



**Working Draft**

**REGIONAL MUNICIPAL PLANNING STRATEGY**

**for Presentation to Council**

Date: April 26, 2005  
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## CHAPTER 1: INTRODUCTION

### 1.0 INTRODUCTION

Regional Council endorsed the need for a Regional MPS for a multitude of reasons. Council and community stakeholders recognized the wonderful quality of life we enjoy - a rich cultural life within a historic waterfront downtown; a strong, varied economy; beautiful wilderness and ocean areas; and rural communities that inspire dreams of country life. Yet, this enviable quality of life is at risk without a region-wide plan.

Guided by extensive public input, the Regional Planning Committee has developed a Regional Municipal Planning Strategy (Regional MPS), which is a detailed, long-range, region-wide plan that will outline where, when and how future growth should take place in Halifax Regional Municipality. A framework, to ensure that current and future residents will continue to enjoy our present quality of life is contained within this document. It outlines how we can preserve our environment while still maintaining a strong, vibrant economy, promoting development and ensuring that our transportation needs are met.

Planning on a region-wide basis has significant benefits for HRM. Our environment, which has shaped our current settlement pattern and influenced our economy will be preserved.

Settlement will be directed to specific centres, each relatively compact, mixed-use, walkable communities that will benefit from improved design guidelines. Directed growth will reduce infrastructure needs, reduce the impact of development on the environment and contribute to a more efficient transportation system.

The integration of transportation and land use planning will reduce transportation costs, balance road construction with transit provision and encourage alternate modes such as cycling, carpooling and walking.

Our economy will also benefit from regional planning. The Halifax Harbour will maintain its importance as a working harbour. The Capital District, which is the economic, cultural and government centre for the province, will be enhanced and reinforced in this plan, as will other employment areas such as the business parks and the Halifax International Airport. Rural resource lands are protected and employment within communities is encouraged, providing economic opportunities across the Region..

There are also cost savings associated with regional planning. Over the next 25 years, approximately \$250 million in savings is projected with the development of the Regional MPS then if growth were to continue as it has been. The cost savings are a result of more efficient service delivery, and lower capital and operating costs that result from more compact, mixed-use

development.

This is the first Regional MPS of the Halifax Regional Municipality. It will provide a sound basis for decision-making and will guide the private sector community toward beneficial and profitable activities affecting the land and people. It is a proactive and positive document that balances the requirement to protect the environment with anticipated growth, economic development and transportation infrastructure.

## **1.1 HOW HAS HRM GROWN?**

### **1.1.1 Past Population Growth**

The population of HRM has grown steadily over the last 25 years from less than 280,000 in 1976 to about 360,000 in 2001 (see Table 1-1). Population has not grown uniformly throughout the region however. The suburban rural areas within commuting distance of the Regional Centre have experienced the most growth. This trend has led to the type of settlement patterns we have now and increasingly higher consumption of land per household (Figure 1-1), leading to higher infrastructure and service delivery costs.

**Table 1-1: Historical Population of HRM**

	<b>1976</b>	<b>1981</b>	<b>1986</b>	<b>1991</b>	<b>1996</b>	<b>2001</b>
<b>Population</b>	278500	288100	306400	330900	342900	359090
<b>Dwelling Units</b>	84900	97300	107400	122100	131500	150100
<b>Persons/HH</b>	3.28	2.97	2.86	2.71	2.6	2.39

### **1.1.2 Past Development Trends**

Growth in HRM has been due to the following factors: public policy, taxation and finance, geography, land ownership and the market. In the 1950s HRM was very compact and most people lived in the former cities of Halifax and Dartmouth, what we now call the Regional Centre. By the 1960s, suburban subdivisions developed and rural commutesdhed subdivisions began to emerge. As rural areas grew, the population of the Regional Centre began to decline and development moved further from the Regional Centre.

In the early years of the current decade (2000), residential development in the Regional Centre has begun to grow again, but suburban communities have continued to develop, and spread across HRM.

## 1.2 WHERE ARE WE GOING?

Clayton Research and Cantwell & Company were retained to provide a 25-year projection of employment, population, and housing needs for Halifax Regional Municipality.

### 1.2.1 Economy and Employment

Within Nova Scotia, and the broader regional economy, HRM has traditionally turned in a strong economic performance, and conditions are set to continue to outperform the Atlantic economy in terms of job creation through the forecast period. However, as with the rest of the developed world, labour shortages, due in part to the aging of the population and to the increasing use of technology, will be partially responsible for a gradual slowing in the net pace of job creation from 1.5 to 0.6 percent per year by 2025.

Employment in HRM (on a place of work basis) is expected to expand to about 230,000 persons by 2025. This represents growth of 0.8 percent per year. Natural increase in population alone will not be sufficient to produce an adequate supply of labour. As noted in the Economic Potential Study:

*“To meet projected employment opportunities over the next 25 years, immigration will have to rise from the current net annual level of 750 to reach about 3500 per year by 2025. This will require major policy and program development by all levels of government.”*

HRM needs to be a place that attracts in-migration, whether from elsewhere in Canada or from other countries. This can be achieved through support of five main drivers in the Region’s economy which will help create many of those new jobs: universities and colleges, defence, hospitals, public administration, and financial, insurance and real estate services. Together these five economic sectors account for one third of the job growth by 2026. The stability of, and prospects for, these sectors therefore are important to the overall economy of the region.

### 1.2.2 Population

The population of HRM is likely to rise by a total of 84,400 persons (24,000 persons through natural increase and 60,000 persons through net migration over the 2001-2026 period based upon cohort survival methodology<sup>1</sup>). The population increase is situated between the high growth scenario of 125,000 persons and the low growth of 52,000. About one third of the net migration is expected to come from international sources: the remainder from other parts of Canada. As

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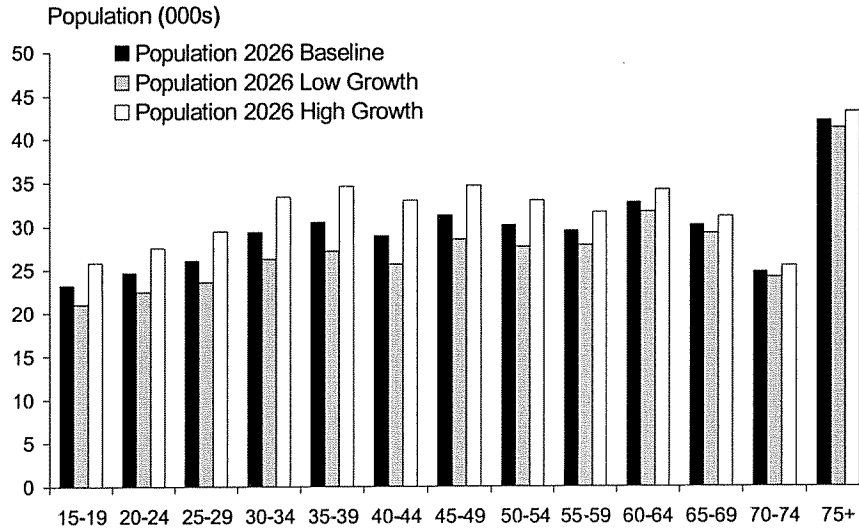
<sup>1</sup> Cohort Survival Methodology uses historical data from the Census of Canada and projects future population based upon births, deaths and net migration.

mentioned, net migration is ultimately influenced by local employment opportunities.

The driving factor behind the population growth is an anticipated rise in the employed population by 38,800 persons. The gap between the total rise in population and the rise in employed population is due to declining total participation rates in the labour force, which is due, in turn, to the aging of the population into retirement years.

An important aspect of the projected population growth is the shift in age of the population (Figure 1-2). By 2026 there will be more than twice the number of people over the age of 65 than in HRM today and, similarly, the number of school-aged children is expected to level off. This has significant implications for the demand for and type of services provided in HRM.

### Population, Halifax Regional Municipality Three Scenarios, 2026



Source: Clayton Research

Figure 1-2



**Population by Age Group, Halifax Regional Municipality, 1996-2026****Baseline Scenario**

Age Groups	Census		Projections				
	1996	2001	2006	2011	2016	2021	2026
	<i>Number of Persons</i>						
0-4	22,455	19,935	19,585	19,690	19,665	19,470	19,380
5-9	23,700	22,370	20,235	19,870	20,180	20,210	20,100
10-14	22,115	23,695	23,180	21,060	20,955	21,390	21,645
15-19	21,135	22,910	24,700	24,280	22,245	22,360	23,170
20-24	25,605	26,565	24,625	26,550	26,295	24,580	25,295
25-29	27,990	26,445	27,750	25,920	27,950	27,945	26,670
30-34	33,175	27,600	27,455	28,830	27,085	29,260	29,605
35-39	32,015	32,860	28,345	28,260	29,690	28,070	30,520
40-44	28,110	31,650	33,265	28,825	28,775	30,285	28,880
45-49	25,735	28,070	31,945	33,595	29,215	29,250	30,940
50-54	19,120	25,530	28,220	32,100	33,760	29,515	29,730
55-59	14,220	18,345	25,180	27,865	31,680	33,370	29,265
60-64	12,390	13,680	17,890	24,565	27,205	30,920	32,590
65-69	10,670	11,845	13,205	17,250	23,660	26,215	29,860
70-74	9,405	9,715	11,030	12,330	16,095	22,065	24,520
75-79	7,075	8,060	8,485	9,660	10,840	14,155	19,475
80-84	4,545	5,535	6,530	6,915	7,890	8,890	11,670
85+	3,515	4,385	5,695	7,105	8,070	9,240	10,690
Total	342,975	359,195	377,320	394,685	411,250	427,195	444,005

Totals may not add due to rounding

Source: Clayton Research; Historical: Statistics Canada

**Figure 1-3****1.2.3 Housing**

Potential household growth is a function of the projected population by age along with headship propensities (the number of people in each age group who are projected to head up a household). Over the period 2001 to 2026, HRM is expecting a total of 57,000 new households to emerge<sup>2</sup> or 58,750 new dwelling units. The number of new dwelling units is slightly larger due to the

<sup>2</sup> Based upon the Potential Housing Demand (PHD) model maintained by Canada Mortgage and Housing (CMHC).

anticipated decline in number of persons per household. Low density housing is expected to account for the majority – about 58 percent – of housing completions. Medium and high density development should account for about 41 percent.

Suburban areas of HRM will continue to play an important role in residential development by capturing just about 52 percent of all new housing requirements. Demand for housing in the Regional Centre will capture about 26 percent of demand. Rural development – primarily single-detached housing – is set to capture about 22 percent of potential housing demand through to 2026.

**Table 2-1: Projected Housing Demand by type and Sub-Region 2001-2026**

Sub-region	Single and Semis	Row	Apartments and Others	Total
Urban	3,428	1,715	9,911	15,054
Suburban	18,851	735	11,013	30,599
Rural	11,996	-	1,101	13,098
Total	34,275	2,450	22,025	58,750

*Source: Clayton Research. 2004*

#### **1.2.4 Residential Capacity**

Once demand for housing is projected, it is important to determine whether there is sufficient capacity in HRM to accommodate that housing demand. To that end, HRM commissioned several studies - the Greenfield Study, the Integrated Servicing Study and the Urban Core Residential Capacity Analysis. These studies concluded there is sufficient land capacity for the anticipated growth over the next 25 years.

### **1.3 WHY THE BASE CASE (STATUS QUO) IS NOT SUSTAINABLE**

Without the Regional MPS, development in HRM occurred based upon 18 Community Planning Strategies that are not coordinated with each other. This has led to some problems. As settlement patterns continue to evolve outside the traditional urban and suburban areas, larger residential lots are needed in more rural areas to accommodate private services such as wells and septic tanks. At the current rate of consumption, approximately 18,000 hectares will be consumed for housing development (see Figure 1-3), and services will cost more to deliver over this dispersed area. The current development patterns and rate of growth, particularly in the rural commutershed areas are not only environmentally unsustainable, but, for HRM, are fiscally unsustainable as well.

There is currently a sufficient supply of piped water to meet our needs for the next several decades. But this is not always the case in areas relying on private well water. Some of these areas are already experiencing water shortages and more problems are likely to develop if we don't take adequate water supply into account in determining where to build new subdivisions. Between 1980 and 2004, HRM spent approximately \$80 million on extending water and sewer services to resolve problems in previously unserved areas.

The negative impact of our current growth upon the environment will worsen if the status quo continues. Development is impacting our wildlife corridors, wetlands, shorelines and natural open space corridors, forcing wildlife out of natural feeding areas, and closures to the shellfish harvesting. Unchecked growth will lead to a degradation of our natural environment, higher dependence upon the automobile and a loss of neighbourhood and community character.

Transportation efficiency and cost-effectiveness have also been impacted by the existing development patterns. With communities growing without a regional plan, reliance upon the automobile has increased resulting in higher levels of congestion on our roads and unnecessary strain on existing road infrastructure.

Economic growth is fundamental to the success of the region. Poor transportation networks and increased congestion can result in an inefficient economy, higher costs and lost business. As well, declining natural areas and loss of traditional industries makes HRM less attractive to potential business investment and employees.

Council, however, recognized that we can not continue to grow as we have been and has therefore initiated the regional planning process. As will be outlined below, it is not too late to manage the growth that is anticipated over the next 25 years. HRM will be directing growth so that the environment is minimally impacted, with conservation and preservation being a high priority. A transportation network will be developed, that not only concentrates on road construction and maintenance, but also includes transit facilities, active transportation and alternate modes. The economic potential of HRM will be maximized. All this will be accomplished without sacrificing the character that makes HRM a unique and attractive place to live.

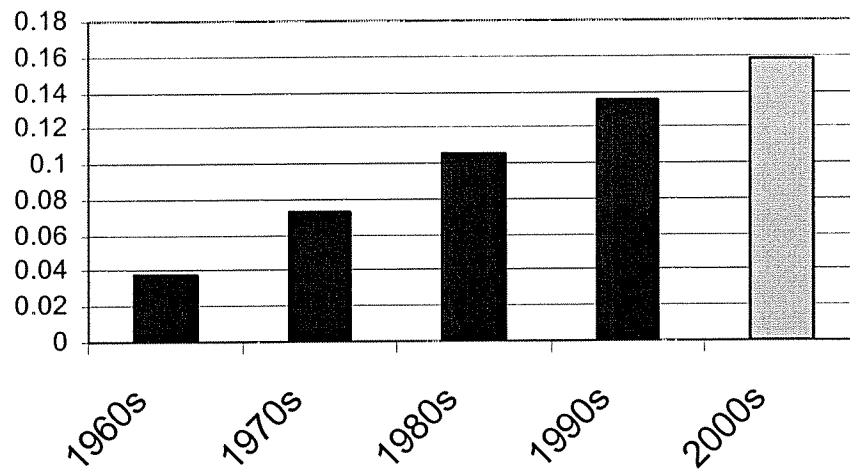


Figure 1-3: Land Consumption per capita

## **1.4 WHERE DO WE WANT TO BE?**

HRM is a great place with unique characteristics that sets it apart from other regions. An enviable quality of life makes Halifax an attractive place to live and HRM residents have stated this time and again. Residents say that protecting the quality of life they enjoy is fundamental. However, as stated above, we cannot go on the way we have been - we need a plan for the future. The Regional MPS is about creating a framework to shape the future growth of the region as well as preserve the qualities that are important to the citizens of HRM. We cannot prevent growth, nor should we, but we can direct it in such a way that HRM will be sustainable, prosperous and attractive for future generations. Below are the foundations upon which we are directing our growth.

### **1.4.1 HRM's Vision, Principles and Goals for The Future**

The Regional Planning Committee used information gained during the first phase of the project to develop the vision and principles that will guide the development of HRM's Regional Plan. These have been approved by Council, and are presented below:

#### Vision

HRM will adopt a broad Regional Plan which, throughout the next 25 years, will guide its physical development in a way that promotes healthy, vibrant, sustainable communities.

#### Guiding Principle

The Regional Plan will seek to address the needs and views of all HRM, recognizing the diversity of its citizens, community and geography.

#### Principles

- ▶ Provide a framework that leads to predictable, fair, cost-effective decision-making.
- ▶ Support development patterns that promote a vigorous regional economy.
- ▶ Preserve and promote sustainability of cultural, historical and natural assets.
- ▶ Support appropriate roles for the Halifax/Dartmouth central business district and local business districts as a focus for economic, cultural and residential activities.
- ▶ Manage development in a way that will make the most effective use of land, energy,

infrastructure, public services and facilities and considers healthy lifestyles.

- ▶ Ensure opportunities for the protection of open space, wilderness, natural beauty and sensitive environmental areas.
- ▶ Develop integrated transportation systems in conjunction with the above principles.

### Goals and Objectives

In preparing the Regional MPS, Council adopted in principle a set of goals and objectives to guide the creation of policy (please go to [www.halifax.ca/regionalplanning](http://www.halifax.ca/regionalplanning) to see the complete list of original goals and objectives). Upon completing the Regional Plan policy, it is important to determine how effective the policies have been in achieving the desired outcomes.

The HRM Scorecard process will be used to measure the performance of the Regional Plan. To achieve this end, the original goals were simplified and/or combined into a new set of goals and associated performance measures as outlined in Appendix A (Goals and Performance Measures).

### **1.4.2 Foundation Strategy**

The foundation strategy is the backbone of the Regional MPS.

The foundation strategy has several key elements that address the Regional Plan's goals and objectives at a broad level. Through the foundation strategy, the following have been used as the basis to develop the Regional MPS:

- ▶ Ensure the efficient and effective use of existing and future infrastructure;
- ▶ Maintain a port and marine focus for Halifax Harbour;
- ▶ Support HRM's global competitiveness through enhancing our quality of life, transportation systems and other key economic drivers;
- ▶ Support the Capital District as the economic & cultural centre;
- ▶ Provide a range of choices for where people could live, both among and between centres;
- ▶ Ensure interconnected open space;
- ▶ Protect cultural and heritage sites and landscapes;
- ▶ Design and invest for energy efficiency;
- ▶ Outline the boundaries of municipal services like piped water and sewer;
- ▶ Allow a mix of uses and affordable housing choices;
- ▶ Encourage clustered & compact communities;
- ▶ Invest in public transportation, walking and cycling;
- ▶ Promote transportation links necessary to support a strong economy; and
- ▶ To make the foundation strategy work, HRM would need to provide or enhance many services to the whole region, like public transit, piped water and sewer, libraries and

community and recreation facilities. In general, municipal services cost less when communities:

- are more compact;
- are close to other centres;
- are well connected with good transportation routes; and
- have mixed residential and commercial uses.

## **BENEFITS OF THE PROPOSED PLAN**

### Environmental Benefits

- connected parks/corridors, including 14 new wilderness and trail corridors and 5 new regional parks;
- reduced greenhouse gas emissions by approximately 11% compared to the Base Case; and
- less land will be consumed for residential development - 5000 hectares will be required with the Regional MPS, rather than the 18,000 hectares estimated to be required if there was no regional planning process.

### Economy

- identifies and protects key marine and industrial sites on the harbour;
- enables long-term financial planning;
- provides clarity to investors and developers (stakeholders repeatedly communicate how important this is to a strong economy);
- strong central economic cluster (Capital District and surrounding areas) and provides for adequate supply of business/industrial park lands; and
- protects our tourism assets, such as heritage and culture, the Capital District, and outdoor recreation areas.

### Transportation

- improved access to employment centres;
- improved use of the existing transportation network through reducing congestion and improving transit use;
- costs are reduced and service improved through the integration of the settlement pattern with transportation planning; and
- a fast ferry for the harbour which utilizes this great natural transportation corridor.

### Settlement

- the plan promotes walkable, mixed use communities where people can be more active in their daily lives;
- will set the foundation for improved urban and community/neighbourhood design by outlining design guidelines;
- requires only one third of the amount of new local streets as the base case (approximately 500 kilometres compared to 1,600 kilometres); and

- affordable housing for all levels of income/employment, close to major employment centres important element of the plan.

#### Financial and Service Benefits

- the plan will provide more people with greater access to improved services at a reduced cost;
- a much higher percentage of homes will be on piped services than under the base case;
- transit service will be expanded 30% over the base case, through a combination of more routes, greater frequency and lower travel times (the Bus Rapid Transit program);
- more people will have greater access to public transit - more than 81% of HRM residents will be within 500 metres of a transit route or stop (compared to less than 69% with the base case);
- average police response times will be faster and more people will live within five minutes of a fire station; and
- over the 25 year life of the plan, it is estimated that cost savings associated with: transportation and transit; school bussing (provincial); water and sewer services (public and private); solid waste management; fire and police services; parks, recreation and library services; and tourism/culture, planning and governance, will be \$250 million compared to the base case.

### **1.4.3 Synopsis of The Plan**

#### **1.4.3.1 How We Will Direct Growth**

To create a framework that will shape growth, in a manner the public has directed, future land use will be guided by the land use designations shown on the General Future Land Use Map, (Map 2). The land use designations listed below are the instruments for shaping our growth within the Regional MPS. The main designations are:

- ▶ Urban Settlement;
- ▶ Rural Commuter;
- ▶ Rural Resource;
- ▶ Agricultural Communities;
- ▶ Urban Settlement Reserve;
- ▶ Halifax Harbour; and
- ▶ Open Space and Natural Resources.

As well, there are two sub-designations within the Urban Settlement Designation: the Capital District and Business Parks.

Our natural environment areas have formed the basis of the plan and the location of the land use designations. Our coastline, numerous lakes and rivers and environmentally sensitive areas formed the context within which all settlement will occur. Making HRM environmentally



sustainable involves preserving the natural features HRM residents treasure. Therefore, unless growth is well managed, it poses a risk to the natural environment, the character of our communities and the quality of life in the region. How this growth will be managed is described below.

Growth in HRM will be distributed among a variety of centres as outlined on the Settlement and Transportation Map (Map 1). Approximately 25% of the predicted growth will occur within the Regional Centre (on the Halifax Peninsula and Downtown Dartmouth within the Circumferential Highway), 50% will be directed to the suburban areas and the remaining 25% will be in the rural areas.

The various centres have been defined and strategically located where services such as transit, sewer and water or water services can be economically provided to support development. These centres have sufficient land to accommodate growth, though the rate at which they develop will be dependent upon market preferences. There is enough flexibility in the plan to be able to accommodate community and market preferences and the community/neighbourhood visioning and secondary plan processes over the coming years will be used to accommodate such preferences.

The strategy for our future growth lies in the integration of environmental preservation and conservation, land use planning and transportation planning. These three areas are so inter-dependent that it is not possible to look at one in isolation of the other two.

Growth and development throughout HRM has been shaped by the natural environment. Given the importance of the natural open space network, the policies within the Regional MPS create the framework within which the land use zones can be established. These include “park” zones, a natural corridor zone, a wilderness area zone, conservation areas, to name a few. The Regional MPS protects these features from fragmentation, degradation and loss from unplanned growth.

Directing growth to specific centres will result in vibrant communities. Below is a table listing the centres contained within each settlement designation. The types of services will depend upon the centre and its location, with each centre containing varying degrees of transit service, housing mixes, commercial and retail uses, as well as recreational uses. The mix of uses will be determined by the centre type and the designation it is located in. Policies relating to density, type of retail/commercial uses and types of institutions and recreational uses will be outlined for each type of centre within the five settlement designations.

Table 1-3: Centre Types by Designation

<b>Urban Settlement Designation</b>	<b>Rural Commuter Designation</b>	<b>Rural Resource Designation</b>	<b>Agricultural Designation</b>	<b>Urban Settlement Reserve</b>
Regional Centre	Rural Commuter District Centre	Rural Resource District Centre	Agricultural District Centre	
Urban District Centre	Rural Commuter Local Centre	Rural Resource Local Centre	Agricultural Local Centre	
Urban Local Centre				
Suburban District Centre				
Suburban Local Centre				
Capital District Sub-designation				
Business Parks Sub-designation				

Community design for compact mixed used centres, is also set out in the policies contained within the Settlement Chapter. Each centre will be developed based upon the following design elements:

- ▶ well-designed and situated transit facilities integrated with other land uses;
- ▶ pedestrian oriented, mixed-use centres with interesting facades, interconnected streets and pathways, active and vibrant streetscapes;
- ▶ bicycle-friendly communities with facilities such as bicycle racks and identified routes to make it easier for residents to cycle as an alternative to the car;
- ▶ parking facilities will be integrated into the building design and, supply will be balanced to encourage transit use without affecting commercial and retail activities; and
- ▶ an appropriate mix of retail and employment opportunities depending upon the type of centre.

The settlement pattern and the transportation network are integrated within the Regional MPS. The Settlement and Transportation Map (Map 1) shows the relationship between transportation and settlement. The centres have been defined, in part, on the basis of the transit service that will be available within the next 25 years. Integrating transportation planning with land use planning

is fundamental to the success of this Plan. Developing centres that will lead to a more effective and efficient transportation system requires changing not only how we plan our communities, but also how we get to and from them.

The centres have been developed with the underlying principle of serving each one with transit, whether it be by Bus Rapid Transit, express bus, ferry service, rural transit or conventional service. To accomplish this, policies have been written to create street patterns that will enable buses to serve residents via efficient and convenient routes, and establish bus routes in areas of highest residential density or clusters of shops and services. In new communities, through either development agreements, site plan approval or secondary planning strategies, shops and services will be located close to sidewalks leading to transit stations or terminals and that parking, including park and ride facilities will be separated from pedestrian routes.

The private automobile will still be the preferred choice for many and their needs also have to be met. So too, do the needs of business, who require an efficient, effective, reliable and integrated transportation network for the movement of goods and people. The Regional MPS promotes strategic roadway investment and preservation of key road corridors.

Economic growth and prosperity are enhanced by the regional planning process. The preservation of HRM's unique qualities will not only attract more people to our region, but more economic investment. The economic function of the Capital District and Halifax Harbour is supported and strengthened within the Regional MPS, along with the various business parks and major employment centres such as the Halifax International Airport. As well, rural economies are supported in the Regional Plan to enable employment opportunities and maintain a high quality of life.

Housing a growing population is a concern to the community. Demand for housing is increasing leading to increases in housing costs. Despite not being directly involved with the provision of non-profit housing initiatives, HRM will look to ways of ensuring that affordable housing is available to residents. Through land use policies that permit a wide range of housing types, more affordable housing will be available.

HRM residents are proud of their cultural and heritage resources and have indicated as such through the consultation process. HRM's cultural heritage creates an intrinsic understanding of where we have come from, enhances our quality of life and defines the unique and distinct characteristics of the region as a whole. The Municipality will seek the retention, preservation, rehabilitation and restoration of those areas, sites, streetscapes, structures and conditions such as views, which impart a sense of the community's heritage. The Regional MPS contains policies related to legislative changes regarding strengthening of the Heritage Properties Act, use of heritage conservation areas, encouragement of reuse, restoration of registered heritage buildings and the preservation of landscapes, views and archaeological resources within HRM.

Redevelopment and infill will be subject to policies within the Regional MPS. Such policies include input from residents and businesses as part of the community and neighbourhood secondary planning process; policy for maintaining neighbourhood stability, providing incentives for the redevelopment of abandoned or under utilized properties as well as the community design approach established through the Urban Design guidelines.

### **1.5 HOW WAS THE REGIONAL MUNICIPAL PLANNING STRATEGY CREATED?**

The public consultation process developed to create the Regional MPS ensured all citizens had opportunities to participate and to provide input. It involved region-wide, large scale events like workbooks, questionnaires, focus groups, open houses, and public information meetings, and smaller more informal initiatives such as one-on-one meetings, attendance at local community meetings, fairs and events, and attendance at community group meeting. Another goal of the consultation process was to target and engage those that might not normally participate in a planning process. A youth consultation program was implemented to encourage the youth to participate. Further, the consultation program did not focus solely on information seeking, but placed considerable emphasis on information sharing. Regular newsletters, a website, regional planning displays, televised presentations, and other communication initiatives provided information to the public at each step of the process.

### **1.6 ORGANIZATION OF THE PLAN**

Short term decisions will over time significantly contribute to long-term improvements of HRM. Over the longer-term, this strategy will guide decisions beyond immediate problems and outline specifically how HRM should change.

The Regional MPS will provide a sound basis for decision-making and will guide the private sector toward, beneficial and profitable activities affecting the land and people. However, the Regional MPS requires public cooperation and support for its accomplishments. It also requires far-sighted and steadfast leadership to support the principles and goals, to maintain the long range view. In addition to serving as a guide to expenditure of public funds in support of the regional vision, the Regional MPS sets the framework for zoning and subdivision regulations.

The Plan is organized into the following sections:

**CHAPTER 1:** Introduction provides a brief history of HRM's past growth and an overview of existing and expected population, development, housing, economic, and social trends. The Introduction also sets out HRM's vision for the next 25 years and briefly explains how the (Regional MPS) was developed.

**CHAPTER 2:** Natural Environment deals with the protection of land, water, and air which includes such issues as riparian buffer, forest cover, and the natural network (wildlife corridors

and species at risk). Further, this Part provides the framework for four functional plans to be completed within the first five years of implementing the Regional Plan - Urban Forest, Trails Development, Hazard Mitigation and Air Emissions.

CHAPTER 3: Settlement policies deal with the five designations Urban Settlement; Rural Commuter; Rural Resource; Agricultural Communities; and Urban Settlement Reserve and the related centres associated with each one. This section also sets out the community design guidelines that will guide how the centres will appear. Policies for residential infill, incentives for opportunity sites and the public realm will also be developed.

CHAPTER 4 Transportation policies deal with the type of system needed to support the preferred settlement pattern and direct financial investment and planning for major infrastructure construction, as well as co-ordination of the investment. This Part also contains policies that address transit modes, the road network, and how to manage traffic as well as the preparation of a Transportation Functional Plan.

CHAPTER 5: Economy of HRM is based upon a number of economic drivers, the universities and colleges, defence, hospitals, public administration and financial, insurance and real estate services. The Regional MPS seeks to encourage, support, and maintain these drivers in order to promote a vibrant, sustainable and healthy community for citizens and business.

CHAPTER 6: Housing focuses on the importance of housing diversity and the need for affordable housing.

CHAPTER 7 Heritage and Cultural Resources policies reflect the contribution both issues have on the region's economic vitality (i.e., cultural tourism) and on the overall quality of life. This goal is achieved through policy on built heritage, establishment of heritage conservation districts, defining archaeological resources, protecting view planes and cultural landscapes, art, and other issues.

CHAPTER 8: Municipal Services and Utilities focuses upon how municipal services will be provided and how such things as wind turbines and cell towers will be regulated.

CHAPTER 9 Implementation establishes the manner by which the land use policies are carried out, and the relationship to Community and Neighbourhood planning.

CHAPTER 10 Governance focuses upon public participation and working with other governments.

CHAPTER 11 Finance explains how public dollars will be spent and the costs associated with the plan. As well, the savings over the lifetime of the plan are also outlined.



## CHAPTER 2: ENVIRONMENT

### 2.0 INTRODUCTION

Protection of water, land and air is one of the cornerstones of the Regional MPS. The natural environment is one of the defining features of HRM, with its extensive coastline consisting of harbours, bays and magnificent headlands; its coastal salt marshes, islands and barrier beaches; its rivers and lakes that provide habitat for aquatic life and opportunities for recreation enjoyment; and its vast forested areas and coastal barrens that provide habitat for wildlife, and define community identity.

Through public consultation, HRM residents have indicated that protection and conservation of the natural environment, which is under constant pressure from the impacts of development, is a key priority for preservation of their quality of life. HRM and its citizens share the stewardship responsibilities for creating an environmentally and economically sustainable future for the Region. Through a broad environmental framework, policies will be set up in the Regional MPS outlining how a sustainable future will be achieved.

HRM's natural environment supports large mammal populations such as moose and bear; provides groundwater resources to one quarter of HRM's population for drinking water supply; and supports numerous natural features such as lakes, rivers, estuaries, and forests systems that are worth preserving. Protecting the broad natural environmental systems is the key to an environmentally sustainable future for HRM and to the preservation of our quality of life. Maintaining the health of the overall ecosystems through the interconnection of natural landscapes and good management of development on a watershed basis is essential.

The ever changing nature of the physical environment and its elaborate ecosystems is not fully understood, making any form of detailed study, planning or management a challenge. Thus, a precautionary approach to environmental decision-making is needed. HRM can meet these challenges through the adoption of environmental policies that will promote holistic planning approaches on a watershed or subwatershed basis. Watershed-based planning views all lands and waters with a watershed as integral parts of a single system. Some of the watersheds within HRM being relatively pristine, while others are highly urbanized. It is not the intention of this plan to achieve pristine environments for every watershed. Rather, it is about setting practical limits so that urban, suburban and rural development can occur within our watersheds in a fiscally and environmentally responsible manner.

Fragmentation of open space arising from existing land use practices in HRM may reduce the effective functioning of ecosystems. Currently, subdivision development activity, the creation of additional highways, and utility corridors are fragmenting natural systems. Retaining natural

corridors<sup>3</sup> between natural areas, is a key strategy for maintaining overall ecosystem. While individual development-related activities may appear inconsequential, the total effect of these activities alter habitat for native species that have evolved in a given area.

To prevent loss of biodiversity, HRM should include wildlife habitat as part of planning and development decisions. This plan envisions integrated resource management and planning, in cooperation with other government agencies, private landowners and, non-governmental organizations. The comprehensive plan for natural areas in HRM consists of land under Federal, Provincial or Municipal designation or regulation. Within the Regional MPS, these designated areas will be linked with other natural habitats to form a network ensuring the survival of flora and fauna and accommodate sustainable development in HRM.

Other forms of open space are integral to the development of HRM and the future sustainability of the region. Within communities and neighbourhoods, parks are part of the fabric that creates communities and helps contribute to a sense of place, as well as providing HRM residents with areas to pursue active and passive recreation opportunities. To provide residents with suitable park facilities, a hierarchy exists, outlining the size, amenities and population to be served.

HRM residents are also fortunate to have numerous trails to use for cycling, walking, and hiking. These trails, many of which have been developed by community groups, allow residents to pursue active lifestyles, enjoy the spectacular scenery of HRM and learn about our natural environment.

The parks and trails are vital components of the natural environment. Each component has a role to play, whether it is for the preservation of natural corridors, recreation, watershed or protection from flooding.

Jurisdiction over the environment is divided among federal, provincial and municipal governments. Sound environmental planning requires a cooperative and integrated approach to the application of regulatory controls among all regulatory agencies.

The Regional Plan emphasizes protection of wilderness assets and increased recreation opportunities and connected open space. In the Regional Plan, an additional \$4 million dollars (over the Base Case) may be required to allow for the development of new regional parks, wilderness corridors and urban/suburban trails.

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<sup>3</sup>Natural corridors include naturally vegetated or potentially re-vegetated lands that connect, link or border critical ecological attributes and functions and also provide ecological functions such as habitat, migration routes, hydrological flow, connections or buffering from adjacent impacts. These include such components as woodlands, waterbodies, watercourses, valley lands, riparian zones, and shorelines.



Completion of all of HRM's goals relative to the opportunities discussed in this section will require, future functional plans and community planning strategies for the Region's plan areas to conform with the policies of the Regional Plan but will also include the development of more detailed environmental policies and corresponding land use plans appropriate to their particular needs. In addition to the implementation of the policies included here, the completion and implementation of Functional Plans in the following areas:

- Open Space;
- Urban Forest Management;
- Hazards to Development; and
- Air Emissions Reduction.

## **2.1 NATURAL NETWORK AND OPEN SPACE**

### **2.1.1 Open Space and Natural Resource Designation**

Growth and development throughout HRM has been shaped by a natural network of open space, covering the interior of the Municipality that is inaccessible by public road. It consists mainly of provincial crown lands, although a substantial portion of it is owned by private companies for forest production and harvesting.

This open space network is comprised of numerous regional parks, natural corridors and trail systems that provide continuous access from the interior of HRM to communities, and the sea. The trail systems have become the backbone of a system of interconnected open space and provide opportunity for backcountry hiking, portaging, and nature appreciation. The natural corridors interconnect natural areas and provide opportunity for wildlife to migrate between habitat patches and maintain natural ecological functions. It is HRM's intention to provide for an interconnected system of the trails and natural corridors.

Within HRM, this open space network serves many functions, in addition to shaping settlement form. The natural resources that comprise the network supports the economy, preserves our cultural heritage, as well, it provides habitat for wildlife and performs important environmental services such as the retention of floodwaters, uptake of nutrients, abatement of pollution and moderation of climate. The purpose of the open space network is to provide an interconnected system of open space for cultural and recreation uses; maintain connectivity of natural areas; conserve biodiversity; and ensure continued opportunities for resource production, as shown on the Parks and Natural Corridors Map (Map 4) and the Trails and Natural Network Map 3 (Map 3). Policies in support of the Open Space and Natural Resource designation are located below:

- E-1 In order to provide for an interconnected system of open space, maintain connectivity of natural corridors, conserve biodiversity, and ensure continued opportunities for resource production, HRM shall establish an Open Space and Natural Resource Designation as

shown on the Generalized Future Land Use Map (Map 2). The Open Space and Natural Resource Designation encompasses all Federal Parks, habitat protected by Federal and Provincial legislation, Regional Parks and Trails, Provincially Designated Parks and Provincial Parks Reserves, Provincially Designated Wilderness Protected Areas, Provincial Crown Lands classified CI (Resource) and C2 (Resource and Recreation) under the Integrated Resource Management Plan by the Province, Private Conservation Areas, all Municipal Conservation Areas, Wetlands, Salt Marshes, Beaches, Private Forestry, Agriculture and Fishery lands, Environmentally Significant Areas, Natural Corridors and Cultural Heritage Lands.

### 2.1.2 Parks and Trails

The parks system within the Open Space and Natural Resource Designation consists of Regional Parks, Federal Parks, Conservation Areas and Natural Corridors. Provincial parks that were designated in accordance with the *Provincial Parks Act*; and the provincial parks reserves that were identified by the province for their outstanding natural value are included as Regional Parks. It also includes the five new Regional Parks identified under this plan. The Federal Parks include all of the historic military defence complex designated by Parks Canada around Halifax Harbor and on McNabs and George's islands.

The parks serve the recreation needs of a growing population and the trail system that is developing throughout HRM, provide critical linkages between communities and these outstanding natural and historical features that serve the region. Thus, it is the aim of the Regional MPS to protect these parks and trails by controlling land use within and around them.

- E-2 Regional Parks, within the Open Space and Natural Resource Designation, shall be zoned Regional Park under the Regional Land Use By-law. This Zone shall be applied to all Provincial Parks; all Provincial Park Reserves; and four of the five new Regional Parks designated under this plan, including, the Western Commons, Jacks Lake, Second Lake, and Porters Lake. It will be applied to the publicly owned lands within the new Birch Cove Lakes Park. This Zone shall permit recreation and park uses.
- E-3 The Regional Parks Zone shall also be applied to Provincial Parks and Provincial Park Reserves outside the Open Space and Natural Resource Designation.
- E-4 HRM shall establish a Holding Zone under the Regional Land Use By-law. This zone shall be applied to the privately owned lands within the Birch Cove Lakes Park. This Zone shall permit single unit dwellings on a minimum of five (5) acre lots.
- E-5 All Federal Parks, within any designation, shall be zoned Federal Park under the Regional Land Use By-law. This Zone shall be permit recreation uses, parks, and historic sites and monuments.

- E-6 The Federal Parks Zone shall also be applied to Federal Parks outside the Open Space and Natural Resource Designation.

### **2.1.3 Natural Areas and Natural Corridors**

Natural areas include significant ecological features within the regional landscape. These areas play a vital role in protecting the vegetation, fish and wildlife which are significant to the biodiversity, beauty and character of the region. In HRM there are several wilderness protection areas designated under the Wilderness Areas Protection Act. Non-governmental conservation organizations have acquired and permanently protected other environmentally significant areas throughout HRM.

Protection of isolated blocks of habitat will not adequately protect wildlife in HRM. Reducing losses of native species of flora and fauna due to current development practices, can be achieved through interlinked wildlife and wilderness areas and corridors to allow for migration between, and preservation of those areas. The size and continuity of natural corridors contribute to the overall connectivity of natural landscapes. Network width is related to requirements of desired wildlife species, length of network segment and other desired uses within the network. It may not be possible to protect wide corridors and therefore accommodate larger species in all areas within the Urban Settlement Designation. Secondary networks shall address some of the problems of habitat fragmentation for smaller species within the Urban Settlement Designation.

There are 14 Natural Corridors that are critical to the on-going connectivity and conservation of the region's natural network as shown on the Parks and Natural Corridors Map (Map 4). The primary function of these corridors is to conserve wildlife habitat and in some cases may also conserve riparian, recreational and cultural corridors.

Potential linkages are identified on the Parks and Natural Corridors Map (Map 4). Natural areas set aside during subdivision of land should be located to make connections with larger offsite systems. This approach shall also benefit other natural area network goals related to cultural heritage and recreation.

- E-7 Natural Wilderness Areas, within the Open Space and Natural Resource Designation, shall be zoned Protected Wilderness Areas under the Regional Land Use Bylaw. This Zone shall be applied to the Terence Bay, Waverley-Salmon River Long Lake, Clattenburgh Brook, White Lake, Tangier Grand Lake, and Boggy Lake Wilderness Areas that have been designated under the *Nova Scotia Wilderness Areas Protection Act*. It will only permit scientific study, education, trails and similar public and recreational uses except where these uses would destroy the natural processes of the area or surrounding water bodies.
- E-8 Conservation Areas within the Open Space and Natural Resource Designation, shall be

zoned Conservation Areas under the Regional Land Use Bylaw. This Zone shall be applied to all conservation-related properties owned by private conservation organizations. It shall only permit scientific study, education, and interpretive trails.

## 2.2 WATER RESOURCES

The Water Resources Management Study<sup>4</sup>, which forms the basis of the policies contained in this section, recognized that watersheds are the fundamental unit for understanding water resources and undertaking watershed planning. To ensure that our lakes, waterways and coastal waters are not further degraded, that public health standards are met for body contact recreation and that development occurs in an environmentally sensitive manner, watershed studies and ongoing monitoring are required. Monitoring of water quality will be based on national guidelines established by the Canadian Council for Ministers of the Environment (CCME). Environmental features - water, soils, vegetation, habitat - within a watershed are all interconnected, and land use activities in one part of a watershed can adversely affect the quality and quantity of water in another. We must, therefore, plan communities based on watershed analysis to protect those environmental features and functions that sustain our desired objectives for water quality and quantity in urban, suburban and rural areas.

The protection of the watersheds designated for municipal water supply is also a matter of regional importance. The Pockwock Watershed serves the communities on the western side of Halifax Harbour, including Sackville, Bedford, Beaver Bank, portions of Hammonds Plains and Lucasville, Waverley/Windsor Junction, Halifax and Timberlea/Lakeside Beechville. The Second Chain Lake Watershed serves as a backup water supply for Halifax. Topsail Lake, Lake Lamont and the Lake Major Watershed serves communities on the eastern side of Halifax Harbour, including Cole Harbour/Westphal, Dartmouth and Eastern Passage. The Bennery Lake Watershed is a water source for the Halifax International Airport.

It is important to ensure that any land use activities within these watersheds do not threaten water quality. Currently, the land use activities are regulated under existing community land use by-laws and there is a wide variation in the range of permitted land uses in these conservation zones for each community. Low density residential, conservation related uses and resource activities may be undertaken in some of these watersheds without any adverse effects on water quality. HRM will continue to allow for a variation of land use activities as currently permitted at the community level as long as these uses do not threaten any municipal water supply.

E-9 Municipal water supply watersheds, within the Open Space and Natural Resource Designation, shall be zoned Protected Water Supply under the Regional Land Use By-law.

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<sup>4</sup> Dillon Consulting Limited. HRM Water Resource Management Study Report. Prepared for HRM. Halifax: December 2002.

This Zone shall be applied to all publically owned lands within the Pockwock, Second Chain Lake, Lake Major, Bennery Lake watersheds and to lands around Topsail Lake and Lake Lamont. The Zone will permit water distribution and purification facilities, passive parks and trails, and conservation related uses. Low density residential and resource uses may be permitted in these areas under existing and future secondary land use by-laws, provided these uses do not adversely impact these municipal water supplies.

E-10 A water quality monitoring program shall be required for lakes that are under development pressure to track the eutrophication process. The program is to be designed and undertaken by qualified persons financed in whole or in part by developers proposing large scale developments through a master planning or comprehensive development district agreement process, that will significantly impact on lakes. Specifics of the program are to be negotiated under the terms of a development agreement in consultation with the applicable Watershed Advisory Board. The monitoring program shall:

- a) specify the duration of monitoring for the pre-construction, construction and post-construction phases of development;
- b) specify the physical and chemical water quality indicators to be measured, the location and frequency of testing and the format of submissions to the Municipality in each phase referenced under clause (a);
- c) establish eutrophication threshold levels for the lakes which would be used as a basis for reevaluating watershed management controls and future development potential within the area; and
- d) conform with all water quality policies, specifications, protocols and review and approval procedures approved by Regional Council.

E-11 In addition, HRM shall establish an on-going water quality monitoring program for selected lakes and rivers within HRM to establish the state of water resources and to detect changes over time.

### **2.2.1 Wetlands Protection**

Wetlands and other watercourses are vital components of the hydrological cycle and affect the quality and quantity of groundwater. They are natural filters for removing sediment, contaminants and excessive nutrients that are drawn up by the vegetation and settle out naturally before entering groundwater. The protection of wetlands is essential, to not only offsetting the use of groundwater for domestic and commercial use and reducing the risk of wells running dry, but they also provide for wildlife habitat, fish habitat, research and educational sites and add to the overall aesthetics of a community.

Through the Nova Scotia Wetlands Atlas, wetlands throughout HRM have been identified. These areas merit protection through a conservation zone which will ensure long term protection of these

valuable public and private resources.

- E-12 HRM shall establish an Environmental Conservation Zone in the Regional Land Use By-Law. The zone is applied to the wetlands, that are greater than 2 hectares, saltmarsh and beach and sand dune areas. HRM shall further prohibit excavation, infilling, or any other alterations within this zone, including the removal of trees or other vegetation for development. Developments are limited to the placement of boardwalks and walkways and historic sites and monuments.
- E-13 HRM shall not consider any rezoning, development agreement or land use bylaw amendment application which will result in the development, excavation, infilling or alteration of any wetland, watercourse, water resource or floodplain, unless it is clearly demonstrated by detailed study that any such area, that does not function like a wetland, watercourse, water resource or floodplain, or is otherwise not hazardous for development.

### **2.2.2 Floodplains**

The identification and control of development on lands which are located adjacent to rivers and streams, and which are subject to flooding during storms, is based upon these areas being unsuitable for development. Development or alteration of a flood way can restrict the normal water drainage patterns and cause significant damage to property and infrastructure and risk to life. Limiting development on these lands will reduce the need for costly flood control infrastructure such as channels, reservoirs and dykes, as well as, protecting the public from property damage and loss of life. In order to minimize the effects upon natural stormwater flows, it shall be the intention of HRM to exercise control over the placement and stabilization of fill necessary for the flood proofing of structures permitted within the Floodplain Designation. Further, through the review of subdivision applications, HRM shall ensure that any roadways proposed within the Floodplain Designation meet the requirements of HRMs stormwater requirements. In addition, no fill of any kind shall be permitted within the 1:20 year Floodplain.

- E-14 In recognition of the need to minimize the consequences of flooding along major rivers and in recognition of the environmental importance of rivers and their role in the natural storm drainage system and regulation of water flows through watersheds, HRM shall restrict development, and prohibit the placement of fill or alteration of grades that restricts the capacity of flow or increases flood levels, within identified floodplains, under community planning strategies and land use by-laws. Land uses within these areas, which may be permitted under community planning strategies and land use by-laws, shall be restricted to conservation-related uses, resource activities, recreation uses, and public and private parks and playgrounds, roadways which provide access to the foregoing uses, and uses that are accessory to the foregoing. Notwithstanding that these uses shall be permitted, any structures intended for human habitation, whether permanent or temporary, shall be prohibited.

- E-15 Notwithstanding E-14, HRM shall allow development that has been adequately flood proofed within the 1:100 floodplain under the Sackville and Bedford community planning strategies and land use by-laws.

### **2.2.3 Coastal Inundation and Storm Surge Events**

Sea levels have slowly risen along the Atlantic Coast with global warming accelerating the process. The rise in sea levels can result in more storm surges causing increased damage to coastal communities. Changing water levels can have significant impacts on coastal infrastructure, environmental assets, utilities, property and community economic development. HRM should investigate the potential impact that changes in water levels could have on human safety, loss of habitats, disaster relief, cultural resources, tourism and recreation, property values, insurance, legal and jurisdictional issues.

- E-16 HRM shall prohibit all residential development in coastal areas of HRM, within a five metre elevation above the ordinary high water mark, except for coastal areas around Halifax Harbour. Permitted uses shall be restricted to marine dependent uses, open space, parking lots and temporary uses. This interim measure shall be in effect until a Coastal Inundation and Storm Event Functional Plan, supported by senior levels of government, shall be considered by HRM.
- E-17 Further to policy E-16, residential uses may be considered within the 5 metre elevation above the ordinary high water mark, provided a coastal hazard study, carried out by a qualified person examines the full range of geologic and oceanographic factors affecting chronic shoreline stability including short term events and long term trends. Proponents shall be required to show that the proposed development does not entail undue risk to human safety and that properties shall be resistant to flooding and storm events.

### **2.2.4 Riparian Buffers**

The retention of riparian buffers around watercourses is important for the protection of water quality, wildlife and the overall community. In addition to the functions of flood regulation, riparian buffers reduce the impacts of sedimentation and erosion and nutrient loading on watercourses, regulate the temperature of adjacent watercourses, provide important wildlife habitat and add aesthetic value to the region. The Water Resource Management Study<sup>5</sup> recommends setbacks considered adequate for the streambank stability, water temperature regulation and aesthetic value. It provides minimal protection of wildlife and flood mitigation and partial benefits for sediment removal. It, however, provides a general method of riparian buffer protection until buffers that meet the specific needs of each watershed can be determined through

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<sup>5</sup>Ibid

the watershed studies and implemented through secondary planning processes.

Riparian buffers reduce flood damage, protect biological and water resources through buffer width, and control over vegetation and soil disturbance. Trees, shrubs, ground cover vegetation and soils must be protected, for riparian buffers to be effective. The retention of native vegetation and native soils is also essential to maintaining runoff storage capacity, infiltration, and nutrient recycling. The canopy should be retained over watercourses, soil erosion should be prevented, and activities or land uses that introduce nutrients or contaminants into watercourses need to be excluded. It is therefore important that the following be considered: adjustment of buffers to public infrastructure development; removal of trees for view corridors where there shall be no adverse effect on watercourses; allow removal of hazardous trees subject to a tree removal plan; requirements for replanting in riparian buffers if vegetation removed 10 years prior to development applications; and where feasible, watercourse channels that have been altered should be examined to determine if restoration is possible or preferred.

- E-18 HRM shall require the retention of a riparian buffer along all watercourses throughout HRM to protect the chemical, physical and biological functions of marine and freshwater resources through the provisions of the Regional Land Use By-law. The minimum width of the riparian buffer shall be twenty metres 20 m from the high watermark from each side of the watercourse. Where the average slopes within the riparian buffer are greater than 20%, the width of the buffer shall be increased by 1 metre for each additional 2% of slope, to a maximum of 60 metres. No excavation, infilling, or any other alterations within this buffer, including the removal of trees or other vegetation shall be permitted. Developments are limited to the placement of boardwalk and/or walkway solely designed for watercourse access, boat ramps and historic sites and monuments. The land use bylaw shall contain provisions to reduce this requirement for lots in existence on the effective date of this planning strategy where otherwise development would be prohibitive.
- E-19 Notwithstanding Policy E-18, HRM shall consider amending the requirements of the Regional Land Use By-law to allow for public road crossings, NSPI, multi-purpose trails and parks on public lands, boat ramps, boathouses, fisheries uses, wharfs and view corridors within the riparian buffer where it can be demonstrated that the alterations can be made without adversely affecting the primary purpose of erosion control, protecting water quality. Selective tree cutting, pruning, and thinning of natural vegetation affecting no more than 25% of the riparian buffer may be permitted for water view corridors.
- E-20 Where trees or other vegetation have been clearcut within the riparian buffer within 10 years prior to an application for development approval, HRM shall require through the provisions of the Regional Land Use By-law, the replanting of native vegetation in the riparian buffer or other natural landscape area. Where the trees have been blown down or destroyed by fire or other natural event, no plantation shall be required.



### **2.2.5 Vegetation**

Vegetation provides habitat, food sources and corridors for wildlife. It improves the quality of lakes and streams by trapping sediment and, enhances air quality in urban areas. On slopes, vegetation can help prevent soil erosion, and, if maintained, can reduce the costs of building and maintaining soil erosion control structures. It is therefore in the public interest to prevent damage by maintaining vegetation to prevent erosion, recharge groundwater and reduce the flow and velocity of storm water.

Non-native invasive plants thrive in areas that have been disturbed by development and agriculture. They are a threat to health and safety, agriculture, wildlife, wetlands and recreational areas. It is therefore important to encourage methods of vegetation control which encourage the re-establishment of native vegetation.

E-21 HRM shall establish regulations to require a minimum of 25% of the natural vegetation on the site in relationship to developments, for developments, outside of designated growth centres, to be retained in an undisturbed state as a natural landscaping feature under all applications for development including those developments negotiated under the provisions of a development agreement. In addition, as a part of its subdivision approval process, a Subdivision Planting Plan shall be submitted that supports natural landscaping in roadside, cul-de-sac, and boulevard areas and on property bordering environmentally sensitive areas. Said planning areas are to be comprised only of native species.

## **2.3 PARKS AND TRAILS ADMINISTRATION**

Public park areas within HRM are operated and maintained under all three levels of governments, with varying mandates and functions. Regional parks serve a different mandate than do smaller scale parks which are located throughout HRM. Residents also enjoy a number of trails, which are, for the most part, maintained by community groups, with funding from a variety of sources, including HRM.

### **2.3.1 Open Space Typology**

While the conventional concept of open space may conjure up visions of parks or untouched natural areas, the term “open space” is used in municipal plans as a land use category to refer to several additional types of land uses with a wide range of functions. Simply stated, open space is publicly or privately owned, undeveloped land or water, intended to be preserved for agricultural, forest, urban greenbelt, ecological, historical, community safety, or recreational purposes.

Areas of open space that fall within this land use category can be designated and reserved for future uses in the same way residential or commercial lands are reserved for land uses consistent with their designations. The green and blue open space of the region is the natural infrastructure

we need to keep intact and functioning for future generations.

The following Open Space Typology presents a range of functional land uses for lands and watercourses that shall be referred to as open space in this Plan (Table 2-1). These areas are distinguished for their economic and environmental significance as well as their recreational and cultural values.

Table 2-1: Open Space Typology

Land Use Type	Land Use Function - All of the following opens spaces include, but are not limited to, the following functions.
Natural Resource	<ul style="list-style-type: none"> <li>- Areas important for the sustainable production of minerals, or fibre such as forest and mineral lands.</li> <li>- Areas required for ground water recharge.</li> <li>- Bays, estuaries, marshes, rivers and streams important for the management of commercial fisheries and aquaculture.</li> <li>- Areas required for the protection and enhancement of air quality and the reduction of green house gases.</li> </ul>
Agriculture	<ul style="list-style-type: none"> <li>- Areas important for the sustainable production of food.</li> </ul>
Recreation	<ul style="list-style-type: none"> <li>- Areas of outstanding scenic, historical and cultural value.</li> <li>- Areas suited for passive and active recreation.</li> <li>- Federal, provincial and municipal parks.</li> <li>- Public access to coastal and lake shores, beaches, rivers and streams.</li> <li>- Areas which serve as links between major recreation and open space lands, including utility easements, banks of rivers and streams, trails, water trails, and scenic road corridors.</li> </ul>
Environmentally Sensitive Areas (ESA)	<ul style="list-style-type: none"> <li>- Areas required for the preservation of plant and animal life.</li> <li>- Habitats for fish and wildlife species.</li> <li>- Areas required for ecological and other scientific purposes.</li> <li>- Rivers, streams, bay, estuaries and coastal beaches, lakeshores, banks of rivers and streams and watershed lands.</li> </ul>
Hazard Lands	<ul style="list-style-type: none"> <li>- Areas requiring special management or regulations e.g., steep slope areas, floodplains, wetlands, watersheds, geohazards.</li> </ul>
Preservation	<ul style="list-style-type: none"> <li>- Areas required for the protection of potable water quality and water reservoirs.</li> <li>- Areas required for the protection of past, current and future sanitary landfill operations.</li> </ul>
Heritage Landscapes	<ul style="list-style-type: none"> <li>- Scenic cultural and natural resources such as civic squares, town centres, heritage parks, farmlands, woodlands and open water that provide an open space context to the built heritage of a community</li> </ul>

<b>Land Use Type</b>	<b>Land Use Function - All of the following opens spaces include, but are not limited to, the following functions.</b>
Community Form	- Areas that can be used to separate, shape and define compact urban and rural developments.

E-22 HRM shall identify and classify open space land uses in the Municipality through the adoption of the Open Space Typology listed in Table 2-1.

### 2.3.2 Park Classification System

The following, Table 2-2, Parks Classification System, contains descriptions of Neighbourhood Parks, Community Parks, District Parks, and Regional Parks. Included in the park classification system are descriptions of the function and design features of the park type, and the number of households served by park type. With the exception of the Regional Park classification that includes federal and provincial parks, all other park classifications refer to municipally owned parks.

**Table 2-2: Parks Classification System**

<b>Park Type</b>	<b>Park Function</b>
<b>Neighbourhood Parks - Urban and Suburban</b>	Neighbourhood Parks in urban and suburban communities are primarily designed to provide unorganized play activities for children, quiet seating or rest areas and/or linear linkages between other municipal park or open space. These parks typically provide centrally located recreational services for neighbourhoods of 80 - 120 households.
<b>Neighbourhood Park - Rural</b>	Rural Neighbourhood Parks specifically serve neighbourhoods with on-site water and septic services and are primarily designed to provide unorganized play activities for children, quiet seating or rest areas and/or linear linkages between other municipal parks or open space. These parks typically provide centrally located recreational services for neighbourhoods of 80 - 120 households.
<b>Community Park</b>	These parks may be designed for organized youth and recreational adult level sports but may also include facilities for play by children. These areas may also be designed for passive recreation and left in a predominantly natural state. Community Parks are primarily intended to serve the recreation needs of a community comprised of three or four neighbourhoods with a population in the range of 1200 persons.

<b>District Park</b>	District Parks are primarily intended to serve the recreation needs of several communities with a population in the range of 10,000. District Park facilities will provide a range of recreational uses including, but not limited to, walking and cycling trails, sports fields, picnic areas, supervised beaches, and play facilities for children.
<b>Regional Park</b>	The primary objective of a Regional Park will be to preserve and protect significant natural or cultural resources. The essential feature of a Regional Park may include, but not be limited to, open space, wilderness, scenic beauty, flora, fauna, recreational, archeological, historic or geological resources. A Regional Park will have sufficient land area to support outdoor recreational opportunities for the enjoyment and education of the public. The size of a Regional Park must be sufficient to ensure that its significant resources can be managed so as to be protected and enjoyed. Regional Parks may be federal, provincial or municipal properties and are intended to serve the educational, cultural and recreation needs of the population of the entire region as well as for visitors to the Municipality.

E-23 HRM shall classify public park uses in the Municipality through the adoption of the Park Classification System listed in Table 2-2.

E-24 HRM shall amend the Subdivision Bylaw to include of a Parks Classification System. The park classification system shall include, descriptions of the function and design features of the park type, the amount of park required for the population, the distance served by the park, and the population served by park type. With the exception of the Regional Park classification that shall include federal and provincial parks, all other park classifications refer to municipally owned park and will be included as permitted land uses within the residential and mixed use designations of this Plan.

### 2.3.3 Park Dedication

Consultation with HRM residents during early phases of this Plan indicated that the public have increasing expectations concerning the quality and quantity of municipally-owned public spaces dedicated to recreation and leisure pursuits. HRM is predicted to experience steady growth in residential development during the life of this Plan. Given the higher densities desired for growth centres within the Municipality, there will be additional requirements for the greater provision of open space and parks to serve the recreation and leisure needs of local residents. Thus, HRM will require the dedication of land through the subdivision process to be increased to 10% as enabled under the *Municipal Government Act*.

- E-25 HRM shall adopt the following provisions concerning the dedication of parkland arising from subdivision in the Subdivision Bylaw:
- a) HRM shall require either a park-dedication or a cash-in-lieu of equivalent value for developments subject to subdivision. The required amount of park dedication or cash-in-lieu payment to be accepted by the Municipality will be based on 10 % of the net land area of the development subject to subdivision;
  - b) HRM may require cash-in-lieu of all or part of the required park dedication under the following circumstances: where the required land dedication fails to provide an area of suitable shape, size or location for development as a public park and cannot be integrated into a linked open space system; or where the required dedication of land would render the remainder of the site unsuitable or impractical for development; or where an existing or proposed park in the vicinity of the site is, or will be, in the opinion of HRM, clearly adequate to serve the projected increase in population.
- E-26 Where required lands dedicated for park purposes are insufficient in size or shape for their intended function, HRM shall consider acquisition of additional lands for park purposes or the divestiture of unsuitable parcels.
- E-27 HRM shall acquire lands for recreational open space land uses through all methods available under the terms of the *Municipal Government Act*.

#### **2.3.4 Park Sustainability**

The sustainability of park and natural open spaces ultimately depends on whether it will be possible to ensure sufficient maintenance and regeneration to pass them on in good condition to future generations. On an annual basis HRM receives an additional 25-50 park properties through acquisitions and park dedication in new subdivisions. However, developed areas of the urban core, where redevelopment projects have increased population densities, there is no allowance for park dedication under the terms of the Municipal Government Act ( *MGA*). At the same time, in rural and coastal areas of the Municipality, traditional access points to lakes and ocean shorelines are being lost to development. A comprehensive Open Space Functional Plan is a necessary approach to determining an economically and environmentally sustainable strategy for the equitable maintenance and distribution of parks and natural open space throughout the Municipality.

To assist in establishing priorities that reflect the leisure and recreational needs of the general public, the Open Space Functional Plan should contain selection criteria and acquisition guidelines for open space areas suitable for active and passive recreation. The Open Space Functional Plan should develop and retain a system of interconnected public open space throughout HRM to include parks, public access to coastal areas and watercourse shorelines, schools, and other public

facilities.

## Regional Parks

The 1975 Halifax Dartmouth Regional Development Plan, which was repealed in 1998 contained policies and regional park designations supporting a regional parks and trail system. The objectives were twofold; (1) that seven outstanding natural landscapes were to be preserved, and (2) these areas were to be established as regional parks with an interconnected trail system. Over the years, the province and former municipalities, acquired lands to create the present regional park system. However, the full scope of the plan was not completed. This, coupled with future population growth, contemplated at higher densities for urban and suburban areas requires additional areas to be preserved for future regional park development.

Therefore, in order to achieve this end, it shall be necessary to:

- a) assess opportunities to further the intent of the 1975 Regional Parks Plan identified in Table 2-3 Regional Parks;
- b) create additional regional parks at various locations throughout the Region including the Western Commons, Birch Cove Lakes, Jacks Lake, Second Lake, and Porters Lake identified in Table 2-3 Regional Parks; and
- c) develop intergovernmental mechanisms to achieve a collaborative and integrated resource management approach to regional park planning, development and management.
- d)

**Table 2-3: Regional Parks**

Regional Park	Agency
Admirals Cove Park *	HRM
Birch Cove Lakes Park	DNR/HRM
Canal Lakes Park*	HRM / Shubencadie Canal Commission
Cole Harbour - Lawrence Town Coastal Heritage Park *	HRM/DNR
Hemlock Ravine Park *	HRM/DNR
Long Lake Provincial Park *	DNR
Jacks Lake Park	HRM
McNab's Island Provincial Park*	DNR/Parks Canada

Porters Lake Park	DNR
Sandy Lake Park*	HRM
Second Lake Provincial Park	DNR
Western Commons Wilderness Area	HRM
<p>* Regional Park 1975 Halifax Dartmouth Regional Development Plan</p> <p><b>Note:</b> . Approximately 75% of the Birch Cove Lakes site is Crown, however, the remaining lands are privately held and acquisition shall be required. Close cooperation between Council and the Province will be necessary to establish the regional parks envisioned in this plan..</p>	

### Regional Trails

The Regional Trail system that provides linkages to outdoor recreation opportunities throughout the region, is an on-going project, coordinated through a partnership of local trails groups, the Halifax Regional Development Agency (HRDA), HRM and Nova Scotia Department of Natural Resources (DNR). The current Regional Trails system extends from Hubbards to Gibraltar Rock near Musquodoboit Harbour (Regional Trails, Table 2-4), with eventual connections to the Trans Canada Trail as shown on the Trails and Natural Network Map (Map 3). Sections of the system between Lakeside and Halifax, Dartmouth and Cole Harbour, and Chezzetcook and Musquodoboit Harbour await completion. This system forms part of an overall Active Transportation system and is further elaborated upon in Chapter 4: Transportation under Active Transportation.



**Table 2-4: Regional Trails**

<b>Regional Trail (East to West)</b>	<b>Regional Trails Organizations</b>	<b>Completed Trails</b>
Gibraltar Rock to Musquodoboit Harbour	Musquodoboit Trailways Association	14.5 km
Head of Chezzetcook to Eastern Passage	Cole Harbour Parks and Trails Association Atlantic View Trails Association Chezzetcook Community Interest Group	31.0 km
Lakeside to Hubbards	St. Margarets Bay Area Rails to Trails Association Beechville Lakeside Timberlea Rails to Trails Association	39.0 km
		<b>84.5 km (Total)</b>

Urban trails provide pedestrian and cyclists with convenient connections between neighbourhoods, parks, public transit and employment centers. They provide opportunities for active transportation and help reduce air pollution. Urban trails currently proposed include the Halifax Urban Greenway, following the Canadian National Railway cut from Chebucto Road to Young Avenue, the Dartmouth Waterfront Greenway from the Woodside Ferry to the Macdonald Bridge, and the Bedford-Sackville Connector from the Fort Sackville/Manor House in Bedford to the Fultz House in Sackville (Urban Trails, Table 2-5) (Map 3, Trails and Natural Network).

**Table 2-5: Regional Urban Trails**

<b>Urban Trail (East to West)</b>	<b>Urban Trail Organizations</b>	<b>Completed Trails</b>
Dartmouth Waterfront Greenway from the Woodside Ferry to the Macdonald Bridge	HRM/Community Groups	Concept stage.
Bedford-Sackville Connector from the Fort Sackville/Manor House in Bedford to the Fultz House in Sackville	HRM/Sackville Rivers Association	Concept Stage

Halifax Urban Greenway, following the Canadian National Railway cut from Chebucto Road to Young Avenue	HRM/Halifax Urban Greenway Association	Concept stage.
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### Water Trails and Land Trails

Water and land trails have been inventoried for the Regional MPS as illustrated on Map 3 - Trails and Natural Network. With cooperation from Canoe/Kayak Nova Scotia and the HRM Regional Trails Advisory Team, these trails will be considered in the development of the Open Space Functional Plan.

## 2.4 SECONDARY PLANNING STRATEGIES

The following policies will be subject to, or form the basis of secondary municipal planning strategies. These policies fall within the following categories: riparian buffers; water resources; hazards to development.

E-28 HRM shall ensure that future community and/or neighbourhood planning strategies prepared through secondary planning processes require:

- a) that no piped services be extended to allow growth and development in areas that are outside of the Service Area Boundary, established pursuant to Policy SW-3, until a watershed or sub-watershed study has been completed;
- b) provisions in the Municipal Service Standards, that where a watercourse has previously been channelized and infilled and there are consequent hazards and maintenance needs, that mitigation through the restoration of the watercourse's natural channel will be considered as a preferred solution;
- c) where possible on municipally owned lands, incorporate native plant communities in riparian buffers both through preservation of existing native plants into the site plan, and addition of new native plants;
- d) that in the interest of public health, HRM shall strive toward a minimum of safe body contact for recreation as established under the CCME Guidelines, except the inner harbour of Halifax Harbour;
- e) development, which by virtue of location and design, does not expose residents of HRM to avoidable hazards. HRM shall ensure that development does not occur in areas where there are known or potential risks to public health and safety. Further, HRM shall ensure that any development which is permitted in less hazardous areas is carried out in such a way that the hazard is mitigated;
- f) hazards to health and safety are minimized through development reviews and the

- development and implementation of community and/or neighbourhood planning strategies. These reviews and plans should adopt a precautionary approach to the risk management of known or potential hazard areas;
- g) reviewing municipal land acquisitions and disposals of land with regard to potential site contamination. If site contamination is confirmed, HRM shall comply with the provisions of the NSDEL Contaminated Site Guidelines regarding site remediation;
  - h) discouraging critical infrastructure such as hospitals, schools, fire, and police stations from locating in areas identified in EPP (Emergency Preparedness Plan) mapping as being subject to dam failure inundation;
  - i) in keeping with the precautionary policies of this Regional MPS, directing future residential development away from undeveloped areas identified in Emergency Preparedness Plan (EPP) mapping as being subject to dam failure inundation; and
  - j) wildland/urban interface fire issues in future community and/or neighbourhood planning strategies.

Although it is not the intention of this plan to achieve pristine conditions for every watershed, there is a need to ensure that our lakes, waterways and coastal waters are not further degraded, that public health standards are met for body contact recreation, and that development occurs in an environmentally sensitive manner. We must, therefore, plan on a watershed basis to protect those environmental features and functions that sustain our desired objectives for water quality and quantity in urban, suburban and rural areas. Watershed studies will therefore form the basis of all future secondary planning strategies.

E-29 Further to policy E-28, HRM shall undertake watershed studies for those watersheds or sub-watersheds that are affected by designated growth centres under the Regional MPS. Following the completion of these studies, HRM will schedule the undertaking of studies for watersheds outside of designated growth centres. Study priorities will be established for those watersheds or sub-watersheds that are environmentally sensitive, have a history of problems and/or where the water resources within them are threatened.

E-30 Further to Policy E-29 watershed or sub-watershed studies shall form the basis of secondary planning strategies. These studies shall be designed to determine the carrying capacity of the watersheds to meet the water quality objectives that shall be adopted following the completion of the studies. The studies shall be designed to:

1. protect and manage quantity and quality of groundwater resources;
2. set the objectives of baseline studies for water quality in urban, suburban and rural watersheds, as part of the study;
3. determine the capability of receiving waters to assimilate effluent from stormwater runoff and wastewater treatment plants;
4. establish the maximum amount of phosphorus that receiving lakes and rivers can assimilate without exceeding the water quality objectives recommended for the

- lakes and rivers within the watershed;
5. determine the parameters to be attained or retained to achieve marine water quality objectives;
  6. address any malfunctioning on-site septic system, waste water treatment plants or storm drainage systems not capable of meeting HRM or provincial standards;
  7. develop Best Management Practices to reduce stormwater impacts and erosion and sedimentation;
  8. create methods to reduce and mitigate loss in pervious surfaces, native plants and native soils and other important environmental functions within the watershed;<sup>6</sup> methods to reduce cut and fill and overall grading of development sites;
  9. identify, protect and manage natural corridors and critical habitats for terrestrial species, including species at risk;
  10. identify, protect and manage riparian zones for the protection of aquatic species, including species at risk;
  11. determine methods to confine development and construction activities to the least critical areas within the watershed;
  12. develop performance-based zoning and management strategies to achieve the desired objectives; and,
  13. create a monitoring plan to assess if the specific water quality objectives for the watershed are being met.

## **2.5 FUNCTIONAL PLANS**

### **2.5.1 Open Space Functional Plan**

A comprehensive Open Space Functional Plan is a necessary approach to determining an economically and environmentally sustainable strategy for the equitable maintenance and distribution of parks and natural open space throughout the Municipality.

- E-31 HRM shall initiate a Open Space Functional Plan, which adheres to the Regional MPS, to determine a economically and environmentally sustainable strategy for the equitable maintenance and distribution of parks and open space throughout the Municipality. The Open Space Functional Plan should be revised at five year intervals.

The Open Space Functional Plan shall give consideration to:

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<sup>6</sup>Addressing Imperviousness In Plans, Site Design and Land Use Regulations, Non-Point Education for Municipal Officials, Technical Paper Number 1, University of Connecticut 1998.

1. coordination and management of a program to research and identify potential natural corridor linkages, secondary networks and significant natural habitats to guide considerations of future development [see Map 5, Significant Habitats and Endangered Species and Appendix E, Species at Risk in HRM (2004)];
2. systems plan to establish selection criteria and acquisition guidelines for natural open space areas and sustainable natural open space management strategies;
3. developing a system of interconnected public open spaces throughout HRM to include municipally owned park, public access to coastal areas and watercourse shorelines, water and land-based trails, conservation areas, schools, natural corridors and habitats and other public facilities;
4. including a comprehensive planning approach to the retention of coastal and freshwater lake access and incentives for the protection of watercourse buffers; and
5. developing a framework to include community partners, provincial departments, non-profit groups and private sector companies and organizations in parks and natural open space planning.

### **2.5.2 Urban Forest Functional Plan**

Under the Urban Forest Functional Plan, HRM will adopt design guidelines and a management strategy for native plant material of heritage importance. The extensive use of native plants in landscape design shall also be encouraged in institutional, commercial and industrial developments through the development review process.

E-32 HRM shall develop a comprehensive Urban Forest Functional Plan, that adheres to the policies of the Regional MPS, to maximize the benefits of the urban forest.

## **2.6 POTENTIAL HAZARDS TO DEVELOPMENT**

There are numerous potential hazards in HRM which may be encountered wherever development of land takes place throughout the Municipality. These present substantial risk to life and property when not fully addressed and include:

### Coastal Inundation and Storm Surge Events

Sea levels have slowly risen along the Atlantic Coast with global warming accelerating the process. The rise in sea levels can result in more storm surges causing increased damage to coastal communities. Changing water levels can have significant impacts on coastal infrastructure, environmental assets, utilities, property and community economic development. Water level changes present implications regarding human safety, habitat loss, disaster mitigation, cultural resources, tourism and recreation, property values, insurance, legal and jurisdictional issues that should be considered by the Municipality.

### Wildland Fire

Wildland/Urban interface fire issues are a concern for HRM due to development, particularly residential development, in forested and wildland areas. Wildfires pose a significant risk to areas of human settlement. Homeowners are responsible for protecting their own property from the possibility of wildfires by creating an area of defensible space between a structure and surrounding flammable vegetation. At the same time, HRM must take responsibility for managing growth and development that extends into the surrounding forest. It will be the intent of HRM, working in cooperation with the Province, to play a lead role in reducing the risk of wildfire in the Wildland/Urban Interface (WUI). Specifically, HRM shall assist in raising public awareness and preparedness undertaking risk assessment and establishing mitigation techniques, establishing guidelines for land use and development; and establishing and maintaining an integrated emergency response and emergency management system.

### Contaminated Sites

HRM is home to contaminated sites that contain a variety of pollutants harmful to human health and the environment. Such contamination can persist for decades and enter the groundwater, underground utilities, wells and buildings. The province is responsible for the management and remediation of contaminated sites and has a database of all reported location in HRM, that due to confidentiality, HRM has not been privy to. Other unreported contaminate sites may exist in HRM. The *Municipal Government Act* (MGA) provides HRM with the authority to prohibit development on land that may be contaminated within the meaning of the *Environment Act* through the adoption of relevant MPS policies and associated provisions contained within the land use by-law.

### Abandoned mines, pits and quarries

HRM has an extensive history of extractive activities related to minerals and aggregates. Until recently, there were no provincial regulations in place to require mine; pit and quarry operators to rehabilitate worked out operations. Consequently, there are numerous abandoned sites throughout HRM that do not fall under current provincial regulations and may pose risks to human health and safety. In some cases, these abandoned sites are used for illegal dumping and/or may have unstable rock faces. Mine shafts and other underground workings are areas of particular concern. With no provincial regulations to hold former operators accountable and no programs for site reclamation in place, it is important, that in the course of development, these sites be recognized and appropriately addressed to reduce or eliminate adverse consequences.

### Abandoned Land Fill Disposal Sites

HRM's recent efforts in waste reduction and recycling have significantly reduced the amount of materials entering our waste disposal facility at Otter Lake. This is not the case for former

municipally operated landfills. It shall be necessary for HRM to develop policies and strategies to deal with the Municipality's former landfill sites that could contact hazardous waste materials because they were built at a time prior to HRM having hazardous waste policies, technological advances in solid waste management and facility design.

Former municipal landfills will be investigated in the Potential Hazards to Development Functional Plan to determine the presence of adverse environmental impacts as defined by the *Environment Act* and their current or potential extent. No development will be permitted within the identified ranges of influence prior to the mitigation of identified adverse environmental impacts defined by the *Environment Act*. Until the extent of contamination has been determined, all development proposed within 500 metres of the perimeter of a former municipal landfill site will be required to submit a study to evaluate the presence of any adverse environmental effects defined by the *Environment Act* and to identify necessary remedial measures in accordance with the *Environment Act* and the Guidelines for Management of Contaminated Sites in Nova Scotia.

#### Dam Failure

Dams are used for a variety of purposes in HRM and many were originally located in rural areas that were sparsely populated. However, overtime, development has taken place downstream from these dams raising the remote possibility that dam failure inundation (downstream flooding) could occur resulting in extensive damage, loss of life and infrastructure collapse.

Considering existing development in HRM's settlement areas and the unlikely possibility of a dam failure, it would be difficult for HRM to prevent future development from locating in dam inundation areas. It is possible, however, to discourage critical infrastructure such as hospitals, schools, fire and police stations from locating in these areas and for HRM to adopt other precautionary measures to prevent loss of life and property damage in the event of a dam failure.

#### Radon Gas

Mapping conducted for the Geological Survey of Canada has shown that high radon gas levels could occur in some surficial deposit and granite bedrock areas of HRM that contain significant quantities of uranium. Factors such as building location, foundation design, foundation flaws, the amount of time spent by an occupant in an area of high radon concentration and the amount of ventilation present can increase exposure to the harmful effects of radon gas. HRM's jurisdiction in the mitigation of radon gas in homes is limited to its provincially legislated responsibilities regarding the inspection of new home construction in accordance with the current radon mitigation provisions of the Nova Scotia Building Code. The Province has adopted the current radon mitigation regulations of the National Building Code however, it is currently reviewing these provisions in anticipation that Canada may adopt more stringent National Building Code practices in the future.

- E-33 HRM shall develop and implement a Potential Hazards to Development Functional Plan to address issues as outlined in this section of the Regional Municipal Planning Strategy.

The Potential Hazards to Development Functional Plan should:

1. identify areas, such as the location of contaminated sites, abandoned mines, pits and quarries, and areas at high risk for radon exposure through cooperation and collaboration with the province;
2. prepare an Historical Land Use Map to identify site that may have been contaminated through former land uses;
3. develop guidelines to protect the public from potential hazards, as outlined above,;
4. develop guidelines to educate the general public about potential hazards to human life and property; and
5. develop management plans for coastal inundation and storm surge events, wildland/urban interface and emergency preparedness for dam failure.

## **2.7 EMISSIONS REDUCTION FUNCTIONAL PLAN**

Although air quality in HRM is better than most cities in Canada and the industrialized work, air pollution has profound environmental and economic effects on the citizens of HRM. It harms our health; and damages forests, wildlife, fish, water, agricultural crops and buildings. These air-borne materials are largely emitted by human activities related to transportation, industry and energy production. There is good news regarding air quality improvements in the Region over the past quarter century. Air quality has improved since the 1970's in HRM.

Despite these improvements downtown Halifax has recorded the highest annual average sulphur dioxide concentrations of any commercial centre in the country — between two (2) and twelve (12) times the levels measured in Canada's other major cities. The preservation of clean air is essential to the quality of life enjoyed by residents of HRM. Government responsibility for regulation of air quality in Nova Scotia is shared between federal and provincial levels, and government must ensure that there is a coordinated approach among jurisdictions on environment issues. Since many of the long-term solutions to air pollution in our region now depend on land use and transportation decisions, HRM must assume a more active role in maintaining and restoring the region's good air quality.

The major contribution HRM can make to improving air quality and reducing GHG emissions will be to provide environmentally and economically sustainable land use planning. By adopting the settlement and transportation policies contained in this Plan HRM shall improve air quality and reduce emissions by promoting compact development and active transportation, providing more public transit, using renewable energy sources; switching to lower-carbon fossil fuels (e.g. bio-diesel, and natural gas); encouraging energy efficient buildings and preserving our urban and rural forests. Examples of current successful HRM projects include the purchase of ultra-low sulfur bio-



diesel fuel for Metro Transit buses, the organics composting and methane recapturing programs, the Climadapt partnership for climate adaptation, and pursuing cost effective energy conservation in HRM buildings.

Three major air pollutants affect air quality in HRM:

#### Ground-level Ozone

Ground-level ozone occurs when nitrogen oxide (NO<sub>x</sub>) and volatile organic compounds (VOC) react in sunlight and stagnant air. Of particular concern in the commercial area of central Halifax where levels have consistently exceeded national standards and therefore pose a threat to human health.

#### Fine Particulate Matter (PM)

Microscopic particles in the air are a major component of smog. In HRM the major pollutant tends to be fine particulate matter. Nova Scotia is the third highest producer in Canada of particular matter due to wood burning.

#### Greenhouse Gas (GHG) Emissions

Greenhouse gas emissions cause climate change and global warming. GHG emissions are primarily from fossil fuel production in HRM. Options for improving air quality include increased public transit use, changing to lower carbon fossil fuels, enhancing urban forests. HRM can encourage reductions in greenhouse gas emissions through environmentally and economically sustainable land use planning. HRM shall monitor its own emissions and will work to develop projects and policies to reduce them. Further, as the land use authority for the Region and the governing body for Metro Transit, HRM will consider air quality in its own policy and planning efforts.

Encouraging the use of alternative modes of transportation through increased transit ridership, and the promotion of Active Transportation modes and car/van pools, will help decrease the greenhouse gas emission transportation accounts for 25% of the total GHG emission, with almost half of that coming from passenger vehicles.<sup>1</sup>

Nova Scotia is the third highest producer of particulate matter due to wood burning in Canada.<sup>2</sup>

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<sup>1</sup>Transport Canada Website, November 2004 [www.tc.gc.ca/programs/environment/climatechange/menu.htm](http://www.tc.gc.ca/programs/environment/climatechange/menu.htm)

<sup>2</sup>Hingston M. Canada-wide standards for particulate (pm) matter and ozone  
Description of nova scotia activities. 2001. Halifax: Nova Scotia Department of Environment and Labour;.  
<<http://www.gov.ns.ca/enla/eq/health.htm>> Accessed 2004 Oct 5.

The burning of wood produces particulate matter such as soot and ash, carbon monoxide, nitrogen oxides, and hydrocarbons. The amount of these substances produced depends on the amount of burning and the efficiency of the stove. An older uncertified wood stove can produce as much as 80 grams of smoke per hour, where as the new EPA certified stoves produce less than 5 grams of smoke per hour.<sup>3</sup>

E-34 HRM shall develop an Emission Reduction Functional Plan that adheres to the policies of the Regional MPS.

To reduce the level of air pollutants and greenhouse gases, the Emission Reduction Functional Plan shall:

1. develop a program to reduce air pollution both within HRM business units and other organizations;
2. create an inventory of air pollutants and greenhouse gases;
3. encourage Nova Scotia Power to provide energy efficiency, renewable energy and mitigation for electricity sources that are powered by bunker fuel and coal;
4. encourage the Province to provide consumer rebates for conversions to low emission wood burning appliances.

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<sup>3</sup>Howells A. The healthy wood stove. 1998. Fredericton: NB Lung Association;  
<<http://www.elements.nb.ca/theme/winter/woodstov/woodstov.htm>> Accessed 2004 Oct 5.

## CHAPTER 3: SETTLEMENT

### 3.0 INTRODUCTION

Unless growth is well managed, it poses a risk to the natural environment, the character of our communities, and the quality of life in the region. As growth spreads into the countryside, it demands extensive expenditures in new community infrastructure - schools, roads, sewers and water distribution systems to support the new growth. As a result, this development becomes more expensive and less equitable in provision of services. Congestion increases, forestry and farm land is lost, and the stability of surrounding rural areas is threatened. The livability of both city and countryside is greatly diminished when the lines between urban and rural communities are blurred.

The citizens of HRM have recommended that a balanced approach to growth across the municipality is the desired approach. To achieve this, approximately 25% of growth will be targeted to occur on the Halifax Peninsula and in Downtown Dartmouth, inside the Circumferential Highway (Regional Centre), 50% will occur in the suburban areas; and the remaining 25% will occur within the rural areas.

Over the next 25 years, HRM will direct its investment to a series of designated centres as illustrated on the Settlement and Transportation Map (Map 1). These centres have been strategically located in HRM where services such as transit, sewer and water services or water services alone can be economically provided to support development. They have sufficient land to accommodate anticipated growth. Some centres may grow more than others depending on market preferences.

The Regional Municipal Planning Strategy has sufficient flexibility to adapt to community and market preferences since the detailed community design for all centres will be implemented through a community visioning and secondary planning process over the coming years.

Most of the centres within existing urban areas of HRM are located in areas that have the opportunity for redevelopment or infill. Community visioning and design processes are also currently underway for the Bedford West and Morris/Russell Lake areas to facilitate two new mixed-use communities on greenfield sites. Within urban areas, centres will be designed to accommodate a mix of housing types, office, retail, institutional uses and parks that will support these transit oriented communities. Centres in rural areas will be focussed around areas where a service centre has already begun to develop to serve the outlying area.

All centres are located within one of a series of general land use designations. These designations form the legal framework for achieving the growth management strategy of the Regional MPS. The land use designations that direct growth through the establishment of settlement centres include:

- (a) Urban Settlement Designation;
- (b) Urban Reserve Designation;
- (c) Rural Commuter Designation;
- (d) Rural Resource Designation; and
- (e) Agricultural Designation.

The following sections of this chapter present a description of these settlement designations.

### **3.1 URBAN SETTLEMENT DESIGNATION**

The primary intention of the Urban Settlement Designation is to define those areas where urban forms of development will occur throughout the next 25 years. It does this by supporting the growth of a series of mixed-use transit oriented centres in strategic locations throughout the designation. The centre types are: the Regional Centre, Urban District Centres, Suburban District Centres, Urban Local Centres and Suburban Local Centres as shown on the Settlement and Transportation Map (Map 1). These centres include lands suitable for significant residential growth, and are already, or will become, focal points for varying levels of service, amenity and employment for the surrounding communities. They will be well designed, safe and comfortable communities that build on their historical foundations. A high quality public realm featuring public squares and parks, community gardens, public art, and a comfortable and safe environment for pedestrians and cyclists will be essential components of these community centres.

Low density residential uses consisting of single family housing, accessory apartments, two-unit dwellings, and townhouses will be developed in appropriate locations within the established neighbourhoods that are within walking distance of the commercial and transit focus of each centre. A mix of medium to high density commercial and residential uses will be situated within the focal point of each centre around the transit stations. It is expected that the highest density and greatest proportion of commercial land uses will be around the transit facility within each centre. This density is expected to gradually taper off and the proportion of residential land uses is expected to increase toward the periphery of the centre in the transition area between the centres and the surrounding neighbourhoods.

The community centre and surrounding neighbourhoods will be serviced with an interconnected system of streets, pathways, sidewalks, and bicycle lanes where feasible. Buildings within the centre will have varied architectural facades that will frame the street and will have direct connection to the public sidewalk and street. The ground floor of buildings within the core of a centre that front on corridors and public facilities will be developed with commercial uses such as shops, restaurants and cafes with large windows that add visual interest for pedestrians and provide shelter in the form of awnings, structured collonades and/or street trees. Adequate short term parking will be provided to service these retail areas, without compromising pedestrian access from the sidewalk.

S-1 HRM shall define the Urban Settlement Designation, shown on the Generalized Future Land Use Map (Map 2), as the area where central water and sewer services shall be provided to facilitate an urban form of development over the next 25 years. The designation is intended to provide for a diverse, vibrant and liveable urban environment that provides for the development of a series of mixed-use transit-oriented Centres within the general locations as shown on the Settlement and Transportation Map (Map 1), and further described as follows:

(i) Regional Centre

The Regional Centre shall include all of Halifax Peninsula and Dartmouth inside Highway 111. A mix of medium to high density residential, commercial, institutional, and recreational uses shall be encouraged to locate on certain opportunity sites within the Regional Centre, while in established neighbourhoods, low to medium density housing types such as one and two unit dwellings, basement apartments, small-scale townhouses and low rise multiple unit dwellings shall be encouraged, subject to specific design controls. The Regional Centre shall act as a focal point for all higher-order transit and frequent transit services will be provided to all residents, campuses and business districts.

(ii) Urban District Centres

The Urban District Centres shall include lands in and around the Mic Mac Mall and West End Regional Shopping Centre. A mix of high density residential, commercial, institutional, and recreational uses shall be encouraged to locate in these centres. Higher-order transit shall be provided to and from these centres to other centres and throughout the Regional Center. Parking structures should be encouraged for park and ride and commercial uses.

(iii) Suburban District Centres

The Suburban District Centres shall include lands in and around Bedford Place and Sunnyside Malls, Sackville Acadia Centre, and the new communities of Bedford West and Russell Lake. A mix of medium to high density residential, commercial, institutional and recreational uses shall be encouraged to locate on certain opportunity sites within these centres, while in established surrounding neighbourhoods, low to medium density housing types such as one and two unit dwellings, basement apartments, small-scale townhouses and low-rise multiple unit dwellings shall be encouraged on appropriate sites subject to specific design controls. Higher-order transit will be provided from these centres to other centres and the Regional Center. Large surface park and ride facilities or parking structures

shall be encouraged in these centres as well as street or side yard parking for pedestrian retail.

(iv) Urban Local Centres

The Urban Local Centres shall include lands in and around the City of Lakes Business Park, Penhorn Mall, Morris Lake, Shannon Park and Woodside. A mix of medium to high density residential and grocery and convenience commercial uses shall be encouraged to locate in these centres, while in established surrounding neighbourhoods, low to medium density housing types such as one and two unit dwellings, basement apartments, small scale townhouses and low-rise multiple unit dwellings shall be encouraged on appropriate sites subject to specific design controls. All-day transit service shall be provided from these centres to other centres and the Regional Centre. Shared surface parking or parking structures shall be encouraged for park and ride and commercial uses.

e) Suburban Local Centres

The Suburban Local Centres shall include lands in and around Bedford Mill Cove, Bedford South, Kearney Lake North, Birch Cove, Clayton Park West, Cole Harbour, Burnside East, Eastern Passage, Herring Cove, Lower Sackville, Middle Sackville, Morris Lake, Spryfield, Tacoma Drive and Westphal. A mix of medium density residential and grocery and convenience commercial uses shall be encouraged to locate in these centres, while in established surrounding neighbourhoods, low to medium density housing types such as one and two unit dwellings, basement apartments, small-scale townhouses and low-rise multiple unit dwellings shall be encouraged on appropriate sites, subject to strict design controls. All-day transit service will be provided from these centres to other centres and the Regional Centre. Medium-sized surface park and ride facilities or parking structures will be encouraged in these centres, as well as street or side yard parking for pedestrian oriented retail.

With respect to the Suburban Local Centres, the designation of the communities of Beechville and Timberlea as Suburban Local Centres is presently under review pending the outcome of a determination of the service area boundary for lands tributary to the Nine Mile River sewage treatment plant.

### **3.1.1 Future Detailed Planning for Centres within the Urban Settlement Designation**

Policy S-1 above prescribes the types of centres included in the Urban Settlement designation, their locations and the nature of land uses that are to be encouraged. The policy legislates the land use

parameters within which future detailed planning at the community level will be carried out. Through the secondary planning process, to commence upon the adoption of this Regional Plan, the various centres will be included in an urban design process that will more specifically determine such items as centre boundaries, population targets, specific land uses, densities and methods of implementation. Further policy guidance for this community design process is found in Section 3.4 (Community Design) of this chapter.

- S-2 HRM shall complete Community Planning Strategies to include the centres described in Policy S-1 above. These Planning Strategies will define the specific boundaries of the centres, population targets and will develop detailed design policies related to the layout of the centres, range of permitted uses, development densities and mechanisms for implementation. For further guidance the centres will be designed in accordance with the criteria described in Section 3.3 (Community Design) of this chapter and all other applicable policies of this Plan.
- S-3 Further to Policy S-2, until such time as the Community Planning Strategies are completed, HRM shall continue to regulate land use development for those areas identified as centres and for those areas between centres, according to the policies of the applicable existing community municipal planning strategies and land use by-laws.

### **3.2 URBAN RESERVE DESIGNATION**

The primary intent of the Urban Reserve Designation is to ensure there is a continuous supply of land that can be serviced with central (sanitary sewer and water) services beyond the 25 year time horizon of the Regional Plan (refer to the Generalized Future Land Use Map (Map 2)). The Urban Settlement Designation has identified those areas of land that HRM intends to service within the next 25 years. The Urban Reserve Designation focuses on those areas of lands that abut the Urban Settlement Designation that could be serviced in the future in order to ensure the municipality has a long term supply of serviced lands. Four areas of land have been identified: the Home for Coloured Children lands (Cole Harbour/Westphal), land surrounding Anderson Lake area (Dartmouth/ Bedford), Governor Lake North (Timberlea) and the Kidston Lake lands (Spryfield/Herring Cove). To ensure these lands are retained for development on central water and sewer services, HRM will discourage development until these services are provided, by permitting only limited development based upon on-site services (well and septic).

- S-4 HRM shall define the Urban Settlement Reserve Designation as those areas of land situated outside the Urban Settlement Designation where central services (water and sanitary sewer) should be provided, but beyond the 25 year time horizon of this Plan. Lands within this designation are shown on the Generalized Future Land Use Map (Map 2). The primary intent of this designation shall be to ensure there is an adequate supply of serviceable land

over the longer term, and this shall be achieved by limiting development opportunities in the interim. To control development in the interim, HRM shall establish an Urban Reserve Zone in the Regional Land Use By-law which will permit limited residential development and open space uses, on well and septic services.

### **3.2.1 Anderson Lake Lands**

There is potential for the development of a golf course in a portion of the Anderson Lake area. Such a development should not be discouraged through the designation of these lands as Urban Reserve.

S-5 Notwithstanding the application of the Urban Reserve Designation to the Anderson Lake area, the development of a golf course on these lands may be accommodated through the applicable approval process under the community secondary planning strategy.

## **3.3 RURAL SETTLEMENT DESIGNATIONS**

HRM residents have indicated that maintaining the integrity of rural lands and rural communities is a fundamental component of the Regional Plan. The Region's rural lands will not simply be viewed as locations for future urbanization, but recognized for their ecological, economic and social value. Policies have, therefore, been developed to provide a clear future direction for a sustainable form of growth within the rural areas of HRM. Three land use designations have been established for the rural areas, as shown on the Generalized Future Land Use Map (Map 2):

- a) Rural Commuter Designation;
- b) Rural Resource Designation; and
- c) Agricultural Designation.

The Rural Commuter Designation (RCD) encompasses rural communities within commuting distance of the Regional Centre that are heavily influenced by suburban style forms of residential development. The Rural Resource Designation (RRD) encompasses the rural communities along the Eastern Shore that are more reliant on a traditional resource-based economy. The Agricultural Designation (AG) encompasses the significant agricultural lands in the Musquodoboit Valley that are a defining cultural feature of the Valley and its people, and a rare asset in HRM.

Over the next 25 years, HRM will direct investment to a series of designated centres within the three rural designations described above, and illustrated on the Settlement and Transportation Map (Map 1). These centres have been strategically located to reflect those communities that provide commercial and institution services to surrounding areas and/or are located at 100 series highway crossroads. They are centres that have sufficient land to accommodate additional growth and where future services such as transit can be provided. In certain centres the future provision or expansion of sewer and water services, or water services alone, can be considered to support



further development. Some centres may grow more than others depending on market preferences.

This Regional MPS has sufficient flexibility to adapt to community and market preferences since the detailed community design for all centres will be implemented through a community visioning and secondary planning process over the coming years.

### **3.3.1 Rural Commuter Designation**

The primary intention of the Rural Commuter Designation is to focus low to medium density uses within defined centres that are within easy commuting distance to the Regional Centre, to support the delivery of convenience services to the surrounding settlement area, protect the natural resource base for employment, and preserve the natural features that foster the traditional rural community character. Residential development within this designation has historically been characterized by large lot subdivisions. Many residents who reside here commute to the urban and suburban centres for employment.

The Rural Commuter Designation will include three types of centres. These include the Rural Commuter Centre, Rural Commuter District Centre, and Rural Commuter Local Centre.

- S-6 HRM shall define the Rural Commuter Designation, as shown on the Generalized Future Land Use Map (Map 2), as the area within commuting distance of the Regional Centre that has been heavily influenced by low density residential subdivision development. The primary intent of this designation shall be to protect the rural character of the communities by focusing growth within defined centres, as shown on Settlement and Transportation Map (Map 1), and carefully controlling the amount and form of development between centres. Centres are described as follows:

(a) Rural Commuter Centre

The Rural Commuter Centres shall include lands within Fall River, Lake Echo, Porters Lake, and Upper Tantallon. Generally, development densities shall be low in these centres, supporting a continued community form that is primarily car-oriented. A mix of retail uses that serve both daily and weekly needs, residential, institutional, and recreational uses shall be encouraged to locate in these centres. Residential uses shall consist primarily of low density open space designed cluster subdivisions that are serviced by a communal septic system. Central water services may be provided to those areas within these centres where required to off-set anticipated groundwater constraints. Park-and-ride and express bus service shall be provided at the transit terminal to facilitate commuting to the Regional Centre. Where possible, parking structures shall be encouraged at the transit terminal.

(b) Rural Commuter District Centre

The Rural Commuter District Centres shall include lands within Enfield and Musquodoboit Harbour. In these centres, greater densities shall be encouraged than in the surrounding areas in order to achieve more compact, mixed-use, town-style communities. A mix of land uses shall be encouraged, including commercial (retail uses that meet daily and weekly needs), low to medium density residential, institutional, and recreational uses. Express bus service shall be provided from these centres to other centres and the Regional Center. Shared parking, where possible, shall be encouraged for park and ride and commercial uses. HRM shall consider the provision of central sewer and water servicing for the Musquodoboit Harbour District Centre, given the potential to discharge treated effluent into the lower reaches of the Musquodoboit River.

(c) Rural Commuter Local Centre

The Rural Commuter Local Centres shall include lands within the communities of Hatchet Lake, Hubbards, Hubley, Hatchet Lake, Sambro, Indian Harbour, Waverley, Whites Lake, and North Preston. These centres shall be encouraged to develop as small service centres that provide a focus for surrounding rural communities and allow for modest growth of residential and business uses. Development shall be encouraged on smaller lots, with shared septic systems or small sewage treatment plants and individual wells, to support a traditional village form. The North Preston centre will continue to be serviced with central sewer and water since the area, is in part, within a regional water supply boundary. The centres shall be encouraged to accommodate a mix of of uses, including convenience commercial, residential, institutional, and recreational uses, to continue the traditional village form. Low to medium density residential such as single, two-unit, townhouses and small multi-unit buildings shall be encouraged on smaller lots with shared septic systems. HRM shall consider servicing the Hubbards Local Centre with central sewer and water facilities, given the potential to discharge treated effluent into the Atlantic Ocean. Transit service shall be provided at peak hours from these centres to other centres and the Regional Centre. Shared parking shall be provided, where possible, for park and ride and commercial uses.

### **3.3.2 Rural Resource Designation**

With respect to HRM's economy, the Natural Resource Sector employs about 3,000 people. In many rural communities, the resource sector - farming, fishing, mining and forestry and their supporting services, are the main economic activities and sources of employment. It is important, therefore, to protect both the supply of raw materials and the ability to take advantage of those materials. Resource related industries must also have room for expansion; they need to grow

without constraints from encroachments of residential uses.

The Rural Resource Designation (RRD) encompasses rural communities along the Eastern Shore that are beyond the commutershed of the Regional Centre and relatively unaffected by suburban style residential development (refer to the Generalized Future Land Use Map (Map 2)). The primary intention of the RRD is to protect the rural resource base - fishing, mining, forestry - upon which communities depend. It is also intended to support the delivery of convenience services to the surrounding settlement areas and preserve the natural features and built heritage that define the rural character of the municipality and are important to the tourism industry.

The Rural Resource Designation contains the Rural Resource District Centres and Rural Resource Local Centres (refer to the Settlement and Transportation Map (Map 1)). The Rural Resource District Centres will consist of town-style communities on shared septic systems or a small sewage treatment plant, with mixed-use development clustered around a grocery store or other basic retail use. Rural bus service will be provided from these centres to other centres and the Regional Centre. Rural Resource Local Centres are village-style communities and will focus on local services such as a gas station or post office, with basic bus service or shared taxi to the nearest District Centre.

S-7 HRM shall define the Rural Resource Designation, as shown on the Generalized Future Land Use Map (Map 2), as encompassing rural communities along the Eastern Shore that are beyond the Rural Commuter Designation and relatively unaffected by suburban style residential development. The primary intent of this designation shall be to protect the natural resource base upon which the communities within this area depend to support the delivery of convenience services to the surrounding settlement area, and to protect the natural features and built heritage within and around these centres that define rural character and support tourism. This shall be accomplished by focusing growth within defined centres as shown on the Settlement and Transportation Map (Map 1), and carefully controlling the amount and form of development between centres. Centres are described as follows:

(a) Rural Resource District Centre

The Rural Resource District Centre shall include lands within and around Sheet Harbour. In this centre, greater densities shall be encouraged than in surrounding areas in order to achieve a more compact, mixed-use, village-style community. A mix of land uses shall be encouraged, including commercial (retail uses that meet daily and weekly needs), low to medium density residential, institutional, and recreational uses. Rural bus service will be provided from this centre to other centres and the Regional Centre. Development shall be serviced with either shared septic systems or individual on-site septic systems on private wells. Shared parking shall be provided, where possible, for park and ride and commercial uses.

(b) Rural Resource Local Centre

The Rural Resource Local Centres shall include lands within and around Lake Charlotte, Moser River and Tangier. These centres shall be encouraged to develop as small service centres that provide a focus for surrounding rural communities and allow for modest growth of residential and business uses. Development shall normally be serviced on individual on-site septic systems and private wells. Low density residential uses and convenience retail, institutional, and recreational uses shall be encouraged to continue the traditional village form. Basic bus service or shared taxi shall be provided to the nearest District Centre.

### **3.3.3 Agricultural Designation (refer also to Chapter 5, Section 5.6 - Rural Economy)**

The Agricultural Designation encompasses part of the Musquodoboit Valley. It contains the only remaining prime farmland within HRM that is largely unaffected by non-agricultural uses. Although the number of farms within the area has declined over the last 50 years, the Musquodoboit Valley is still used for dairy and mixed farming, forestry, and mining. Approximately 33% of the Valley residents are employed in the resource sector, which is a substantive economic base to support other employment sectors. Due to the significant agricultural soils and climatic conditions within the Valley, these lands are highly suitable for agricultural production.

In addition, given the proximity of the Musquodoboit Valley to the growing Elmsdale centre and the presence of significant deposits of kaolin clay, the farmlands and resources within the Musquodoboit Valley may be at risk for significant residential development. Large-scale residential development can adversely affect the Musquodoboit Valley by:

- taking agricultural and other resource land out of production;
- creating land use conflicts between residential uses and resource
- uses that may arise from agricultural operations such as manure spreading or noise;
- the disincentive to invest in farming when surrounding land is, or is speculated of being, developed for non-farm uses; and
- loss of a traditional way of life that defines the cultural heritage of the Musquodoboit Valley.

Community consultation has indicated that the natural resource base of the area needs to be preserved and protected. To help achieve this, an Agricultural Designation is established, as shown on the Generalized Future Land Use Map (Map2). Its intent is threefold. Firstly, it is intended to preserve land for farming and other forms of resource production. Secondly, it is intended to prevent the development of large scale residential uses in resource production areas where it would conflict with the operations of a farm, forestry or extractive facility. Thirdly, it is intended to

protect a traditional way of life that has existed in the Musquodoboit Valley for the past 200 years.

The Agricultural Designation will include two types of centres: the Agricultural District Centre and the Agricultural Local Centre.

S-8 HRM shall define the Agricultural Designation, as shown on the Generalized Future Land Use Map (Map 2), as the area encompassing the Musquodoboit Valley. The primary intent of this designation shall be to encourage the use of this area for natural resource-based activities and industries such as farming, forestry and mining, and to protect these resource uses from the intrusion of incompatible non-resource related residential uses that may conflict with the operation of a farm, forestry operation or extractive facility. The Designation shall also support the provision of convenience services to the surrounding agricultural communities by establishing defined centres within which growth will be focused, as shown on the Settlement and Transportation Map (Map 1), and by limiting the amount of residential development that may occur beyond these centres. The Centres are described as follows:

(a) Agricultural District Centre

The Agricultural District Centre shall include lands within Middle Musquodoboit. In this centre, greater densities shall be encouraged than in the surrounding areas in order to achieve a more compact, mixed use, town-style community. A mix of land uses shall be encouraged, including commercial (retail uses that meet daily and weekly needs), low to medium density residential, institutional, and recreational uses. Rural bus service shall be provided from this centre to other centres and the Regional Centre. Middle Musquodoboit shall continue to be serviced with central water and sewer. Shared parking shall be provided, where possible, for park and ride and commercial uses.

(b) Agricultural Local Centres

The Agricultural Local Centres shall include land in and around Upper Musquodoboit. This centre shall be encouraged to develop as a small service centre that provides a focus for surrounding rural areas and allows for a modest growth of residential and business uses. Development shall normally be serviced on individual on-site septic systems and private wells. A mix of land uses shall be encouraged, including low density residential uses, convenience commercial uses (retail uses that meet daily needs), institutional, and recreational uses, to support a traditional village form. Basic bus or shared taxi service shall be provided from this centre to the nearest District centre.

- S-9 In order to carry out the intent of the Agricultural Designation, HRM shall create a Mixed Resource Zone under the Regional Land Use By-law, for application to lands outside of the centres. This Zone shall be applied to lands that are currently zoned Mixed Use under the Musquodoboit Valley - Dutch Settlement Secondary Land Use By-law and this zone shall be superseded upon the adoption of this Regional Plan. The Mixed Resource Zone shall permit resource uses (agriculture, forestry, mining), businesses related to resource uses, limited commercial and industrial uses, single unit dwellings, bed and breakfast establishments and boarding and rooming houses. Controls will be established under the Regional Land Use By-law to maintain adequate separation distances between resource and residential uses, to ensure lot sizes are large enough to support viable resource operations, and to limit the scale of commercial and industrial uses. Following completion of the Secondary Planning Process, the boundaries of the centres may be redefined and the extent of the Mixed Resource Zone may be adjusted.

### **3.3.4 Future Detailed Planning for Centres Within the Rural Designations**

Policies S-6, S-7 and S-8 above prescribe the types of centres included in the Rural Commuter, Rural Resource and Agricultural Designations. The policies also describe the locations of the various centres and the nature of land uses that are to be encouraged.

The policies set out the land use parameters within which future detailed planning at the community level will be carried out. Through the secondary planning process, to commence upon the adoption of this Regional MPS, the various centres will be included in a community design process that will more specifically determine such items as centre boundaries, population targets, specific land uses, densities and methods of implementation. Further policy guidance for this community design process is found in Section 3.4 (Community Design) of this chapter and other applicable policies of this Plan.

- S-10 HRM shall complete Secondary Planning Process to include the centres described in Policies S-6, S-7 and S-8 above. The resulting Planning Strategies will define the specific boundaries of the centres, population targets and will develop detailed design policies related to the layout of the centres, range of permitted uses, development densities and mechanisms for implementation.

### **3.3.5 Development Controls For Certain Centres Within the Rural Designations**

As described in Section 3.3.4, it is the intention of the Regional MPS to develop Planning Strategies to include all centres within the Rural Designations. There are concerns, however, that before the secondary plans are completed, critical sites within certain centres may be inappropriately developed. Therefore, as an interim land use management control, a Comprehensive Development District (CDD) Zone will be applied to certain lands within some of the Rural Commuter, Rural Resource and Agricultural Centres. By means of a development

agreement, land uses may be approved provided they are conducive to the creation of a focal point for the centre, including commercial uses, mixed commercial/residential uses, institutional uses, recreation uses, parking facilities and transit facilities. This CDD zone will remain in place until the future Community Planning Strategies are completed and adopted by Council.

S-11 HRM shall establish a Comprehensive Development District (CDD) Zone under the Regional Land Use By-law for application to certain lands within the following Rural Centres, as shown on the Settlement and Transportation Map (Map 1). Cherrybrook, Enfield, Fall River, Hubbards, Lake Echo, Musquodoboit Harbour, Porters Lake and Upper Tantallon. This CDD Zone is intended to protect these lands as focal points for transit oriented design development within these centres. By means of development agreement, uses to be considered may include a mix of medium density residential uses, ground floor commercial, institutional uses, recreation uses, parking facilities and transit stations or transit stops. The zone shall permit the continuation and expansion of existing uses without the requirement to enter into a development agreement. When considering applications to enter into a development agreement, HRM will have regard to the following:

- (a) the centre is designed as a focal point for the distribution of services to the outlying area and acts as a landmark for community;
- (b) the centre of the CDD is used for ground floor commercial and institutional uses and that any residential uses in this area be situated on subsequent levels of the building;
- (c) pedestrian sidewalks are developed, where appropriate, on streets within the CDD area and that pedestrian level activity be encouraged within the CDD through building use, landscaping and street furniture that provide for a comfortable pedestrian environment;
- (d) building facades within the CDD be accented with awnings or prominent architectural details marking the entrance to buildings;
- (e) controls on signage to avoid visual clutter and to provide a consistent theme for messaging that is consistent with the character of the surrounding community;
- (f) controls on heights, massing, scale and type of development is appropriate for the site and surrounding community context;
- (g) the exterior architectural design of new buildings be complimentary to the traditional building style within the surrounding community in terms of building height and materials, rhythm, colour and proportions of the building design elements;
- (h) traditional building materials such as wood shingle are preferred and architectural design details should be provided to encourage visual interest;
- (i) variations in the facade (height, roof line, windows, and projections) should be used to add visual interest without undermining the continuity of the streetscape;
- (j) appropriate location of parking for park and ride facilities and retail outlets; and
- (k) the provisions of IM-28.

### **3.3.6 Management of Residential Development Within Rural Designations**

In order to protect the natural environment, natural resources and rural character of lands within the Rural Designations, most residential development will be encouraged to proceed based upon the Open Space Subdivision Design concept. This approach employs a communal septic system as the method of servicing the dwelling units. It means that only a small portion of an area of land is required for the actual buildings, leaving the remainder of the lands as open space.

It is the aim of the Regional MPS to eventually enable development within the various Rural Centres to occur by means of a more straight forward administrative process than in other more hinterland locations of the rural area. This may be able to be achieved through by-right zoning or by permitting open space design subdivisions according to a site plan approval process or a subdivision approval process. As a pre-requisite for this however, secondary plans must be prepared, to include the design and layout of the the various centres.

The wide spread subdivision of land beyond the boundaries of the Rural Centres is generally inconsistent with the Regional Plan Goals and Objectives of creating compact mixed use communities and protecting rural character, natural environment and resource lands. Unmanaged subdivision of land for residential development between centres may take resource lands out of production and contribute to conflicts which interfere with the primary resource activities and protection of natural areas.

Open Space Subdivision Design will be considered by means of development agreement for lands within the Rural Commuter and Rural Resource Designations. This development agreement provision will apply to all lands between rural centres, and as an interim measure for lands within centres. Open Space Design subdivisions will not be considered for the Agricultural Designation, since it is important that this area be preserved for agriculture and other natural resource uses.

#### **3.3.6.1 Special Circumstances - Upper Tantallon and Fall River Centres**

The centres of Upper Tantallon and Fall River have a number of opportunities and constraints which warrant a more specialized approach to the management of future residential growth. Upper Tantallon has more favourable conditions for development - reasonably good soils, direct access to the provincial highway system and potential servicing with central water. In this case, open space design subdivisions will be permitted by-right through the subdivision approval process. Fall River, however, exhibits a number of constraints to development, including poorer soils and a system of lakes (Shubenacadie Lakes) that is highly sensitive to further pollutant loading (reference to the 1993 Shubenacadie Lakes Planning/Pollution Control Study). This centre, therefore, will allow for open space design subdivisions, but development proposals will be required to proceed by way of development agreement and first demonstrate that the water quality of the lakes system will not be



further impacted.

S-12 HRM shall consider a residential Open Space Design subdivisions on lands within the Rural Commuter and Rural Resource Designations through the provisions of a development agreement, except for the Upper Tantallon Rural Commuter Centre. The development agreement will consider a mix of residential, associated community facilities, home-based offices, day cares and small scale bed and breakfasts for these open space design subdivisions. When considering proposals to enter into a development agreement, HRM shall have regard to the following:

- a) that the proposed development abuts an existing residential subdivision;
- b) that there is sufficient ground water to service the development;
- c) that the wastewater facilities and/or on-site sewage disposal systems meet the requirements of the Nova Scotia Department of Environment and Labour;
- d) that a traffic impact study or traffic impact statement, where required by the Municipal Engineer and/or the Nova Scotia Department of Transportation & Public Works, is submitted by the applicant to demonstrate that the proposed development will not reduce the "level of service" of the external transportation network below an acceptable "level of service" as defined by the Municipal Engineer and/or the Nova Scotia Department of Transportation & Public Works;
- e) the types of land uses to be included within the development;
- f) the density of residential units on the site will not exceed one unit per hectare and all units will be confined to a contiguous portion of the area;
- g) the building sites for the residential units - all structures and private lawns per unit - and roads shall not exceed 30% of the area;
- h) the amount of and location of open space shall constitute a minimum of 70% of the CDD area;
- i) that the proposed development will not significantly impact on other natural resources and that there is sufficient buffering between any existing or potential resource use and the proposed development to mitigate future community concerns;
- j) the proposed development is a minimum of 800 metres away from any permanent extractive facility;
- k) the phasing of the development to ensure that there are sufficient road capacity, school, recreation and community facilities and services to support the development in accordance with the financial capability of the Municipality to absorb any related costs;
- l) that the proposed development suits the natural terrain and minimizes the negative impacts on the natural environment;
- m) that the subdivision plan makes provision to retain existing significant natural features such as wetlands, floodplains, and watercourses through site design that guides development away from these areas;
- n) that useable open space lands are adequately distributed to meet the needs of the

- o) residents and to facilitate convenient access;
  - o) that there are sufficient school and other community facilities and services to support the development;
  - p) the provision of landscaping and the retention of natural vegetation;
  - q) any other matter relating to the impact of the development upon surrounding uses or upon the general community, as contained in Policy IM-28
- S-13 Due to more favourable development conditions in the Upper Tantallon Rural Commuter Centre, as shown on the Municipal Sewer and Water Services Map (Map 14), HRM may permit Open Space Design Subdivisions consisting of a mix of residential, associated community facility, home-based offices, day cares, and small scale bed and breakfasts through the subdivision approval process. This process will ensure that appropriate site design standards are satisfied to maintain compatibility and minimize any adverse effects on adjacent dwellings. The Subdivision By-law shall set out the requirements for analysis and approval of the subdivision layout. The Regional Land Use By-law shall set out the requirements for the associated building development.
- S-14 Due to environmental constraints associated with further development in the Fall River Rural Commuter Centre, as shown on the Municipal Sewer and Water Services Map (Map 14), HRM shall consider residential open space design subdivisions according to Policy S-12, and in addition, shall require prior to considering a development agreement, an analysis regarding the effects of the development on the water quality of the Shubenacadie Lakes system.

### 3.3.6.2 Other Growth Management Mechanisms

Citizens have indicated that maintaining the character of rural lands and rural communities, as well as preserving and supporting the sustainable economic growth of the natural resource sector, are important objectives of the Regional Plan. To foster this, residential development will be encouraged primarily in the form of Open Space Design subdivisions, as described above.

As an alternative to this open space design approach, however, the more traditional form of residential development serviced with individual on-site septic systems and wells will also be permitted. This will, for example allow, for the provision of lots for kinship purposes, but the extent of such development will be limited to four lots, and thereafter, one lot per year. No new private roads will be permitted, and special provisions under the Subdivision By-law will be made to allow for the creation of a limited number of lots without road frontage, reduced road frontage, fish and boat shed lots, and related matters.

The growth management provisions contained within the existing Community and Neighbourhood Planning Strategies will be replaced with the growth management provisions of this Plan.

- S-15 HRM shall permit residential development with individual on-site services (well and septic tank) to a maximum of four lots per area of land in existence as of the effective date of this Plan.
- S-16 HRM shall permit residential development with individual on-site services (well and septic tank) at the rate of one lot per calendar year.
- S-17 HRM shall amend Part 14 of the Subdivision By-law of the former Halifax County Municipality, to provide for consistent provisions throughout the municipality for the creation of a limited number of lots without road frontage, a limited number of lots with reduced road frontage, the subdivision of lots with more than one main building, to place each building on its own lot, and fish and boat shed lots. These provisions shall be applied to lots permitted under policy S-15.
- S-18 HRM shall amend the relevant Subdivision By-laws to prohibit the creation of new private roads within the municipality.
- S-19 In order to apply growth management provisions evenly and consistently throughout the municipality. HRM shall remove all existing growth management provisions contained within the existing Community and Neighbourhood Planning Strategies and replace them with the growth management provisions contained within this Plan.
- S-20 Notwithstanding Policy S-19, in recognition of plans within the subdivision approval process and the need for future development to be consistent with the rural settlement strategy of this Plan, HRM shall establish provisions in the Subdivision By-law to restrict future development resulting from subdivision concept applications that were protected by the Interim Growth Management controls. Subdivision development pursuant to any completed concept application on file prior to January 22, 2004, shall only be permitted to proceed to final subdivision approval within two (2) years from the effective date of this Plan.

### **3.4 COMMUNITY DESIGN**

Creating livable communities requires a commitment to good design standards. These standards should strive for a functional and pleasing relationship between buildings and the spaces around them, and address how they work together over time to create an attractive and safe place. Citizens of HRM have strongly indicated that good community design needs to be an important component of the Regional Plan and all subsequent secondary plans.

There must also be a concerted effort to preserve strategic heritage and natural elements. It is important to recognize the positive attributes of the region, to enhance and preserve those

attributes, and to improve the living environment where it is less than satisfactory. The design of streets, parks and civic buildings can enhance community identity and social interaction.

### **3.4.1 Community Design Affects Transportation**

The strategy for future regional growth depends on integrating land use and transit. Over the next 25 years, HRM will need not only to invest in transit, but also to develop communities that accommodate a variety of alternative transportation modes and require less driving. Compact mixed-use development designed to facilitate walking and access to transit can occur within most centres in HRM, whether in an urban, suburban or rural context. The type and density of development will vary according to this context and the character of each community. Design guidelines for HRM Settlement Centres will address the following:

1. Attractive, interconnected streets with trees, sidewalks and pedestrian priority leading directly to a transit station and schools.
2. Pedestrian-oriented streetscapes with shops, restaurants and cafes close to sidewalks with large windows and interesting exteriors, along major streets leading to transit stations. Pedestrian networks must be safe and inviting to encourage people to walk and socialize.
3. Bicycle facilities such as wide curb-lanes, or bicycle lanes where feasible, offering direct and safe routes to employment, shopping and transit. Transit terminals and parking structures will provide bicycle parking.
4. Creatively designed and integrated parking which balances the needs of those who must drive with those of people who can easily walk. Special consideration must be given to the parking needs of car and van pools.
5. A mix of residences, employment, retail and services related to the community and regional context. The Regional Centre, including the Capital District, will continue its role as the employment and cultural hub, with a broad range of residential options emphasizing compact housing close to jobs and services. District Centres will offer major retail with some employment, while Local Centres and Rural Commuter Centres will offer grocery and convenience retail and services.
6. Transit facilities designed and located to be a focal point for other uses. In most centres, residential development will be integrated with commercial uses at relatively high densities close to a transit station and along major transit routes, with lower densities and fewer commercial uses as one moves beyond a convenient walking distance from transit.
7. Sensitivity to differences among urban, suburban and rural contexts. The intensity of commercial uses, residential density and emphasis on pedestrians will reflect the urban, suburban or rural context of each centre, with rural centres having relatively lower densities, more parking and less transit service.
8. Prominent parks, plazas and civic buildings. A planned network of parks and natural areas can take advantage of heritage sites, shorelines, natural pathways, landscapes and views. In built-up areas, open spaces should be framed by development that clearly defines private and public realms. Public art can add interest and provide focal points within parks and

- plazas.
9. Safe and comfortable open spaces which are well maintained, and in which the public has a sense of ownership and responsibility. Informal surveillance and police protection is supported by strategic lighting and landscaping. Microclimates and seasons are considered, including winter sunlight, summer shade and wind exposure.

### **3.4.2 Community Visioning and Secondary Planning Processes**

In order to achieve the types of communities that HRM residents have indicated they want to attain over the next 25 years, it is vital that secondary planning processes be undertaken (refer to Policies S-2 and S-10). These secondary planning processes will also entail community design exercises, including all Centres, within the Urban and Rural Settlement Designations and the Capital District Sub-designation (refer to Economy Chapter - Capital District).

In order to formulate community design objectives that are acceptable to various communities in a time efficient manner, HRM will undertake community visioning workshops in key geographic areas. The visioning exercises will form the basis for the preparation of secondary plans.

It is important to recognize that community design objectives and standards cannot be considered or applied universally throughout HRM. Communities and centres within the Urban Settlement Designation will require a different form of community design than will communities and centres within the Rural Designations. For example, applying the full range of design standards in rural centres should not be necessary and would not be consistent with the historic rural character of these communities. Within these areas, community form is characterized by low densities, undisturbed land, vistas and rural landscapes.

The policies described below are meant to provide a comprehensive set of community design criteria to be used to guide the visioning workshops and secondary planning processes. The criteria will be specifically tailored to the type of community/centre and its location within HRM.

- S-21 HRM shall undertake community visioning workshops for various areas, including Centres, throughout the Municipality, as a basis for the development of community design objectives and secondary planning strategies. The public shall be included in the visioning workshops and secondary planning processes.
- S-22 Community design visioning workshops and secondary planning strategies shall address the following criteria, as appropriate to the land use designation (Urban and Rural) and type of Centre being studied:
- (a) how to ensure that development within the centres supports walking and transit use and integrates transit with the density and mix of surrounding uses;
  - (b) a parking strategy for each centre, considering:

- (i) maximum parking requirements for development within walking distance of a transit facility;
  - (ii) shared parking among uses that peak at different times;
  - (iii) structured public parking to reduce land consumption
  - (iv) sharing of park and ride lots with nearby land uses
  - (v) the needs of car and van pools
- (c) a compact, mixed-use building form with:
  - (i) the highest density residential and most commercial uses and employment closest to the transit station (within 500 metres);
  - (ii) beyond walking distance of the station, high-density residential and some commercial uses located closest to arterial roads with frequent transit;
  - (iii) choice and diversity in housing, employment, shopping and leisure, with opportunities that vary by centre type;
  - (iv) a mix of residential types, focusing on apartments and other multiples closest to the transit station;
  - (ii) compatibility with adjacent established neighbourhoods
- (d) opportunities for incorporating community facilities such as schools, libraries, day care centres, leisure facilities and arts, cultural and entertainment venues within the focal points of each centre;
- (e) usable public spaces for informal socializing, recreation and civic gatherings;
- (f) a street network that provides a convenient and pleasant walking and cycling environment which effectively links housing, employment, schools and transit;
- (g) the location of buildings close to streets and sidewalks, enclosure of intimate public spaces and creation of visual interest, through such means as:
  - (i) distinctive architectural design
  - (ii) varied appearances and materials
  - (iii) interesting rooflines and facades
  - (iv) functional public spaces
  - (v) the placement of art in publicly-accessible places
- (h) any other mechanism to strengthen the centre's role as both a destination and an attractive place to live.

S-23 To address design considerations in the public realm (street rights-of-way and other municipally owned spaces), the community visioning workshops and secondary planning processes shall address the following:

- (a) the development of a public art program to address the requirements for:
  - a) civic art in public buildings
  - b) art in private but publicly accessible buildings and spaces that involve public/private partnering
  - c) community led projects
  - d) funding sources for public art
- (b) prepare a pedestrian strategy to ensure the integration of pedestrian needs into all

- planning strategies, projects and operations. The strategy shall address engineering and planning issues, enforcement, education and promotion;
- (c) ensure that new development includes pedestrian attractive public spaces which provide informal areas for people of all ages and abilities to interact with one another and with the natural and built environment;
  - (d) review regulations for building setbacks to ensure they reflect the priorities of public space, pedestrians and transit;
  - (e) develop a strategy for burying power lines, with consideration of:
    - a) cost sharing
    - b) sharing underground conduits
    - c) timing and coordination with other projects
    - d) minimizing costs and disruption
  - (f) prohibit advertising on street furniture, with the exception of well-designed and carefully controlled transit shelters;
  - (g) investigate ways of reducing urban light pollution; and
  - (h) implement a system of distinctive, clear and attractive public signs in the Capital District which contribute to the pedestrian environment

### **3.4.3 Stable but not Static - Enhancing Our Neighbourhoods**

For a neighbourhood to be stable, its residents must have a sense of predictability and control over the amount, type and rate of change. This calls for limits on the expansion or redevelopment of existing housing and businesses. At the same time, neighbourhoods must be able to meet the needs of their residents as those needs change through different stages of life. A desirable neighbourhood will also attract new households with their own particular needs, which have to be integrated with those of longtime residents.

Without the resilience to accommodate the needs of new and existing residents, people who would otherwise be committed to an area might feel forced to relocate if their social or physical conditions change. Conversely, excessive or sudden changes may drive residents elsewhere due to increased tax assessments or loss of character. Neighbourhood stability therefore requires a careful balance to avoid either extreme.

The Regional MPS is designed to protect established neighbourhoods from rapid unplanned change by directing most future growth to centres where development can occur without affecting existing residents. Some limited growth can, however, be accommodated within existing neighbourhoods if it is planned with attention to good design that respects the local character. Small amounts of new development in appropriate locations can complement neighbourhoods and act as a catalyst for improvement.

This may involve using vacant lots, dividing parcels to create new lots for houses, or adding additional units to existing dwellings. Infill can also include small scale redevelopment of groups

of buildings. In the suburban context, infill might involve adding an accessory apartment to an existing single unit dwelling, installing a garden suite, or converting a single unit dwelling into a two or three unit dwelling.

There are many opportunity sites within established neighbourhoods where low to medium density development can be accommodated without altering the local character. Through community visioning with existing residents, future secondary planning processes will allow some new one and two unit dwellings, basement apartments, small scale townhouses and low rise multiple unit dwellings in appropriate locations within existing neighbourhoods subject to stringent requirements for quality design. Policies and regulations will ensure that infilling is sensitive, gradual and compatible with the existing physical character. Projects will be required to respect and reinforce the general physical patterns in existing neighbourhoods.

- S-24 In association with Policies S-22 and S-23, the community visioning workshops and secondary planning processes shall address the following:
- (a) ensure that future infill and intensification is gradual and sensitive to the physical character of neighbourhoods;
  - (2) articulate, within the framework of this Plan, where and how residential infill and intensification within different neighbourhoods should occur; and
  - (3) address matters such as the type of infill projects, building type and height, density, lot sizes, lot depths, lot frontages, parking, building setbacks from lot lines, landscaped open space and any other performance standards to ensure that new development will be compatible with the physical character of established residential neighbourhoods.
- S-25 In order to facilitate neighbourhood stability, adaptability, vitality, quality, character and safety, the following design criteria shall be considered:
- (a) requiring excellence in design while allowing sufficient scope to adapt to changing needs and markets;
  - (b) encouraging adaptable building designs and appropriate re-uses of older buildings;
  - (c) facilitating the availability and affordability of a variety of housing for all citizens, including the elderly, singles, families and citizens with special needs;
  - (d) adopting regulations to prevent unnecessary or excessive rates of change;
  - (e) adopting performance standards to minimize light, noise and aesthetic pollution;
  - (f) investing in parks, streetscapes, public spaces and facilities;
  - (g) encouraging more people to live and work in existing communities where services already exist, while ensuring that new development is compatible with surrounding neighbourhoods; and
  - (h) building on existing employment nodes and established suburban and rural centres by providing a variety of housing options closer to jobs and transit.
- S-26 Until the community visioning processes and secondary planning processes are completed,



HRM shall permit infill housing in accordance with the applicable policies under existing secondary municipal planning strategies and land use by-laws.

S-27 HRM shall ensure that future secondary planning strategies provide for the infill of two unit dwellings, basement apartments, small scale townhouses and low rise multiple unit in appropriate locations within established neighbourhoods (refer also to housing affordability - Policy H-3), including policies to ensure that:

- (f) patterns of streets, blocks, lanes, parks, public building sites, rear and side yard setbacks and landscaped open space are appropriate to the site and compatible with adjacent residential uses;
- (g) infill does not involve the wholesale demolition of existing housing;
- (c) architecture, external design and appearance reflect the traditional character of dwellings within the immediate neighbourhood;
- (d) size and configuration of lots are appropriate to the site and compatible with adjacent residential uses;
- (e) height, massing, scale and type of dwelling unit are appropriate to the site and compatible with abutting and adjacent residential uses;
- (f) privacy, sunlight and sky views are considered for residents of new and existing buildings;
- (g) effective and attractive buffers, screening, fencing and landscaping are provided;
- (h) innovative designs blend medium density development into existing neighbourhoods;
- (i) recreation and amenity space are provided for the residents of the development;
- (j) visual impact of parking is minimized;
- (k) setbacks of buildings from streets are appropriate for the site and compatible with adjacent residential uses;
- (l) special landscape or built-form features that contribute to the unique character of a neighbourhood are continued;
- (m) heritage buildings, structures and landscapes are conserved;
- (n) traffic generation, access, egress and parking are compatible with adjacent residential uses;
- (o) sewer and water systems are capable of servicing the development;
- (p) the impacts of construction on adjacent properties are mitigated; and
- (q) processes are established to collaborate with neighbourhood residents on the design of any proposed medium density development

#### **3.4.4 Redevelopment of Opportunity Sites**

Within the Regional Centre, there are a number of vacant or under-used sites. Although already having development potential under existing community planning strategies and land use by-laws, these sites present new opportunities which meet the overall intent of the Regional MPS - to be become more appropriately used than their current condition suggests. Some of these sites are

located along major transportation corridors, outside established low-density neighbourhoods, and offer an opportunity for the development of a mix of medium to high density residential and commercial uses. Others are located along the Halifax Harbourfront and are best used for industrial purposes, and for which policies are presented in Section 5 (Economy Chapter). Within the Capital District, opportunity sites would be developed to support the role of the Capital District as the economic and cultural centre of HRM. Finally, some opportunity sites are located in established neighbourhoods. Their development will be guided by policies in Section 3.3 above. A list of representative opportunity sites is included in Appendix B. These sites are either vacant parcels or properties which are not used to their fullest extent. Others not identified here, but with similar conditions, may also be developed with the same considerations.

Depending upon the situation, the range of opportunities for development of sites on main transportation corridors, outside established neighbourhoods, could involve the redevelopment of the entire site or renovation of an existing building(s). Generally, the role of the municipality is to create the appropriate climate for such a transition to take place. In some cases, the municipality may invest in infrastructure, provide other incentives to encourage redevelopment or renovation, or even undertake the redevelopment itself. It is also the role of the municipality to ensure that any future development taking place on these sites is sensitive to the surrounding neighbourhood and that it can be developed without adverse impact on existing infrastructure.

S-28 Any future community visioning processes or secondary planning processes within the Regional Centre shall provide for the development of a mix of medium to high density residential uses - townhouses and multiple unit dwellings - and commercial uses on the opportunity sites as shown on the Opportunity Sites within the Regional Centre Map (Map 6) . When considering the adoption of future secondary municipal planning strategies, Council will require that any policy is aimed at ensuring:

- (a) patterns of streets, blocks and lanes, parks and public building sites appropriate for the site are compatible with abutting and adjacent residential uses; commercial or other uses serving the public are encouraged at the street level of residential buildings;
- (b) a minimum target of affordable housing (refer to Chapter 6 (Housing));
- (c) controls on heights, massing, scale and type of development is appropriate for the site and compatible with abutting and adjacent residential uses;
- (d) buildings that are designed to reinforce a human scale streetscape through the stepping back of higher rise buildings away from the street where appropriate to avoid a massive building appearance, and the subdivision of large building facades to create the appearance of several smaller buildings;
- (e) adequate privacy, sunlight and sky views for residents of new and existing buildings by ensuring adequate distance and separation between building walls and using landscaping, planting and fencing to enhance privacy where needed;
- (f) adequate buffers and screening for any proposed apartment buildings or parking

- areas from adjacent residences, and attractive fencing and landscaping to enhance privacy;
- (g) adequate recreation and amenity space for the inhabitants of the development;
- (h) conservation of heritage buildings, structures and landscapes;
- (i) traffic generation, access to and egress from the site, does not adversely affect the existing road network;
- (j) minimal visual impact from parking areas through the development of any required parking through parking structures, underground parking, parking at the rear or side of the building with visual breaks through the use of landscaping;
- (k) the capability of sewer and water systems to service the development; and
- (l) processes to collaborate with neighbourhood residents on the design of the development.

S-29 In order to assist the community visioning and secondary planning processes described in Policy S-27 above, and to facilitate the development or redevelopment of opportunity sites within the Regional Centre and other locations, HRM shall develop an Opportunities Sites Functional Plan which shall include the following:

1. financial incentives program for opportunities sites redevelopment;
2. brownfield redevelopment program;
3. host a brownfield redevelopment forum;
4. create and maintain a comprehensive GIS data base for opportunity sites; and
5. create a framework to prioritize the development or redevelopment of opportunity sites



## CHAPTER 4: TRANSPORTATION

### 4.0 INTRODUCTION

As our population has grown, so has the number of vehicles on our roads. In recent years investment in the roadway network declined, resulting in a gap between the volume of traffic and the roadway space to handle it. This gap results in traffic congestion.

HRM's population base began on the Halifax peninsula and it has now spread to suburban areas such as Clayton Park, Bedford and Cole Harbour, as well as to outer commuting areas such as Tantallon, Hammonds Plains and Porter's Lake. Many of the commuting trips come onto the peninsula from areas off the peninsula and with the trend in population growth outside the peninsula, this trip pattern is certain to increase.

With the high volume of trips coming onto the peninsula, and a limited number of entry points, congestion and capacity concerns are for a great number of HRM residents. To overcome this, we will improve passenger loads through carpooling or greater use of transit, and develop alternative methods of access.

The challenges are high volumes of traffic on the peninsula and its entry points, the increasing demand for parking, and the divergent needs of commuters, business operators, and large institutions who rely on the roadway network, and those of the residents of neighbourhoods where these roads are located.

Residents have indicated that traffic issues affect their daily lives and that they hope the Regional Planning process will address their concerns. A growing municipality requires a strong vision to manage traffic movements, improve and expand transportation infrastructure and encourage alternative modes of transportation. The Regional MPS creates a framework, through the integration of land use and transportation planning enabling residents to use alternatives to the automobile, while recognizing its continued importance and use. The plan identifies projects to improve traffic flows throughout HRM, and aid in economic, physical, community and cultural development. As the population grows, managing travel demand in HRM will be done through a variety of measures which will include improvements and expansion of the road network; improvements to Metro Transit's service levels and ridership through increased coverage; the Bus Rapid Transit (MetroLink) Service and express bus service; encouragement of alternative modes of transportation, including the provision of an active transportation plan and network; and increased use of the harbour with a high-speed ferry service. The integration of transportation and land use planning in the Regional MPS will result in a much more effective transportation system and a more efficient method of land use planning.

Road improvements that will reduce congestion and improve traffic flows throughout HRM, new

transit routes and services, and the implementation of the high-speed ferry project are planned to be implemented within the next twenty-five (25) years. These projects are shown on the Settlement and Transportation Map (Map 1). Other projects have been identified, as shown on Settlement and Transportation Map (Map 1), however, they are not anticipated to be implemented within the next twenty-five years.

The Regional MPS will promote a transportation network designed to provide options to HRM residents, businesses and visitors, improve the commuting experience, and allow for road building and network improvements. A settlement pattern that integrates mixed use, transit and pedestrian-oriented centres, as described in Chapter 3, Settlement, with a complementary, multi-modal transportation system, which improves transit operations, provides for active modes of transportation and incorporates a road network that will carry a variety of modes, will reduce the negative impacts that transportation has on the urban and natural environments. Transportation and how it affects the economic prosperity of HRM is also be included in the Regional MPS. This discussion is contained within Chapter 5, Economy.

The Regional MPS policy integrates land use and transportation planning to provide greater transportation options to HRM residents and visitors, to improve the commuting experience and to allow for road building and improvements. The proposed balance of transportation capital projects – roughly half on roads and half on transit – would total over \$150 million. This will save \$75 million in major capital costs over the life of the Regional MPS. In total, reconfiguring growth and changing the current mix of transportation spending will save nearly \$165 million over the life of the Regional MPS. It will also provide better service. Rather than expanding costly road networks, new transit solutions can be applied to the needs of citizens.

This chapter outlines how HRM intends to preserve its future transportation corridors, which will reduce future costs and increase certainty among residents, investors and public officials. The request for parking requirements for cyclists will also be addressed through standards to be incorporated within the Regional Land Use By-law. As well, the following will form the basis of the Transportation Functional Plan and its components, which include an Active Transportation Plan, a Commuter Trip Reduction Program, a Transportation Demand Management (TDM) Program and a Regional Parking Strategy:

- Creation of an efficient transportation system to move people, goods and services more effectively;
- Transit-oriented planning directed at encouraging transit use throughout HRM;
- Promote alternative forms of transportation that minimize negative impacts on the health and environment of HRM;
- Promote active transportation; and
- Creation of a transportation authority to oversee the entire transportation system and administer it.

## 4.1 TRANSPORTATION CORRIDORS

An efficient and effective transportation system depends upon preserving corridors to be used to future transportation projects. There are a number of corridors within HRM that move both goods and people. "Transportation corridors are defined as broad geographic areas which are served by various transportation systems that provide important connections between regions for passengers, goods and services. Transportation facilities are defined as modal or multi-modal conveyances and terminals: within a corridor, facilities may be of local, or regional importance."<sup>4</sup> Corridors are important to the transportation network, as they provide not only linkages between different locations, but also between different modes of transportation.

There are many benefits of transportation corridor planning. Major planning issues can be resolved prior to the beginning of a development project, corridor planning can provide a framework within which individual projects can be reviewed and prioritized, and transportation corridors in new communities can be preserved. Defining corridors and prioritizing them can help to reduce the uncertainty about where corridors will be needed in the future and reduce costs.

Transportation systems planning over 25 years will be helpful in identifying long-term requirements for rights-of-way which will assist in directing future development in reducing costs associated with development and in reducing environmental, social and economic impacts. Finally, corridor planning and preservation will help to protect investments in the transportation network. In order to maintain the system, as well as to accommodate alternative means of transportation within existing corridors, it is essential to identify all corridors significant to the integrity of the transportation network and identify and define the function of each type of road.

T-1 In order to retain transportation corridors for the long-term future, HRM shall designate the transportation corridors shown on the Future Transit and Transportation Map (Map 7), as areas for future road development. HRM shall establish a Transportation Reserve Zone, under the Regional Land Use By-law, over the portions of the corridors it plans to acquire within the next five years. If HRM has not acquired the subject properties within 5 years of the effective date of the By-law, the lands shall become zoned Holding under the Regional Land Use By-law. The Holding Zone shall permit single unit dwellings on a minimum of 5 acre lots.

## 4.2 BICYCLE PARKING REQUIREMENTS

Trip end facilities are integral to encouraging cycling for transportation. Since bicycles are a vehicle, as defined under the Motor Vehicle Act, and are an alternative mode of transportation, they require dedicated parking facilities. Bicycle parking may be short term (racks) or long term

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<sup>4</sup>Oregon DOT, Corridor Planning overview

(lockers). Many workers also require other facilities such as showers, change rooms and locker rooms after their journey to work.

- T-2 HRM shall, through the Regional Land Use By-law, establish provisions that specify the quantity, type and location of bicycle parking spaces required for different forms of development and to consider incentives for the provision of enhanced bicycle parking facilities.

### **4.3 REGIONAL COORDINATION**

The planning of the regional transportation system will be coordinated through the Capital Transportation Authority. This will be established as a joint body between the Province of Nova Scotia and Halifax Regional Municipality. HRM will, however, continue to coordinate and plan the transportation network, prioritize capital projects and integrate the settlement pattern and environmental concerns with transportation planning to create a sustainable region. To do so will also require that a number of functional plans and strategies be developed.

#### **4.3.1 Capital Transportation Authority**

On April 17, 2004, Bill No. 64, known as the Capital Region Transportation Authority Act, went through First Reading of the Nova Scotia Legislature. "The purpose of this Act is to enable strategic transportation planning that will coordinate the transportation responsibilities of the Province and Halifax Regional Municipality through the establishment of a transportation authority for the capital region" (Bill No. 64). The Authority, as it is currently proposed, will advise HRM on the development and operation of an integrated transportation network that will encompass roads, ferries, transit, parking, the harbour bridges and components of an active transportation system. The authority will also be charged with the ability to make decisions related to moving people and goods efficiently, support for Regional MPS policies, support for HRM's environmental objectives and support for economic development.

The bill has not been through second reading, and it will be the Spring 2005 session before this will occur. However, HRM is still moving forward with a proposed charter and terms of reference. The responsibilities, financial administration, board of directors and specific transportation related activities have been outlined by HRM in the proposed charter. These functions will not be finalized until the bill has been proclaimed and enacted. However, some direction is required at this time.

- T-3 HRM shall establish an intergovernmental Capital Transportation Authority which will adhere to the Regional MPS.

### **4.4 TRANSPORTATION FUNCTIONAL PLANS**

To implement the changes that will occur to the transportation network, the municipality will



develop a comprehensive Transportation Function Plan that will incorporate the policies of the Regional Municipal Planning Strategy, as well as a number of other projects, studies, plans, programs, and policies. The Transportation Functional Plan will incorporate a Regional Parking Management Strategy, a Transportation Demand Management Program and a Commuter Trip Reduction Program, all of which will help to improve traffic movements and shift the modal split, away from being in favour of the car to other modes. Many other projects are in the planning stage and many policies, strategies, and studies have already been completed; and are being implemented by HRM. The Transportation Functional Plan will integrate all of these into its overall direction. Components such as the proposed Active Transportation Plan, the Metro Transit Strategy, the Neighbourhood Shortcutting Policy and others will be supported and referenced in the document. Finally, the transportation system and the Transportation Functional Plan and all other related documents will be administered by the Capital Transportation Authority.

- T-4 HRM shall develop a comprehensive Transportation Functional Plan that will incorporate the policies of the Regional Municipal Planning Strategy, as well as other projects, plans and programs. The Transportation Functional Plan will incorporate a Regional Parking Management Strategy, a Transportation Demand Management Program, an Active Transportation Plan and a Commuter Trip Reduction Program. To bring together expertise and planning from both the provincial and municipal levels, the transportation system, functional plan and related documents will be administered by a new Capital Transportation Authority.

#### **4.4.1 Transportation Functional Plan**

The Transportation Functional Plan will create the foundation for the overall transportation system in HRM. This plan will create a balanced approach to transportation planning by outlining the road construction projects, road classification, public transit service and improvements, and emergency measures and access. It will also form the context within which the other plans will be developed. These include a regional parking strategy, a transportation demand management program, and an active transportation plan (which has a start date of May 2005).

##### **4.4.1.1 Road Network**

The road network is the backbone of the transportation system within HRM. Through extensive public consultation, HRM residents have indicated that a road network enabling the effective and efficient movement of goods, people and services is a priority for them, regardless of the mode used. Without it, the economic, social, and cultural fabric of the municipality is compromised. Roads are classified according to their primary function, typically based upon vehicular traffic speeds and volumes (refer to Map 8, Road Hierarchy Classification). Some, such as expressways and arterials, are designed to carry traffic, with limited access to adjacent properties and side streets. Others, such as local roads, are designed primarily for access to properties and other roads. Still others, such as major and minor collector roads, are hybrids of the previous types. This

traditional classification, though it has some limitations, has been successful in the efficient and effective movement of people, goods and services. Minor changes can be made to existing streets to make them more appropriate for transit use, bicycles and pedestrians, while still ensuring that traffic can be accommodated. Improved utilization of the transportation network, coupled with changes to the land use patterns, will make it more efficient and inclusive.

### Rural Streets and Roads

Low density development in the Rural Commuter, Agricultural Communities and Rural Resource Community designations will have different residential street needs from those in the Urban Settlement Designation. Densities and travel demand in the rural areas are very low and road maintenance has a proportionately greater per capita cost than in the Urban Settlement Designation. Therefore, it may be appropriate to consider alternative standards for rural residential (local) streets and roads.

#### 4.4.1.2 Road Expansion Projects

A transit-focused planning strategy still requires the expansion and improvement of the road network. Roads accommodate various modes of transportation, from cyclists to large transport trucks and everything in between. Directing growth to specific areas will reduce the need to build roads, however, it can not be avoided and is part of the growth of the region. As part of the regional planning and the transportation functional plan process, various transportation projects have been identified and prioritized. These projects are listed below in Table 4-1, and are divided into three time frames:

- List A: short term projects being budgeted for in the three year plan;
- List B: projects planned to be constructed within the horizon of the plan; and
- List C: projects for which corridors must actively be reserved, although the timing of construction is uncertain or beyond the horizon of the plan.

**Table 4-1: Road Construction Projects and Priorities**

<b>List A:</b>	
(1)	Lacewood Drive - extend four lane width from Main Street to Joseph Howe Drive
(2)	Fairview Interchange Upgrade - upgrades recommended in the Bridge Capacity Study
(3)	Armdale Rotary Conversion and Chebucto Road Reversing Lane - conversion of rotary to modern roundabout and upgrading of Chebucto/Mumford intersection to permit a reversible centre lane on Chebucto Road
(4)	Burnside Drive/Commodore Drive Intersection - addition of intersection approach lanes

(5)	Mount Hope Interchange and Extension of Mount Hope Avenue to Baker Drive
<b>List B:</b>	
(1)	Bayers Road - widening to five or six lanes between the CN rail overpass and Connaught Avenue and to four lanes between Connaught Avenue and Windsor Street
(2)	Wright Avenue Extension - extend Wright Avenue from Burnside Drive to Highway 118
(3)	Hwy 107 Extension - connect Akerley Boulevard to Highway 101 and Highway 102
(4)	Herring Cove widening - four lanes on Herring Cove Road between Old Sambro Road and the Armdale Rotary
(5)	Mount Hope Avenue - extension from Baker Drive to Caldwell Road
(6)	Bedford South Interchange
(7)	Middle Sackville Collector
Highway 101 Connector and Interchange	
<b>List C:</b>	
(1)	Barrington Street 4-lane - between the bridges
(2)	Beaver Bank Bypass
(3)	Highway 113
(4)	Highway 107 - Cherrybrook Bypass
(5)	MacKay Bridge Twinning and Connection to Bedford Highway
<b>Please note:</b> Within the next 25 years, other road expansion projects may be implemented from time to time, as required.	

#### 4.4.1.3 Multiple Functions

Streets and roads serve many functions, and are used for travel, movement of goods and services, parking, communication, utility provision, access to adjacent land uses, socializing and recreation. They serve an aesthetic function also, by providing a setting for buildings, a visual break between blocks or scenic access to the countryside. Urban design can improve the streetscapes by introducing greenery and enhancing neighbourhoods.

To create a classification system appropriate to compact, mixed use transit and pedestrian-oriented communities, many factors must be taken into account. Streets should be considered as part of the public space. They should include not only the road itself, but also the sidewalks, landscaping and other public spaces. In some cases, bus rapid transit services may have priority on clearly defined lanes. Changes to the width of local roads, yard setbacks and new landscaping policies may result in lower traffic volumes. Such changes will be introduced upon agreement among various HRM Business Units and included in the Municipal Service Standards Manual and Transportation Functional Plan.

Virtually all streets in the urban core and suburbs have been classified as outlined in numerous Municipal Planning Strategies or similar documents. Unfortunately, the systems are not consistent and have led to confusion since amalgamation. It is necessary to resolve these inconsistencies by formally adopting the interim classification system which has already been drafted.

#### 4.4.1.4 Public Transit

Land use planning and transportation are closely linked. In the Regional MPS, transit-linked centres, in part, form the basis for the future growth of HRM. Public Transit services will include: bus rapid transit (MetroLink) services; ferry services (conventional and the proposed HarbourLink service); express bus service; specialized low volume services; and rural transportation services. All public transit services are convenient alternatives for residents who either choose or need to take a bus or ferry to their destination. In light of public consultation, existing transit services will be improved and new services offered. These will be included in the Transportation Functional Plan.

#### 4.4.1.5 Integrated Transportation

The automobile offers a level of convenience to HRM residents that no other mode can offer. The private automobile is available twenty-hours per day, offers protection from the elements and can be driven to virtually any destination. While alternative modes of travel cannot duplicate this, it is possible to integrate them through:

- Connections between transit, walking and cycling: Both walking and cycling enable people to leave their car at home, while cycling allows residents to access transit services from further distances than walking.
- Connections within the regional transit system: Strategic connections between routes increase the number of possible origins and destinations. For example, trunk routes can limit the number of stops to reduce trip times, using feeder buses or shared taxis for local connections.
- Connections between transit and automobiles: Park and Ride facilities that are strategically located to serve a large number of residents, allow commuters to have convenient access to transit services.

- Connections between the HRM transit system and transit serving other regions: Air, rail or bus terminals can be combined and served by local transit routes.

The usefulness of these connections depends on the integration of services, facilities and equipment:

- Integrated schedules minimize waiting times. Wherever possible, schedules should be at regular intervals.
- Integrated fares eliminate confusion and passes add further convenience by avoiding cash, tickets or tokens.
- Integrated terminals bring multiple routes, modes and pathways to one location where transfers can be made quickly and safely.
- Versatile transit vehicles enable seamless trips. For example, ferries may carry bicycles and buses may be certified for freeway operation.

#### **4.4.2 Higher-Order Transit**

##### **4.4.2.1 Bus Rapid Transit (MetroLink)**

Bus Rapid Transit (MetroLink) and Express Bus services provide fast, efficient and convenient transportation intended to be a viable alternative to the single occupant vehicle, with limited stops.

##### **4.4.2.2 Ferry Service**

HRM utilizes Halifax Harbour as a natural transportation route. Fast ferries will be added to the existing ferry system and, like the bus rapid transit system, will be a high quality, wheelchair accessible, high capacity transportation service. Due to traffic congestion along the Bedford Highway and at access points to the Halifax Peninsula, new ferry services are seen as a realistic alternative for commuters from the Bedford Basin and Purcells Cove areas.

##### **4.4.2.3 Specialized Markets and Low-volume Transit**

Community taxi and innovative “paratransit” or “quasi-transit” concepts enable specialized markets, small communities and other low-volume routes to be served:

- (1) Private taxis and limousines have long provided demand-responsive transportation in urban, suburban and some rural areas. Fleets may include wheelchair accessible vans.
- (2) Commercial vanpools enable commuters to subscribe to a privately operated service, using carpool parking lots at freeway interchanges and conveniently located downtown parking.
- (3) Water taxis and small craft shuttles could accommodate low volumes of passengers and be available on demand at designated wharves. Though privately operated, they would require some public financial support for year-round docking, parking, access and insurance.

##### **4.4.2.4 Rural Transportation Services**

Most rural residents accept cars as a necessity, and many who do not have their own vehicle are often able to obtain rides. There is a minority, however, who do not have access to cars or rides, or who become unable or reluctant to drive as they grow older. Many rural seniors put their cars away for the winter, due to road conditions and the short daylight hours. Faced with such situations, some rural residents become isolated, lose their independence, or relocate. For these reasons, it is important that the following considerations be considered within the Transportation Functional Plan:

- (1) Parcel bus: Small subsidized buses in rural areas may also carry parcels and light freight to generate additional revenue. Stops may be made anywhere along the route.
- (2) Post bus: This European concept combines passenger service with trunk delivery of mail to post offices. Complex logistics would require a partnership with Canada Postal Corporation.
- (3) Shared fleets: School buses and vans belonging to local organizations may be shared for public transit if partnerships, insurance and qualified drivers can be arranged.
- (4) Small vans: Enable private operators to experiment with new services without having to apply for abandonment if they fail.
- (5) Shared taxis: Instead of a regular service route, a dispatcher may plan each trip based on pre-booked requests. Shared taxis are sometimes referred to as “jitneys”.
- (6) Rural taxis: Conventional taxi services based in rural communities. These are likely to require some form of subsidy, but may be more cost effective than bus services.
- (7) Coordinated ride sharing: Provides a formal link between people needing rides and those who have vehicles and are planning to travel.
- (8) Community cars: Made available on a booking basis to any licensed member who wishes to use the vehicle, in return for a fee to cover all or a portion of the costs.

#### 4.4.2.5 Improving Existing Transit

To be an attractive alternative to the automobile, Metro Transit must consider not only new higher-order services such as fast ferries and Bus Rapid Transit (MetroLink), but also enhance its regular routes which feed these services and serve a wider population base. In fact, introducing these higher-order services will also increase demand on existing routes as people become more comfortable using transit and look for local connections from MetroLink and ferries. For this reason, it is important to phase in new, higher-order services bearing in mind their effects on the existing system. The recently endorsed Metro Transit Strategy recommends service and facility standards, new routes and strategic investments, together with reduced reliance on passenger fares as the main revenue source.

Improvements to conventional transit must fully consider the needs of persons with disabilities. Recently introduced Designated Accessible Low Floor (ALF) bus services provide easier access for existing transit customers, and increased mobility for Metro's disabled community. Metro Transit plans to introduce more designated ALF bus routes as resources permit and stops can be adapted to the ALF buses. A trade-off in the adoption of ALF buses is a reduced seating capacity for regular

passengers, leading to more reliance on standees or a need for more buses and drivers, and the funding to support them. Options for increasing the seating capacity for ALF buses must be considered, such as articulated or double-decker buses.

#### 4.4.2.6 Inter-regional Links

The effective movement of passengers to and from other regions of the country and the world is important to global competitiveness. HRM has an international airport which handles both passengers and freight; train service which connects Halifax with the rest of the country, and motorcoaches that provide links to other parts of Nova Scotia, the Maritimes and beyond. In some cases HRM can participate directly in supporting inter-regional public transportation, and in others, HRM's role will be to encourage support from other jurisdictions. Tourism, business and quality of life depend upon a choice of integrated travel options, which in turn requires cooperation between all levels of government and the private sector.

#### Rail Corridors

Many public transit authorities throughout North America provide a form of rail transit to their residents. Such a service requires a minimum population to support it. Ottawa, for example, with a population of over 700,000, has within the last 4 years instituted a limited rail transit service. HRM, at present, does not have the population base, nor will it, within the next 25 years to make rail transit feasible. However, this is not to say that the rail corridors should not be protected. Regardless of the feasibility of rail transit within the next 25 years, the corridor can be used for other transportation purposes such as an Active Transportation corridor or bus/truck routes. That being said, new technologies may emerge and the population may grow to levels that would make rail transit within HRM feasible.

#### 4.4.2.7 Emergency Preparedness

In the event of major emergencies, such as storms or chemical spills, priorities have been established for street clearing, and evacuation routes have been designated in partnership with the Provincial Emergency Measures Organization (EMO). The EMO consists of municipal, provincial and federal officials, who are responsible for emergency Preparedness in HRM and beyond. It is important that a plan be created and communicated to residents to establish the routes for street clearing and evacuation purposes.

Subsequently, to reduce the potential for evacuation, designated hazardous goods routes are required. Such routes should be created with the assistance of environmental engineers and other experts.

#### 4.4.2.8 Emergency Access - Road Network

Mixed use compact developments, which are pedestrian and transit-friendly, create vibrant

communities that are safe, active and sustainable. However, there are concerns that narrow streets could hamper emergency services. For example, large fire trucks may have more difficulty passing other vehicles or maneuvering around tight corners. Further work will determine the degree to which street standards can be modified without compromising emergency services, and whether smaller emergency vehicles might be part of the solution.

In the event of major storms, priorities are established as to which streets should be cleared first to maintain emergency access. Overall emergency procedures, especially regarding access during and after storms, should be communicated to residents.

The Transportation Functional Plan will include all the components above and develop frameworks for each of the plans outlined below.

The Transportation Functional Plan will include:

1. developing and implementing road expansion projects, Metro Transit projects and a street hierarchy;
2. a framework to integrate transportation planning with land use planning and environment protection and conservation;
3. incorporate the recommendations of the IBI Metro Transit Strategy;
4. establishing a framework for the transportation demand management, commuter trip reduction programs and the active transportation plan, that will encourage alternative modes of transportation;
5. develop a regional parking strategy, as outlined below;
6. a program for acquiring rail corridors as they are deemed surplus; and
7. developing emergency preparedness plans in conjunction with EMO and a hazardous goods route.

### Regional Parking Strategy

A regional parking strategy will be developed as part of the overall Transportation Functional Plan. The decision to drive alone is heavily influenced by the cost, availability and convenience of parking. In order to reduce the demand for parking, several things can be looked at that can alter the behaviour of the commuter. These include:

1. creating facilities such as park and ride areas (either to take public transit or to join a carpool);
2. increasing the price of long-term or monthly parking<sup>5</sup>;
3. requiring maximum parking standards for developments, not minimum; and
4. encouraging shared parking between uses such as offices and churches.

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<sup>5</sup>ITE: Implementing Effective Travel Demand Management Measures.



Notwithstanding the above, it is necessary to consider the parking needs of the business community, tourism and service providers. Parking is vital to businesses as it allows them to be accessible to their employees, customers and visitors, who travel to these destinations by private automobile. As a result it is important to balance the needs of business, tourism and other uses while at the same time promoting the use of public transit and other active and alternative modes of transportation. Therefore further study will be required.

This Regional Parking strategy will develop methods to:

1. balance the needs of the business, service and tourism sectors with transportation objectives;
2. develop an overall direction for parking in both the Capital District and outlying business, employment and retail centres;
3. incorporate on-street parking policies into the overall strategy;
4. examine methods of reducing parking demand; and
5. look into financial incentives to reduce the demand for parking, particularly commuter-related parking.

#### **4.4.3 Transportation Demand Management Functional Plan**

The traditional approach to traffic congestion has been to expand road capacity. However, despite short term relief, traffic volumes eventually increase to utilize the newly created road capacity. Jurisdictions throughout North America are adopting new methods to balance the demand for transportation infrastructure with supply, to reduce costs and improve efficiency.

Transportation Demand Management encompasses a variety of transportation modes as well as methods to improving transportation efficiency.

This is done in two ways:

1. By encouraging people to do less traveling on routes or at times which are congested and by improving the efficiency of the existing transportation system<sup>6</sup> The purpose is to make the best use of what already exists before investing additional public funds in expanding the system. Carefully planning how road expansion will occur will result in the best value for the tax dollar.
2. Promoting alternative modes of transportation to the Single Occupant Vehicle.

The following sections outline the components of a Transportation Demand Management program.

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<sup>6</sup>Two terms are commonly used to describe these initiatives. "Transportation Demand Management" (TDM) focuses on influencing travel habits, while "Transportation System Management" (TSM) focuses on making the best use of travel facilities. In fact, travel facilities and travel habits influence each other, so either term could be used. For the purpose of the HRM Regional MPS, "Transportation Demand Management" includes both concepts.

#### 4.4.3.1 Influencing Travel Habits

Traffic congestion can be reduced if people change their travel habits (if even for part of the time). For example people may drive less, share rides or choose to drive when there is less traffic. In addition to their traditional focus on transit service and land use planning, municipalities such as HRM can encourage people to try new commuting routines. For example, HRM can, as a major employer and service provider, support agencies that promote transit use, ride sharing, walking and cycling, and offer taxation or permitting incentives for projects that minimize traffic volumes.

Partnerships with advocacy groups and business associations can open up funding for programs to reduce peak-hour single-occupancy vehicle (“SOV”) commuting. Such funding is currently available from senior levels of government interested in the environmental and health benefits of becoming less dependent on the automobile.

#### 4.4.3.2 Traffic Calming

Traffic calming has been defined as a “combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behaviour and improve conditions for non-motorized street users.”<sup>7</sup> Traditional forms of neighbourhood traffic calming are often seen as the most suitable methods of reducing volumes and speeds. Chicanes, speed bumps, raised crosswalks and other methods of reducing traffic volumes and speeds are favoured by residents but are not popular with emergency services.

Some roads in HRM have recently been “traffic-calmed” through the use of such devices. HRM’s Neighbourhood Shortcutting Policy outlines what is required to initiate traffic calming and reduce shortcutting (see Appendix C). While these methods of traffic calming are effective, they have, in some instances, shifted traffic to other roads. More comprehensive solutions are needed.

Alternatively, land use planning can help decrease traffic speeds and volumes through neighbourhoods. In consultation with various HRM Business Units, techniques for reducing traffic speeds and volumes, such as reducing front yard setbacks, increasing planting along boulevards, and narrowing lane widths (while maintaining an acceptable minimum width to accommodate emergency vehicles), can all give the illusion of a narrow street and make motorists feel uncomfortable driving at higher speeds or cutting through such neighbourhoods.

#### 4.4.3.3 Improving Transportation Efficiency

Numerous opportunities exist to make the transportation system more efficient, such as trip

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<sup>7</sup>Taken from [www.Trafficcalming.org](http://www.Trafficcalming.org) Dec 2004, What is Traffic Calming. Definition is from the Institute of Traffic Engineers, Subcommittee on Traffic Calming”

capacity; trip endpoints; parking efficiency; roadway efficiency and pricing incentives. These are each described below:

### Trip Capacity

Increasing the number of people carried in each vehicle, through ride sharing, car or van pooling and transit use all help reduce the number of vehicles on the road and increase the average number of people per vehicle. Both are indicators of reduced reliance upon single occupancy vehicle trips.

### Trip Endpoints

The facilities available at each end of a trip influence how people choose to travel. For example:

1. Parking lots can have the most convenient spaces reserved for car pools.
2. Parkades can be designed with sufficient clearance to accommodate van pools.
3. Businesses can provide bicycle parking where it is visible and protected from weather.
4. Stores can welcome pedestrians with doors and display windows close to the sidewalk.
5. Office buildings can provide seats in their lobbies for employees waiting for buses.

These kinds of facilities may be required through Community Planning Strategies and Land Use Bylaws. In some cases, developers can be offered the choice of providing such amenities in return for concessions in other requirements such as minimum parking.

### Roadway Efficiency

Improvements to roadway efficiency can be achieved through a number of methods. These include reversible lanes, queue-jumping lanes for transit buses, and high occupancy vehicle (HOV) lanes. Intelligent Transportation Systems (ITS) optimize traffic flow through priority signalling, synchronized signals and electronic toll collection.

Intelligent Transportation Systems are already used in a number of other applications in HRM. Traffic signals on some urban arterial streets are synchronized to minimize delays to motor vehicles, while sensors detect emergency vehicles to expedite them through intersections. Bridge tolls can be collected using the “MacPass”, which reduces delays at the toll plazas.

### Pricing Incentives

“Smart cards” like the MacPass have a wide range of possible future uses, including the concept of a single pass which can be used interchangeably for transit, parking and tolls. Smart cards also enable tolls to be varied to reflect available road capacity. This provides a pricing signal which triggers a market response: people discover that they can save money by shifting their trips to times when there is less congestion. Other pricing signals can be improved by eliminating artificial factors

which distort the transportation market in favour of automobile commuting.

T-5 HRM will develop a transportation demand management program adhering to the policies of this Plan and as outlined in the Transportation Functional Plan. Transportation Demand Management Program will:

1. educate the public on how to reduce their reliance upon the private automobile and reduce single occupancy vehicle trips;
2. develop the framework for a comprehensive transportation systems management program;
3. develop the framework for a commuter trip reduction program for HRM staff and other large employers in the region;
4. investigate funding opportunities for transportation demand management measures and programs; and
5. investigate potential incentives to reduce the reliance upon single occupant vehicle trip.

#### **4.4.4 Active Transportation**

Active, healthy lifestyles can be achieved when walking, cycling or other active transportation (AT) modes are part of everyday activities such as the trip to work. Urban centres with mixed uses and pedestrian oriented streets encourage people to use non-motorized modes of transportation. The Regional MPS will help create pedestrian oriented centres with sidewalks and bicycle routes.

Active transportation can assist in managing traffic by reducing the number of motor vehicles on the roads. There are also important air quality benefits associated with walking and cycling. They must be treated as an integral part of the HRM transportation system, with appropriate facilities and supportive programs. For this reason, an Active Transportation Plan will be prepared as part of the overall Transportation Functional Plan.

##### **4.4.4.1 Walking**

Walking is one of the cornerstones of a healthy lifestyle and active transportation. Forty-one per cent of HRM residents who live and work on the Halifax Peninsula walk to their place of employment<sup>8</sup>. This compares to an overall level of only 1% who live in suburbs and walk to work.<sup>9</sup>

Urban dwellers are more likely to walk to work, shops, schools and other destinations. In urban areas or traditional town centres, origins and destinations are closer to each other and are more likely to be mixed together. In the suburbs, they are segregated, spread over a wide area, and surrounded by large parking lots. This type of settlement favours driving but discourages walking.

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<sup>8</sup>Source: Statistics Canada, 2001 Journey to Work Data and HRM Planning Services

<sup>9</sup>Ibid

Encouraging clusters of related land uses enables nearby residents to walk for errands, while people living further away can use transit or drive and park in a central location from which they can walk to several businesses or services. Creating pathways, linear parks and sidewalks will also help increase the number of people walking for utilitarian purposes.

Community design elements are also important to the encouragement of walking as an active mode of transportation. A full description of the requirements of a pedestrian-oriented compact, mixed use community is discussed in Part 3: Settlement.

Indoor pedways can provide a means for avoiding traffic and inclement weather. While usually associated with downtowns, in some cases pedways can help integrate suburban shopping centres with other uses and destinations, and provide an alternative to crossing large parking lots. It is important to balance the need for pedways with the need to maintain vibrant shopping streets, to respect heritage structures and to maintain views. Incentives and regulations should encourage appropriate extensions to the pedways in downtown Halifax and Dartmouth, and the creation of new indoor pedways to help overcome distances between isolated suburban retail centres. Pedway linkages across major roadways, and connections to ferry and other transit terminals are especially important.

#### 4.4.4.2 Bicycling

A *Blueprint for a Bicycle Friendly HRM* was adopted, in principle, by Regional Council in December 2002. The report recommends the development of infrastructure for bicycles, creation of a promotional and education program, and implementation tools (such as bylaws and specifications) for bicycle facilities and infrastructure.

Bicycling is a mode of transportation that will increase the mobility of residents, especially youth and those without cars, while enhancing personal health and well being, contributing to a healthy environment and alleviating traffic congestion. While offering these benefits to local residents, bicycle facilities also help support tourism in the region.

The bicycle route network will be designed to accommodate cyclists with varying levels of skill and confidence. HRM residents have repeatedly stated that facilities to improve the ease and safety of cycling are necessary to promote cycling as a mode of transportation. Incorporating a variety of facilities, such as on-road and off-road (trails) facilities, will help promote cycling as a mode of transportation. The development of on-road facilities (for existing roads) will need to be evaluated individually and, where feasible, the type of facility should be consistent with the Municipal Service Standards Manual.

#### 4.4.4.3 Trails

The trail network in HRM is important to the recreational, leisure and active transportation needs

of residents and visitors in HRM. The trail network includes a variety of trails developed by community groups, such as linear parks, hiking trails, nature trails and scenic loops. The trail network can be incorporated into an off-road transportation system with strategic extensions, especially to link existing rural trails with urban cores and waterfronts. Such links, however, may involve complex land acquisition, planning, maintenance and financial issues beyond the scope of most community groups. For this reason, leadership and assistance will be required from HRM to establish new trails between rural and urban areas.

Maintaining and extending regional trails as a unified system will also require cooperation between HRM staff, the Province, local trails and bicycle groups, the Regional Trails Advisory Team and the Bicycle Advisory Committee. The Province already has a clear mandate that sets out the objectives for provincial trail systems. HRM should develop policies, through the Active Transportation Plan, that are consistent with the Province to create a cohesive trail system and ensure that the provincial mandate is implemented in such a manner as to complement the goals and objectives of HRM.

Some routes, especially in rural areas, are motorized and have been developed with much effort by members of Off Highway Vehicle (OHV) clubs. Agreements will have to be reached with these groups about appropriate locations, times and rules for use of Off Highway Vehicles (OHVs) to minimize risk to other users and nuisance to nearby residents.

#### 4.4.4.4 Abandoned Rail Corridors

In 1997 the Province concluded negotiations with CN to acquire their abandoned rail lines. In the same year the Province adopted a policy for converting abandoned railway corridors into public recreational trails<sup>10</sup>. The policy created a ten-year window of opportunity for community groups and municipal governments to form partnerships to sponsor trail development projects. In 2007 the Province will re-visit the policy and may consider disposing of undeveloped sections of the abandoned rail line to abutting landowners. This is a rare opportunity which should not be missed.

- T-6 HRM shall develop an Active Transportation plan, adhering to the policies of this Plan, and as outlined in the Transportation Functional Plan. The Active Transportation Plan will:
1. create a well-connected, safe and functional active transportation network;
  2. recommend a phasing and implementation strategy including cost estimates for the proposed network;
  3. propose the integration of the active transportation network with the transit system to encourage intermodal trips;
  4. create policies that will require active transportation networks to be included as part

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<sup>10</sup>Nova Scotia Sport and Recreation Commission. A Provincial Policy for Rails to Trails in Nova Scotia. Halifax: Nova Scotia Sport and Recreation Commission; July 1997.

- of community development, school and other public facilities locations;
- 5. develop a framework for an educational and promotional campaign;
- 6. develop policies and proposed wording for municipal standards, rules and regulations that need to be amended to comply with those policies; and
- 7. suggest potential funding mechanisms in addition to municipal funding.