

CHAPTER 5: ECONOMY

5.0 INTRODUCTION

As the work force becomes more mobile in the years ahead, growth and prosperity in HRM's economy will increasingly rely on attracting people who are drawn here by a high quality of life and features that make the Region unique. Businesses in turn are attracted to locations with a trained and motivated work force. Based on input received from residents and stakeholders it is clear that we need to protect and enhance those physical, natural and social attributes that attract and keep people in the region. The Regional Plan encourages economic activity that promotes a vibrant, sustainable, and healthy community. To do this it is important to recognize, support and enhance HRM's key economic drivers as identified in a study completed in 2004 entitled, "Economic Potential of HRM and Halifax Harbour (Gardner Pinfold Consulting Economists Ltd.) - our universities, hospitals, military, public administration sector and finance/insurance sector. Most of these economic drivers are located in or near the Capital District. Other significant employment centres include HRM's business parks, the Port of Halifax and the Halifax International Airport. It is also important to recognize and support our rural resource employment areas and opportunities. Support for the economic sectors includes working with other government agencies and stakeholders toward a common development vision and implementation strategy.

Halifax Regional Municipality is undeniably the economic hub of Atlantic Canada. The region accounts for 40 percent of provincial GDP, and about twenty percent of Atlantic Canadian GDP. From the period between 1996 and 2001, HRM experienced 4.7 percent growth in our population, a pace faster than any other large Atlantic Canadian community. Greater Halifax has also become a growth engine for many surrounding communities that benefit from a strong critical mass of business and transportation services. However, we cannot be complacent and expect this growth to continue unless we carefully nurture the conditions for growth. The decisions and investments we make today and the priorities we set now will affect us over the next two decades.

A substantial amount of activity is underway respecting economic development in HRM including secondary planning strategies for the Halifax Harbour area and Aerotech Business park. A major urban design analysis has been initiated for the Capital District leading to a new secondary planning strategy. A substantive analysis identifying expansion opportunities for HRM's Business parks has been completed and key recommendations are highlighted in this Chapter.

5.1 GENERAL

Over the next several months HRM will develop an innovative strategy designed to build a creative community and to lead the region towards vibrant, sustainable economic growth. The strategy will provide an overall sense of vision and direction to economic development organizations and our

community leadership.

EC-1 HRM shall develop an Economic Development Strategy designed to encourage business and economic growth in the Region. The Economic Development Strategy will strive to:

- (a) reinforce, promote and market HRM as an economic and cultural force within Nova Scotia, Atlantic Canada and beyond;
- (b) reinforce and enhance the role of the Capital District and its adjacent areas as the Region's primary centre for encouraging the growth of key economic drivers, including educational facilities, medical facilities, the military, public administration and finance/insurance/real estate;
- (c) enhancing and supporting the economic function other centres;
- (d) reinforce the economic function of Halifax Harbour including marine-based industry, energy, sciences, port and navy operations, sewage treatment operations, transportation and tourism, and balance this function with the desire for increased public open space and recreation, residential and other interests;
- (e) retain and attract a talented workforce, through closer relationships with post secondary and medical institutions and immigrant recruitment;
- (f) ensure a strategic approach to the development of large-scale industrial parks, business parks and retail parks that is consistent with regional growth management objectives;
- (g) enhance rural and local economies and rural quality of life;
- (h) achieve an effective and efficient regulatory regime for commercial and industrial development (development approval processes);
- (i) achieve a reliable and integrated freight transportation system in partnership with other levels of government, non-profit agencies and the private sector;
- (j) achieve collaboration among government levels, other agencies and business stakeholders to support the long range vision for economic development within the region, consistent with the regional plan;
- (k) creating a competitive tax structure; and
- (l) protecting those historical and cultural assets that residents of HRM value.

This Chapter focuses on detailed land use policies and programs needed to support economic development in the Capital District, Halifax Harbour area, HRM Business Parks and rural areas of HRM.

5.2 THE CAPITAL DISTRICT

The Capital District plays a vital role in service to the region and is the heart of commerce, business, government, health care, post secondary education, and cultural and entertainment facilities. It provides \$80 million in taxes annually, and including the surrounding urban core,

accounts for 56 percent of the municipality's employment base. It is important that HRM, in cooperation with senior levels of government, citizens and stakeholders, support and strengthen the critical economic function of the Capital District.

5.2.1 Capital District Sub-Designation

The Capital District is the economic, political, cultural and civic centre of the region. It includes the downtown commercial core areas of Downtown Dartmouth, Downtown Halifax and the surrounding commercial districts along Spring Garden Road, Quinpool Road and Gottingen Street. The Capital District also includes adjacent areas of concentrated economic activity including the hospitals, some of the universities/colleges on the Halifax Peninsula and in Dartmouth and some of the military and port facilities along Halifax Harbour. The Capital District must be maintained and reinforced as the region's economic core in order to achieve sustainable economic growth for the benefit of all of HRM.

The approach to enhancing the Capital District revolves around several elements: supporting the key economic drivers in the Region; investing in the public infrastructure necessary to attract business and residents to the Capital District; ensuring new development compliments the unique urban fabric of the Capital District; respecting heritage and cultural assets; and establishing an efficient and effective method to move people and goods within and to the Capital District. Policies to support the main economic drivers, considerations for urban design and direction for public infrastructure investment are included in this part of the Regional Plan

EC-2 HRM shall establish the Capital District Sub-Designation within the Urban Settlement Designation, as shown on the Generalized Future Land Use Map (Map 2). The intent of the designation is to focus attention and initiatives on economic drivers that benefit from a location close to other similar activities and in conjunction with other economic, cultural and social activities.

5.2.2 Capital District Secondary Planning Strategy

The cluster of activities in the Capital District is a key element of the strength and success of our region and our position as the Atlantic Canadian leader. To optimize the value of this key element, Council endorsed a public Vision for the Capital District and an inter-governmental focus on preserving this asset. The vision, in part, states that the Capital District has a role as the regional and provincial centre for government, commerce, education, health, military, festivals and events, arts and culture, and recreation and entertainment. A strong regional centre is a key to success.

HRM citizens want to reinforce and enhance the Capital District as a major regional asset and define a role for local business districts. The attractiveness and comfort of development for residents, workers, and the general public is strongly affected by how well the public and private space is defined. The balance between the needs of different users needs to be carefully considered.

To achieve this, a Secondary Plan, to include an Urban Design Strategy, should be undertaken.

EC-3 HRM shall undertake a Capital District Secondary Planning Process to foster the continued development of the Capital District as a healthy and attractive place to live, work, play, and do business. In particular, the Capital District Secondary Planning Process will shape the future of the downtown by:

- (a) facilitating the development of more signature architecture in the Capital District to showcase design excellence and build on the image of the downtown as the cultural capital of Atlantic Canada;
- (b) identifying, protecting and promoting areas with a significant concentration of heritage buildings and sites;
- (c) enhancing existing parks and green spaces and acquiring and developing new urban green space where feasible;
- (d) establishing incentives to facilitate a high caliber of design in the Capital District including recognition programs, grants and tax relief for heritage properties;
- (e) maintaining and improving pedestrian linkages among downtown streets, parks, public spaces, and the water's edge;
- (f) establishing urban design principles and design guidelines to shape development form in the Capital District to reinforce both traditional architectural form and encourage contemporary design forms; and
- (g) capitalizing on the redevelopment opportunities that take advantage of the special nature of the Cogswell Interchange.

5.2.3 Regional Centre/Capital District Urban Design Plan (refer also to Settlement Chapter)

New developments in the Capital District need to embrace design elements that enhance the assets that make the area a desirable place to live and work. HRM has already developed guidelines for public streetscapes with a strategy to implement those guidelines.¹¹ These will be implemented in a phased and strategic manner for lands within the public right-of-way to help create attractive and functional streets and public spaces. The guidelines address items such as the design of sidewalks, street crossing zones, bus stops and transit facilities, street trees, lighting, public art and the placement of pedestrian amenities and street furnishings, as indicated below. HRM also needs to show leadership in design of new development, and will be undertaking an Urban Design Plan for the Capital District and Regional Centre to develop an overall design strategy to foster well designed buildings and streetscapes through the creation of new policies and tools including, design guidelines, processes, and incentives. The Regional Centre Urban Design Plan will

¹¹ Radcliffe, G., et al. 2004. HRM Capital District Urban Design Project. Vols. 1-3.

ultimately form the basis of a new secondary plan for the Capital District. These will be implemented for HRM-owned sites in an overall public infrastructure development business plan, as indicated below.

EC-4 HRM shall develop a Regional Centre/Capital District Urban Design Plan to be implemented through a Municipal Secondary Planning Strategy. The Plan will clearly set out the design objectives for the overall urban form, with regard to character, continuity, enclosure, quality of the public realm, ease of movement, legibility, diversity and adaptability. It will focus on the Capital District and the main transportation corridors within the Regional Centre and will help define character areas, precincts, and other components of urban design including:

- a) new or redeveloped civic buildings and civic spaces;
- b) heritage districts and landmark sites;
- c) contemporary architectural design;
- d) building form (height and massing);
- e) streetscape and facade;
- f) views and skylines (reinforcing current view plane protection);
- g) tools such as design handbooks, design guidelines, demonstration projects; and
- h) a capacity building strategy to develop the necessary skills and knowledge about urban design within HRM, the development industry, and the general public.

The existing Spring Garden Road Commercial Area Plan contains policies that enable a considerable amount of commercial and residential development to take place as-of-right, with little opportunity for input from members of the public or Council. Additional guidance is required to address urban design issues such as the scale, bulk, and appearance of development. Until such time as the Regional Centre/Capital District Urban Design Plan is completed, such development should be considered by way of development agreement.

EC-5 Notwithstanding the current as-of-right provisions of the Spring Garden Road Commercial Area Plan, HRM shall only consider new development or expansions to existing development greater than 40 feet in height by development agreement. When considering an application for a development agreement within the Spring Garden Road Commercial Area Plan, in addition to the policies of the Area Plan, HRM shall have regard to the following:

- a) retail commercial use of ground floor street frontage within the Capital District will be encouraged;
- b) landscaping should take into account pedestrian visibility and safety at all times and should follow recommendations described in Crime Prevention Through Environmental Design (CPTED) principles;
- c) building facades should maintain a consistent street edge except to provide access to

- rear parking areas. The use of interesting colour for building facades should be encouraged where it is complementary to the streetscape to add a sense of vibrancy to the area. Windows, door display windows, or arcades should make up at least 50 percent of the building wall facing the street;
- d) buildings should avoid long, un-interrupted, blank walls, especially facing sidewalks. Building wall offsets, including projections, recesses and changes in floor elevations should be used to add variety;
 - e) new developments should incorporate human scale design principles in the first two storeys of development so they relate to the street and enhance the pedestrian environment; pedestrian street level activity should be encouraged in all development through the incorporation of outdoor cafes, ground floor uses such as retail shops, and uses that are open beyond the daytime hours of operation. Consideration should be given to weather protection for pedestrians through the use of well lit, decorative canopies and awnings along major pedestrian routes;
 - f) public safety should be a consideration in the design of new buildings to ensure the design in public spaces does not create opportunities for crime at any time, with special attention paid to the placement and intensity of lighting, visibility, directional signage and land uses which will provide opportunities for eyes on the street through incorporation of residential development and street level activity after regular working hours.
 - g) exterior architectural design of new buildings should be complimentary to adjacent buildings of historic or landmark significance in terms of the building height and materials, rhythm, colour and proportions of the building design elements. Traditional building materials such as wood shingle and brick are preferred. Architectural design details should be provided to encourage visual interest;
 - f) upper portions of buildings should be designed to promote visual interest and variety in the urban skyline;
 - g) structures may incorporate modern building technology and materials, but external detail is selected in the context of the street scape and continuity of the facades. Buildings that have windows and entrances, no dead spaces such as vacant lots, and the integration of residential development allow for the “eyes on the street” which contribute to the sense of public safety, inhibits criminal activity and reduces opportunity for graffiti;
 - h) variations in the facade (height, roof line, windows, and projections) should be used to add visual interest without undermining the continuity of the street scape. The height of the buildings should relate to the width of the street, the need to provide sunlight at street level, and give consideration to the “wind tunnel” effect;
 - i) include common natural areas in multi-family developments, where the size of the project and site conditions permit. To help accomplish this, encourage developers to group buildings around usable common areas rather than buffering each building with small unusable areas;
 - j) HRM will encourage sensitive design along the edge where the urban commercial

- area abuts residential neighbourhoods and will discourage adverse impacts from noise, night lighting, poor building design and commercial service areas on adjacent residential neighbourhoods; and
- k) service areas for trash dumpsters, loading docks, mechanical equipment and the like should be located away from the street front. Those elements which for programmatic reasons cannot be located away from the street front should be screened from view.

EC-6 HRM shall support the implementation of the Urban Streetscape Design Guidelines to address opportunities for public space, architectural features and structures which enhance the desirability of the Capital District as an economic and cultural centre of the Region. Guidelines and a subsequent implementation strategy shall embrace elements such as the following:

- a) integration of transportation and street scape planning;
- b) underground utility line policies;
- c) public art policy;
- d) improving bicycle safety and comfort;
- e) urban forest plan;
- f) sidewalk café policy;
- g) strategies for funding and maintaining street scape furnishings and other investments;
- h) parking strategy;
- i) litter abatement and solid waste management initiatives;
- j) strategies to support universal design; and
- k) techniques for energy reduction, including district heating and solar access opportunities.

5.2.4 Capital District Functional Plan

In addition to the urban design programs and secondary planning strategies, a number of other initiatives are required in support of the Capital Districts growth and development. These include public infrastructure investment and support for HRM's main economic drivers, located in an around the Capital District.

EC-7 HRM shall create a Capital District Functional Plan to facilitate and coordinate appropriate investment and programs to support the overall vitality of the district.

5.2.4.1 Public Infrastructure Investment

Another major component of a strategy to enhance the Capital District is the development of and investment in, public infrastructure. While private investment will bring about much of the

economic activity in the Capital District, HRM must make sure the public amenities are in place, and appropriately maintained, to attract residents, businesses, tourists and employees to the area. Public investment in cultural and heritage assets, entertainment venues, streets capes and public art helps lay the groundwork for attracting people to the Region and the Capital District. A business is drawn to a place where employees like to live, workers will move to, or remain in, a place where there are activities and an atmosphere they enjoy. If HRM is to attract a creative class¹² for example, venues for cultural and creative activities are essential and the Municipality will have to ensure such amenities and infrastructure are planned for and developed.

The three levels of government own considerable property within the Capital District. While many sites are developed, numerous other properties have opportunities for new development or redevelopment. HRM has recently completed a “Public Facility Needs and Opportunities Study” (Cantwell and Company, 2004), which provides advice on development options related to publically owned properties and a priority list for implementation. This document should be used as a guide in considering future public property development within the Capital District, in cooperation with other levels of government.

Through the Capital District Functional Plan, HRM shall:

1. prioritize public projects to be developed and implemented in the Capital District, generally following the recommendations of the Public Facility Needs and Opportunities Study¹³. Priority will be based on the resources available, the benefits derived from a project and the role the project plays in enhancing the Capital District.
2. facilitate work with other public and private land owners in the Capital District to encourage redevelopment in accordance with the policies of this Plan and the recommendations of the Public Facility Needs and Opportunities Study.
3. complete the public art policy and use it to guide the development of necessary programs to manage, maintain and commission public art, with a goal to attain excellence in all aspects of public art in HRM.

5.2.4.2 Supporting the Economic Drivers

The five main economic drivers in HRM are the universities, the hospitals and medical research

¹² See Richard Florida. (reference req'd)

¹³ Cantwell & Co. and Bill Plaskett. 2004. Public Facility Needs and Opportunities Study. Prepared for HRM. May 2004.

facilities, the financial and insurance sector, the public administration sector and defence. In general, supporting these sectors over the next twenty-five years entails sustaining HRM as an exemplary location in which to live and work. This in turn requires protecting and enhancing those elements that make HRM attractive - its heritage and cultural assets, its vibrant and safe communities, its diverse housing opportunities.

This section reviews the opportunities and challenges to support those economic drivers located in the Capital District that are important to the overall HRM economy.

Through its Capital District Functional Plan, HRM will support the key economic drivers of the Capital District and surrounding area by undertaking the following actions.

5.2.4.3 Universities and Hospitals

Our post secondary institutions located within the Capital District are a major economic asset for HRM and their continued growth is an important objective. Current challenges include the adequate provision of affordable housing for students and having sufficient land for institutional expansion.

Regarding affordable housing, conflicts have arisen between residents in traditional neighborhoods and students living both on and off campus. However, segregation of the two groups is not the answer; rather a mutual understanding of each others' needs would help resolve the issue. A liaison group was established composed of members of the university, business and residential communities to discuss options and explore solutions to specific problems and issues. A long term affordable housing strategy is required that will, in part, address the housing needs of university students. In the neighborhoods surrounding the universities, the opportunity exists to allow more diverse housing types and encourage more intensive use of the existing stock. Care needs to be taken to protect these established neighborhoods from dramatic change and minimize the undesirable effects of adding new housing units to these areas. These solutions can be achieved through design standards, location criteria and community development strategies. An intensive urban design study is being undertaken to support neighborhoods adjoining universities to adapt to changing demands of the student population, while maintaining community character.

The universities will require additional space for new facilities as the student population grows over the next 25 years. This can be achieved either through intensifying the use of existing university properties or by expanding geographically. Accommodating expansion for the universities can be achieved, with HRM's involvement, through both the intensification of existing properties and promoting strategic locations throughout the urban core.

To a certain extent, the issues facing universities are also common to hospitals and the health sciences sector in the Capital District. In addition to adequate room for expansion and available affordable housing, traffic congestion could become an issue if the sector grows significantly.

Health care workers also need affordable accommodations within walking distance of the hospitals but an efficient public transit system that meets the needs and working hours of health care workers could achieve a similar goal.

The actions HRM will undertake to support the economic potential of the Universities and Hospitals are:

1. working with universities and neighborhoods to minimize impacts on neighbouring communities arising from the universities' long range facility development plans;
2. working with the Capital Health Board in developing their long term plans;
3. developing transit routes and schedules to accommodate university campuses located throughout the Regional Centre;
4. developing transportation options to address the unique needs of health care workers, out-patients and families of patients travelling to hospitals in the Regional Centre;
5. encouraging and where appropriate, participate in, dialogue among stakeholders near the universities to help resolve land use conflicts; and
6. exploring options to create affordable housing within walking distance of universities located in the Capital District.

5.2.4.4 Defence (refer also to Harbour Plan Section)

Canada's national defence activities have played a major role in the economy of HRM and will continue for the foreseeable future. Indeed, activity will likely be concentrated on existing sites: the Dockyard, Stadacona, Bedford Magazine and Shearwater.

The Department of National Defence will retain ownership of Shearwater's harbour front lands and the new Marine Helicopter facility. The lands declared surplus will be transferred to Canada Lands Corporation (CLC) and in turn will prepare a Master Plan to determine the most suitable uses for these lands. It is important that HRM be an integral part of this planning exercise.

The actions HRM will undertake to support the Defence sector are:

1. continue and enhance its cooperation with the Department of National Defence and Maritime Command in order to ensure, to the greatest extent possible, that its infrastructure needs and operational needs are met;
2. support the growth of the Department of National Defence and encourage economic linkages within the local economy;
3. seek to become involved with the Government of Canada, Canada Lands

Company and other agencies and stakeholders in setting the future direction for the surplus lands; and

4. encourage senior levels of government, including the Department of National Defence, to adhere to HRM's planning regulations.

5.2.4.5 Public Administration

Government administration accounts for 12,200 direct jobs in HRM or about 6.2 percent of the total in HRM. While employment in this sector has declined from the level of the early 1990's, there will be a projected increase of another 1,600 jobs by 2026. As the provincial capital, the Capital District is home to the head offices of many provincial departments and federal regional offices. There is discussion about relocating several federal offices now located in the Capital District to the Bedford Institute of Oceanography site.¹⁴ While the preferred location for public administration offices is the Capital District, such a relocation could act as a catalyst for the development of a major centre in that area of Dartmouth. Ongoing discussions with senior levels of government can help in planning the area and anticipate any issues that might arise.

HRM itself employs over 3000 employees, many of which work in office environments. This work force must serve the entire region and so offices are placed strategically throughout the Region. The Municipality can, however, act as a catalyst to bring workers into the Capital District.

The actions HRM will undertake to support the economic potential of the Public Administration sector are:

1. consult with senior levels of government to encourage the retention and growth of government office space within the Capital District;
2. in anticipation of a move of federal offices to the Bedford Institute of Oceanography site, HRM will initiate a planning process to examine its integration with adjacent areas and associated infrastructure requirements (refer also to Harbour Plan Section);
3. should senior levels of government propose to relocate offices from the Capital District, HRM will encourage the applicable government to develop an acceptable 'exit strategy' for the vacated property to include, for example, appropriate assistance in re-leasing; and

¹⁴ Gardner Pinfold. 2004. Economic Potential of HRM and Halifax Harbour.

4. examine its role as an employer in supporting the Capital District.

5.2.4.6 Finance, Insurance and Professional Services

The finance, insurance and professional service sectors account for 28 percent of HRM's GDP (gross domestic product). These businesses tend to locate near their clients and other similar institutions, creating a need for a centralized location. This is evident by the strong presence of this office sector in the Capital District. However, new offices are locating to other parts of HRM, for example, to the City of Lakes and Bayer's Lake business parks, and there has been no major new office construction in the Capital District for a substantial period of time. HRM should strive to make the Capital District an attractive and viable location to business, while at the same time enabling an overall balance of office space throughout the region.

To encourage office and related commercial activity to locate and remain in the Capital District, HRM shall develop an incentives based strategy to promote the Capital District as a viable location for commercial expansion. The strategy shall consider the following mechanisms:

1. improving access to the Capital District through enhanced public transit and parking strategies;
2. land banking and monitoring of land availability to ensure adequate long term supply of land;
3. encouraging redevelopment opportunities for obsolete or underutilized buildings and properties;
4. marketing strategies aimed at promoting opportunities within the Capital District;
5. phasing of new areas for development in a timely manner (e.g, redevelopment of the Cogswell interchange);
6. appropriate levels of investment in municipal infrastructure to support new development including streetscaping, way finding signage, improvements to public spaces, streets, and public facilities;
7. reviewing and ensuring a supportive climate for business growth including the legislative regime for development approvals; and
8. working with other agencies and levels of government to coordinate efforts and show leadership through the development of public lands and facilities.

5.3 HALIFAX HARBOUR

5.3.1 Halifax Harbour Designation

Halifax Harbour is one of HRM's most important assets and the heart of our region. It helps define our economy, our identity and our culture. The harbour is the second largest natural ice-free port in the world and a globally competitive shipping hub. It hosts two world class container

terminals, general cargo operations, ship building and repair facilities, off-shore oil and gas facilities and headquarters for the East Coast Navy and Coast Guard. The harbour is a major multi-modal transportation hub and is eastern Canada's gateway for freight movement. The waters and shoreline of Halifax Harbour provide opportunities for many recreational activities and special events including extensive parks and trails. It has been instrumental in growing HRM's tourism industry. The harbour is also becoming a desirable place to live, with an increasing trend toward harbour front residential development. Also of importance is the fact that Halifax Harbour is an environmental ecosystem, supporting diverse marine plant and animal habitat and a small commercial fishery.

Halifax Harbour is an vibrant amalgam of activities and land uses. The completion of a comprehensive plan will provide Council, the public and stakeholders with long range vision to guide decision making and an action strategy to ensure proper implementation.

EC-8 HRM shall establish a Halifax Harbour Designation that extends from Hartlen Point in Eastern Passage to Chebucto Head, including Northwest Arm and Bedford Basin, and extends inland generally to the first major roadway parallelling the harbour, as shown on the Generalized Future Land Use Map (Map 2). The designation shall support a range of development opportunities including marine-dependent industrial/commercial uses, transportation uses and facilities including ferries, recreational uses, residential uses, institutional uses and matters related to environmental improvement.

5.3.2 Halifax Harbour Secondary Planning Strategy

In conjunction with the formulation of an overall Regional Plan for HRM, Council initiated a Secondary Planning Strategy for Halifax Harbour. Along with the Capital District, Halifax Harbour forms the centre piece of the municipality and the Province, helping define our economy, our culture and our identity. Council and the citizens of HRM feel that a comprehensive plan for the harbour should constitute an integral component of the Regional Plan.

The Secondary Plan for Halifax Harbour is well underway and has entailed research and analysis, consulting studies, collaboration with other levels of government and their agencies and public and stakeholder consultation. In 2004, a report titled "Planning Strategy for Halifax Harbour - Preliminary Recommendations" was endorsed by Council. The report forms the basis of the policy recommendations contained herein.

Further work on the Secondary Plan is continuing, with the undertaking of additional studies, and further public and stakeholder consultation. Based on this work, revisions to the draft policies presented below will be brought forward.

Halifax Harbour supports a vast number of uses and activities, reinforcing its role as a focal point for HRM. It is clear, however, that there is only a finite amount of land and water available,

coupled with many competing interests. It is therefore important that a comprehensive plan be completed for Halifax Harbour in order to achieve a sustainable balance among land uses - industrial/commercial marine uses, transportation uses, recreational uses, residential uses, institutional uses and environmental improvements.

Policies presented below are organized under the following headings: the Working Harbour - Marine Industrial/Marine Commercial Uses; Transportation Infrastructure; Recreational Uses; Residential Uses; Environment; and Harbour Management/Administration.

EC-9 HRM shall complete the on-going Secondary Planning Strategy for Halifax Harbour that will include detailed policy and implementation mechanisms to achieve a sustainable and integrated balance among the various land uses - marine dependent uses, transportation and infrastructure, residential, institutional, tourism-related and recreation uses and environmental improvements. The policies within Section 5.3 and other applicable policies of this Plan shall be used as guidance to prepare the Secondary Plan.

5.3.3 The Working Harbour - Marine Industrial/Marine Commercial Uses

The “Economic Potential of HRM and Halifax Harbour” study (Gardner Pinfold Consulting Economists, May, 2004) reinforces the importance of the economic function of Halifax Harbour. The study states that “a wide range of marine dependent users occupy waterfront land on Halifax Harbour. Land for new users is scarce. Some users face constraints arising from incompatibility with adjacent landowners (mainly residential). Policy and measures to support a working waterfront are key ingredients for HRM economic growth.” “demand for waterfront land in HRM for residential and recreational purposes is constant, whereas demand for industrial purposes is episodic. It does not follow that waterfront land should be dedicated to residential and recreational needs as and when these demands arise. This could foreclose higher-valued marine industrial options that are not immediately foreseeable. Any long-term land use plan should take a balanced approach and make provision for marine industrial uses even if these are not immediately identifiable.”

The need to reserve sufficient and suitable lands and water lots for future marine industrial/marine commercial uses was also identified in our public consultation program. While support was not unanimous, the consensus of opinion was that appropriate lands be retained for such purposes. In a recent Harbour Plan questionnaire, 97 percent of respondents felt that HRM should continue to promote Halifax Harbour as a global seaport, and 82 percent felt that sufficient land around the harbour should be reserved for marine-dependent uses.

As a result of this input, it is felt that a high priority in determining future land uses opportunities around the harbour should be the identification of those sites that are appropriate for marine industrial/marine commercial uses. Evaluation criteria included water accessibility for ships, land availability in terms of vacant properties, topography and ownership patterns, proximity to

infrastructure (road, rail, piped services) and proximity to other land uses in terms of synergy or potential conflict.

Sites recommended to be retained and/or developed for marine industrial/marine commercial uses are as follows (see Map 9, Harbour Marine Industrial Sites):

- Former Ultramar Refinery Property
- Autoport
- Shearwater (Waterfront and Maritime Helicopter Facility)
- Cherubini Metal Works
- Imperial Oil Refinery
- Woodside Common User Wharf/Irving Lands
- Southern portion of Nova Scotia Hospital Lands and lands below the rail line (including water lot)
- Coast Guard Site
- Dartmouth Cove Waterfront (existing uses)
- Lyle Street Property
- DND Dockyard Annex (waterfront lands)
- NSPI
- Bedford Institute of Oceanography
- National Gypsum property and adjacent areas at Wright's Cove
- DND Bedford Magazine
- CN Property (water lot), Rockingham Shore
- Fairview Cove
- Richmond Terminals
- Halifax Shipyards
- HMCS Dockyard
- Ocean Terminals and Halterm

EC-10 HRM shall ensure that sufficient harbour frontage and harbour front lands are reserved for existing and potential future marine industrial/marine commercial uses in order for the Port of Halifax to grow as a globally competitive seaport.

EC-11 HRM, in conjunction with other levels of government, economic development agencies, the Halifax Port Authority, CN and other stakeholders, shall investigate and implement initiatives that will maintain the Port of Halifax as a globally competitive multi-modal seaport.

EC-12 On sites where marine industrial/marine commercial uses are contemplated, HRM shall develop regulations that will mitigate potential negative impacts on adjacent uses, while maintaining the economic viability of the marine use. Depending on the nature of the proposed marine use, measures may include controls on the intensity of use (e.g.) light

industrial vs. heavy industrial; landscaped perimeter buffer areas (screening) and fencing; directional lighting; noise abatement measures; road access locations and truck routes. Secondary Plans abutting the Halifax Harbour Designation shall be amended, as appropriate, to address this interface of land uses.

EC-13 HRM shall discourage new residential development from locating in areas that abut sites designated for intensive marine industrial/marine commercial use. Any residential uses that are proposed to locate near to intensive marine industrial/marine commercial uses should be required to incorporate measures to minimize potential impacts by way of suitable buffering and noise abatement construction techniques. Secondary Plans abutting the Halifax Harbour Designation shall be amended, as appropriate, to address this interface of land uses.

EC-14 HRM shall undertake a land use and transportation study for the Wrights Cove area of Dartmouth (underway). The study shall assess the potential of the area for future additional marine industrial development and/or a mixed use form of development. The results of this study shall be presented to Council for incorporation into the Halifax Harbour Plan.

5.3.4 Transportation Infrastructure

HRM is a multi-modal freight transportation centre, providing local, regional, national and international connections. It is eastern Canada's gateway to the world and a major transshipment point between the US and Europe. Complementing its role in ocean based commerce, Halifax's rail and truck transportation services provide the underpinning for a substantial share of the HRM economy.

The provision of efficient transportation systems to accommodate the movement of freight to and from the port of Halifax is essential in maintaining its global competitiveness. The importance of road and rail to the economy of HRM is also reiterated in the Economic Potential study. The report indicates that the main planning issues concern truck access to the Halifax south-end terminal and recent changes to CN's service to Halifax.

Halifax remains competitive in part because containers can be shipped by rail to the US Midwest one to two days sooner than other North American ports. Efficient transportation links are a fundamental necessity in ensuring the continued economic success of the port and region. Freight carriers are critical partners in maintaining a competitive edge.

EC-15 HRM shall:

- (a) in association with the Halifax Port Authority, other levels of government, economic development agencies and port users, continue to negotiate with CN and the trucking industry to achieve a commitment to provide improved efficiency and

- the highest possible level of freight service to the port of Halifax.
- (ii) in conjunction with the HPA and Transport Canada, complete an Inland Inter-modal Freight Distribution Terminal study for the Port of Halifax (underway). Such a study will determine the feasibility and costs associated with the construction of a rail/truck distribution terminal at a site outside the urban core area.
 - (c) in conjunction with CN, the Halifax Port Authority, Transport Canada, the Province and shippers, consider options, opportunities and challenges for including rail infrastructure in the jurisdiction of the proposed Regional Transportation Authority;
 - (d) undertake a study to determine the future potential and constraints regarding the operation of the rail line through downtown Dartmouth, including the relocation of the marshalling yard on the Dartmouth waterfront; and
 - (e) proceed with detailed planning and implementation of a phased high-speed ferry network within Halifax Harbour, such systems to be integrated with land-based transportation/transit systems and active transportation opportunities (see also Transportation Chapter).

5.3.5 Recreational Uses

Public access to and along the shores of Halifax Harbour ranks very high as a public priority. Substantial capital investment for park and trail development has been provided by all levels of government over the past number of years, in cooperation with residents groups and other non-government organizations. Major existing components of the harbour's parks and trails system include the following (refer to Map 10, Harbour Parks and Trails)):

Lawlor's Island	McNab's Island
Hartlen Point Golf Course	MacCormack's Beach
Dartmouth Harbourwalk (N.S. Hospital Lands)	Dartmouth Ferry Terminal Park
Admiral Cove Park	Bedford Fish Hatchery Park
Bedford Waterfront Phase I	Princes Lodge/ Hemlock Ravine
Seaview Park	Halifax Waterfront
Point Pleasant Park	Horseshoe Island Park
Regatta Point Walkway	Deadman's Island
Sir Sanford Fleming Park (Dingle)	York Redoubt
Herring Cove Trail	Chebucto Head (Lighthouse)
Duncan's Cove Trail	

EC-16 HRM shall, in association with the other levels of government and non-government organizations, facilitate the planning and development of new parks and trail systems in appropriate locations along the shores of Halifax Harbour, including linkages to inland

park/trail systems. Such projects may include the following, as outlined on the Harbour Plan - Parks and Trails Map (Map 10).

- George's Island
- Lawlor's and McNab's Islands
- Link from Woodside to Eastern Passage/Cole Harbour Rails to Trails system
- Link from N.S. Hospital Lands to Downtown Dartmouth, with connection to Shubenacadie Trail system
- Dartmouth Waterfront to MacDonald Bridge
- Shannon Park
- BIO land to Wrights Cove (to be included in Master Plan study for the area)
- Bedford Waterfront Phase II
- Bedford Waterfront to Birch Cove
- Seaview Park to Robie Street Rail Line
- MacDonald Bridge to Halifax Waterfront (Barrington Street)
- HPA property to Point Pleasant Park
- Point Pleasant Park to Chebucto Road (Rail Cut)
- Armdale Yacht Club to Purcell's Cove
- Chebucto Head Lighthouse property

EC-17 HRM shall ensure, wherever possible, that trail systems integrate with existing and planned transit corridors, terminals and residential neighbourhoods adjacent Halifax Harbour.

EC-18 In locations where harbour front trail development cannot be accommodated for reasons of marine industrial operations (safety) or security purposes, HRM shall, in association with the property owner and stakeholders, endeavour to design and develop alternate routes around such uses.

EC-19 HRM shall continue to work with the Halifax Port Authority, Canada Borders Security Agency, Transport Canada and port users in determining measures to achieve maximum public access to harbour front locations while respecting international security regulations for port facilities and operations.

The Shannon Park property in north-end Dartmouth is proposed to be transferred to the Canada Land Company (CLC) in the near future. This former DND base has significant redevelopment potential, having considerable harbour frontage, and excellent connections to the regional road network and the Capital District. CLC will undertake a master planning exercise to determine appropriate uses and transportation network for the site.

EC-20 HRM shall participate in the planning for the Shannon Park property and shall request that the following opportunities be duly considered as part of the redevelopment plan:

- a) Major sports venue;
- b) Transit terminus (ferry terminal, bus terminal, park and ride and potential

- commuter rail station);
- c) Mixed use housing;
- d) Commercial uses (retail/office);
- e) Harbour front park and trail development ; and
- f) The planning for this site should be integrated with future potential development in the BIO/Wrights Cove area.

EC-21 HRM, in association with other levels of government and other stakeholders, shall continue to capitalize on the social and cultural assets that Halifax Harbour provides, to the benefit of both residents and tourists, particularly in light of the advantages that will be realized through the Harbour Solutions project. Tourism growth can be encouraged by enhancing the assets of our downtown waterfront areas, ensuring high quality design and development, enhancing heritage and cultural sites and expanding recreational opportunities, conference facilities and entertainment uses. Uses promoting our marine and cultural heritage and the arts should be pursued.

5.3.6 Residential Uses

Residential development on or overlooking Halifax harbour has been on the increase in recent years and it is anticipated that this trend will continue. However, acknowledging that residential development on the harbour front represents an amenity as opposed to a requirement, careful consideration must be paid to the amount and location of this use. The Economic Potential Study suggested that by disposing of land for residential development purposes, it may result in lost opportunity for potential future marine-dependent uses or may establish the potential for future land use conflict. Public opinion on this topic was somewhat split, with a small majority indicating that harbour front lands should be set aside for residential purposes.

Sites recommended to be considered for future residential development include the Dartmouth Cove area, Dartmouth Waterfront, Shannon Park, Bedford Waterfront Phase II, certain sites between Bedford Waterfront and Birch Cove and the Halifax Waterfront (refer to Map 11, Harbour Potential Residential Sites).

EC-22 HRM shall identify appropriate locations on Halifax Harbour that are suitable for residential development, and shall establish appropriate development regulations and approval mechanisms for such uses (refer also to Policy EC-13).

EC-23 HRM shall undertake a study for the Dartmouth Cove area, including the Marine Slips property, to determine a future land use plan and implementation strategy. Residential development, mixed residential/commercial development, institutional development and park and trail uses should be considered, in association with existing marine industrial uses.

EC-24 HRM shall undertake a study to determine the long term feasibility for the development of residential and park/trail development along the western shoreline (water lots) of Bedford Basin between the Bedford waterfront and Birch Cove.

EC-25 HRM shall ensure that any residential development proposals abutting Halifax Harbour include provision for public access to the harbour and trail/broadwalk development.

5.3.7 Environment

The future sustainability of Halifax Harbour as an environmental ecosystem is an important consideration, particularly in light of the Harbour Solutions project. Improved management of infilling activities, protection of environmentally sensitive areas, restoration and creation of new habitat, protection of important marine-related cultural/historic assets and addressing the risks of climate change are several areas that should be addressed.

EC-26 HRM, association with other chapters of the Regional Plan, shall consider the ecology of Halifax Harbour in the context of its entire watershed, including all rivers and lakes that flow to the harbour (refer also to Chapter 2- Environment).

EC-27 HRM shall, in cooperation with the senior levels of government and other stakeholders:

- (a) identify significant environmentally sensitive areas and potential cultural heritage and archeological sites along the shores of the harbour, and determine appropriate protection or management mechanisms; and
- (b) undertake a comprehensive mapping and data program of fish habitat within the harbour and watershed, to characterize the current status of those habitats and to help identify areas that should be conserved and protected and those areas that would be candidates for habitat restoration projects or 'habitat banking'.

Requests for infill projects on private water lots within the harbour is an important matter. Of particular concern is the Northwest Arm, where residents have identified concerns related to loss of navigable water for sailing, loss of views out the Arm, the type and design of land use on the infilled lot and environmental impact. Similar concerns exist for certain shoreline areas of Bedford.

EC-28 HRM, in cooperation with all regulatory agencies having jurisdiction for infill activities on Halifax Harbour, shall establish a working committee to develop a coordinated process for assessing water lot infill applications. Northwest Arm should be used as a pilot project.

EC-29 HRM shall initiate a detailed Secondary Planning Process for the Northwest Arm, to address opportunities and issues concerning water lot infill, environmental management,

park and trail development, water-based recreation and navigation, historical assets, public views and related matters.

EC-30 HRM shall work with the Halifax Port Authority and other environmental authorities in minimizing ship air emissions while in port and ensuring that ship waste disposal practices are environmentally responsible.

At present, the Bedford waterfront (Phase II) is the only approved location for the disposal of pyritic slate. If a harbour location was not made available for placement of this rock, it would have to be shipped out of Province for disposal, at considerable expense.

EC-31 HRM, in cooperation with appropriate government authorities, shall identify appropriate sites on Halifax Harbour for long term disposal of pyritic slate, ensuring that such disposal occurs in an environmentally sustainable manner

Climate change is an emerging concern. According to climate change models, sea levels are predicted to rise between significantly over the next century, which will seriously impact shoreline infrastructure such as sea walls and wharves and will threaten low lying buildings. When coupled with more frequent and extreme weather events (storm surges), as was evidenced during Hurricane Juan, the potential long term risk to public safety and property is severe.

EC-32 HRM shall, in association with other funding partners, undertake a modelling study to predict impacts of climate change and weather events on the shoreline of Halifax Harbour. Once impacts are known, adaptation measures for new land development and mitigation measures for existing development will be designed and implemented.

5.3.8 Harbour Governance

In order to maximize the economic competitiveness of Halifax Harbour in the world marketplace, a management/administration structure for the harbour should be put in place. At present there are many players and stakeholders involved with harbour activity and harbour front development - the three levels of government, crown corporations, landowners, non-government organizations, scientific community and others - all largely working independently of one another. An integrated structure for management, administration and decision making for harbour development would result in improved coordination, cost effectiveness and plan implementation leadership.

EC-33 HRM shall undertake best practices research to assess how other world class harbours are managed and administered (underway). A comparative analysis of models shall be used to determine the feasibility for application in the Halifax Harbour context. Should the above-noted research prove positive, HRM shall, in cooperation with other levels of government, economic development agencies, Halifax Port Authority, CNR and other stakeholders, lead the establishment of an appropriate management/administration structure for Halifax

Harbour.

5.4 BUSINESS AND INDUSTRIAL PARKS

There are other employment centres in HRM in addition to the Capital District and Halifax Harbour. These include the 12 business parks (municipally, provincially and privately operated) located throughout HRM and the Halifax International Airport - itself responsible for generating over \$1 billion of economic activity in the region.

5.4.1 Business/Industrial Park Sub-Designation

HRM operates five of the twelve business parks in the Region - the Aerotech Park, Burnside, Bayer's Lake, Lakeside, and Ragged Lake Business Park. The Provincial Government manages seven parks: Atlantic Acres, Bedford, Sackville, Woodside, Eastern Shore, Sheet Harbour and Musquodoboit Harbour Parks. As well, the Halifax International Airport, in conjunction with Aerotech Park, is a major employment node. The continued development of business parks within HRM is vital to the economic future of the region and it is necessary to ensure that an adequate supply of land is available to accommodate future growth.

EC-34 HRM shall establish a Business/Industrial Park Sub-Designation to identify lands that enable the growth of industrial and business uses and associated support uses, as shown on the Generalized Future Land Use Map (Map 2). Sites included in this designation include all existing business/industrial parks and proposed expansion areas within the municipality, including Halifax International Airport. The sub-designation is intended to provide priority areas for an integrated mix of industrial, commercial, service and support uses.

Business Park Development in HRM affords opportunities for residential development as well as commercial and industrial. Medium to high residential land uses can compliment the business park allowing easy access to employment for residents and reducing commuting costs to the individual and the municipality as a whole. It is important that placement of residential uses be carefully considered in the context of the overall business park development plan to avoid noise and other conflicts.

EC-35 With reference to policy EC-47 and other applicable policies of this Plan, residential development may be considered for certain lands to the east and north of Burnside Business Park. Such development shall proceed by way of the Comprehensive Development District (CDD) policies of the existing secondary planning strategy.

In addition to publicly owned business parks there may be opportunities to develop private

business parks to compliment commercial development in HRM. These parks will be developed through the appropriate secondary planning strategies.

EC-36 HRM shall, through a Secondary Planning Strategy consider permitting private business parks within Centres, and in accordance to other policies in the Regional MPS.

5.4.2 Halifax International Airport

The Airport is a significant contributor to HRM's economy, generating about \$1 billion in direct and indirect benefits with an employment base of about 5400 jobs¹⁵. The Halifax International Airport Authority, the agency responsible for managing the airport, plans significant expansion and improvements over the coming years, including the potential for a third runway.¹⁶ These expansion plans reflect projected increases in both passenger and freight traffic at the airport. An issue facing the airport's activity is the potential effect of noise from plane traffic on surrounding uses. Transport Canada has charted areas where noise may create problems and recommends restricting development, especially residential, from locating within these areas. These areas, known as Noise Exposure Forecast (NEF) contours, will be incorporated into the appropriate Secondary Plan Land Use By-law.

5.4.3 Aerotech Park Secondary Planning Strategy

HRM's Aerotech business park, located adjacent to the Airport, is a fully serviced business park originally intended to accommodate aerospace technology industries. To date, few of those types of uses have located there, prompting a re-examination of the role and market target of the park. HRM is in the process of expanding potential uses and adjusting requirements to create opportunities for other business uses in the Park. Three issues arise from this shift in marketing direction: the capacity of the sewage treatment plant at the Park to accommodate new growth; the need to reserve some lands for airport related uses and the potential image the Park could portray to airport visitors. These issues are being resolved through amendments to Community Plan and regulations. Finally, the future development of the Aerotech Business Park needs to be sensitive and complimentary to the expansion plans and development of the Halifax International Airport. Coordination of effort will help ensure long term goals for both facilities are aligned.

EC-37 In accordance with Transport Canada guidelines, HRM shall establish under the appropriate Secondary Land Use Bylaw, an appropriate Noise Exposure Forecast Zone near the Halifax International Airport. New residential development shall be prohibited within this zone.

¹⁵ SGE Acres Ltd. 2004. Halifax International Airport Economic Impact 2003. HIAA.

¹⁶ HIAA dev plan

- EC-38 HRM shall consider the need for expansion of the Halifax International Airport to accommodate a new runway or other airport-related facilities provided there is adequate infrastructure to accommodate the increase in traffic and business activity. Expansion of the Airport shall be guided by the policies of the appropriate secondary planning strategy.
- EC-39 Within the appropriate Secondary Planning Strategy, HRM shall designate a service boundary around the Aerotech Business Park, within which new business related uses can locate. Designation of the boundary and the uses permitted within the Aerotech Park shall be guided by the available capacity of water and sewage treatment facilities and conditions of the Aerotech Business Park development guidelines.
- EC-40 The Aerotech Industrial Park and adjacent commercial/industrial areas provide a gateway to the urban and suburban areas of the Municipality. To protect the aesthetics of this gateway, HRM shall require, within the secondary land use by-law covering the area, provisions which provide for buffering, screening, landscaping and building facade treatment along this corridor. To further protect the gateway area, conditions under which the Aerotech Business Park may be developed shall be included within HRM's Business Park development guidelines.
- EC-41 HRM shall continue to work on the long term planning for the Aerotech Business Park in cooperation with the Halifax International Airport Authority Master Plan so that future development is fully coordinated.

5.4.4 Business Parks Development Functional Plan

There will need to be enough serviced land available to meet the demand, once existing phases of development are undertaken. Timely phasing of new serviced lands can ensure an adequate supply is available, while avoiding costly premature infrastructure construction. To increase supply there may also be opportunities to redevelop existing properties for more appropriate uses. There may be opportunities to offer land for business uses which do not require a high caliber of amenities, or which, conversely, need more attention to design details to achieve regional planning goals and objectives.

- EC-42 HRM shall create a Business Parks Development Functional Plan to guide future development of its business parks in a timely and cost-effective manner. The plan will ensure that HRM:
- (a) monitors availability of land for commercial, industrial and institutional uses and determine whether supply is meeting demand, to ensure that sufficient lands are appropriately designated to accommodate anticipated demand for business purposes, and;

- (b) coordinates with the Province of Nova Scotia to determine the best way to develop the business parks under provincial ownership. If the province divests itself of the business parks located within HRM, a comprehensive strategy should be created outlining how they will be administered.

HRM has prepared a Business Park Assessment and Growth Plan and recommendations from this study have been incorporated into the Regional Plan policies below and will be used to provide direction to HRM's business planning and long term capital investment. The analysis done to date will guide the Functional Plan in considering appropriate concepts for business park development. Included among these are:

1. stratifying municipal infrastructure standards within business parks for appropriate uses;
2. encouraging redevelopment opportunities for obsolete or under utilized buildings and properties;
3. pricing strategies aimed at increasing growth of the business parks;
4. phasing of new park development in a timely manner;
5. improving access, include public transit, into and around business parks;
6. land banking to ensure adequate long term supply of land;
7. working with other agencies and levels of government to coordinate efforts;
8. incorporating residential uses in appropriate locations ; and
9. designating additional lands for use as an office campus.

5.4.4.1 Burnside Business Park

Burnside was established by the former City of Dartmouth and makes up 75 percent of the demand for serviced land in business parks in HRM. A variety of businesses have located in the park since its inception and support infrastructure such as hotels, restaurants and services have located here. Future development and expansion needs to be planned so that certain sectors are not eliminated from the area. Longer term expansion of Burnside will proceed on both privately held and publically held lands to the east and north of the current park, and a major commercial centre is planned for lands on Highway #118. Depending on need and market factors, it is possible that not all of these lands will be required for industrial/commercial uses. An alternative land use for portions of these lands is residential, and the Regional Plan will enable consideration for this use.

Through the Functional Plan HRM will develop a list of infrastructure projects to aid in the future development of the park. This may include the following:

1. use the infrastructure that will service the proposed commercial development on Highway #118 to position HRM for future development;
2. promoting development of the Sackville Expressway;

3. incorporate urban amenities such as sidewalks and parks in appropriate areas of all business parks which have a focus on retail and office development;
4. improve bus service to high density employment areas in Burnside;
5. use a grid system for the road network, where possible, to maximize functionality of the road layout;
6. developing a pedestrian based transportation plan for Burnside that will fulfill the objectives of the Active Transportation Plan; and
7. segregating uses in order to differentiate infrastructure requirements, based on the following criteria:
 - (I) areas of office development should have higher densities, more parks, sidewalks and urban amenities;
 - (ii) warehouse distribution areas should have wide streets, limited infrastructure and be segregated from office uses; and
 - (iii) manufacturing areas should have rail access, and minimal infrastructure.

5.4.4.2 Bayer's Lake Business Park

Bayer's Lake Business Park is the pre-eminent location in HRM for large-format retailers. Despite the large amount of retail space in the park, new formats keep emerging that require serviced land. This creates opportunities for the continued expansion of the Bayer's Lake Park. Therefore, the Functional Plan should develop a master plan for the extension of Chain Lake Drive for future use as high profile retail space; and as part of the extension of Chain Lake Drive, HRM shall incorporate the future construction of a highway overpass (over Highway 103) to Ragged Lake, as identified in the SGE/Acres report.¹⁷ The plan should also identify methods to cost-effectively add more serviced land to Bayer's Lake to accommodate the continued demand for non-retail space within the park.

5.4.4.3 Ragged Lake Park

The former City of Halifax developed the Ragged Lake Business Park at the same time as it serviced the Bayer's Lake Business Park and was positioned as a suburban office campus - an alternative to land on the Halifax Peninsula. However, there is poor access into the park which makes it difficult to market the properties. When the Western Common plan was prepared in 1998, it was envisioned that the Ragged Lake Business Park would develop as an integrated office and residential campus.

Through the Business Parks Functional Plan HRM will:

1. continue to plan for the long term connection of Ragged Lake to Bayer's Lake via a

¹⁷ SGE/Acres Report

- Highway 103 overpass and address the need for an attractive entrance to the park, and;
2. protect future development options within the Ragged Lake Business Park and to have the opportunity to develop a vision for the park, HRM shall consider removing all remaining serviced lots in this park from the market until a long range infrastructure plan is finalized.

5.4.4.4. Woodside Ocean Industrial Park

This park was established by the Province of Nova Scotia in the 1970's as an ocean industrial park with a common user dock providing access to deepwater in Halifax Harbour. As well as the ocean industrial function, Innovacorp operates a technology innovation centre that provides incubator space for start up companies in the high tech sector. There is approximately 128 acres available in the final phase of the park which the province may transfer to Innovacorp for development as a high-tech manufacturing complex. As well the need to maintain some areas, notably Woodside, for industrial purposes associated with the off shore has been identified.

In order for the Functional Plan to address issues relating to the park HRM will:

1. work with the province to facilitate development of the remaining 128 acres of land within the Woodside Industrial Park; and
2. undertake a land use planning study to identify and protect areas within the Woodside Industrial Park for manufacturing uses and limit areas for non-industrial uses.

5.5 THE RURAL ECONOMY

HRM recognizes the value and significance of a vibrant rural economy. Economic opportunities from natural resource development, tourism and the service economy need to be maximized, further supporting employment growth and individual choice of lifestyles.

5.5.1 Rural-based Services

The Regional Plan supports the development of district and local centres where a concentration of population and services enhances the economic opportunities for small businesses serving consumer needs and conveniences. Concentration of population increases the market for certain services and will enhance the viability of critical services such as doctors' and dentists' offices, insurance and financial services, lawyers, etc. Connectivity is also extremely important to the viability of businesses in rural areas and requires good road and communication networks.

EC-43 In order to support Rural economic development, it is important that HRM:

- (a) encourage and provide support services to those individuals establishing or maintaining businesses in the rural areas; and
- (b) encourage the development of strong communication linkages in the rural areas.

5.5.2 Working Resources Lands (Forestry and Agriculture)

The Resource Sector accounts for over four percent of the total Gross Domestic Product of HRM and employs about 3,000 people. In many rural communities, the resource sector - farming, fishing, mining and forestry- and 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.

HRM has one active mine, gypsum, located near Enfield. Product is shipped to the US from the National Gypsum terminal at Wrights Cove in Dartmouth. The mine is estimated to have at least 100 years of life left. A second gypsum deposit is located near Murchyville, but there are no active plans for its development at this time. Similarly, a kaolin deposit in the Musquodoboit Valley could be developed, with product potentially shipped through the port of Sheet Harbour, but no firm plans have yet been put forward. Quarrying is another major extractive industry active in HRM, and currently four are in operation. Protecting these and other future locations from residential encroachment is important.

The fishery of HRM comprises some 750 harvesters operating from 120 landing sites. Sambro and Eastern Passage are the main ports, with several smaller communities along the Eastern Shore and on St. Margaret's Bay heavily dependent on the fishery.

In agriculture, there are approximately 13,000 ha of land in operation, with most farms located in the Musquodoboit Valley. Greenhouse, beef, dairy, mixed vegetables and horticulture are the main farm types, with most produce destined for the Nova Scotia market.

The forest industry in HRM accounts for about 12 percent of Nova Scotia's production. Much of the output feeds the sawmill industry, and a small amount of lumber and wood pellets are exported. HRM's natural network includes lands that are privately and publicly managed as working forests. The Province is a key partner in the natural network through their Integrated Resource Management Program for Crown lands. In eastern areas of HRM, several thousand hectares of the province's forests are licenced to private forestry interests.

EC-44 HRM shall apply a Natural Resource Zone under the Regional Land Use By-law to those lands within the Open Space and Natural Resource Designation that are primarily used for resource production. This Zone will be applied to all provincial crown lands classified C1 and C2 under the Provincial Integrated Resource Management Plan and private forestry lands. It will only permit forestry and related uses, mining and related uses, agriculture

and related uses, recreation uses, trails and similar public uses, and residential uses in conjunction with a permitted resource use.

EC-45 HRM shall have regard to the significant economic and sustainable environmental values of those areas zoned Natural Resource and will require that all proposed developments abutting provincial Crown lands and private forestry operations be referred to the Department of Natural Resources for comment.

EC-46 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 within the designation that are currently zoned Mixed Use under the Musquodoboit Valley - Dutch Settlement Secondary Land Use By-law and this zone shall be superceded upon the adoption of this Plan. The Mixed Resource Zone shall permit resource uses, limited commercial and industrial uses, single unit dwellings and certain other residential uses, and bed and breakfast establishments. 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 the adoption of the secondary plan, the boundaries of the centres may become redefined and the extent of the Mixed Resource Zone may be adjusted.

EC-47 HRM shall work with the federal and provincial governments and local economic development groups and the community to improve the attractiveness of the port at Sheet Harbour to shippers, and to seek opportunities for processing and shipping value-added goods through the port in conjunction with the Sheet Harbour Industrial Park;

5.6 TOURISM

Natural features, historical and cultural assets, and supporting infrastructure encourage and promote tourism throughout HRM. Consequently, tourism comprises an important component of the economy of HRM. Recognizing the significance of tourism, the Regional Plan promotes this sector. The plan provides a definitive framework within which the assets that attract visitors to HRM and support the tourism industry are protected and enhanced. This framework is described in more detail in the appropriate section of the Plan, along with policy direction, and is summarized here:

1. The Capital District and the Halifax Harbour waterfront attract a significant number of tourists each year. These areas are prominently featured throughout the plan, reinforcing both as significant components of economic growth and the tourism industry. The Harbour Plan will lay out the framework for the development of lands

adjacent to the harbour. This plan will provide the direction for the types of uses along the waterfront, while still protecting the natural beauty of the harbour and its significance to tourism. Plans for the Capital District will encourage economic development, and enhancement of historical and cultural assets. As well urban design initiatives will allow HRM to continue to be a desirable place to visit.

2. Natural features such as views of the harbour and ocean, rugged coastlines and natural areas attract visitors to our region. Protecting view planes, not only from the Citadel, but from other areas, has been identified in the plan.
3. Open space, parks, recreation areas, an interconnected system of trails, and natural areas are attractive to visitors and residents alike. These are established and protected to ensure they are available for present and future generations.
4. The heritage and cultural assets are recognized as unique and valuable to attract people to HRM. Their protection is established in this Plan and through other mechanisms such as the Heritage Act.
5. HRM businesses provide the support structure to accommodate visitors to the Region. Restaurants, bed and breakfast establishments and tourism outfitters are accommodated in the Regional Plan and community plans.
6. Visitors and residents need an effective transportation network to get to and around the Region. The transportation section of this Plan helps ensure the network gets people and goods to where they need to go.

CHAPTER 6: HOUSING DIVERSITY AND AFFORDABILITY

6.0 INTRODUCTION

Housing is the foundation of HRM's quality of life, future growth and development. Affordable and diverse housing stock supports economic success, the stability of existing neighbourhoods and the development of new vibrant communities. The need for shelter is universal, and housing is a powerful determinant of the quality of one's life, including health, safety, and access to public amenities. Housing represents the largest monthly expenditure for most households and if housing consumes too much of the available income, families or individuals may be forced to reduce their budget for food, clothing, or other necessities. Housing plays a big part in community design, and a diverse housing stock can improve and maintain quality of life for all residents and promote social integration as residents move through their life-stages. Affordable housing will attract both a qualified work force and investment opportunities because employees will not have to pay premium wages to keep up with housing prices.

The components of housing choice include location (community or neighbourhood), dwelling type (single or multiple, secondary units), design and accessibility, tenure (ownership, rental, strata housing, co-operative and leased), living arrangement (single, with family, foster care), support services (medical and non-medical, public and private) and the overall "shelter package" which includes a combination of all of the above factors.

6.1 HOUSING: MEETING THE NEEDS OF A DIVERSE POPULATION

The Halifax Regional Municipality has a population with respect to age, income, ethnic background, household size, family type and tenure. Growth management goals, such as reducing commuting and increasing the number of people that live within existing communities where services already exist will be achieved when housing choice and affordability meet the needs of households of all sizes and income levels.

HRM is not responsible for the provision of social housing but it has a strong interest in encouraging private sector developers to develop more diverse, accessible, and affordable housing. Development standards can increase housing diversity by requiring certain housing mix as part of the overall development. Zoning provisions can encourage, but not require, developers to provide certain amenities or qualities in their projects in returned for identified benefits, such as increased density or rapid processing of applications. *The Municipal Government Act* allows municipal governments in Nova Scotia to provide density bonuses, which allow a developer to build additional units (above that usually allowed) if the developer meets certain requirements such as the provision of non-market housing. Recognizing the potential of incentive zoning to achieve affordable housing density bonusing is an important component of the Regional MPS.

Secondary suites and accessory apartments are an important source of affordable private rental housing stock within HRM, accounting for 28% of rental units. These units provide affordable rental housing to a variety of residents, from students to elderly family members. Not only so these units increase the amount of affordable housing, they also make homeownership possible for many who can use the income to offset mortgage payments. These, must however, adhere to design and safety standards to ensure that they are compatible with the existing neighbourhood and ensure personal safety for tenants.

Senior citizen housing is a form of accommodation which is valued in all communities throughout HRM. These facilities provide an opportunity for aging members of society to remain in their communities. Most existing secondary plans provide for the development of senior citizen housing. In order to ensure multiple unit seniors dwellings are used by seniors, many of the land use by-laws specify that these housing units must be developed by a public housing authority or other non-profit organization. This has created a serious gap in the market since there is limited public funding for the development of these units at a time when demands for senior citizen housing is increasing.

- H-1 HRM shall amend all existing secondary land use by-laws to permit residential care facilities of up to six residents operated or funded by organizations as defined by the *Nova Scotia Homes for Special Care Act* in all residential zones and generally will support the development of supported housing facilities.
- H-2 In order to remove barriers to the development of senior citizen housing within communities, HRM shall amend all existing secondary land use by-laws to remove the requirement that senior citizen housing must be developed by a public housing authority or other non-profit organization. HRM shall also enhance existing development agreement policies under existing Secondary Plans to require that multiple unit buildings be specifically designed to accommodate seniors.
- H-3 HRM shall require that all secondary plan reviews consider:
 - (a) adopt measures related to density bonusing policy for affordable housing which will define conditions and circumstances under which a public or private developer may exceed base allowable density in exchange for the development of affordable housing, including maximum additional units. The associated Secondary Land Use Bylaw shall at the minimum, contain a definition of "affordable housing", and a method of establishing the value of the bonus in relation to the public value provided. Measures for encouraging affordable housing may include reduction of applicable municipal fees including Capital Cost Contribution charges (Infrastructure Charges);
 - (b) height or other bonuses and related bonusing agreements in order to meet its affordable housing targets, and foster innovative development that integrates

- market and non-market and mixed tenure residential development and development that integrates residential, commercial, and office development;
- (c) designating areas where density bonuses and other incentives may be provided in exchange for affordable housing units, by one or a combination of the following methods:
 - (i) Construction or rehabilitation of affordable units on site;
 - (ii) Construction or rehabilitation of affordable units off site or equivalent fees-in-lieu-of payment; and,
 - (iii) Donations of land in fee simple, on or off-site, that the Municipality in its sole discretion determines are suitable for the construction of affordable housing units.
 - (d) permitting secondary dwelling units -basement apartments, garden suites and other secondary type units- in all low density residential zones within the urban settlement designation and within the centres within the Rural Commuter Designation and Rural Designation;
 - (e) when adopting new standards and fees, the impacts of these changes on low and moderate income households and overall housing affordability.

H-4 HRM shall, in the Regional Land Use Bylaw, consider reducing parking requirements in the Regional Centre for affordable housing projects located on transit routes.

6.2 AFFORDABLE HOUSING FUNCTIONAL PLAN

Providing adequate, affordable housing for a wide variety of household types and income levels is important to the well-being of individuals, the community and the economy for a number of reasons, including:

1. adequate and safe housing is a foundation of a healthy life style;
2. if housing consumes too much available income, households are forced to reduce their budget for food, clothing, or other necessities, which in turn affects their ability to participate fully in the community;
3. affordable housing will attract both a qualified work force and investment opportunities because employees will not have to pay premium wages to keep up with housing prices; and
4. a diverse housing stock can improve and maintain quality of life for all residents and promote social integration as residents move through their life-stages.

While HRM may not be able to influence all of the factors related to the development of a variety of housing types, it should encourage a range of housing choices to meet the needs of the entire population. The Municipality can support affordable housing development by ensuring that municipal policies, regulations and processes do not unduly inflate housing prices or restrict diverse housing opportunities. HRM can assist further in the provision of affordable forms of

housing by: ensuring that a sufficient supply of serviceable land is available; encouraging urban redevelopment and innovation in housing and community design; developing incentives; and engaging in public education and community facilitation processes.

This section of the Regional MPS defines the core elements of the Affordable Housing Functional Plan and establish a framework for action in the short and long term. These policies fall under the headings of:

- Meeting a Range of Needs
- Affordable Housing targets
- Preservation of Existing Affordable Housing
- Development Incentives for Low and Moderate Income Housing
- Community Facilitation
- Promote Innovation in Housing and Community Design

H-5 HRM shall develop a Regional Affordable Housing Functional Plan that will enable it to meet its affordable housing needs in a phased approach using a range of incentives and implementation tools. The strategy will serve as a guide for future Secondary Planning Strategies, and HRM's short and long range budget forecasts.

6.2.1 Need for Affordable Housing Targets

Currently there are over 25,000 households in HRM that are in core housing need (an increase from 16,365 in 1991)¹⁸ - this means that they pay more than 30% of their income on shelter and, because of their income level and market conditions, are unable to find affordable housing. These households have an average income of \$18,495 per year and on average spend 46% of their gross income on shelter, seventy per cent (70%) of which are renters. If HRM is to meet targets established by the Federation of Canadian Municipalities National Housing Policy, then 20 percent of all new units should be affordable to those currently paying more than the 30 percent benchmark. This would require construction of about 500 units per year over the next 25 years, based on current housing demand forecasts. Establishing targets for housing affordability and mix of type and tenure, can ensure that HRM will be able to meet these goals.

6.2.2 Preservation of Existing Affordable Housing

Preservation of quality rental units in HRM is becoming more important due to declining vacancies and increasing rental rates. This may, in part, be due to a significant shift in development patterns towards owner-occupied units, but other factors, such as the deteriorating

¹⁸Englenad, J. et al. 2005. Evolving Housing Conditions in Canada's Census Metropolitan Areas 1991-2001. CMHC and Statistics Canada. Ottawa: Minister of Labour.

quality of a significant portion of the available rental stock also contribute. The lack of maintenance of some rental units not only reduces availability but increases tension with owners of neighbouring properties, deepening the dissatisfaction of occupants of poorly maintained buildings and nearby HRM residents as well.

6.2.3 Development Incentives for Low and Moderate Income Housing and Support of the Non-profit Sector

In the wake of federal and provincial cuts to non-profit housing programs and increasing affordability problems, municipal involvement in partnerships to build affordable housing have become increasingly important in the last decade. Partnerships provide a means to extend limited resources and achieve strategic municipal objectives. *The Municipal Government Act* permits indirect financial incentives to private sector developers through bonusing, which reduces costs to developers.

6.2.4 Community Facilitation

Local residents are often reluctant to have affordable housing in their neighbourhoods. At public hearings for proposed affordable housing projects, a variety of objections are often raised. While many are valid, others may be the result of misinformation or lack of understanding of the project. Opposition to affordable housing can cause delays in the development of projects, thereby increasing costs. This, in turn may limit the potential for non-profit housing developments throughout HRM due to a longer and more complicated approval process, restrictions on infill developments and intensification, and limited small-lot housing in suburban areas.

6.2.5 Promote Innovation in Housing and Community Design

Design is critical in supporting community vitality, identity and stability, in integrating affordable and special needs housing in residential neighbourhoods, in improving accessibility and affordability of the housing stock.

As the needs of HRM's population continue to change, so may the way in which housing is delivered. For example, in the past, the majority of residential facilities for seniors was delivered by public agencies however, this role is increasingly being fulfilled by private companies. The Municipality can assist in the development of housing types that meet the needs of moderate income (up to the 50th percentile of income ranges for the Region) individuals and families by expediting the approval process for demonstration projects that meet the needs of low and moderate income households and test new models for housing.

The Municipality can also promote housing affordability and diversity by encouraging innovative housing models with respect to tenure, funding models and design (including environmental and barrier-free design).

The policies above have defined the core elements providing a range of housing types avenues through HRM. Outlining policies for the provision of a diverse housing stock will be complemented by an Affordable Housing Functional Plan.

H-6 HRM shall develop an Affordable Housing Functional Plan to address the needs of all HRM residents.

The Affordable Housing Functional Plan will:

1. ensure reasonable distribution of adequate, acceptable and affordable housing;
2. investigate funding opportunities and partnership possibilities for affordable housing projects;
3. encourage innovative forms of housing, in particular in rural areas;
4. identify areas for neighbourhood revitalization, municipal and other government lands for affordable housing projects, including demonstration projects;
5. develop a tool kit for affordable housing development, which includes incentives;
6. create and monitor affordable housing targets; and
7. develop barrier-free design guidelines as well as guidelines for provision of secondary apartment units.

CHAPTER 7: CULTURAL AND HERITAGE RESOURCES

7.0 INTRODUCTION

Cultural and heritage resources include performing and visual arts events; programs and facilities; public areas; public art; heritage events; programs and facilities; archaeological sites and historic buildings and areas. Collectively these resources define the unique and distinct characteristics of the region as a whole. Our cultural and heritage resources contribute to the region's economic vitality, play an essential role in cultural tourism, and add to the municipality's overall quality of life.

In recognition of the importance of its cultural and heritage resources, HRM will continue to protect these resources in a manner which respects their heritage value, ensures their future viability as functional components of HRM's urban and rural environments, and allows them to continue their contribution to the character, civic pride, tourism potential, economic development and historical appreciation of the region and its communities.

7.1 BUILT HERITAGE

Built heritage includes structures, buildings and sites that contribute to an understanding of heritage. They may reveal architectural, cultural, or socio-political patterns of local history. These historically recognized structures are an integral part of the landscape. Heritage buildings require recognition, special status and regulations in order to protect, maintain and restore or rehabilitate them for continued use.

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, particularly those which are relevant to important occasions, eras, or personages, which are architecturally significant, or are of significant age. Where appropriate, in order to assure the continuing viability of such areas, sites, streetscapes, structures, and/or conditions, suitable re-uses should be encouraged.

7.1.1 General

CH-1 HRM shall, through its secondary planning processes or other appropriate means, consider:

- (a) designating historically significant buildings, sites, streetscapes and conservation districts for heritage protection;
- (a) the use of Heritage Conservation Districts as a means to protect and promote the unique built and visual heritage features throughout the region, and implement

- incentive programs for those designated Heritage Districts, beginning with a portion of Barrington Street;
- (b) Building Code alternatives with regard to heritage buildings in order to maximize their preservation, rehabilitation and continuing use while ensuring their overall safety;
 - (c) developing heritage design guidelines;
 - (d) developing inventories of heritage buildings based on building age, architectural significance, historic events or persons;
 - (e) strategies to encourage the reuse, restoration and retention of registered heritage properties throughout the region. One means whereby this can be enabled, is by allowing for an increase in development rights for registered heritage properties, where it can be demonstrated that the current use is an impediment to its reuse;
 - (f) preserving heritage buildings and areas when undertaking municipal public works; and
 - (g) prior to selling or otherwise disposing of any surplus municipal property which may have heritage significance, carry out an evaluation of the property to determine the level of significance, if any. Where the surplus property is of significance, measures shall be undertaken to ensure the retention of the building to the greatest reasonable extent through heritage registration, restrictive covenants or other appropriate means.

CH-2 When an application for a development agreement is received for any municipally registered heritage building, part of a building or a lot on which a municipally registered heritage building is situated, HRM shall, in addition to the criteria established under the appropriate policies guiding the development agreement, review the application within the context of the following considerations:

- (a) that any registered heritage building covered by the agreement shall not be altered in any way to diminish its heritage value;
- (b) that any development must maintain the integrity of any registered heritage property, streetscape or conservation area of which it is part;
- (c) that any adjacent uses, particularly residential uses are not unduly disrupted as a result of traffic generation, noise, hours of operation, parking requirements and such other land use impacts as may arise as part of a development;
- (d) that any development substantially complies with the policies of this plan and, in particular, the objectives and policies as they relate to heritage resources;
- (e) that all significant character-defining elements are defined in the development agreement and are not removed or significantly altered; and
- (f) proposal meets the heritage considerations of the appropriate Secondary Planning Strategy.

CH-3 HRM shall, when reviewing applications for development agreements, rezonings and planning strategy amendments, demolitions and variances, or the provision of utilities affecting lands or properties adjacent to a designated heritage property, ensure that the proposal is compatible by:

- a) respecting the scale, massing, proportions, profile and character of adjacent heritage buildings;
- b) approximating the width of nearby heritage buildings when constructing new buildings facing the street;
- c) approximating the established front and side yard pattern on the street;
- d) physically orienting new development to the street in a similar fashion to existing heritage buildings;
- e) minimizing shadowing on adjacent heritage properties, particularly landscaped open spaces and outdoor amenity areas;
- f) minimizing the impact on the heritage qualities of the street as a public place in heritage areas;
- g) minimizing the loss of landscaped open space;
- h) ensuring that parking facilities (surface lots, residential garages, stand-alone parking and parking components as part of much larger developments) are compatibly integrated into heritage areas.
- i) Exceptions to the front yard requirements of the appropriate Land Use By-law, for infill developments adjacent to heritage properties, may be considered where existing front yard requirements would detract from the heritage values of the streetscape;
- j) requiring local utility companies to place metering equipment, transformer boxes, power lines, conduit equipment boxes and other utility equipment and devices in locations that do not detract from the visual character or architectural integrity of the heritage resource; and
- k) proposal meets the heritage considerations of the appropriate Community or Neighbourhood Planning Strategy.

7.1.2 Heritage Incentives

CH-4 HRM shall, through a Functional Plan, develop an expanded program of heritage protection incentives that will include, but not be limited to, the following:

- (a) financial incentives: Grants, tax exemptions, credits and loans;
- (b) non-financial incentives: Permit fast-tracking, complementary public works, permit fee reduction or waiver, building code alternatives, plaques and recognition awards, zoning adjustments, density bonuses, density transfer and variances; and

- (c) regulatory incentives: Conservation easements, heritage district designations, heritage plans, sub-area plans, urban and commercial design standards, and community and neighbourhood design guidelines.

7.1.3 Amendments to the Nova Scotia Heritage Property Act

In order to strengthen protection of built heritage, amendments to the Nova Scotia Heritage Property Act are required. These amendments would decrease the chances of unnecessary demolition and clarify the types of incentives that HRM could use to protect built heritage.

CH-5 HRM shall encourage the Province to amend the Provincial Heritage Property Act in order to provide increased municipal authority to enact regulations regarding building demolition, heritage impact statements, heritage conservation easements and tax incentives for the preservation of heritage properties; such as charitable donation status for the granting preservation easements, and restrictive covenants for the preservation of registered heritage properties.

7.2 CULTURAL LANDSCAPES

Cultural landscapes are geographic areas that have been modified, influenced or given special cultural meaning by the people living in the area. They provide opportunities for the interpretation and understanding of important historical settings and past patterns of land use. Examples may include a burial ground, historical garden or a larger landscape reflecting human intervention, such as the pastures of the Musquodoboit Valley, the Shubenacadie Canal, or the Bedford Barrens.

The cultural heritage, natural environmental resources and recreational opportunities of our landscapes contribute to our quality of life as well as to vital tourism revenues for local communities. For these reasons, it is essential that these assets remain accessible to the public and that our scenic landscapes of historic canals, riverside farms, wooded areas and coastal villages are conserved for future generations.

7.2.1 Cultural Heritage Model

In conjunction with the Heritage Division of the NS Department of Tourism, Culture and Heritage, HRM has developed an initial cultural landscape inventory called the Culture and Heritage Model of HRM. The inventory presents a baseline of information representing the cultural heritage of the region, and is intended to provide a basis for communities engaged in Secondary Planning Processes to create local inventories of important heritage sites, scenic views and significant landscapes. The model identifies various types of cultural landscapes including culturally significant river and coastal corridors such as the Shubenacadie, Musquodoboit and Sackville Rivers, which served as major trade routes for the Mi'kmaq, and coastal communities

such as Hubbards, Duncan's Cove, Ketch Harbour and Eastern Passage. The early identification of significant cultural heritage resources is integral to the effective management of these resources at the community planning level.

CH-6 HRM shall adopt the Cultural and Heritage Model¹ as a framework to assist in the preservation of cultural landscapes at the local community planning level (refer to Map 12, Cultural Landscape Model Map).

CH-7 In conjunction with public consultations, and in particular during future secondary planning processes, HRM shall further refine and consider the preservation of significant cultural landscapes through mechanisms such as management plans, land use designations, architectural design guidelines, direct purchase, lease, conservation easements or other means available under the authority of applicable provincial legislation.

CH-8 In recognition of its regional significance, when reviewing planning applications adjacent to the Shubenacadie Canal, HRM shall consider and evaluate the potential impact of the proposed development on the visual quality, cultural historic value and natural environmental resources of the Shubenacadie Canal.

7.2.2 Scenic Views

Scenic resources are an important component of the cultural and heritage values of HRM. Significant views such as those to Halifax Harbour from Citadel Hill and the Dartmouth Common are of regional significance, and are already protected at the community planning level. The Regional MPS reinforces the importance of these views to the cultural identity of the region, and seeks to extend these protections to other regionally significant views throughout HRM as identified through the Cultural Landscape Model for HRM. Scenic views also include the gateways to HRM communities, often described as "the view from the road". These scenic entry routes should encompass the outstanding natural features and picturesque landscape qualities of the area. To retain scenic views and culturally significant landscapes, such as the Northwest Arm of Halifax Harbour, prominent coastal headlands and coastal villages, Council will consider the identification and designation of view preservation areas as a component of cultural landscapes. In these areas measures will be taken to preserve the integrity of the scenic views and cultural landscapes of a community.

CH-9 HRM shall recognize established views of the Halifax Harbour from Citadel Hill and Dartmouth Common as regionally significant and shall, through the applicable Secondary

¹ Model for Assessing Cultural Heritage Values in the Halifax Regional Municipality, prepared for HRM Regional Planning by Environmental Design Management (EDM) Limited, April, 2005.

Planning processes ensure their continued protection. HRM shall identify and protect other regionally significant views as a component of cultural landscapes through the Community Planning Strategies as referenced in Policy CH-7.

CH-10 HRM shall consider identifying Scenic Entry Routes and developing guidelines for:

- (a) scenic lookouts, information and directional signs to important urban and rural cultural, heritage, environmental and tourism destinations;
- (b) the protection of views to natural and cultural heritage features, mature trees and roadside vegetation along and beyond the right-of-way; and
- (c) coordination with private landowners and the provincial government regarding landscaping, berming, pathways and other features.

CH-11 HRM shall, when considering any alteration to the Armdale Rotary, have regard to maintaining the current unrestricted views of the Northwest Arm from St. Margarets Bay Road, Chebucto Road and Joseph Howe Drive.

7.2.3 Archaeological Resources

Archaeological resources are the remains of any building, structure, activity, place or cultural feature or object which, because of the passage of time, is on or below the surface of land or water and is of significance to the understanding of the history of a people or place. These sites are protected under provincial legislation. The Nova Scotia Special Places Protection Act regulates the destruction, alteration or removal of archaeological resources from these sites. In conjunction with the Heritage Division of the NS Department of Tourism, Culture and Heritage, HRM has developed the Areas of Archaeological Significance Map (Map 13) to identify areas with high potential to contain archaeological resources from the period of time preceding European settlement.² The development of these sites could present a significant risk to archaeological resources. If these sites are recognized and appropriately addressed prior to development taking place, adverse consequences can be mitigated and archaeological resources preserved. HRM has also cooperated with the Provincial Heritage Division to map sites of potential significance based on the region's European heritage. Street maps of Dartmouth and Halifax (circa 1864) have been supplied to HRM by the Heritage Division to assist in the prediction of potential archaeological resources. For all other areas of HRM the development of this project is still at an early stage; however, the Provincial Heritage Division has committed to an ongoing partnership with HRM to conduct further research necessary to create predictive maps for archaeological resources.

² Model for Assessing Cultural Heritage Values in the Halifax Regional Municipality, prepared for HRM Regional Planning by Environmental Design Management (EDM) Limited, April, 2005.

CH-12 HRM shall adopt the Areas of Archaeological Significance Map (Map 13) as the Potential Archaeological Resource Areas Schedule in the Regional Land Use By-law. The purpose of the zone is to ensure appropriate measures are taken to protect significant archaeological resources where excavation is proposed in accordance with applicable requirements under the Provincial Special Places Protection Act. The By-law shall require that all applications for development within these areas be forwarded to the Province for information purposes.

CH-13 Within areas zoned under Policy CH-12 as potential for archaeological resources, HRM shall refer all planning and development applications to the Provincial Heritage Division for verification that archaeological resources are not present on the site, or that potential impacts to such resources have been remediated in accordance with the Provincial Heritage Division's Archaeological Resource Impact Assessment Guidelines.

CH-14 HRM shall consider requesting the Provincial Heritage Division to create guidelines and training workshops to assist developers, contractors and on-site workers in the recognition and reporting of potential archaeological resources discovered during construction.

CH-15 HRM shall consider a cooperative program with the Provincial Heritage Division to create a map-based inventory of cemeteries and abandoned cemeteries. Further, where no public access to an abandoned cemetery is present, HRM shall consider the provisions of the Nova Scotia Cemeteries Protection Act for the purpose of gaining public access to an abandoned cemetery from a public street or road.

7.2.4 Heritage Conservation Districts

The Provincial Heritage Property Act enables HRM to designate the whole or part of an area as a Heritage Conservation District. This allows Council to protect and enhance the special character-defining elements and cultural heritage value of groups of properties, streetscapes and areas. A Heritage District designation encourages investment in restoration and rehabilitation, and improves property values. HRM does not presently have any designated Heritage Conservation Districts, although one is currently under consideration for downtown Halifax on Barrington Street.

CH-16 HRM shall consider through Secondary Planning processes:

- (a) supporting the continued research, identification and designation of Heritage Conservation Districts;
- (b) preparing appropriate regulatory standards and design guidelines to protect and conserve their special character; and

- (c) asking the Province to identify the age of buildings in potential Heritage Conservation Districts or to provide the municipality with access to provincial property assessment data concerning the age of buildings.

7.3 ARTS AND CULTURE PLAN

HRM recognizes the fundamental role that arts and culture play in the quality of life of its citizens, in the regional economy, and the community identity and sense of place that defines the area.

CH-17 HRM shall consider the development of a Cultural Functional Plan to support a strategic approach to the delivery of cultural services, facilities, programs and similar endeavours. The strategy may include measures to:

- (a) encourage the use of public art, monuments and commemorative markers that reflect the culture of the region;
- (b) cooperate with other levels of government and community organizations to develop arts and cultural events within HRM;
- (c) develop collaborative programs with community organizations to collect and store artifacts and information that reflect the social heritage of the community;
- (d) create a variety of incentives and programs to support local museums, exhibits and other community-based initiatives;
- (e) incorporate arts and culture facilities with new civic developments; and
- (f) reserve central community locations for performing and visual art centres and plazas.

CHAPTER 8: WATER, WASTEWATER, UTILITIES, AND SOLID WASTE**8.1 WATER AND WASTEWATER IN URBAN AREAS**

It is the goal of this Plan to focus growth in a manner that supports the cost-effective delivery of HRM services, including the cost of constructing, operating and replacing infrastructure and facilities. In keeping with these goals and the need to ensure that the phasing of development within the Urban Settlement Designation is accompanied by a full range of water and sewer services in areas that are financially feasible for HRM and the need to protect the integrity of the infrastructure and wastewater treatment plants, HRM adopts the following policies.

- SW-1 To provide for orderly growth and development on the basis of municipal water and sewer, HRM shall establish boundaries within which it intends to provide municipal water and sewer services. These boundaries shall include all lands within the Urban Settlement Designation of this Plan, and all lands in Middle Musquodoboit, and North Preston Serviceable Area Boundaries as currently established under the respective community planning strategies.
- SW-2 HRM shall also consider extending water and sewer services to centres within the Rural Commutershed Designation, as determined through the secondary planning process.
- SW-3 To ensure that development does not exceed the capacity of treatment plants and/or other infrastructure and to ensure the financial feasibility of the Municipality to provide for future extensions, HRM shall establish a Service Area Boundary under the Regional Subdivision By-law to designate those areas within the Urban Settlement Designation where sewer and water services will be provided within the next 15 years as shown on the Municipal Sewer and Water Services Map (Map14). Lands within the Service Area Boundary shall only be developed when municipal water and sewer services are available. Provisions will be established under the Regional Subdivision By-law to give the Development Engineer authority to refuse connection to the municipal sanitary system where the proposed development would exceed the capacity of the plant and/or where the capacity of municipal sanitary system is at risk of being exceeded due to inflow/infiltration or some other unforeseen event.
- SW-4 Further to Policy SW-3, HRM shall also include serviceable lands in the Middle Musquodoboit and North Preston within the Service Area Boundary.
- SW-5 Lands that are within the Urban Settlement Designation but outside the Service Area Boundary shall be zoned as Holding Two. Within this zone, a maximum of one dwelling per area of land in existence on the effective date shall be permitted.

- SW-6 Lands designated as Urban Reserve on the Generalized and Future Land Use Map (Map 2) will be considered for future servicing beyond the 25 year time horizon for this Plan.
- SW-7 HRM shall closely monitor the amount of effluent generated by new and existing development within the Service Area Boundary to ensure that design flow levels are not exceeded. Where monitoring shows that design levels are exceeded or are in danger of being exceeded, HRM shall take appropriate action to address the problem.
- SW-8 To prevent the unintended inflationary effects of limited serviceable land supply on housing prices, HRM shall strive to maintain no less than a 15 year supply of serviced land within the Urban Settlement Designation, inside the Service Area Boundary.
- SW-9 HRM shall consider requests to amend the Service Area Boundary once every five years or sooner if the available serviceable land supply falls below a 15 year supply. When considering any extension or reduction in the Service Area Boundary, HRM shall have regard to the following:
- ((a) the financial ability of the Municipality to absorb any costs relating to the extension;
 - (b) that the amount of vacant land inside the Service Area Boundary is no less than a 15 year supply of serviceable land as determined by HRM;
 - (c) analysis of impacts on natural heritage and availability of existing or committed infrastructure, impacts on density targets, and agricultural capability;
 - (d) compliance with buffer and distance separation policies/regulations for aggregate and sand deposit extraction, forestry and fishing in rural and coastal areas;
 - (e) impacts on the natural environment;
 - (f) existing drainage or pollution problems in the area under consideration;
 - (g) alternatives to the provision of piped municipal water and sewer services have been thoroughly investigated;
 - (h) the development is in compliance with the desired pattern of development within the local area and the region;
 - (i) the development is within a reasonable distance of existing infrastructure;
 - (j) development is contiguous to an existing subdivision serviced with water and sewer; and
 - (k) sufficient community services in the area are capable of servicing the development.

8.2 WATER AND WASTEWATER SERVICING IN RURAL AREAS

Approximately 100,000 people living in the Rural Areas are serviced with on-site septic and well systems. The capability of the land to support rural settlement throughout the Rural Commuter, Rural Resource, and Agricultural Designations is constrained to varying degrees by soil, surface hydrology, and groundwater conditions for development.

The Options for On-site and Small Scale Wastewater Management Study³ concluded that there are very few inland communities where a small-scale wastewater treatment plant can be developed. Although the river systems are a limiting factor for the development of small scale wastewater management systems requiring surface discharge, there are alternative land based treatment technologies that can support the effluent discharge from a community centre. These technologies maybe considered to accommodate centres in inland areas where existing development patterns, soils, topography, transportation systems and existing infrastructure may make an area more suitable for development.

Similarly, there are areas with varying degrees of water quality that can be expected from groundwater sources on the basis of the predominant bedrock geology. Most areas of HRM require some mitigation of a groundwater quality problem. Others represent a higher risk for groundwater quality problems such as the presence of radionuclides, high concentrations of base metal mineralization in groundwater or contamination from former mining operations.

8.2.1 Water Service Districts

It is the intent of HRM to reaffirm the policy that central municipal water services will only be permitted outside of the Service Area Boundary within designated Water Service Districts. Areas within these Water Service Districts include lands in the Caldwell Road/Hines Road area and along Caldwell Road near Morris Lake; lands along the Hammonds Plains Road, Lucasville Road, Pockwock Road and the Kingswood and Maplewood subdivisions; lands along Bissett Road, Ross Road, Broom Road, Caldwell Road, Montague Road, the Cole Harbour Road/Ritcey Crescent area and the Salmon River Subdivision; lands along the Herring Cove Road; lands in Lakeview; Windsor Junction, and Waverley; lands in the Lake Loon/Cherry Brook Community; and lands adjacent to the Cobequid Road, north of the Sackville Business Park.

Additional lands will be included to reflect new Water Service Districts designated under this Regional MPS that include lands in the Tantallon area and along the Hammonds Plains Road

³ Land Design Services, Ekistics Planning and Design, John Zuck and Associates and Spatial Metrics Atlantic. Halifax Regional Municipality Options for On-site and Small Scale Wastewater Management; 2004. pp 17 - 19.

including First Nations Lands, lands in the Fall River area, and lands along the Cow Bay Road as shown on the Municipal Sewer and Water Services Map (Map 14).

For greater certainty, HRM will not extend or establish new Water Service Districts over undeveloped lands beyond those identified in this Plan, unless there is a need to improve the reliability of the water distribution system as determined by HRWC. The extension of water services increases the pace of development in areas with limited community services. Allowing for rural growth that outstrips limited municipal and natural services within the rural commuter and rural areas is contrary to the overall intent of this plan.

SW-10 HRM shall establish Water Service Districts only for those areas to which central municipal water services have or may be extended in the future, as shown on the Municipal Sewer and Water Services Map (Map 14). HRM shall not extend central municipal water services outside of designated Water Service Districts. Further, within the Water Service Districts, central municipal water services shall be provided to all subdivisions located adjacent to existing municipal water services and which propose to provide a new or extended public street or highway.

SW-11 Notwithstanding Policy SW-10, HRM shall consider amending the Subdivision By-law to permit the expansion of existing, or the establishment of new Water Service Districts. When considering requests to extend water services, HRM shall only consider establishing a new or expanded Water Service District where all of the following conditions have been satisfied:

- (a) the proponent or the community requesting the extension has submitted a study by a qualified person that outlines the problems that the area is experiencing related to insufficient quantity and/or poor quality of existing sources of water supply and verifies that no other viable alternative exists to rectify the problem;
- (b) the existing community, where there is a demonstrated need, is within a reasonable distance of the central water supply system; and
- (c) there is available capacity to service the existing community.

SW-12 Further to Policy SW-11, HRM shall consider the establishment of new or expanded Water Service Districts, with regard to the following:

- (a) the engineering and financial implications of such extensions as identified pursuant to Municipal Services Systems General Specifications;
- (b) the potential scale of such development and the effects which this may have on existing and future levels of services, as well as the development pattern which is desired and deemed appropriate within this plan area as well as the larger Regional Municipality; and

- (c) environmental considerations related to the long term integrity of on-site sewage disposal systems as well as natural water drainage systems.

SW-13 Notwithstanding Policy SW-11, HRM shall consider extending the Water Service District to areas that will provide for the hydraulic looping of existing infrastructure where the Halifax Regional Water Commission considers that it will improve the reliability of the system. When considering an amendment as such, Council will have regard to the implications of such an extension on the growth management policies of the Regional MPS and the provisions of Policy SW-12.

The Halifax Regional Water Commission has identified a need for a Water Service District corridor between Middle Sackville and Beaver Bank, to enhance the reliability of the existing water system. HRM shall consider amending the Municipal Sewer and Water Services Map (Map 14) to provide this corridor.

8.2.2 Communal Septic Systems

HRM is establishing a priority on the development of open space design subdivisions that will be serviced by communal septic systems within those areas of the Rural Commuter and Rural Resource designations that are not serviced with municipal sewer and water. The septic system may include a large contour system, packed-bed filter, drip-irrigation system or any other form of in-ground communal septic system approved by Nova Scotia Department of Environment and Labour. Provincial regulations currently provide for communal septic systems, subject to an approved management plan. It is essential that a management plan contain fail-safe measures to ensure land owners are responsible for the maintenance of these systems.

SW-14 HRM shall place a priority on the development of open space design subdivisions on cluster in-ground septic systems on lands within the Rural Commuter and Rural Resource Communities Designations, provided that the systems meet the requirements of the Nova Scotia Department of Environment and Labour.

SW-15 HRM shall create a Wastewater Management District By-law to establish operational requirements for the maintenance of in-ground septic systems. This by-law shall apply to the Tantallon and Fall River Commuter Centres.

SW-16 HRM shall apply wastewater management districts to other rural commuter centres through secondary planning processes in these areas.

8.2.3 Private Wells

Another area of concern to the Municipality is the manner in which development is currently permitted in rural areas without any need for verification of the availability of an adequate water supply. Until the mid 1980's, the former Nova Scotia Department of Environment required hydrogeological assessments to be conducted before recommending subdivision approval. The NSDEL now requires well drillers to conduct pump testing after a lot has been created but there are no requirements to test an area for long-term sustainable yield before a large subdivision is created. Furthermore, there is no requirement to undertake an assessment of any potential impact on existing wells in adjacent subdivisions or to test the water quality before subdivision approval is granted.

Currently there is no legislative authority under the *Municipal Government Act* (MGA) to allow municipalities to require a hydrogeological assessment prior to granting subdivision approval. Hydrogeological studies are designed to provide a good understanding of the local groundwater conditions and to determine if there will be an adequate rate of groundwater recharge and flow to service the development over the long-term. They are also designed to determine whether the groundwater demands from the proposed development will adversely impact the groundwater supply to existing wells. In addition, hydrogeological studies assess whether the groundwater quality is capable of meeting health standards established either under the Canadian Drinking Water Guidelines or some other standard set by the Province.

SW-17 HRM shall continue to request the Provincial government to amend the *Municipal Government Act* to enable HRM to require a hydrogeological assessment on any subdivision consisting of five lots or more to determine if there is adequate water quantity and quality to service the subdivision, without adversely affecting neighbouring subdivisions, prior to granting subdivision approval.

SW-18 Further to Policy SW-17, upon receiving the requested amendment to the *Municipal Government Act* HRM shall undertake an amendment to the Regional Subdivision By-law to require hydrogeological assessments for any subdivision consisting of five lots or more in areas that are not serviced with municipal water.

8.3 COMMUNICATION TOWER/ANTENNAE STRUCTURES

Communication industries play a vital role in the economic and environmental health and safety of the Region. HRM's telecommunications and broadcasting industries operate antenna towers to deliver their radio, cable, telephone, cell phone and TV services. The rapid growth in the use of cell phones and the conversion from analog to digital broadcasting technology has created an increasing demand for new sites for radio and telecommunication tower/antennae structures as well as for replacement towers or substantial upgrades at existing sites. At the same time the growth in new residential development and a growing awareness of the need to preserve heritage buildings and natural landscapes has created land use conflicts between those industries wishing

to construct new towers and local residents who have aesthetic and safety concerns regarding tower construction in their communities.

Municipal governments are often called on to resolve these siting disputes. The situation, however, is not within a municipality's jurisdiction. The telecommunications and broadcast industries are regulated by the Federal government through Industry Canada. Federal policy requires that industry proponents consult with local governments prior to the construction and operation of a communication tower/antenna, however, the Federal regulator makes the final siting decision and may disregard municipal concerns. While HRM does not have direct authority to prohibit or restrict the siting of a communication tower, it can regulate the siting of associated structures and develop policy to guide Industry Canada and industry stakeholders in the siting of these facilities. In order to address aesthetic and heritage preservation concerns HRM, will adopt the following policies toward the siting of communication tower/antennae structures in HRM.

SW-19 HRM shall establish regulations under the Regional Land Use By-law to ensure that any utility buildings, fences or structures associated with the communication tower/antennae structures are designed to complement and blend in with the surround environment and meet the minimum setback requirements of the underlying zone category. Any ground mounted or stationary equipment shall be screened from view by appropriate landscaping or screening treatments.

SW-20 In anticipation of future demands for the location of communication tower/antennae structures throughout HRM, the Municipality in cooperation with Industry Canada, the Province, industry stakeholders and citizens should produce a Communication Tower/Antennae Functional Plan to comprehensively assess the cumulative environmental, economic, land use, visual and health and safety impacts these structures could have. The Plan should provide an effective decision making process regarding new tower/antennae structures and identify the location and number of towers antennae structures that will be required to meet future consumer demands.

Until the Functional Plan is completed the following policies should apply when siting communication tower/antennae structures in HRM

SW-21 Industry Canada and its clients should ensure that these structures are designed to blend into the surrounding environment through the use of colour, landscaping, camouflaging, architectural treatment and co-location where possible. Co-location of new antennae on existing tower structures is preferred. However, if co-location is not possible, consideration should be given to the following tower/antennae installations:

- (a) building or rooftop mounted/architecturally integrated antennas (placed behind a parapet, incorporated in building facade);

- (b) architecturally camouflaged monopole structures (church steeple, flag pole, light pole);
- (c) building mounted antennas without architectural integration or screening;
- (d) slimline monopoles;
- (e) structure mounted antennas (mounted on steel lattice tower structure); or
- (f) mounted on water storage reservoirs.

SW-22 HRM, Industry Canada and its clients are encouraged to site these facilities in industrial areas or commercial areas outside the Capital District and to avoid locations adjacent to Registered Heritage Properties and within important cultural heritage landscapes, such as the Dartmouth and Halifax Viewplanes, Musquodoboit Valley, coastal fishing villages, open landscape areas and undeveloped coastal shorelines. Residential areas should also be avoided where possible.

8.3.1 Public Consultation

Public consultation regarding new radio and telecommunications tower/antennae structures should take place prior to the Industry Canada's approval of such facilities. Public input regarding the health, safety and exposure limits of radio frequency fields, along with land use impacts and aesthetic attributes of these structures on urban and rural landscape should be carefully considered by the proponent and Industry Canada. Through the Communication Tower/Antennae Functional Plan, HRM shall require public consultation regarding the design and placement of the structures along with information regarding how compliance with environmental, health and safety standards is achieved.

The public consultation process should allow for a public meeting where the proponent presents their plans to the public and there is an exchange of information between the proponent and the public. The process should provide the opportunity for the proponent to be able to modify their plans based on public input and dialogue with the municipal officials. Depending on the nature and extent of the modifications made by the proponent to their plans, there should also be flexibility in the process to allow for a second public meeting where the revised plans are presented to the public and further public input is obtained.

SW-23 To promote co-location of utilities, no public consultation should be required where a proponent is locating a new antenna on an existing communication tower or antenna structure that does not increase the height of the existing tower or structure more than 10% of the original height.

8.4 WIND-GENERATED ELECTRICITY

Wind energy is one of the most cost-effective renewable sources for large-scale electricity generation. Throughout Europe, the United States and other parts of Canada, the development of wind-generated electricity is developing at a rapid pace. In Nova Scotia, recent electrical generation contracts awarded to private sector operators by the provincial electrical utility, Nova Scotia Power Inc.(NSPI), for wind generation facilities has signalled the start of a new industry. In order to further the implementation of the Kyoto Protocol and to support this emerging industry, the Government of Canada and the Province of Nova Scotia have provided several incentives for the establishment of wind-generated electricity facilities throughout the province that range from purchase commitments for “green energy” for public buildings to start up grants for the production of wind-generated electricity.

While this alternative source of energy will be of benefit to HRM, wind turbines with heights of twenty storey buildings and their associated site infrastructure and transmission lines, can have a profound impact on HRM’s landscape if improperly sited. Experience from other North American municipalities reveal that noise is also a common issue with the operation of turbines and that they pose a safety hazard in populated areas in extreme weather conditions or if improperly constructed. For these reasons, HRM will control the siting of wind turbines to ensure that they are sited away from populated areas and significant cultural landscapes. To ensure compatibility and safety, turbine size, location, lighting, colouring, signage, and spacing are all factors to be considered. The municipality will also require the placement of wind turbines far enough from points of measurement to keep noise level at or below a permitted threshold measured at residences, schools, hospitals, churches and public libraries.

SW-24 HRM shall establish provisions in the Regional Land Use Bylaw to regulate the siting of wind energy facilities. The provisions shall include, but not be limited to, height, setback, noise, minimum ground clearance, tower failure, blade failure, abandonment, site reclamation, soil erosion, and accessory structures. Wind turbines shall generally be permitted as principal or secondary land uses within industrial, natural resource and agricultural zones, however, they shall not be permitted within residential, mixed use, parks, institutional, environmentally sensitive areas, conservation, preservation and cultural heritage zones. Amendments to the land use bylaw for siting of facilities within designated water supply zones may be considered.

8.5 WASTEWATER MANAGEMENT FUNCTION PLAN

Provision of wastewater management services in HRM is a vital function, requiring substantial investment, but with significant opportunity for protection of human health and the natural environment. Costs for providing services to new growth areas and remediation of failed systems in older subdivisions has adsorbed a substantial share of HRM’s capital and operating budget

resources in recent decades. Additional analysis is required on an ongoing basis to ensure that the most appropriate solutions are applied in each community.

SW-25 HRM shall prepare and implement a Wastewater Management Functional Plan for sewersheds within the Urban Settlement Designation. Subject to the availability of funding, the plan shall:

- (a) improve wastewater system operation and management including safety, regulatory compliance, system capacity both existing and future, physical condition, system reliability and optimization;
- (b) address specific issues of wastewater treatment plant capacity, both existing and future, wet weather overflows, odour control, inflow/infiltration remediation, back up power systems, optimizing system performance and making maximum use of available capacity;
- (c) include a prioritized list of actions for implementation, having particular regard for health and safety concerns; and
- (d) consider the above recommendations within the context of existing standards, procedures, regulations and compliance requirements, projects, initiatives and priorities, including any adopted under the regional plan.

HRM will also support the Halifax Regional Water Commission in preparing implementation and financing plans for extension of water service to the new water service districts in Tantallon and Fall River, as indicated on the Municipal Sewer and Water Services Map (Map 14).

8.5.1 Combined Sewer Overflows

The control of combined sewer overflows is a major concern for HRM. Older portions of HRM including the central part of Dartmouth, Halifax Peninsula and the older parts of Mainland North were generally serviced with combined sewers. Bedford, Mainland South, Sackville, Timberlea/Beechville and Cole Harbour areas were developed with separate sanitary and stormwater conveyance systems.

While HRM does not currently treat the flow collected in the combined system, development of a treatment system is currently underway. Under the Halifax Harbour Solutions project there are plans to capture and treat four times the average dry weather flow. As is typical for most combined sewage treatment systems, there will be overflows provided. During extreme wet weather flow conditions, the combined sewer overflows (CSOs) become operational, and diluted sanitary sewage is discharged directly into the Harbour.

While the separation of sanitary and storm sewer achieves some reduction in CSO volume and frequency, it does not necessarily lead to improved water quality since the stormwater, which has been diverted from the combined sewer, has degraded quality that is commonly equally harmful to receiving waters. The quality of runoff is particularly polluted at the beginning of a storm, when debris accumulations and surface contaminants are mobilized in the highest concentrations.

Alternative method for dealing with the issues of CSOs include CSO storage and CSO Treatment. CSO storage facilities provide short-term storage of wastewater in the event of high flows by diverting wastewater above a predetermined flow rate from the waste stream to the storage facility. As flows decrease after a storm, the stored wastewater is directed back to the sewer for disposal at the treatment facility. CSO treatment takes place either at the central plant, together with municipal sewage, or may be done in satellite plants dedicated to this purpose.

The selection of the solution options is rather complex and is most appropriately dealt with on a watershed or sub-watershed basis, in order to achieve the most timely and cost effective solution. In this manner HRM can select cost effective control and treatment technologies that are capable of meeting the water quality objectives for the watershed. Determining appropriate methods for CSO reduction should consider the potential degraded quality of stormwater runoff.

SW-26 HRM will evaluate the merits of separating and/or reducing Combined Sewer Overflows as part of its' Wastewater Management Functional Plan as outline in Policy SW-25.

8.5.2 On-site Wastewater Systems

When on-site wastewater systems malfunction, bacteria and other contaminants can enter the groundwater and surface waters. It is important to prevent malfunctioning or correct it quickly once it has occurred. Water supply wells can be contaminated, causing health risks. Surface water contamination can result in beach closures and shellfish harvesting closures as well as eutrophication of lakes and estuaries. Council intends to request the Province to enforce its mandate toward the protection of the environment by undertaking an on-site septic system inspection program.⁴

SW-27 HRM shall request the Province of Nova Scotia to undertake an on-site septic system inspection program and to require homeowners to install devices that can extend the life of, or improve the performance of on-site systems.

Of particular concern to HRM is the risk to failure of on-site septic systems in areas that are serviced with a central water supply. According to the Dillon Consulting Water Resource

⁴ Dillon Consulting. HRM Water Resource Management Report; 2002. p. 7-4.

Management Study⁵, there is a higher degree of risk to on-site septic system in areas that are serviced with central water since the unlimited source of water can cause hydraulic overloading.

A review of water consumption records for homes in the rural commutershed that are serviced with central water indicates that water consumption is very closely approaching the average daily flows for which on-site systems are designed. In order to properly function, on-site systems that are provided with central water must be regularly maintained. This can be achieved by an On-site Sewage Disposal Maintenance By-law that requires regular system maintenance of private on-site septic systems. Management of the water resource after use, as wastewater, should be identified as part of the cost of providing central water and the by-law should be jointly administered by both the Halifax Regional Water Commission and HRM.

8.5.3 Water Conservation

Sewage treatment plants and wastewater infrastructure is heavily impacted by water consumption. The per capita water consumption in Canada is the highest in the world. A typical family of four, connected to a public water supply, uses about 1,000 to 1,500 L per day with approximately 75% of this water used in bathroom facilities. Toilet flushing accounts for approximately 45% of this total alone.⁶

Conservation measures are undertaken by municipalities throughout North America to, among other things, preserve the capacity of its wastewater infrastructure. A key measure is the use of low flow, high efficiency fixtures that can substantially reduce the amount of water and wastewater per household. Changing behaviour practices, such as repairing leaky faucets, pooling water for food washing, and turning off water when brushing teeth and shaving provides another avenue for water conservation.

SW-28 In order to reduce the impact of wastewater on infrastructure and to conserve this precious resource, HRM shall examine incentive and education programs that can be undertaken to reduce water consumption throughout the municipality. HRM shall also seek any legislative changes needed to implement these water conservation measures.

8.6 STORMWATER MANAGEMENT FUNCTIONAL PLAN

⁵ Ibid pp. 7-2 - 7-4.

⁶ Dillon Consulting. HRM Water Resources Management Study. December 2002

While it is HRM's intention to plan for future development on a watershed basis over time, generic stormwater guidelines are needed now for the whole of the Municipality to address the adverse effects of stormwater runoff. HRM does not presently have in place municipal-wide stormwater quantity or quality limits, and stormwater management guidelines are needed to ensure that the adverse effects of stormwater on all watersheds are minimized or prevented.

Stormwater runoff is one of the leading contributors to the decline of water resources. Some notable issues facing HRM are the increase in volume and velocity of stormwater runoff in developed areas, decreases in the base flows in receiving waters, and a high concentration of contaminants carried to the receiving watercourse in the stormwater runoff. Typical effects to water quality, even in a moderately developed watershed, according to the Water Resource Management Study, include loading of toxic substances such as heavy metals and hydrocarbons, increased nutrient loading from fertilizers and organic debris, increased levels of bacteria from animal waste, increased sedimentation, increased salinity from road salt, lower levels of dissolved oxygen, increased stream temperature and reduced biodiversity. Another issue in HRM with respect to stormwater management involves the installation of sanitary sewers without installing storm sewers.

Generally stormwater management in HRM involves the conveyance of stormwater through ditches, curb and gutter, and/or piping to adjacent watercourses. The Municipal Service Standards specify design criteria for the conveyance of stormwater, but there are no discharge criteria for the removal of pollutants from this discharge. A storm drainage report is required by HRM for new development, which includes drainage plans that depict the location of stormwater management facilities. The designer must also submit an erosion and sediment control plan which includes short and long term measures. Generally, there is no requirement for Best Management Practices and there are no discharge quantity or quality criteria for development.

SW-29 Through the Stormwater Management Functional Plan, HRM will undertake a study to develop generic stormwater management guidelines under the HRM Municipal Service Standards for the protection of the environment from stormwater discharges. These guidelines should allow consideration of:

- (a) design criteria for quantity and quality of stormwater discharges;
- (b) potential cumulative impacts within watersheds;
- (c) differing soil conditions;
- (d) possible flooding and receiving water conditions;
- (e) Best Management Practices for the Municipality; and
- (f) usage of the watercourse.

At a minimum, the Stormwater Management Functional Plan should require that:

1. pre-development hydrology be maintained or enhanced to the extent practical, keeping in mind the potential for basement flooding, groundwater contamination and inflow and infiltration to the sanitary sewer;
2. that natural systems be preserved and maintained and that site disturbance and impervious surfaces be minimized;
3. that methods be required to ensure that development conforms to the topography of the land and cut and fill and overall grading of development is minimized;
4. naturally occurring soil and native plant species be required for post-construction landscaping;
5. that the volume of sediments and contaminants being discharged into the storm sewer system and eventually into a receiving water be reduced to levels that are not harmful to the intended use of the receiving waters and not exceed current limits under the Wastewater Discharge By-law;
6. that peak storm discharges be reduced through a hierarchy of source, conveyance, and end-of-pipe control measures to reduce the risk of flooding and stream bank erosion in a watershed approach;
7. that emerging technologies be considered for water resource management with an emphasis on the importance of natural systems; and
8. developers be required to investigate the cumulative effects of existing and future developments on the downstream environment.

SW-30 HRM should develop an education program under its Environmental Management Services Functional Plan to inform people within areas that are serviced with municipal water and sewer of the harmful effects of discharge of unauthorized waste into the sanitary and storm sewer system and how these discharges should be controlled at the source.

8.7 WIND ENERGY FUNCTIONAL PLAN

Environment Canada wind assessments for HRM have identified favourable conditions for the operation of wind turbines in several coastal and upland locations. Other siting requirements such as access to NSPI's transmission grid and local demand for electricity have lead NSPI to designate HRM as a major centre for the construction of wind turbines. Based on the region's increasing need for clean and renewable sources of electricity and other favourable siting conditions, it is possible that several hundred wind turbines may be constructed in HRM in the near future.

SW-31 With federal, provincial and industry partners HRM shall support the development of an economically and environmentally sustainable wind turbine industry through the development of a Wind Energy Generation Master plan for the HRM.

8.8 SOLID WASTE/RESOURCE MANAGEMENT STRATEGY

HRM has one of the most advanced solid waste management systems in North America. The system consists of diversion of waste through waste reduction, composting and recycling. The remaining waste is processed before landfilling to reduce the environmental impact. The landfill itself, located at Otter Lake, is a second generation site - including a composite-layer liner, leak detection, and leachate collection and treatment, further reducing the impact of the landfill on the surrounding area. Methane generated in the landfill is also collected and burned off to reduce greenhouse gas emissions.

HRM's waste management system includes other facilities in addition to the Otter Lake disposal site - two composting operations, a materials recovery facility or recycling plant, a hazardous waste depot and several private facilities such as construction and demolition debris processing and disposal facilities. Siting these types of facilities has required sensitivity to both the needs of surrounding neighbours for reasonable protection from adverse effects of adjacent land uses and for the larger community to have a sustainable and socially responsible waste management system. The entire system is publically monitored reported semi-annually.

The result is a world-renowned waste management and resource recovery system with a diversion rate of 50%. The system, while more expensive than the previous disposal-only approach to solid waste management, provides significant social and environmental benefits, including job creation, greenhouse gas reduction and the ability to site a landfill near a concentration of population.⁷

This last point has significant land use implications. Usually, few residents are willing to host a waste disposal site near their community. Siting a landfill generally means finding a location far from population and the generators of waste, increasing costs to transport the waste to the disposal site. In HRM's case, as a result of its commitment to the public to reduce environmental impact and the volume of waste, the Municipality was able to site the landfill near the centre of the population of HRM.

The development of the solid waste management system was guided by citizen-driven HRM's Solid Waste/Resource Management Strategy. The strategy is premised on the concept of individual responsibility for waste management and requires universal participation in diversion programs.

SW-32 HRM shall recognize the Solid Waste/Resource Management Strategy as a guiding document for the development and management of solid waste disposal, recovery and diversion facilities.

8.8.1 Solid Waste Facility Siting Considerations

⁷ Walker, S. et al. 2004. The Nova Scotia GPI Solid Waste-Resource Accounts. Halifax: GPI Atlantic.

Many of the present waste management facilities, such as the composting plants and construction and demolition debris processing facilities were not anticipated when HRM's community plans and land use bylaws were adopted. As part of the siting process for these facilities, amendments to municipal planning strategies and land use bylaws were adopted by Regional Council which provided for both protection of and encroachment from neighbouring uses. The relevant sections of community plans and bylaws will continue to be in force. Where new facilities are anticipated that are regional in nature, the Regional MPS will address siting requirements. Not all facilities need to be regulated in the same manner. For example, bottle return depots may be considered as commercial operations yet large recycling and reprocessing operations are considered industrial uses. Community plans and land use bylaws will provide appropriate regulations.

HRM's Solid Waste Management System is fully integrated - many of the parts are interrelated and interdependent. As well, uses not normally associated with solid waste management might co-exist near a facility to take advantage of a waste recovery or diversion opportunity. Because of this, it is necessary to recognize these opportunities to encourage further reduction and diversion of waste by providing the flexibility to allow such uses.

SW-33 HRM shall consider options for a replacement of the Otter Lake waste processing and disposal facility including extending the life of the existing facility, siting a new facility in an appropriate location, and exploring waste diversion initiatives.

SW-34 HRM shall establish criteria in identify uses near to solid waste management facilities which take advantage of resource recovery or diversion opportunities, subject of assessment of impact of such uses on the environment and surrounding uses.

8.8.2 Remediation of the existing Hwy 101 Landfill

The Hwy 101 Landfill was used as the main solid waste disposal site in HRM between 1977 and 1996. The landfill, now closed, contains some three million tonnes of solid waste. To reduce the risk of environmental impact, several processes are in place at the site. The site was capped according to NS Department of Environment and Labour requirements. A leachate treatment plant, constructed in 1987, handles leachate generated by rainwater filtering through the waste. Groundwater is monitored through a series of test wells strategically located throughout the site and surrounding area. The potential to use the methane from the landfill to generate electricity is being investigated with potential operation in the near future.

This monitoring and treatment activity will continue for the next 20 years, until decomposition of waste is complete. During this time, use of, and access to the site will be restricted. Eventually a long term plan will explore opportunities redevelopment of the site.

SW-35 HRM shall continue to monitor the Hwy 101 Landfill and undertake remedial action where appropriate. Uses of the site will be restricted to reduce potential hazards to public health and safety.

SW-36 HRM shall develop a long term plan for the redevelopment of the Hwy 101 Landfill, once the site is stabilized, which will consider opportunities to provide public benefits from the reuse of the site.