/or increase wildlife use of those areas, particularly by waterfowl 3) To increase public awareness of the importance of wetland habitats
The Plan's Objectives:	<ol style="list-style-type: none"> 1) To present an assessment and inventory of the wetland habitat 2) To describe existing land use practices 3) To suggest protection and enhancement strategies for wetland habitats 4) To propose management policies for the Stewardship Zone 5) To describe initiatives for education and awareness among the public in order to increase the support and cooperation of the Town's citizens.

Table 3: Habitat Management Plan's purpose, goals and objectives⁵

The open space implications of the Habitat Management Plan will be to maintain continued protection of the identified sensitive wetland areas. These lands have valuable ecological and social significance as important wildlife habitat, bird watching areas, and light recreational lands. Regulation of their uses is important to maintaining these functions.

3.3 Identifying Trends

Development Trends and Spatial Patterns

Since the 1990s there has been a growing trend in spatial patterns and land development in regards to increasing attention on creating more sustainable, livable neighbourhoods and more 'complete communities'. The recent trends in development have indicated the need for planners to focus attention on revitalizing existing municipal neighbourhoods, using compact and mixed land use, creating public community centers and open spaces, and protection of environmentally sensitive land. Planning theories have been, and continue to be, heavily influenced by other theoretical developments in other academic disciplines such as economics, politics and sociology. The key to achieving a coherent strategic plan is to understand the

⁵ From the Habitat Management Plan

network of stakeholders and their values of open space as well as the relationship between the planning process and the strategic goals and objectives.

Recent trends and key learnings suggest that a conservation approach towards development is the new benchmark. Furthermore, assessing the supply and demand for open spaces will provide a base or framework for future policies to be incorporated into planning for future development.

Areas of open space are important townscape features and are integral parts that define the character and identity of many communities. Conserving and protecting the environment and key open spaces are among the core strategies in the emerging trends and patterns. Key learnings have recommended that open space standards need to consider issues of accessibility, quality, quantity, maintenance levels, various interest groups and governing bodies.

The critical question is “how is open space valued?” Clearly, the value of open space can be very different for different groups in society. Students, seniors, young families, municipal planners and property developers, for example, might all view the same open space very differently. However, in terms of quality, people are more likely to travel further to reach a well-maintained park than settle for the nearest open space, regardless of its character and facilities.

Demographic Trends⁶

The demographics of a region have several implications for open space management. In Torbay, these are:

- From 1986 to 2006, the Town of Torbay’s population grew from 3,886 to 6,281 which was a 61% overall increase. The period that saw the most increase was from 1986 to 1991 with a population increase of 21%. Accordingly, there was an 11% increase from 1991 to 1996; a 4.6% increase from 1996 to 2001, and a 15% increase from 2001 to 2006. This is seen as a positive trend as the Town has been experiencing growth in the past 20 year which is predicted to continue in the future. Table 4 below illustrates the population trend over the last 20 years.

⁶ From the Torbay Recreation Master Plan

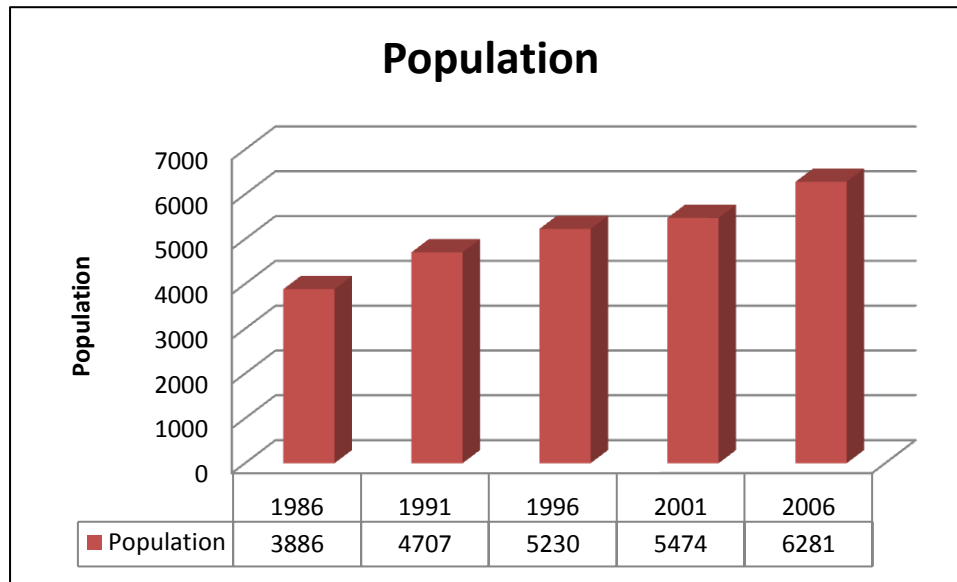


Table 4: Population Change in Torbay from 1986 to 2006; Source: Statistics Canada

- The slowest growth rate was during the 1996 to 2001 period which can be attributed to the collapse of the cod fishery and high numbers of outmigration. While this economic downturn devastated many small communities in Newfoundland, the Northeast Avalon, including Torbay, managed to overcome this period relatively well only reporting minimal loss and setbacks.
- Much of the growth preceding this challenging economic time can be attributed to the growth and well-being of the metro-region of St. John's. Competitive housing prices and improvements in highway access also aided in the region's growth. In addition to St. John's growth, the Province was also exploring new energy resources with the development of the Hibernia offshore oilfield.
- The Newfoundland and Labrador Statistics Agency (NLSA) predicts that Torbay's population growth will continue to 2026 years with low, medium and high case scenarios all indicating a positive population growth. These range from 7,221 in 2026 under the low scenario to 8,562 under the high scenario. Table 5 below illustrates the population projections for the Town of Torbay.

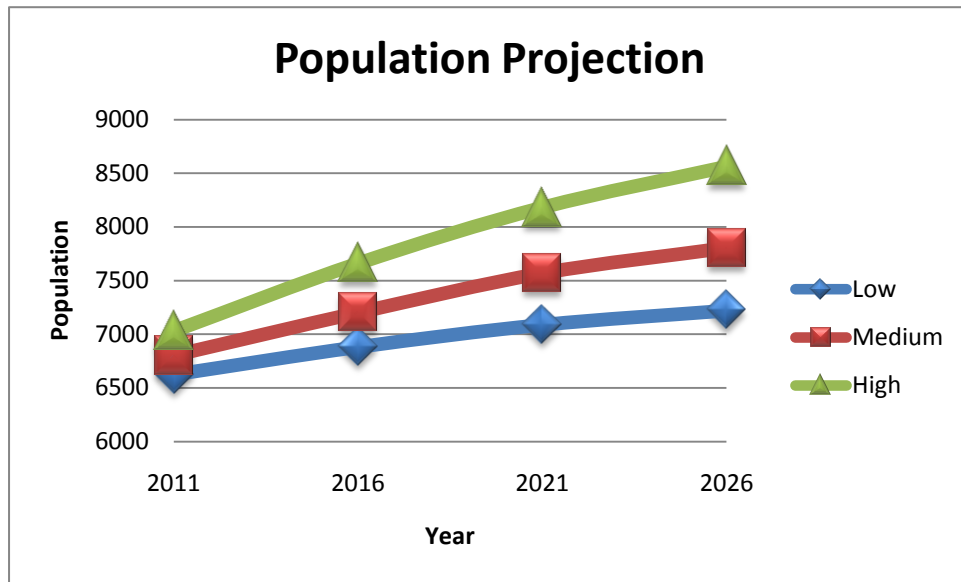


Table 5: Population Projections for Torbay; Source: Newfoundland and Labrador Statistics Agency

- In conjunction with population numbers, the demographic breakdown in Torbay has also been experiencing change. There has been a continuous aging trend within Torbay's population from 1986 to 2006 with NLSA predictions indicating a continuation of this trend to 2026.

Income Trends

- According to the 2006 census, the average household income in Torbay was \$81,236.
- Although there is some variation, there does not appear to be a particular or noteworthy pattern in the distribution of income across various neighbourhood in Torbay. This said, it can be noted that newly developed neighbourhoods tend to have slightly higher incomes than established neighbourhood, although there is not adequate difference to make a clear distinction.

3.4 Issues, Demands and Opportunities

As part of the Torbay Recreation Master Plan's public consultation process, key stakeholder consultations and a public survey (available on the Town website) were utilized to gauge the recreational needs and opportunities within Torbay. While there were many issues that resulted from these consultation processes, there were eight in particular that related to open space. These are listed and described below.

Parks and Open Space Needs*

1. Integrated trail system that recognizes traditional trails
2. More community wide and neighbourhood parks and playgrounds
3. More bicycle trails
4. Centrally located community wide outdoor recreation facility
5. Develop Community gardens
6. Increase outdoor water based recreational activities at ponds
7. More nature oriented activities
8. Regulations to protect and promote significant areas and wetlands

*From Torbay Recreation Master Plan

1. Develop an integrated trail system that recognizes traditional trail routes.

Stakeholder consultations identified trails as an important component of life in the community. Of the respondents who answered the question on which outdoor parks and recreation spaces are important, 67% of the public survey respondents said that trail and pathways were the most important.

Trails are one of the most cost effective recreational amenities that a community can provide for its residents as it serves a broad cross-section of the population. Trails and pathways are so important to the Town of Torbay, that a community group, the Torbay Environment & Trails Committee (TETC), has been established. The group has identified and mapped 54 kilometers of trails within the Town boundaries.

As Torbay changes from a rural to a suburban community and as more of the Town's open spaces and rural lands are being developed, public access to existing traditional trails, access points, and snowmobiling routes are being lost. To protect the public access of these traditional trails, there must be policies which support the protection of land while also

protecting rural resource such as the natural environment, important viewsheds, and access. In addition, development of various different types of trails would also aid in protecting and enhancing the current and future trails of Torbay.

Stakeholders have stated that a hierarchy of walking trial types should be established. These types of trails would take into consideration various aspects of the trail such as hiking and nature trails, difficulty based on slope, trail surface and ease of access. In terms of different trail usages, different type of trails to accommodate snowmobiles, ATV's and mountain bikes should be protected or realigned while access points to the East Coast Trail should be maintained.



Figure 11: Torbay Trail; Source: David Maynes

In addition to the organization of trails, the Town also needs to develop standards for trail development. This is especially true around sensitive areas such as ponds. For example, the Upper Three Corner Pond trail has been crudely built over a long period of time resulting in trails that are no longer usable. An integrated approach to trail development is required to ensure the protection of land for future development. By following through with this approach, it will also ensure development and maintenance standards are followed.

Finally, an integrated trail system would also provide the residents of Torbay with a safe alternative to walking along the busy roads. Residents who are walking to the Town's centre currently must walk along the road, which there are no sidewalks and few crosswalks. The absence of traffic lights also makes crossing a busy intersection dangerous for pedestrians, especially at night when visibility is low. This is a concern of pedestrians and parents whose children cannot safely walk or ride their bikes along the main thoroughfare. Thus, the development of greenways, bikeways, and pathway is a key priority for Torbay's open space system.

2. More community wide and neighbourhood parks and playgrounds.

Residents and stakeholders indicated that they would like to have more parks and playgrounds available to them. Over half of the respondents felt that "lots of smaller neighbourhood park/playgrounds" were the most important outdoor parks and recreation space in the Town. This was mirrored in the stakeholder consultation confirming that residents want parks and playgrounds that are close to neighbourhood and that are easily accessible. Currently, the Town has two large community parks: Upper Three Corner Pond Park and the Kinsmen Place.

3. More bicycle trail opportunities.

Stakeholders have asked for more cycling trails. Although Torbay still has huge tracts of undeveloped lands, many traditional trails that were used in the Town for biking have either been lost to development, or in some cases, access has been cut off. Bicycling is a recreational activity that people of all ages can enjoy and is a popular family activity. Residents would also like to develop bike trails as part of the transportation network, especially allowing access to the centre of Town, school and key amenities. The demand for more bicycles opportunities can be met by including more bike trails in the integrated multi-purpose trail system discussed above. Such a plan would include proximity to neighbourhoods as an important consideration to developing bike trails. Several studies show that the closer people live to a bikeway, the more likely they were to use it. The cost to meet this demand would be included in the cost to develop the integrated multi-purpose trail system.

4. More centrally located community-wide outdoor recreation facilities

Some recreational and outdoor amenities in the Town of Torbay are remote from the centre of Town. Upper Three Corner Pond Park is an example of an existing recreational facility that is removed from the Town's core and residential development. Users are not within walking distance to their sports and recreation activities, and are required to drive. However, there are other amenities which are more centrally located in which usage is higher, such as the Kinsmen Community Centre. Central Torbay, which is defined as the area containing the Municipal Centre, two schools, and beach, has been identified as a key social, economic, environmental and governance hub. As such, access and programming and within this area is vital to the community. A Community Center has been proposed for this area of Torbay as one of the recommendations of the Heritage Plan and the Recreation Master Plan.

5. Community gardens for residential use and education.

There are many economic, social, health and ecological benefits to community gardens. Municipal gardens, also called Community Supported Agricultural sites (CSAs), provide local residents with an opportunity to get exercise, improve their diets, learn new skills, socialize, and relax. Stakeholders would also like to have one or two community gardens where residents can produce their own food and ornamental plants, and also have the opportunity to learn gardening skills which that can be used in their own backyards. CSAs should be located in new and established neighbourhood parks. A local farmer, a knowledgeable resident, and/or an interested community groups (such as TETC) who have the necessary skills and knowledge can be involved to assist with local gardeners.

CSAs are also less expensive than parks to develop and maintain. The municipal cost to develop CSAs would include the cost to purchase the lands (if necessary) and do the initial land clearing (if necessary). Ongoing costs would costs to augment the soil, and prepare for the changing seasons. While a CSA may have some associated costs, the successful implementation and operation of a garden has been showed to increase revenues back to the municipalities as they

increase property value and thereby increase the Town's tax revenue. By integrated productive landscapes into the community's park as proposed, there is further potential for revenue to maintain the parks as well.

6. More opportunities for outdoor water-based recreational activities at ponds.

With 17 ponds within the Town's municipal boundaries, Torbay has an excellent opportunity to develop water based recreational and tourism activities: laser sailing, kayaking, canoeing, swimming, and water safety programs. Such activities appeal to a wide demographic and support a variety of programming activities and formats ranging from: competitions, special events, clubs, environmental education, outdoor leadership, and tourism interest.



Figure 12: Three Corner Pond; Source: David Maynes

7. More outdoor nature oriented activities.

As identified in the Recreation Master Plan, respondents of the public survey and stakeholders both agreed that nature oriented activities are important to the Town. Torbay has an abundance of nature with several fresh water ponds, forests, wetlands, wildlife, a diverse range of flora and fauna, and trails. Nature oriented activities include: educational hikes, fishing, and canoeing, wildlife viewing, and berry picking. Such activities are suitable for all age groups, from youth to seniors, from singles to families, and all income levels. Socially, nature orientated activities and programs are important ways for residents and visitors alike to connect with nature and with their community and with each other. It fosters a sense of community and identity. Outdoor nature orientated activities is a continuing trend towards more experiential programs in which the user is emerged as a participant rather than a passive observer.

Natural areas must be identified for preservation to support this demand. Having a staff member at least partly dedicated to outdoor nature orientated activities is also necessary. Working closely with the Supervisor of Recreation and Healthy Living, a recreation assistant/special events coordinator may be hired to support these activities and programs. This new hire would also work closely with community groups such as TETC. In addition to staffing costs, the other costs associated with meeting this demand would be relatively low in terms for office supplies and promotional material.

8. Stronger regulations to protect significant areas and wetlands.

As part of the Town of Torbay Development Regulations, the Town has identified the western area of Town along North River as the Stewardship Zone and the areas around Gosse's Pond (Big River area) and Western Island Pond as being within the Management Unit. These areas have been identified as having significant bio-diversity, sensitive wetlands, water fowl habitats and as such have additional development restrictions and review processes applied. These restrictions need to be enforced in order to maintain for these habitats to maintain their ecological diversity. In addition to development restrictions, environmental education and public awareness will play a key role in the protection of these sensitive areas.



Figure 13: Big Brook Pond; Source: David Maynes

Open Space Demands Matrix

Table 6 (below) provides a summary of the open space and recreation needs and demands with their correlating expected outcome. It is the aim of this strategy to ensure that each one of these demands is met in order to provide the Town and its residents with the most complete Open Space Management Strategy possible.

The expected outcomes will be further expanded upon in greater detail in the recommendation section of the report (section 6.0).

Need	Demand	Expected Outcome
Integrated trail system	More trails	Multi-purpose Trail System
Parks and Playgrounds	Better access to more parks and playgrounds	Parks & playgrounds linked & integrate with trail system
Bike Trails	More bike trails	Multi-purpose Trail System
Community Garden	More community gardens	Build more community gardens
Water based activities	Better access to ponds and more water activities	Prohibit development of water's edge & provide more water based activities
Nature oriented activities	More programming for outdoor activities	Hire new staff member to coordinate outdoor programming
Wetlands	Better protect sensitive areas	Stronger protection regulations & Environmental education programming

Table 6: Open Space Demand Matrix

4.0 Inventory

4.1 Inventory Methods

The purpose of the preliminary site assessment is to gather information to support open space planning, evaluate potential sites for compatibility for the proposed project or use, recognize concerns requiring additional study and form an understanding of the administration requirements of the project. The benefit of this inventory phase is to identify land management issues and assess potential open space and future use.

As part of the inventory, members of the Tract Consulting team undertook a field investigation that identified open space opportunities within the Town's boundaries. The inventory took place in two phases: the first was a general inventory conducted by driving around Torbay and all of its back roads; and the second was an on-foot inventory in which a team member performed a more detailed analysis of the open space opportunities.

During the initial drive-by inventory, a better understanding of the general physical character of Torbay and identified areas requiring further investigation. A general plan of key elements, proposed linkages, and a general inventory template for open space site selection for Torbay was developed. This template was later tested in the second phase of the inventory when ground-truthing methods via Geographic Positioning Systems (GPS) and Geographic Information Systems (GIS) technology were used in the field assessment.

Open space lands were categorized into four main types: natural, recreational, social and cultural, and additional remaining open spaces. Open space lands that fell into the natural open space typology included: woodlands, wetlands, stewardship zones, management units, conservation lands, ponds, streams, watershed areas, coastlines and agricultural lands. These are discussed in further detail in section 4.1. Following natural open spaces, inventory of existing recreational open spaces were identified. Within this typology, open space lands included: trail networks, neighbourhood parks and playgrounds, gardens, and sports fields and athletic courts. Descriptions of these open spaces can be found in section 4.2 of the report. The third typology of open space that was identified was the social and cultural spaces which included cemeteries, monuments, and cultural and historic landmarks; section 4.3 identifies these open space lands. Finally, the remaining type of open spaces that were included in the inventory was intended as a 'catch-all' typology which includes the highway bypass corridor.

Diagrams 1-4 located in the Appendix illustrates current existing open spaces in Torbay.

4.2 Existing Natural Open Spaces

Woodlands

Within the Torbay Planning Area, there are large tracts of land that are designated as Rural under which woodlands/forest are categorized. These woodlands are used by the residents for a number of uses ranging from hiking trails to wood harvesting. The Municipal Development Regulations Rural Zoning policy states that areas containing forests will manage and support the use of the area for long-term domestic wood supply, recreational opportunities, and wildlife habitat. It is important that this resource be well managed and the Town will, in conjunction with the Department of Natural Resources, work to manage the forests for continued use by the public.



Figure 14: Torbay Wood lands;
Source David Maynes

Development Regulations also state that that where forest cover exists, it shall be maintained, managed and harvested unless the land is cleared for agricultural use and that selective forestry activities may be permitted providing they cause no detrimental effects on water quality. No development is permitted in the Rural zone except those associated with agriculture, forestry, mineral workings, outdoor recreation, or resource conservation. Other uses, as outline in the Municipal Plan, may be approved at the discretion of Council.

Wetlands

Wetland habitats in the Town of Torbay fall into two distinct types/categories: shallow open water with less than two metres of water and freshwater marshes. The freshwater marshes in Torbay include areas along stream edges and around Western Island Pond, Gosse's Pond, Upper Three Corner Pond, and Lower Three Corner Pond. The majority of the wetlands in Torbay are the shallow open water type. Ponds under this designation include: North Pond, South Pond, Robin's Pond, Whiteway Pond, Withrod Pond, Great Pond, Axes Pond, and Middle Three Island Pond. While the vegetation is typically sparse in these areas, common flora found in these areas includes such plant species as: bullhead lily, burreed, beaked sedge, water lobelia, and northern pipewort.



Figure 15: Flora of Torbay's wetland
 Top Left- Burreed; Top Right- Pipewort; Bottom Left- Beaked Sedge; Bottom Right- Bullhead Lily;
 Center- Water Lobelia

Current initiatives that involve the protection of wetlands include the TETC's Gully Project. The Gully is an important wetland located in the busiest section of Torbay as it is adjacent to both Holy Trinity Elementary and High schools and a number of businesses. Due to its location, the Gully has major potential for education and interpretation programs. The Gully Project aims to increase awareness and protection through stewardship to support the preservation of this important ecological habitat. Environmental education and public awareness are the best protection tools for sensitive areas such as wetlands. The TETC has initiated environmental education programming for the Gully wetland in the past and hope to continue this into the future as a means of protection of the area.

Torbay's Town Council is supportive of preserving the town's wetland resources as indicated by their signing of the Wetland Habitat Management Plan, which continues to be refined and updated. Torbay boasts an intricate network of waterways weaving throughout the town and surrounding areas, many containing populations of Rainbow Trout. These trout are not found anywhere else on the island in such numbers, thus creating a rare ecological and recreational asset that needs to be both promoted and protected.

Stewardship Zones and Management Units

Based upon suggestions made to council by the EHJV, wetlands are designated under the Stewardship Zones and Management Units in the Torbay Development Regulations. The Stewardship Zone includes all significant wetland in Torbay while the Management Unit creates a buffer zone of up to 150 metres around the Western Island Pond from development.

The Town has identified the western area of Town along the North Pond River as the Stewardship Zone and the areas around Gosse Pond and Western Island Pond as being within the Management Unit. These areas have additional development restrictions and review processes applied. These restrictions must be followed if these areas are to retain their habitat qualities. Any application for development in wetlands areas within the Stewardship Zone is reviewed by Council to ensure that the proposed development does not have a negative impact on sensitive wetland habitat. Where any development may have impacts, Council will establish mitigation measures to be used by the developer to reduce habitat degradation that may result from development in the zone.

The Torbay Zoning map shows a Stewardship zone that covers the western half of the Town with a section that covers the North Pond River. The main areas of concern within the Stewardship area include:

- Western Island Pond & Upper Three Corner Pond: located in the southwestern part of Town which supports an abundance of aquatic vegetation along the shore due to the existing mud substrate.

- Gosse's Pond: located in the northern section of the Stewardship Zone, this pond is a long, narrow, shallow wetland with a mud substrate. Very little of this wetland has any open water by mid-summer due to the abundance of aquatic plants, and most waterfowl activity is concentrated in the marsh habitats.
- The Gully: located along the North Pond River, the Gully is a small wetland situated within the developed area of Torbay. Waterfowl use it to feed and rear broods, and Osprey have been observed taking fish here. Its proximity to local schools and residences make the Gully an ideal candidate for a wetlands interpretation site.

Any application for development within the wetland areas in the Stewardship Zone is reviewed by Council to ensure that the proposed development does not have a negative impact on waterfowl habitat within the sensitive wetlands. Where development may have an impact, Council will establish mitigation measures to be used by the developer to reduce any habitat degradation that may result from development within the Zone.

Conservation Areas

Under the policies of the Municipal Development Regulations, Conservation Areas are designated throughout the Town. The Conservation designation applies to the open undeveloped lands around Torbay Bight, the shoreline of ponds and wetlands, and the banks of streams. Lands are designated Conservation to protect important features of the natural environment, to ensure public access, and maintain the rural character of the Town. In most cases, these areas are located where municipal services cannot be feasibly extended⁷.

Ponds

Within the Town's municipal boundaries are a number of natural assets, such as their ponds, that are considered to be of great ecological and recreational value to the residents. Torbay has 15 ponds within their boundaries and borders on two additional ponds for a total of 17 ponds that the residents have access to. Table 7 references Torbay's ponds and their potential.

Pond Name	Existing Condition	Potential
Middle Three Island Pond	<ul style="list-style-type: none"> • Large pond with some country homes in the area 	<ul style="list-style-type: none"> • Proposed to be incorporated into an outdoor adventure park reserve • Provide more public access
Axes Pond	<ul style="list-style-type: none"> • Currently within the ADA • Little public access 	<ul style="list-style-type: none"> • Long term potential as a neighbourhood amenity
Little Gallows Cove Pond	<ul style="list-style-type: none"> • Conservation lands surround pond and an ROS area along the north side 	<ul style="list-style-type: none"> • Potential for future park space • Trail linkages through conservation areas
Gallows Cove Pond	<ul style="list-style-type: none"> • Conservation lands surround pond and link to the Little Gallows Pond 	<ul style="list-style-type: none"> • Trail linkages connect to the coast
Upper Three Islands Pond	<ul style="list-style-type: none"> • Large park currently and Camp Carey • Conservation lands surround pond 	<ul style="list-style-type: none"> • Excellent potential to become a major park for recreational water use

⁷ Development Regulations

Big Three Corner Pond	<ul style="list-style-type: none"> Quarries nearby Limited public access 	<ul style="list-style-type: none"> Long term potential
Gosse Pond	<ul style="list-style-type: none"> Wetland area with seasonal changes Protected under the Management Unit from development and motorized recreational vehicles 	<ul style="list-style-type: none"> Limited development potential due to restrictions for sensitive habitat related to water fowl habitat
Great Pond	<ul style="list-style-type: none"> Within the Municipal Watershed zone Town's future water supply 	<ul style="list-style-type: none"> No potential for development as it is designated as a Municipal water supply
Withrod Pond	<ul style="list-style-type: none"> Conservation lands surrounds pond Good trail development Centrally located to Town's population Some existing development in area 	<ul style="list-style-type: none"> Could be a key recreational resource for residents
Watts Pond	<ul style="list-style-type: none"> Conservation area surrounds pond Centrally located to Town's population Adjacent to subdivision zone 	<ul style="list-style-type: none"> Could be a key recreational resource for residents
Whiteway Pond	<ul style="list-style-type: none"> Current day park Zoned ROS New by-pass highway will impact eastern edge of pond Conservation area surrounds pond 	<ul style="list-style-type: none"> Determine full impact of by-pass highway on park space
Robins Pond	<ul style="list-style-type: none"> Conservation area extends to pond but does not surround it Located close to new subdivision developments 	<ul style="list-style-type: none"> Potential for future park space Trail linkages through conservation area
Western Island Pond	<ul style="list-style-type: none"> New residential neighbourhood developing around the edge of the pond Protected under the Management Unit with a 30m buffer and motorized recreational vehicles Conservation area surrounds pond 	<ul style="list-style-type: none"> Limited recreational potential due to restrictions and sensitive habitat
North Pond	<ul style="list-style-type: none"> Town's current Municipal water supply In the watershed zone 	<ul style="list-style-type: none"> No potential as it is the Town's Municipal water supply
South Pond	<ul style="list-style-type: none"> In the watershed zone 	<ul style="list-style-type: none"> Possibility of being removed from watershed zone
Jones Pond	<ul style="list-style-type: none"> Town boundary along one side of the pond Partial trail around the pond Within conservation area 	<ul style="list-style-type: none"> Neighbourhood amenity
Island Pond	<ul style="list-style-type: none"> Town boundary along one side of the pond Adjacent to an RSA area 	<ul style="list-style-type: none"> Neighbourhood amenity
Bottle Pond	<ul style="list-style-type: none"> With watershed zone 	<ul style="list-style-type: none"> limited recreational activity due to current zoning

Table 7: Torbay Ponds and their Potential

Streams

In Torbay, there are a number of streams and brooks that run through (and beyond) the boundaries of the community. There are some that connect different ponds to make an elaborate water network and large watershed areas with some of the streams eventually flowing to the ocean. As part of the Open Space Management Strategy, these water networks represent a valuable resource within the community and as such conservation areas have been designated around the banks of streams that prevent unwanted development along the water's edge.



Figure 16: Left- North Pond Brook, Right- Stream with St. Nicolas Church in background

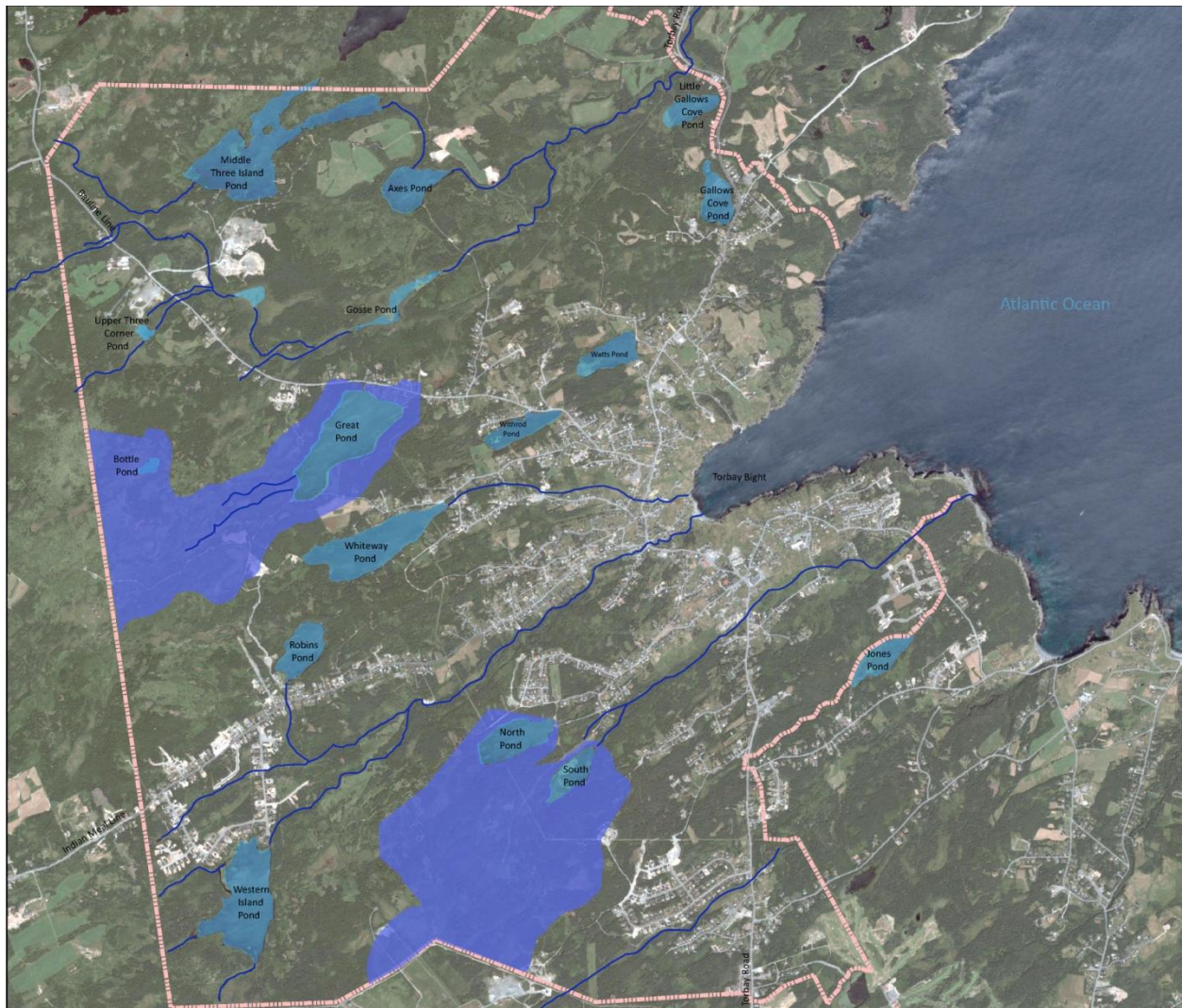


Figure 17: Torbay Water Network

Watershed Areas

The land within the Municipal boundaries is divided into five main drainage areas. This are listed in the table 8 below. The main watersheds that will be taken into account for the purpose of this strategy will be those that are part of the municipal water supply: Great Pond, North Pond and South Pond.

WATERSHED DRAINAGE BASINS		
Number	Ponds Included	Drains to
1	North Pond & South Pond	East to North Pond Brook
2	Western Island Pond & Robin's Pond	East to Western Island Brook
3	Whiteway Pond	East to Torbay Bight
4	Withrod Pond & Watt's Pond	East to Torbay Bight
5	Great Pond, Gosse's Pond & Middle Three Island Pond	Flatrock Cove via Picco's Brook

Table 8: Watershed Drainage Basins⁸

⁸ From Torbay Habitat Management Plan

Watershed designation within the Development Regulation is designed to preserve the water quality of the North Pond, South Pond, and Great Pond as municipal water supplies. The boundaries of the designation are intended to take in all lands which drain into the ponds⁹. Water quantity is a major issue for the Town of Torbay as there are worries of a water shortage as the Town continues to grow. While the Town is currently only using one of the three designated Municipal water reservoirs, development of the remaining two is costly. In addition, there are talks of removing South Pond as a Municipal water source.

Coastlines

Torbay Municipal boundaries border along the Atlantic Ocean and the Torbay Bight which acts as one for the main focal points of the community. The coastline offers a tremendous amenity in terms of the Town's identity, historic landscape, views hiking trails and a public beach. The geographic features of the coastline are steep cliffs with many exposed rocks along the water's edge which provides dramatic ocean scenes but could also be dangerous for people who get too close to the cliff edges. Torbay's coastline is designated under the Conservation zone and as such development is very limited. Additionally, Provincial regulations mandate a minimum 15 meter buffer from the high water mark along the coastline.



Figure 18: Mouth of North Pond Brook into Torbay Bight

Due to such dramatic coastline, docking of boats and other marine vessels is limited to the north side of the Bight. The Torbay Harbour Authority maintains one docking site/ boat launch that is accessed on Tappers Cove Road.

⁹ From Development Regulations

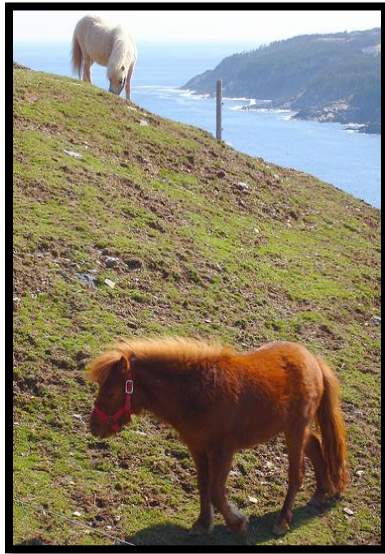


Figure 19: Newfoundland Ponies in Torbay

Agricultural Lands

Lands within the municipal planning area which form part of the Agricultural Development Area (ADA) for the St. John's Urban Region are designated as Agricultural Development Areas for Future Land Use Maps 1 and 2. There are three primary areas: west of Bauline Line (Connor's farm); west from Torbay Road surrounding Axes Pond; and east of Torbay Road around Ryan's dairy farm¹⁰.

Traditional small scale hobby and subsistence agriculture uses may be permitted within residential zone. The minimum lot area required for a particular use shall be determined by Council in conjunction with the Department of Natural Resources and the Department of Environment and Conservation, considering factors outlined in the Torbay Municipal Plan. The minimum lot area shall be no less than 2,500 m²¹¹.

The Torbay zoning map shows a 610-metre buffer around existing livestock operations. No development within a livestock buffer shall be permitted without the approval of the Department of Natural Resources and the Department of Environment and Conservation¹².

4.2 Existing Recreational Open Spaces

Trail Network

The Torbay Environment and Trails Committee (TETC) is a local community group that is dedicated to preserving and promoting trails, environmental protection and educational programming for the residents of Torbay. The work that has already been done by TETC has been valuable in terms of inventorying the existing trail network in Torbay as they have identified seven trail routes with varying difficulty ranging from easy, moderate and difficult. Ranking takes into account aspects such as: trail surface material, slope, length, and terrain. Trails also differ in terms of landscape from informal passages over farmer fields to steep coastlines.

In addition to the local trail network, a five kilometer portion of the 540 km East Coast Trail runs through the Town of Torbay, locally known as the Father Troy Trail. This trail is seen as a key tourism and recreational asset for the Town as both residents and visitors alike are drawn to the trail. The East Coast Trail is promoted as being a hiking trail only as cycling, 'heavy animal' (horses), and motorized vehicle use of the trail is prohibited. The trail is maintained by the

¹⁰ From Development Regulations

¹¹ Ibid

¹² Ibid

volunteer members of the East Coast Trail Association who regularly hike the trail for site inspections and enforcement of the trail rules.

Neighbourhood Parks and Playgrounds

Torbay currently has two community wide parks: the Kinsmen Community Centre Park and the Upper Three Corner Pond Park. The Kinsmen Community Centre Park is centrally located within the community and is used by a number of community groups and is well maintained. The Upper Three Corners Park has well maintained sports field. It also has the potential to be developed further with an expansion of the parkland¹³.



Figure 20: Upper Three Corner Pond Park; Source: David Maynes

Issues with the Three Corner Pond Park include an unused trail that loops around the pond that is now overgrown. In addition, the park is located on Bauline Line and as such is disconnected from neighbourhoods and the residents who would be using the park. In face of these issues, there are many potential opportunities for the park as it has the potential to become a community-wide park and a regional attraction.



Figure 21: Neighbourhood Park; David Maynes

Kinsmen Place is a centrally located multi-purpose park. The facility includes a children's playground (for which a new development concept has been prepared), a tennis court, a basketball court, skate park, ball hockey court and a small community centre. Kinsmen Place is well used by community groups and residents ranging from committee gatherings, and fundraising events to birthday parties and wedding/baby showers.

In addition to the community scale parks, Torbay maintains four smaller neighbourhood parks. Three of these four parks have recently completed redevelopment plan plans for improvements. These three parks include: Western Island Pond, Rosebud Avenue, and Kinsmen Place. In addition, a redevelopment plan is also underway for Motion Drive.

¹³ From the Torbay Recreation Master Plan

Gardens

The residents of Torbay take great pride in their own personal gardens, and this value is reflected in the civic/public gardens that are within the Town. Each year, a Beautification award is awarded that encourages residents and businesses to take care of their gardens. Currently, the Town of Torbay has community rock garden that was built by the Torbay Environment and Trails Committee (TETC) which is located near the Veterans Memorial Site. The garden is educational and provides visitors with a place to relax and reflect. The TECT plans to also build a larger garden at a new location. In addition to the rock garden, a civic memorial garden located next to the Old Holy Trinity Cemetery. Garden amenities include several benches and picnic tables and the garden is intended to provide the residents of Torbay with a passive space for day-use activities.

Sports Fields and Courts

Currently, the Town has number of sports fields and courts available to the residents¹⁴. There is one regulation size soccer field at the Upper Three Corner Pond Park. The surface of the fields is somewhat uneven and has some areas of compaction and poor water drainage which has led to water accumulation in the northeast corner of the field. A school owned soccer field was recently lost due to the construction of a new elementary school.

There are two baseball diamonds in Torbay, one programmed for softball and the other for minor softball. The senior softball diamond, located at the Upper Three Islands Pond Park, is in good condition is in need of upgrade that would improve the site. The field lights are almost 20 years old and as a result of the age, the poles are tilted and in need of maintenance. The minor softball diamond located at the Kinsmen Community Centre Park is in good condition.

Torbay has two tennis courts. They are both part of a multi-use activity park at the Kinsmen Community Centre Park.

Torbay has a total of four basketball courts all located at the Kinsmen Community Centre Park. During the summer months, nets are put up on the hoops and all four courts are in excellent condition.

¹⁴ From the Torbay Recreation Master Plan

4.3 Existing Social and Cultural Open Spaces



Figure 22: Holy Trinity Cemetery

Cemeteries

As part of the Open Space Management Strategy, cemeteries were inventoried as they are considered to be valuable open spaces within the community. Torbay currently has four cemeteries of which three are active and one is an historical site.

The Old Holy Trinity Parish Cemetery, located along the main road, is the oldest of the three and is no longer active. In the Torbay Heritage Plan, there were recommendations made to make improvements to the sidewalk and façade around the cemetery. It was suggested that local students provide guided tours of the cemetery through which the history of Torbay could be relayed to new comers and visitors alike.

Another important cemetery in Torbay is Old St. Nicholas Anglican Cemetery. Located off Lower Street near Torbay Beach, this is the oldest known cemetery in Torbay and is a Municipal Heritage Site. The graveyard overlooks Torbay Bight and has spectacular views of the Town and the Ocean. This cemetery is still being actively used, but there are also a number of older graves which may be of historic importance.

The third cemetery is located in close proximity to the Old Holy Trinity Parish Cemetery in the central core of the Town and is still active. The forth cemetery is located off of Bauline Line and near the Three Corner Pond Park area.

Historic Monuments

The Veterans Memorial located along the main road below the Kinsmen Community Centre. It commemorates Newfoundland soldiers who gave their lives during the First and Second World War. Improvements could be made to this monument to accommodate improved parking and more seating areas for those visiting the site.

Cultural and Historical Landmarks

When planning for open spaces in Torbay, concessions should be made to link, both culturally and physically, the Town's cultural and historical landmarks. These landmarks are important to

the preservation to the Town's history and provide the community with a unique identity. Some of the more notable cultural and historic land marks in Torbay are¹⁵:

- St. Michael's Convent
 - Torbay was once home to St. Michael's Convent- the home of the Congregation of the Sister's of Presentation of the Blessed Virgin Mary. The first convent was open October 18th 1865 and was torn down in 1889 to accommodate the construction of a new building. The new structure was made of wood and stood for 97 years.
- Holy Trinity Church
 - There have been four churches built on this site since 1830 with the most recent one being built in 1992. Each has been named 'Holy Trinity'.
- Big Beach
 - Located where Island Pond Brook meets the Torbay Bight, the beach is a culturally valuable open space that connects with the Father Troy Trail (East Coast Trail).
- TECT Rock Garden
 - Located on Torbay Rd. between Manning's Hill Rd. and Bauline Line, the rock garden has been a longtime desire by many and is being spearheaded by the TECT for development. It is hoped to be the largest formal rock garden in Newfoundland.
- Liddy's Bar
 - Famed to be the oldest running drinking establishment in North America.
- Tappers Cove
 - Once known as Treasure Cove because of its known association with pirate John Nutt. It is also haunted by a black dog and a little boy, relating to the pirates that buried treasure there.
- Gallows Cove
 - Gallows Cove is composed of three smaller coves: Little Gallows Cove, Cows Cove and Herring Cove. There are a number of stories attached to how Gallows Cove got its name. One is that it is named for the many pirates who met their end at the gallows there. Another is that the residents constructed gallows there to let mariners there know that Torbay was not a community to which conduct illegal activities.
- Frenchmen's Ridge
 - There are two separate stories attached to how Frenchmen's Ridge got its name. The first is that the residents of Torbay would hide on Frenchmen's Ridge when the French invaded Torbay, which they did on several occasions. The second

¹⁵ From Torbay Comprehensive Tourism Plan

story is that the ridge was the location of the first battle between the French and the English in 1762. The latter is supported by the finding of a French cannonball in a marsh close to the ridge.

- St. Nicholas Anglican Church
 - First built 177 years ago, this church has a long history in Torbay
- Prayer Garden
 - On the location of St. Michael's Convent, the garden has the Stations of the Cross monument
- Codner House
 - A painted, wooden, two storeys, single family dwelling build c. 1893. This mansard roof house is a Municipal Heritage Site

4.4 Additional Existing Open Spaces

Future Subdivision Development Areas

Torbay is a growing community with an increasing demand for residential subdivision expansion. The Town has identified a number of approved and awaiting approval subdivision developments that can be seen in Appendix A. While the majority of these subdivision developments are in the core of Torbay and take advantage of existing development density, there are several subdivision developments occurring outside the town core in areas that were previously rural, such as the subdivision around Western Island Pond is one of these rural development areas.

It is critical to note these existing and proposed development areas as they are developing lands that were previously considered to be open spaces. In addition, there is an opportunity for the Town to get in front of development to ensure that open space areas and connections are maintained for the benefit of all residents, existing and new comers. This can be achieved by the enforcement of the 10% open space clause in the Municipal Plan and Development Regulations. It is important to connect these new neighborhoods to existing open spaces, trails, recreational, social and business facilities to ensure the community's value and visual continuity.

Bypass Highway

Torbay Road (Route 20) experiences heavy traffic and congestion in the peak morning and afternoon rush hours. The new bypass highway, currently under construction, is an 8.1 kilometer undivided highway that will intersect Torbay and decrease peak traffic allowing for safer local pedestrian conditions in Torbay's core. It will connect to the current five lane highway near St. John's International Airport. As part of the integrated transportation network

upgrade, sections of Route 20 will also be improved. This will allow traffic to flow more freely and decrease commuter congestion by providing alternative routes for commuters.

5.0 Assess

5.1 Open Space Assessment

The Process

The primary focus of the assessment is to evaluate zoning and land development regulations in Torbay. They outline limiting and allowable uses of specific lands such as watersheds, agricultural land, historic preservation etc. Understanding the zoning regulations is critical in achieving planning progress. The local site assessment provides perspective and involves the permitted land use of an area, outlining different buffer zones between commercial and residential zones, issues with lot sizes and open space specifications etc. In addition to understanding the zoning regulations, is an appreciation for land development regulations. The assessment phase features activities centered on a review of the Development Regulations with a scan of current and future issues the Town may face that will have an effect on future open space planning.

5.2 Understanding Torbay's Development Regulations and Land Zoning¹⁶

Conservation Zone

The Conservation designation applies to the open undeveloped lands around Torbay Bight, the shoreline of ponds and wetlands, and the banks of streams.

Lands are designated Conservation to protect important features of the natural environment, to ensure public access, and maintain the rural character of the Town. In most cases, these areas are located where municipal services cannot be feasibly extended.

Policies that regulate the Conservation area state that:

- No permanent buildings or structures shall be permitted on lands designated for Conservation Use, except those necessary for environmental protection.
- Passive recreational uses such as hiking trails or small picnic park may be permitted at Councils discretion.
- Public access shall be preserved to Conservation areas.
- Extensive areas of land having slopes in excess of 15% are designated as Conservation. Development is not considered feasible on such slopes because of excessive runoff and erosion and high cost to install and maintain services and risk to public safety.
- The Father Troy hiking trail around the harbour is designated Conservation. Street access to the Father Troy trail shall be from points such as Spray, Motion Lane, The Battery, Dodd's Lane, Dunphy's Lane and Gallow's Cove Road.

¹⁶ Source: Torbay Development Regulations

The coastal shoreline along Torbay Bight has very steep cliffs, high slopes, unstable soil, and is an important part of the scenic beauty of Torbay. To protect these sensitive lands and the general public, a conservation designation shall be established along the coastline of the Torbay Bight. In areas of rock face and cliffs, the shoreline shall be determined at the edge of the cliff. No development shall be permitted within this designation. Passive recreation uses such as hiking shall be permitted. Uses associated with the fishery, or the provision of municipal services and utilities may be permitted.

Watershed Zone

The purpose of the Watershed designation is to preserve the water quality of the North Pond, South Pond, and Great Pond as municipal water supplies. The boundaries of the designation are intended to take in all lands which drain into the ponds.

Policies that regulate Watershed areas state that¹⁷:

- Uses permitted in the Watershed areas may include passive recreational uses (eg. Hiking, picnicking). Structures required for erosion control or other environmental conservation purposed may be permitted. No form of urban development shall be permitted. All proposals for development are subject to approval by Department of Environment and Conservation, Water Resource Management Division.
- No development or activities shall be carried out in the Watershed area which would adversely affect the water quality.
- Existing residential uses in the Great Pond Area Watershed may be required to be removed if the Great Pond is developed as a Municipal water supply, in order to comply with the Department of Environment and Conservation Standards.
- Council shall cooperate with the Town of Portugal Cove- St. Philip's to ensure that no development takes place within the Great Pond Watershed which could adversely affect water quality.
- Council shall consult with the Department of Transportation and Works to ensure that the by-pass highway does not have an adverse effect on water quality. The highway is proposed to cross the South Pond, North Pond and the Great Pond Watershed areas.
- Selective wood harvesting may be permitted within the Watershed areas, subject to approval of the Department of Environment and Conservation. Maintaining water quality is the overriding priority.

Agriculture Zones

Lands within the municipal planning area which form part of the Agricultural Development Area (ADA) for the St. John's Urban Region are designated as Agricultural Development Areas for Future Land Use Maps 1 and 2. There are three primary areas: west of Bauline Line (Connor's

¹⁷ Source: Development Regulations

farm); west from Torbay Road surrounding Axes Pond; and east of Torbay Road around Ryan's dairy farm.

Policies that regulate Agricultural lands state that¹⁸:

- The intent of this designation is to conform to the agricultural development objectives for the St. John's Urban Region (SJUR) as expressed in the SJUR Regional Plan and the policies and regulations of the Department of Natural Resources
- Agricultural and agricultural-related uses shall be permitted within the ADA. Other uses which conform to the Rural policies of this plan and which are determined by the Land Development Advisory Authority (LDAA) to have minimal impact on agriculture shall also be permitted within the ADA. The extraction of peat may be permitted as mineral-working activity. Council shall consult with the LDAA and the Department of Natural Resources to review development proposals within the ADA
- Existing farming operations in the ADA shall be supported by Council. Due to the demands on the dwindling land base of the municipal planning area, Council shall further review requests for additional large areas of land for agricultural use.
- Council shall consult with the Department of Natural Resources and the LDAA to ensure an adequate buffer between Camp Carey and the Agricultural uses and to prevent negative impacts on Axes Ponds by agricultural uses.

Open Space/Recreations Zone

A minimum of 10% of the gross area of land developed for subdivision purposes shall be dedicated to the Town as public open space. This land would be suitable for walking trails, tot lots, green belts etc. Council may accept from the developer in lieu of such area of land, payment of a sum of money equal to the fair market value of the land which would otherwise be required to be dedicated. Council shall ensure the preservation of scenic viewpoints and ensure long-term stewardship. Public access to natural areas and open spaces shall be maintained. It is the intent of the Municipal Plan to designate open space areas within the Town such as the East Coast Trail, for active, outdoor community recreation and passive, outdoor recreational needs. Council shall maintain and wherever, improve the integrity of natural recreational systems such as walking and hiking trails.

Public Use Zones

Lands are designated Public Use to permit government, church, educational and other uses for general or limited public access. Facilities required to deliver municipal services to residents, such as Town Hall, are also within the intent of this designation.

Policies that regulate Public Use lands state that¹⁹:

¹⁸ Ibid

- Permitted uses may include schools, churches, government offices and senior citizens homes. The facility of community service organizations such as Kinsmen club, may also be permitted.
- An area including the Town Hall and extending east and south is designated Public Use with the intent that it be developed as a civic and recreation centre.
- An area north of the Pine Line and east off Torbay is designated Public Use with the intent that the site shall be developed for the purposed area and recreation centre.

Rural Zones

The remaining lands within the Torbay Planning Area are designated Rural. No development shall be permitted on land within this designation except those associated with agriculture, forestry, mineral workings, outdoor recreation, resource conservation, or other uses as may be outline in the Municipal Plan.

Activity concerning electric power transmission, other public utilities or road construction and maintenance, consistent with the objective of retaining the qualities of the rural environment may be permitted.

Policies that regulate Rural lands state that²⁰:

- Uses permitted within the Rural areas may include forest harvesting, silviculture, agriculture, aggregate, fishing and recreation. Activities concerning electric power transmission, other public utilities, or road construction and maintenance, consistent with retaining the qualities of the rural environment, may be permitted.
- Uses that may be allowed at the discretion of Council include industrial activities associated with the resource base. This will apply particularly to uses that need to be located close to raw material supplies or for some other reason cannot be located closed to the built up Town
- Residential uses in the Rural area will not be permitted except as accessory to the permitted uses, where residences may be allowed under limited circumstances at the discretion of Council.
- New cottage development shall not be permitted in the Rural area, in keeping with polices of the SJUR Regional Plan. Conservation of existing cabins to permanent dwellings shall not be permitted unless the cabins are included within the Residential designation. This is to prevent premature urban expansion and demand for services in rural areas.
- The Rural areas contain forests which provide long-term domestic wood supply, recreational opportunities, and wildlife habitat. It is important that this resource be well

¹⁹ Ibid

²⁰ Ibid

managed. This Plan will support initiatives of the Department of Natural Resources to manage the forests for continued use by the public and beyond the planning period.

- Aggregate extraction may be permitted in the Rural area. Proposed operations shall be evaluated in conjunction with the Department of Natural Resources and the Department of Environment and Conservation.
- Council shall ensure that aggregate mining will have minimal impact upon adjoining land uses, particularly the visibility of gravel pits. Buffering and screening may be required to minimize dust and noise. Open pit shall be rehabilitated by the operator prior to abandonment.

5.3 Open Space Issues

Water Supply Issues

In 2008, Newfoundland Design Associates Limited (NDAL) undertook a water supply assessment for the Town of Torbay. The goal of this study was to provide information and recommendations to the Town in regards to infrastructure servicing needs for new and future development. Currently the Town has one operational water supply (North Pond) and two reserves (South Pond and Great Pond). As the Town continues to grow in population, they are also out-growing their current water supply. The table below illustrates the past and future (projected) population of Torbay.

Census Year	Population	Households	Population per household ²¹
1991	4707	1372	3.431
1996	5230	1655	3.160
2001	5474	1937	2.826
2006	6281	2219	2.831
2031*	9456*	4157*	2.275*
2056*	14474*	7351*	1.969*
<i>*Projected Values</i>			

Table 9: Historic and Projected Populations²²

With the assumed consumption rate of 450 liters a day per household, Torbay's current total water demand is assumed to be 1,720 m³ per day with the expected rate²³ to rise to 4,260m³ by 2031 and to 6,510 m³ by 2056. The current water supply of North Pond is reliable to provide 1,900m³ of water per day. North Pond has the capacity to accommodate up to 155 additional households. This indicates a near maximum supply capacity at current demand levels.

²¹ **Population Per Household** is obtained by dividing the number of persons in households by the number of households (or householders).

²² From Town of Torbay Water Supply Study (2008)

²³ These assumptions are based on servicing to 100% of Torbay's households, projected population growth, and assumed infill development.

It is evident that the growing population of Torbay and future developments will require additional water supplies.

South Pond is a designated municipal water supply reserve that has a reliable yield of 1,500m³ a day, but there are concerns with the water quality due to the ponds proximity to St. John's International Airport. Runways pollutants, such as urea used to de-ice the planes, runs off into South Pond Brook and into South Pond. Adding to South Pond's issues is the fact that the airport's fire training area (FTA) is located close to the pond. This entails the simulation of various fuel fires with various techniques to extinguish them, further contaminating the groundwater. As a result, the Provincial Department of Environments Water Resource Divisions will no longer approve South Pond as a viable municipal water source. The cost to revert South Pond's water to drinkable standards would cost approximately \$950,000 for a stream cut-off ditch, dam, and flow diversion works²⁴.

The remaining designated municipal water reserve, Great Pond, has a reliable yield of 3,900m³ a day and has the capacity to provide water for a population of approximately 8500 people. Issues with this water supply also concern pollution from residential development and agriculture activity around the pond. The Town may have to expropriate certain properties or develop surface drainage systems which may cost up to a million dollars for the Town. To develop Great Pond into a municipal water supply would cost the Town 2.6 million dollars for chlorination and lime treatments, a dam, intake mechanisms, transmission main, and distribution main²⁵.

North Pond and Great Pond's combined capacity would be able to meet the needs of 12,900 residents, enough for the next 40 years. If remediation measures were taken to reclaim South Pond as a municipal water supply, the combined supply from the three ponds would be sufficient to provide water for the next 60 years.

²⁴ From the Town of Torbay Water Supply Study (2008)

²⁵ From the Town of Torbay Water Supply Study (2008)

6.0 Recommend

6.1 A Vision of Torbay's Open Spaces

The over-arching goal of the OSMS is to provide the Town of Torbay with a means to identify and preserve open spaces for the future through effective policies, regulations, and land use management. Upon completion of the previous three steps that identified, inventoried and assessed open spaces in Torbay, the final step in the planning process is to recommend ways the Town can preserve open space for the future. This is done by establishing new, and strengthening existing open space policies that consider current and future development, and issues and desires in the community. Open space priorities based on existing conditions, demands, and needs of the Town are also proposed to ensure successful implementation of the strategy and continued acceptance and support by the residents, Town staff, and developers. The open space recommendations are intended to provide the Town of Torbay with a clear vision of its open space and the proposed usage intended for preservation, conservation and recreation.

People and Places

A key aspect of developing a successful Open Space Management Strategy is to link people and places, both physically and socially. These connections are achieved by providing access to key open spaces within the community in a way that is meaningful to the residents and appropriate for the land-use type. There are a number of different methods to connect people and places that include:

- Providing accessible open spaces to residents through the development of community recreation, social and cultural sites. This is achieved through the development and linkage of unique sites such as parks, playgrounds, recreational facilities, and community centers;
- Connecting people and places by maintaining traditional right-of ways, and as well forging new connections where necessary. This also promotes community walkability and sustainable thinking by providing residents with alternative ways to migrate throughout the community;
- Getting residents to socially invest themselves with unique places through the development of recreational and environmental education programs such as Community Supported Agriculture sites (CSA), art promotion, and wetland education programs;
- Limiting development in areas that are deemed sensitive or special to the residents of Torbay.

6.2 Open Space Policies and Development Regulations

Policies and Zoning Regulations

Management of open spaces in Torbay is administered through zoning regulations such as Residential Subdivision Area (RSA w/10% open space allocation), Recreation Open Space (ROS), Conservation (CON), Rural (RUR), Agriculture (AG), Watershed (WAT), as well as Stewardship Zones and Habitat Management Units. These zoning bylaws are strategic planning tools for the organization of open space in Torbay and identify and protect open spaces for current and future needs.

Considering the existing open space that has already been identified, and the need to preserve open spaces for the future, it is recommended that the Town of Torbay expand its current open space zoning (listed above) to extend to all lands that are not currently zoned for residential development. In doing so, the Town can preserve current open spaces and promote necessary development in appropriate locations. See Diagrams 5-12 in the Appendix.

Areas that should be maintained and protected as open space include:

- Conservation Lands (CON zone)
 - Currently, CON zones are administered as buffer zones around sensitive environmental areas such as riparian zones, wetlands, and coast lines.
 - Recommendations are to increase the CON zone to all areas that are not currently designated for residential developments.
 - This will provide the Town with the greatest leverage to control development and protect open spaces
- Productive agricultural lands (AG zone)
 - Currently, AG lands are concentrated in the north and northeastern area of the Town with smaller pockets of AG lands to the south.
 - In accordance with the St. John's Urban Region Agricultural Development Area Review (2008) the need to protect these productive AG lands from development has been identified.
 - Recommendations to maintain current AG lands as valuable open space and include pockets of smaller Community Supported Agriculture (CSAs) sites.
- Watershed (WAT zone)
 - Currently, WAT zone extends around the watershed basin of North Pond, South Pond and Great Pond. (Note: Further assessment of South Pond should be made to determine the viability as a water reserve, and if deemed unsuitable, adjustments to the OSMS to accommodate recreational uses is recommended)
 - Recommendations to maintain current WAT zones with minimal development within these areas (such as trail development to provide access to adjoining open space areas)

- Recreational Open Space (ROS zone)
 - Currently, there are four areas designated as ROS
 - Recommendations to maintain current ROS zones
- Stewardship Zones and Management Units
 - Currently, Stewardship Zones cover the western half of the Town and a section along North Pond River. Management Units have been delineated in the area surrounding Western Island Pond and the Gosse Pond wetland as per recommendations of the Habitat Management Plan.
 - Recommendations to maintain current zoning and units with the potential to increase in North Pond Brook area (Gully wetland)

Residential Subdivision Areas

In Residential Subdivision Areas (RSA), the 10% open space clause needs to be strictly enforced to better maintain access to open spaces. This is especially true in areas that have been identified as having sensitive and/or unique open space qualities and where essential linkages of open spaces have been identified. Developers, while justifiably concerned with investment return, must also be encouraged to understand the long term value of maintaining a minimum of 10% open space in new residential development areas. Developers understand the benefit of maintaining the minimum 10% because it will increase the property value of the land. By Town enforcement of the 10% open space clause, new neighborhoods will maintain their aesthetic natural qualities while also maintaining vital access to strategic open spaces in Torbay. Linkages of these neighborhoods to other sites of significance will be a formidable asset to residents who live there, and will make the neighborhoods that follow the 10% open space clause not only more desirable to live in, but as well increase the future market rate value.

Vegetation Policies

Residential and commercial developers have a history of clearing development parcels of all vegetation and natural elements prior to construction. The current Town Development Regulations have established policies for the protection of mature trees to be preserved or replaced where necessary, but may be removed if they “unduly obstruct construction²⁶.” While this may make economic sense from the perspective of the developer, it fails to acknowledge the ecological/environmental importance in terms of managing soil quality, natural hydrology and ecosystem diversity and function.

Open space management efforts should be made to limit natural vegetation loss in newly developed areas to maintain ecological function as well as the aesthetic quality of the landscape. The town should explore the creation of a Vegetation Management Plan to compliment and/or add to, the current development guidelines.

²⁶ Town of Torbay Development Regulations

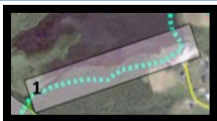

Regulations and Enforcement

What are rules and regulations if they are not enforced? This is a critical question in a community such as Torbay that is developing at a rapid pace. Torbay must maintain control of physical/spatial development so that outcomes fit within the long term vision for the Town. An essential component to the successful implementation of the open space management strategy is the enforcement of policies that regulate areas of development and areas of non-development (ie open spaces). It is the responsibility of the Town to ensure that the development regulations that govern development are being followed by developers and residents alike.

This poses a significant challenge for burgeoning communities such as Torbay. Staffing needs and staffing availability are often issues that create complexity and additional monetary demand. To control development, it is the responsibility of the Town's Department of Planning and Development, and Department of Public Works to be aware of infractions and to enforce compliance with established municipal regulations. This is especially critical where the Town wishes to maintain control of development of residential and commercial areas. Developers must be made to comply with existing regulations. Management and maintenance of open space resources offers potential solutions such as partnering with existing community groups to personally invest them as stewards of particular open space resources such as parks, gardens, and trails. Volunteers can be the eyes and ears on the ground, creating a web of regulation enforcement and community unity.

Inner Loop Open Space Corridor

The Inner Loop Open Space Corridor development requires more policy changes than the Outer Loop Green Corridor development for the simple fact that there is more existing infrastructure in the Inner Loop area which also makes this area more of a logistic challenge. Below are a map and a table of the existing and proposed changes that are recommended for the successful development of the Inner Loop Corridor. Table 10 illustrates specific zoning amendments recommended for the Inner Loop Corridor. Figure 23 illustrates general locations for all recommendations.

Inner Loop Corridor			
Area	Photo	Existing Zoning	Proposed Amendments
Area 1		Conservation Zone (CON) with 15m shoreline buffer	Seek council approval for trail development ~6.5m from high water mark
Area 2		Residential Subdivision Area (RSA)	Allocate 10% open space in location of proposed corridor




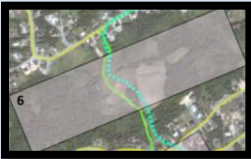



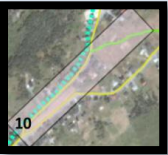
Area 3		Conservation (CON) with a 15m shoreline buffer	Approval for trail development within buffer zone along shoreline
Area 4		Residential Subdivision Area (RSA)	Allocate 10% open space to location of proposed corridor. Corridor may need modification due to ownership and steep slopes
Area 5		Residential Medium Density (RMD)	No change to Zone; Seek permission for Right-of Way
Area 6		Residential Subdivision Area (RSA) Residential Large Lot (RLL)	Rezone ~40 acres to Conservation (CON) and /or Recreational Open Space (ROS) for development of centralized municipal park
Area 7		Residential Infill (RI)	No change to Zone; exploit current path connection and redesign for accessibility
Area 8		Residential Medium Density (RMD)	No change to Zone; Neighbourhood gateway to Inner Loop Trail
Area 9		Residential Subdivision Area (RSA) Residential Medium Density (RMD)	Allocate 10% open space to proposed corridor
Area 10		Residential Subdivision Area (RSA)	Allocate 10% open space to proposed corridor

Table 10: Proposed Zoning Amendments for Inner Loop Trail

Outer Loop Open Space Corridor

The Outer Loop Open Space Corridor is mostly situated on land that is zoned as Rural (RUR) and as such is faced with less development and property ownership challenges. Table 11 illustrates specific zoning amendments recommended for the Outer Loop Corridor. Figure 24 illustrates general locations for all recommendations.







Outer Loop Corridor			
Area	Photo	Existing Zoning	Proposed Amendments
Area 11		Watershed (WAT)	Seek approval for trail development within watershed zone
Area 13		Rural (RUR)	Use extended buffer as new zoning boundary Conservation (CON)
Area 15		Rural (RUR)	Use extended buffer as new zoning boundary Conservation (CON)
Area 17		Residential Subdivision Area (RSA)	Allocate 10% for corridor development.
Area 23		Conservation (CON)	Neighbourhood input to accommodate boardwalk trail
Area 24		Conservation (CON)	Neighbourhood input to accommodate boardwalk trail

Table 11: Proposed Regulation Amendments for Outer Loop Trail

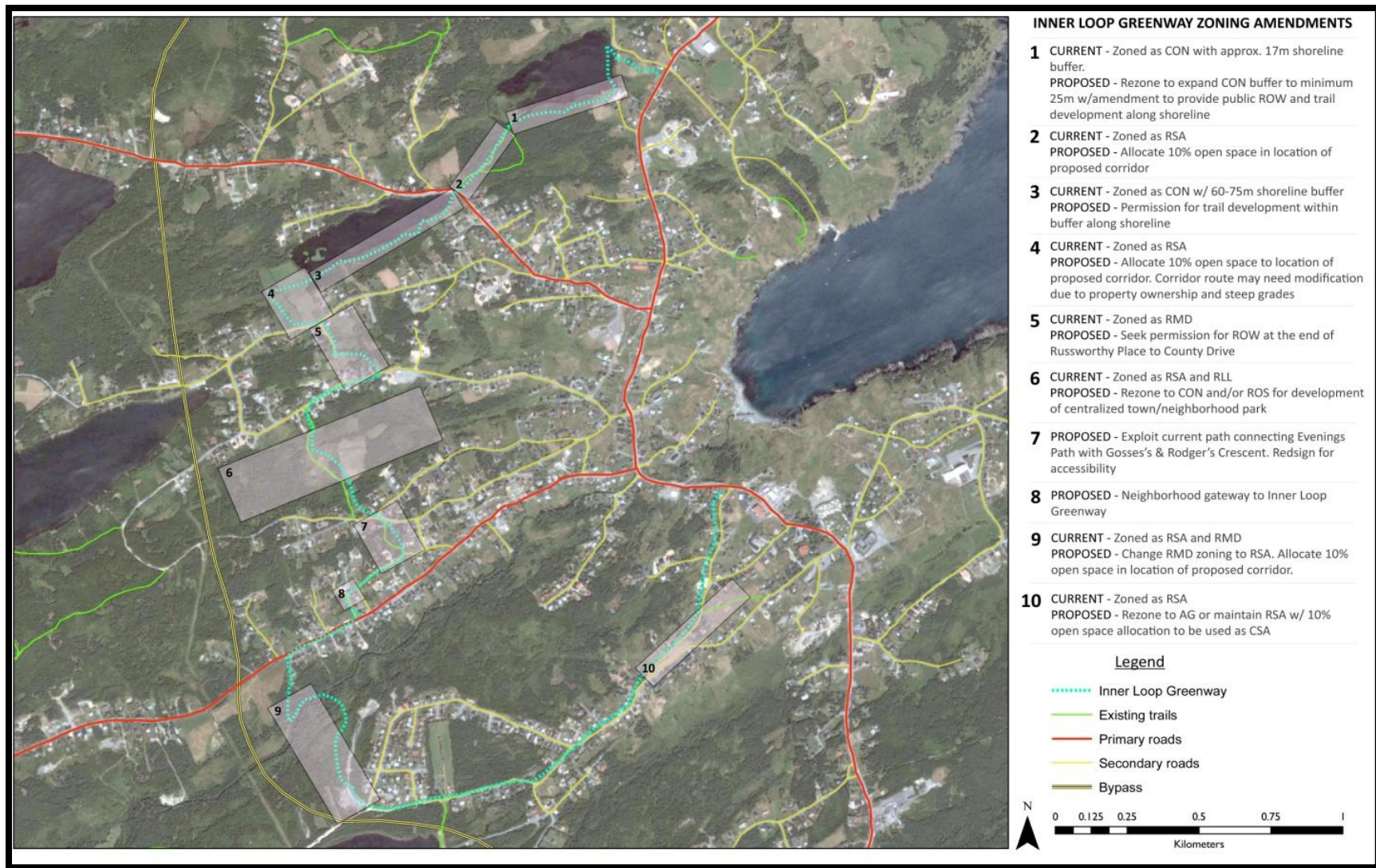


Figure 23: Inner Loop Open Space Zoning Amendment

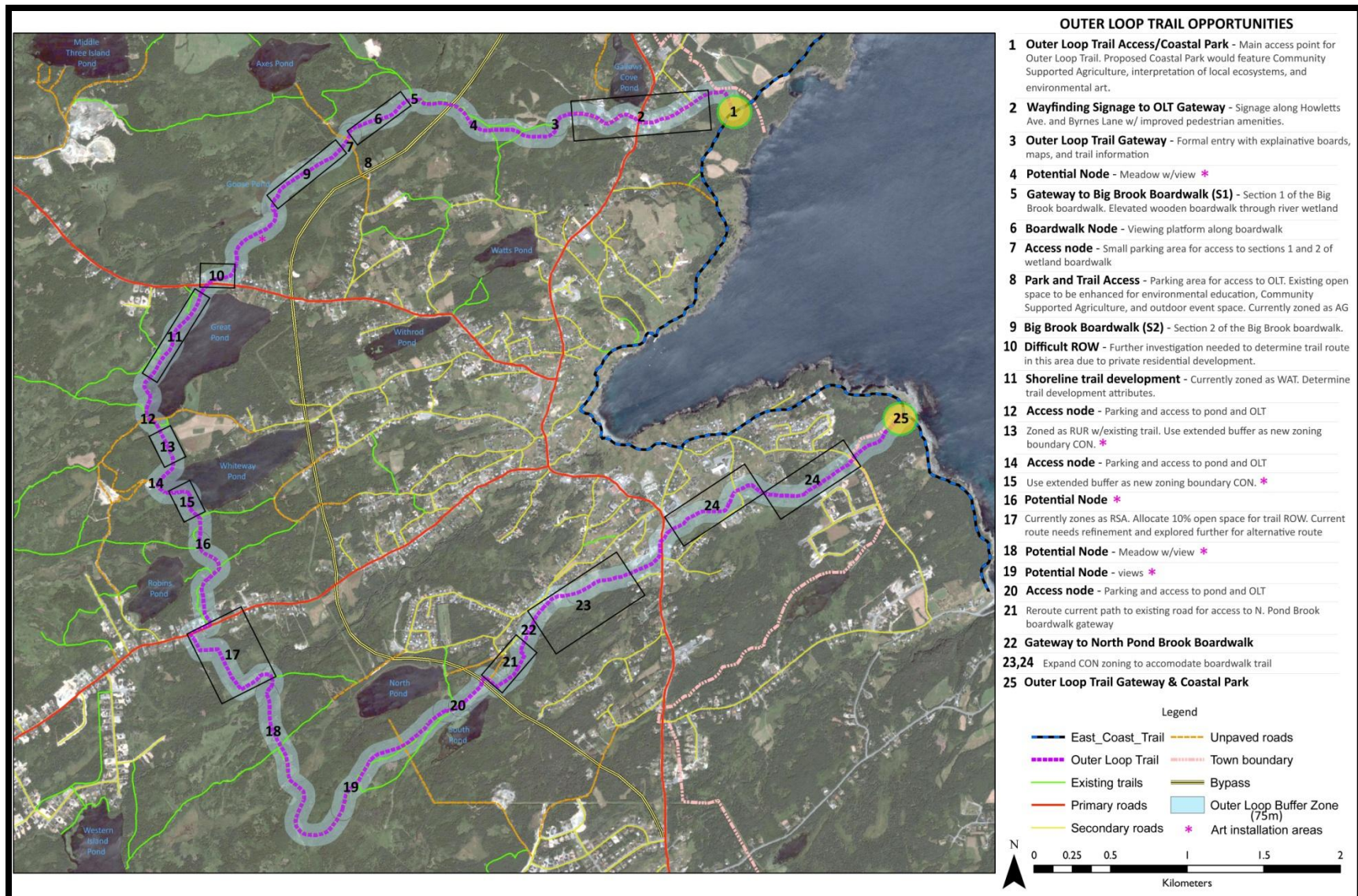


Figure 24: Outer Loop Open Space Corridor Sections

6.3 Linking Corridors

There are two dominant open space corridors proposed within this strategy: an inner loop multi-purpose corridor and an outer loop green corridor. Together with the existing trail network identified by the Torbay Environment and Trails Committee (TETC), the creation of these two open space spines creates a hierarchy of networks within the community. The hierarchy delineates levels of development priority, preservation, ranges of usage type, and educational and recreational programming. This also allows for the identification of various levels of development in which some sections of the proposed corridors and existing corridors are to left be as natural as possible, while others are more developed offering community programming opportunities. See Diagram 13 located in the Appendix.

The two corridors are designed to connect numerous open space elements and programs that will enhance the current and proposed open spaces within Torbay. The corridors will meet the needs and demands identified in the Torbay Recreation Master Plan, and as well consider the recommendations of the Heritage Plan, Tourism Plan, ICSP, and general vision the citizens of Torbay have for the future of their Town.

The multi-purpose integrated green corridors systems have direct connection with Torbay's greatest assets, the East Coast Trail, the spectacular view shed around Torbay Bight, the natural environment, numerous ponds, and local history. These assets will help to ensure that open spaces in Torbay are preserved and enjoyed by residents and visitors alike.

The two spinal corridors also preempt a number of other proposed open space projects seen as significant elements in an urbanizing community. These projects include: community gardens and public agriculture sites; neighborhood, community-wide and coastal parks; nature playgrounds, and pond loop trails to connect people with the abundance of water-based natural amenities. See Diagram 16 located in the Appendix for a detail of pond-side trail development. There is also opportunity for unique projects to manifest that will set Torbay apart from its neighboring communities such as the linear sculpture park integrated into the Outer Loop Green Corridor. This project can be a significant draw for visitors and get residents excited about where they live. It is an excellent way to engage and promote Torbay's local talent, uniqueness, and history.

6.4 The Outer Loop Open Space Corridor

The proposed Outer Loop Open Space Corridor is a 14 kilometer varied surface corridor that connects the developed portions of central/western Torbay and takes advantage of the towns' coastal and interior natural environment and scenic views. The Outer Loop Open Space Corridor

is also designed to link existing and developing neighborhoods to increase mobility and recreational opportunities for the residents. See Diagram 14 in the Appendix.

Key elements of the Outer Loop Green Corridor are:

- Key access points (gateways) from the East Coast Trail
- Proposed Coastal Park
- Linkages to neighbourhoods and parks
- Linkages to existing trail network
- Proposed Big River Pond Boardwalk
- Proposed North Pond Brook Boardwalk
- Potential Linear Sculpture Park

Key Access to East Coast Trail

As identified in the Torbay Comprehensive Tourism Plan, the East Coast Trail is one of Torbay's the key tourism and recreational assets and is popular amongst outdoor enthusiast and residents alike. Torbay is fortunate to have a section of this famous trail running through the Town because it brings numerous annual visitors from all over the world. Linking the Outer Loop Open Space Corridor to the East Coast Trail is therefore seen as a critical element. Although there are several access points to the Outer Loop Open Space Corridor from various locations throughout the Town, two of the dominant gateways originate from the East Coast Trail and are designed to encourage visitors to migrate off the trail and into Torbay.

Coastal Park

At each coastal gateway point of the Outer Loop Open Space Corridor it is proposed that a Coastal Park be created. The Coastal Parks would serve as resting area for hikers along the East Coast Trail, as well as expressive gateways for people who are interested in walking the Outer Loop Open Space Corridor. The parks would be developed to encourage people to stop and educate themselves about other points of interest in Torbay and along the Outer Loop Green Corridor.

Neighbourhood and Park Linkages

As mentioned, Torbay is a growing community that is developing at a rapid pace. Neighborhood linkages and access to open space is important to promote healthy living by providing alternative transportation methods for residents to get from place to place. The Outer Loop Open Space Corridor acknowledges this by linking new and existing residential areas to one another. New residential neighborhood development areas must maintain 10% open space within their site plans and the Outer Loop Open Space Corridor can constitute that 10% if planned for at the beginning of development. In addition, the proposed trail recommends that there be a 30 meter Conservation Zone (CON) buffer around the corridor as well.

Connecting to Existing Trail Network

Torbay already has an extensive network of trails and traditional right of ways that run extensively east to west and are used by residents and visitors alike. The Outer Loop Open Space Corridor acknowledges these existing trails and provides a north/south linkage with them at numerous intersections. By doing so, the Outer Loop Open Space Corridor adds on to the existing trail networks, increasing the network options and connection loops for residents.

Big River Boardwalk

In the Habitat Management Plan, the Gosse's Pond/Big River wetland was identified as both a critical ecosystem and scenic landscape. Hence, the opportunity is great to both preserve and promote this productive ecosystem by increasing public awareness about the critical role that wetlands play in maintaining a healthy ecosystem. The area would be developed noninvasively with a concerned, sensitive, and multi-disciplinary approach to allow for the education through experience and interpretation. This awareness would and promote wetlands in such a way that its value is enjoyed and understood by present and future generations. A raised boardwalk corridor with educational panels and scenic outlooks are proposed for this area. See Diagram 18 located in the Appendix.

Gully Wetland Boardwalk

As with the Big River Boardwalk, the North Pond area is proposed as a raised boardwalk. This again would promote environmental education while providing recreational opportunities for residents and visitors alike. In addition, the location of this proposed boardwalk is in close proximity to the schools and would therefore be an excellent educational asset for students.

This boardwalk has been proposed in the past by the Torbay Environment and Trails Committee (TETC) and the community group as already done some research and planning for this project. In moving forward with the development of the proposed boardwalk, it would be beneficial to continue to work with TETC in the creation, development, implementation and stewardship of this project. Along with TETC, other vital scientific and specialized stakeholders will be involved in the planning process to ensure that the development of the trail does not interrupt the function nor disturb the ecological integrity of the wetland. See Diagram 18 located in the Appendix.

Linear Sculpture Park

Art walks are a growing trend in North America and Europe, and are popular experiential elements while hiking the trail. Sculptural elements provide an excellent opportunity to showcase local/regional talent while also placing a visual emphasis on the Town and regions values, culture, and history. There are many different ways to approach this attraction of the Outer Loop Open Space Corridor development. The Town should explore the potential for this, and develop a comprehensive plan for the implementation of the linear sculpture park.

A linear sculpture park is seen as an excellent way to synthesize all of Torbay's plans into one expression of municipal individuality and creativity. It considers the Heritage Plan as it could have art that narrates the history of military, fishing and agriculture activity; the Tourism Plan as it would be a draw for visitors to Torbay to come and experience environmental art in Torbay; and Beautification Plan as it would provide visual interest to the trail.



Figure 25: Example of art sculptures to illustrate the type and variety of art that could be displayed along the Outer Loop

6.5 The Inner Loop Open Space Corridor

The proposed Inner Loop Open Space Corridor is a 5 kilometer pedestrian and bikeway that is focused on connecting Torbay's residential neighborhoods safely and environmentally friendly as well as providing recreational opportunities and promoting healthy living. The Inner Loop Open Space Corridor is woven through the interior residential fabric more than the Outer Loop Corridor and therefore has different challenges for development such as private property ownership and Right of Way (ROW) acquisition. This said, it is precisely the reason that Torbay needs to promote and work towards the development of the Inner Loop Open Space Corridor. Maintaining access to open spaces and other trail networks is critical in developing and developed areas and this is seen as an opportune time for the Town to recognize and act upon the preservation of these lands while development is still initiating.

As identified in the Torbay Recreation Master Plan, the Town is in need of more bicycle trails that connect to key neighborhoods, social/cultural features, and businesses. The Inner Loop Open Space Corridor proposes that at least half of its trail be paved to provide residents with a safe place to bike, in addition to also providing paved sidewalks on primary and secondary road that connect into the Inner Loop Open Space Corridor to further facilitate ease of access for cyclists around the centre of Town.

Key elements of the Inner Loop Corridor are:

- Community linkages
- Promotion of health living and alternative transportation
- Paved trail and sidewalks for adjacent roads
- Creation of Community Supported Agriculture (CSA) sites
- Development of Nature Playgrounds
- Connection and access to Watts and Withrod Ponds

Community Linkages

Much like the Outer Loop Open Space Corridor, the focus of the Inner Loop Corridor is connecting existing and developing neighborhoods and open spaces, linking key social and cultural features, and making the Town's core accessible to all residents. The area in and around the Inner Loop Corridor is much more developed than the Outer Loop area and therefore connecting open spaces, neighborhoods, unique sites, and the Town's core is critical. These critical linkages will increase the sense of community within Torbay which is important in a rapidly urbanizing community for maintaining their rural roots and visual character.

Healthy Living and Alternative Transportation

By preserving open spaces and greenways in densely populated areas, it provides residents with the opportunities to migrate and connect without the use of automobiles. This is important as it promotes healthy lifestyles for the residents of Torbay. The proposed Inner Loop Corridor promotes alternative modes of transportation such as biking and walking to central areas of Town.

Paved Trail and Sidewalks for Adjacent Roads

As a multi-purpose corridor, one of the key elements of the greenway is that it should be paved to facilitate cyclists. A 2 meter portion of the trail will be paved with the remaining 2 meters to be graveled for pedestrian use. In addition to partial paving of the Inner Loop Corridor, neighborhood roads and connecting access points should also have paved sidewalks to make a coherent and connected biking and walking path for the residents to move throughout the core of Torbay. See Diagram 15 in the Appendix.

Community Supported Agriculture Sites

Torbay is known for its agricultural heritage and this aspect is deeply woven into the community's sense of identity. In keeping with this tradition, the Inner Loop Corridor identifies two locations for Community Supported Agriculture (CSA) sites. CSA sites are an emerging trend in sustainable communities and have many social, environmental and health benefits. The proposed CSA's are located within relatively dense populated neighborhoods to allow greater access to users who would be important for the success of the program.

The proposed CSA's will be integrated into parks and playgrounds where feasible to maximize usage of space and promote family activities. This integration will make it easier and more enticing for parents to support CSA development if they can bring their children to the adjoining playground or park while they work in the garden.

Nature Playground

The proposed Inner Loop Corridor also proposes areas for a nature based playgrounds. Nature playgrounds provide children with an alternative play venue from that of traditional play structures. They are designed to promote creative thinking, imagination, and connection with the natural environment in which they live. Growing trends and research worldwide have identified the benefits of nature playgrounds over traditional playgrounds, and has recently been highlighted in the bestselling book "Last Child in the Woods"²⁷. Elements of nature-based play-scapes include: living huts, rock walls for climbing, an abundance of vegetation, water, and naturalized topography, etc. All these elements promote early brain development in children by allowing the child to create the activities that they participate in rather than being told how they should play as in the case of traditional static play structures. The proposed nature parks are integrated with neighbourhood parks and CSA's, providing an interest for residents of all ages.

6.6 Summary of Recommendations

There are ten explicit recommendations made in this strategy to preserve open space and improve town linkages. These include:

1. Proposed zoning amendments to support open space management in Torbay based on findings and recommendations.
2. Maintain and increase where necessary the Conservation (CON) buffer zone around trails and sensitive areas (ponds, wetlands, etc...).
3. In new RSA developments, 10% open space allocation be slated for parks, trails and open spaces especially in areas where valuable open spaces and connecting corridors have been identified.
4. Creation of an Integrated Trail System with the development of the Outer Loop Open Space Corridor and the Inner Loop Open Space Corridor that link Torbay's existing and proposed open spaces and current trail network system.
5. Creation of two integrated wetland board walks at the Gosse Pond/Big River Wetland and the North Pond Wetland (Gully Wetland) to provide environmental education opportunities and increase public awareness.




²⁷ Richard Louv, (2008), "Last Child in the Woods: Saving our Children from Nature-Deficit Disorder"

6. Creation of four Community Supported Agriculture sites to be integrated with community parks where feasible.
7. Creation of four Nature Playgrounds to provide outdoor nature-based activities and creative learning opportunities for youth.
8. Creation of two Coastal Parks at the gateway entrances to the Outer Loop Open Space Corridor where the proposed trail and East Coast Trail intercept to draw visitors into the core of Torbay.
9. Creation of a Linear Sculpture Park along the Outer Loop Open Space Corridor that will support local art, foster a sense of community pride, and promote local tourism.
10. Fundamental to implementation of the above listed elements is the need to assess all land ownership and acquire lands for open space preservation.





6.7 Implementation Strategy





Inner Loop Implementation Matrix



Task	Phase One 1-3 years	Phase Two 3-5 years	On- going 1+ years	Partners/Project Lead	Comments
Acquire lands to be developed				-Town of Torbay -Land Owners/ Residents	-Town must acquire land or permission to use land for the development of the OS Corridors -Change zoning where needed to accommodate corridor development -Critical to the successful execution of the project
Route Refinement				-Town of Torbay -TETC	-Where challenging Right of Way establishment exists, alternative routes must be found
Signage/wayfinding				-Town of Torbay	-Provide directions for users of trail -Identify and promote key features of the Trail -Critical to the successful execution of the project
Development/ construction of Corridor				-Town of Torbay -Private sector developers	-Continue to develop and construct the remaining trail including paving for bikeway
Partial paving for bike way				-Town of Torbay - Private sector developers	-Proposed 1.5 meter for trail of which 1.5 meters be paved for bikeway with the remaining left for pedestrian walkways
Development of Neighborhood Parks				-Town of Torbay	-Proposed park and playgrounds for existing and developing neighborhoods -Enhance linkages to parks and playgrounds

Development of Agricultural/Community Gardens	 <ul style="list-style-type: none"> -Town of Torbay -Provincial Department of Health and Community Services -Provincial department of Natural Resources -Local residents 	<p>through trail development</p> <ul style="list-style-type: none"> -Maintain 10% open space in new development areas -Incorporate Community Supported Agriculture (CSAs) sites into existing and proposed parks where feasible -Community participation will lessen municipal maintenance cost -Draw upon local knowledge of agriculture/gardening to support program -Link to future community programs such as farmers market if possible -Propose that a portion of market revenue be streamed back into CSA
Development of Nature Playgrounds	 <ul style="list-style-type: none"> - Town of Torbay - Private sector developer 	<ul style="list-style-type: none"> -Utilize natural features/elements for playground -integrate into existing and proposed parks and playgrounds
Improvements of area sidewalks	 <ul style="list-style-type: none"> -Town of Torbay 	<ul style="list-style-type: none"> -In the neighborhoods adjacent to the proposed corridor, sidewalks should be developed. -Improve community mobility

Outer Loop Implementation Matrix

Task	Phase One 1-3 years	Phase Two 3-5 years	On-going 1+ years	Partners	Comments
Acquire lands to be developed				-Town of Torbay -Land Owners/ Residents	-Town must acquire land or permission to use land for the development of the trail -Change zoning where needed to accommodate trail development -Critical to the successful execution of the project
Establish Right of Ways/ access points				-Town of Torbay -TETC	-Exploit exiting trails and road ways to ameliorate access points -establish parking lots at key access points -Change zoning where needed to accommodate trail development and maintain Right of Way -Critical to the successful execution of the project
Signage/wayfinding				-Town of Torbay -Private Sector	-Proper signage/ wayfinding will entice users of the East Coast Trail onto the Outer Loop Open Space Corridor -provide directions for users of trail -Identify and promote key features of the Trail -Critical to the successful execution of the project
Coastal Parks				-Town of Torbay -Land Owners/ Residents -East Coast Trail Committee (ECTC)	-Develop park along East Coast Trail as a node to the Outer Loop Open Space Corridor -Provide critical wayfinding signage and promotional opportunity for Torbay trails -Work with ECTC and residents

<p>Gully Wetland Boardwalk</p> <p>Big River Boardwalk</p> <p>Development of Trail remaining trail</p> <p>Development of Agricultural/Community Gardens</p>		<ul style="list-style-type: none"> -Town of Torbay -TETC -Provincial Department of Environment and Conservation -Conservation Corp -Wetland specialists and researchers 	<ul style="list-style-type: none"> -build raised boardwalk along the Gully wetland area as part of the Gully Wetland Project -Environmental education and awareness programming
		<ul style="list-style-type: none"> -Town of Torbay -Provincial Department of Environment and Conservation -Conservation Corp -Wetland specialists and researchers 	<ul style="list-style-type: none"> -Build raised boardwalk in the Big River wetlands area -Environmental education and awareness programming
		<ul style="list-style-type: none"> -Town of Torbay -TETC 	<ul style="list-style-type: none"> -Connect the remainder of the trail
		<ul style="list-style-type: none"> -Town of Torbay -Provincial Department of Health and Community Services -Provincial 	<ul style="list-style-type: none"> -Incorporate Community Supported Agriculture (CSAs) sites into existing and proposed parks where feasible -Community participation will lessen municipal maintenance cost -Draw upon local knowledge

Continue linkages to existing Trails		department of Natural Resources -Residents	of agriculture/gardening to support program -Link to future community programs such as farmers market if possible -Propose that a portion of market revenue be streamed back into CSA
		-Town of Torbay -TETC -East Coast Trail Committee	-Work with local partners to enhance connections to existing trails -Develop wayfinding signage to promote trails
		-Town of Torbay -TETC	-Maintain access to water's edge by restricting development -Link pond trails to proposed and exiting trail network

7.0 Land Management

7.1 Open Space and Development

Population Capacity Analysis

To promote smart development as it relates to the open space recommendations, analysis was done to determine the maximum residential build out possible when using current zoning and unit densities specified within the current town zoning definitions. The methodology for the analysis included the use of global information systems (GIS), average units built per year (110), average household size (2.4 persons), total land acreage in each zoning type, and units densities for those zoning types. A 30% reduction in totals has been established to accommodate unknown variables such as future infrastructure (roads, etc.), future census data fluctuation, and zoning boundary and definition modifications.

The analysis results show total new housing units, and total population increase above present day, over a 90 year period. In addition, totals have been determined for each zoning definition as a means to promote further evaluation of current zoning boundaries and definitions.

Results show total new housing units equaling 9,930 (w/30% reduction). Total population increase above present-day equals 23,830 people (w/30% reduction). Diagram 17 located in the Appendix illustrates the complete analysis results and individual totals to specific zoning definition.

7.2 Techniques and Strategies

Maintaining or Gaining Access to Public Lands

Public access to open space lands most suitable for development would have to be established and where land ownership may be an issue. For example, where land surrounding a pond is owned to the water's edge, the Town can negotiate with the owner for public access. Several options for agreements are possible: a) to offer to purchase the required land and the Town issue a tax receipt, b) To enter into a lease agreement between the Town and the landowner where the landowner provides public access but is indemnified against legal action; users are incurred through the Town's general liability insurance, and c) to expropriate land if it is in the public's interested to do so.

There are several methods that the Town of Torbay may use in order to successfully manage the allocation and acquisition of open space lands needed in order to implement the Open Space Management Strategy. The over arching goal of these techniques and strategies is to maintain public access to valuable open space and recreational lands in Torbay. These strategies include, but are not limited to:

- Gift or Donation of land for:
 - Wilderness Reserve
 - Ecological Reserve
 - Land Trusts/Conservation Easement
- Town purchase land from resident
- Expropriate land from residents
- Enter into an agreement with resident to allow public access on private land

7.3 Gift or Donation of Land

Ecological Reserve

Ecological reserves are protected areas of less than 1,000 km²—smaller than wilderness reserves—that are created for two main purposes:

1. To protect representative examples of ecosystems or eco-regions
2. To protect unique, rare, or endangered plants, animals, or other elements of our natural heritage

In this province, the reserves in the second category are divided into three general types—botanical, fossil, and seabird ecological reserves. These are the reserves with the teeming seabird colonies, the globally significant fossils and rock stratotypes, the rare plants and animals.

Low-impact recreational activities—such as hiking and educational tours— and scientific research are allowed in ecological reserves. Entry permits are generally not required by visitors—but the public should be aware that activities are more restricted here than in wilderness reserves. Permits are required for commercial operators, educational tours and scientific research²⁸.

Wilderness Reserve

Wilderness reserves are large protected areas (greater than 1,000 km²) that are designed to protect significant natural features and landscapes. They also provide wilderness areas for traditional outdoor activities such as hunting, fishing, canoeing, and hiking, and serve as study areas for researchers, teachers, and students. Entry permits are required for all activities.

There are two wilderness reserves in Newfoundland - the Avalon and the Bay du Nord and none in Labrador. Both were created primarily to protect the habitat and range of a caribou herd, in order to ensure its survival. They are excellent places for wilderness camping, canoeing and

²⁸ From the Provincial Department of Environment and Conservation Website

kayaking, hunting and angling, bird and wildlife watching, and other low-impact outdoor recreational activities.

Wilderness conservation is one of the province's reserve system's primary goals, so there are rules governing activities within all of our wilderness and ecological reserves. Some rules are universal, some vary with each reserve.

All wilderness reserves are open to a range of low-impact recreational activities—entry permits are required.

The following activities are strictly prohibited in all wilderness and ecological reserves:

- Disturbing, destroying, or removing plants, animals, or fossils
- Introducing plants, animals, or anything else to the reserve landscape
- Forestry, mining (including exploration), hydro development, agriculture, new roads, tracks, or buildings
- Driving off-road vehicles including all-terrain vehicles (ATVs)²⁹

Land Trust/Conservation Easement

Land trusts conserve all different types of land. Some protect only farmland or ranchland, others forests, mountains, prairies, deserts, wildlife habitat, urban parks, scenic corridors, coastlines, wetlands or waterways; it is up to each organization to decide what type of land to protect according to its mission. Some parcels protected by land trusts have no, or extremely limited public access, for the protection of sensitive wildlife, or to allow recovery of damaged ecosystems. Many protected areas remain under private ownership, which also limits access as well. However, in many cases, land trusts work to eventually open up the land in a limited way to the public for recreation in the form of hunting, hiking, camping, wildlife observation, or other responsible outdoor activities. Some land is also used for sustainable agriculture, ranching or logging.

In their protection efforts, land trusts use different tools. They buy or accept donations of land in fee. This means that the landowner will sell fee simple interest to the land trust or will just give the land they own to an organization. Landowners may also sell or donate a conservation easement to a land trust.

When a landowner donates a conservation easement to a land trust, he or she gives up some of the rights associated with the land. For example, the landowner might give up the right to build additional structures, while retaining the right to grow crops. Future owners also will be bound by the conservation easements terms. The land trust is responsible for making sure the

²⁹ From the Provincial Department of Environment and Conservation Website

easement's terms are followed. This is done through annual or more frequent monitoring of the land.

Conservation easements offer great flexibility. An easement on property containing rare wildlife habitat might prohibit any development, for example, while an easement on a working farm might allow the addition of agricultural structures. An easement may apply to all or a portion of the property, and need not require public access. Each conservation easement is carefully crafted to meet the needs of the landowner while not jeopardizing the conservation values of the land

In between selling land or an easement to a land trust is an option called a bargain sale. A bargain sale is where a landowner sells a property interest to an organization for less than the market price. The amount of value between the market price and the actual sale price is considered a donation to the organization. There are other strategies to conserve land as well.

As nonprofit organizations, land trusts rely on donations, grants and public land acquisition programs for operating expenses and for acquiring land and easements. Donors often provide monetary support, but it is not uncommon for conservation-minded landowners to donate an easement on their land, or the land itself. Some land trusts also receive funds from government programs to acquire, protect, and manage land.

Some of the other advantages of land trusts for individuals are:

- Sales price of the property can be kept off the public records
- Property taxes are lower if the purchase price is kept private
- Judgments or liens (such as IRS liens) against an individual's name are not a lien against their land trust property
- Partners can more easily continue a project if one dies or is divorced
- Interests can be transferred quickly without recording a deed
- Managing a rental property is easier when the trustee can be blamed
- Negotiating a purchase or sale can be easier when the trustee can be blamed
- Liability on financing can be limited to the assets of the trust
- Conservation Easement (from Environment Canada)

Conservation easements are legally binding instruments whereby the landowner transfers specific rights, such as the ability to create building lots or cut trees, to an easement holder (usually a nature conservation organization or agency). Depending on the terms of the

conservation easement agreement, the easement holder has the right and responsibility to inspect the property and ensure the terms of the conservation easement are being respected.

An easement donated on a voluntary basis may qualify as an ecological gift under the *Income Tax Act* of Canada, allowing corporate or individual donors to obtain an official donation receipt and claim an enhanced tax benefit.

A conservation easement donated as an ecological gift must be publicly recorded, attached to the title of the property, and must be made in perpetuity. As a result, all future landowners are bound to its terms. Current and subsequent landowners are free to sell or otherwise transfer title to the land. Yet the conservation easement is still held by the conservation organization and the land continues to be subject to the conditions of the conservation easement.

7.4 Purchase of Land by Town

Land Value

When the uses associated with a property are restricted, its fair market value usually declines. The amount that the land's value declines varies depending on factors such as the development potential of the land and the nature of restrictions imposed by the proposed purpose of land use. For example, a conservation easement that does not allow creation of building lots will generally have a great impact on the fair market value of a residentially zoned property adjacent to a major urban centre. The same easement may have less impact on the value of a rural or wilderness property that is less likely to be developed in the foreseeable future.

Generally, the difference in value of the property before and after its repurposing is the value of the donation receipt to which the landowner is entitled. In some cases, the decline in value of the land can result in a lowered municipal property tax assessment; but this is a matter the donor must pursue with property tax officials on an individual basis.

7.5 Expropriation of Land

Expropriation is the inherent power of a governing body to seize a citizen's private property, expropriate property, or seize a citizen's rights in property with due monetary compensation, but without the owner's consent. The property is taken either for government use or by delegation to third parties who will devote it to public or civic use or, in some cases, economic development. The most common uses of property taken by eminent domain are for public utilities, highways, and railroads, however it may also be taken for reasons of public safety.

Expropriation of land in Newfoundland is governed by the *Expropriations Act* which outlines the rules and regulations guiding legal expropriation. Section 3 of the Act outlines cases when land

may be expropriated for which include “the establishment, construction, extension or improvement by the province or a person of facilities for recreation or sport of any kind or for a purpose incidental or related to that recreation or sport; and the use of the Crown or of the public for another purpose”³⁰.

The Act also outline where authorities (Town of Torbay) have the Power to expropriate. These include instanced where³¹:

4. (1) Where in the opinion of the minister it is necessary to acquire land for a purpose described in section 3 and
 - (a) The owner of the land or a person having an interest in it refuses to accept the sum of money which the minister or the authority on whose behalf the land is to be acquired offer for the purchase of the land;
 - (b) An agreement cannot be reached on the amount to be paid for the land or on other terms of the purchase of the land;
 - (c) The owner of the land is not known to the minister or cannot be found by the minister after reasonable inquiry;
 - (d) The owner of the land is incapable of conveying the land or his or her interest in it; or
 - (e) For another reason the minister considers it advisable to expropriate the land

³⁰ Source: Expropriation Act 1990

³¹ Ibid

8.0 Conclusion

Torbay is a fast growing Town that is changing from a rural town to a (sub)urban community. The Open Space Management Strategy is one of the way in which Torbay is preparing for this growth. The Town of Torbay is smart to do this, especially at this critical time, as putting plans such as this one in place before fast paced urban development takes precedence in the Town. Getting in front of development and insisting on the preservation of valuable open space is key to maintaining the unique rural nature of the community.

This document has followed a four step process of *identifying* key documents, features and goals; *inventorying* existing natural, cultural and special open spaces in Torbay; *assessing* guiding policies and regulations, and key development issues; and finally, *recommending* open space areas that should be preserved along with management techniques. **For the town to effectively implement any, if not all recommendations, efforts must be made to understand and accurately map land ownership within the town.**

The crux of the Open Space Management Strategy is the Multi-Purpose Integrated Trail System in which an Inner Loop Open Space Corridor and an Outer Loop Open Space Corridor have been proposed. This open space corridor system is designed to integrate many of the Town's goals, needs and demands into a single project that is the synthesis of the Town's vision for itself and many of its preceding plans. It is the goal of this plan that Torbay's open spaces will be preserved and utilized in such a manner that their existence will be there for many generations to come.

Appendix