

# **2009/10 Council Focus Area Report**

## **Infrastructure**

**December 2009  
January 12, 2010  
January 19, 2010**

---

---

## **1. INTRODUCTION:**

The Infrastructure Council Focus Area (CFA) represents the strategic response to various infrastructure challenges now facing HRM. It was originally established as a distinct CFA in the 2006/07 business cycle and it continues as a key component of the overall CFA strategy. This report provides a general summary of activities undertaken in support of the Infrastructure CFA during the 2009/10 business cycle.

Both HRM's Capital Budget and the percentage of capital funding for infrastructure coming from sources other than debt have been slowly and steadily growing over time. However, at the same time, HRM's Infrastructure Deficit is slowly and steadily growing as public expectations generate increased demand for significant new infrastructure and "Capability" improvements.

This report identifies the major issues and recommended approaches to infrastructure-related challenges in HRM. Options to deal with these challenges are being developed by the Infrastructure and Asset Management business unit and the Capital Steering Committee in consultation with all HRM business units. Steps to refine and implement an approach are as follows:

- completion of the next stage of the Asset Management Program;
- building on the asset identification that has occurred, and completing condition analysis;
- changing business processes around how we collect and maintain data related to these assets on an ongoing basis;
- development of an Asset Management Strategy which will establish objectives around how we want to use asset management data for decision making; and
- establishment of service levels

Four specific infrastructure-related outcomes identified by Regional Council during the initial phases of the 2009/10 CFA process were:

<b>Outcome</b>	<b>Goal</b>
1) More community facilities and maintenance of existing facilities	<ul style="list-style-type: none"><li>• Provide more community recreation facilities and fix existing facilities</li><li>• Increase Community Centre funding</li><li>• Implement Facilities Master Plan</li></ul>
2) Improved street, road and sidewalk conditions	<ul style="list-style-type: none"><li>• Improve street, road &amp; sidewalk conditions</li></ul>

3) Community Beautification	<ul style="list-style-type: none"> <li>• Develop a Creative Communities Strategy</li> <li>• Develop goals for HRM’s Urban Forest</li> <li>• Develop a region-wide system of parks, trails and beautiful streets</li> <li>• Provide protection to landmarks and cultural landscapes</li> <li>• Create a walkable, livable city</li> </ul>
4) Playground, Parkland and Garden Improvements	<ul style="list-style-type: none"> <li>• Improve playgrounds, parkland and gardens</li> <li>• Protect and promote natural assets, views and water access</li> <li>• Improve existing parks</li> </ul>

In addition to responding to these specific outcomes, the Infrastructure CFA also plays a key role in supporting other CFA’s such as Public Safety, Community Planning and Transportation. Furthermore, service delivery within the Infrastructure CFA program strongly supports HRM’s commitment to sustainability and accessibility.

**2. DEFINITIONS:**

**“Asset Management”** is an approach which links municipal strategic plans to capital and operational resources in order to ensure core services are delivered in a cost-effective manner. An effective Asset Management Plan ensures a stronger focus on effective service delivery, as opposed to simply accounting for the consumption of resources. It also ensures that all infrastructure assets are acquired, operated, and managed to maximize use, minimize cost, and promote sustainability.

**“Capability Project”** refers to a capital improvement that results in a new or increased municipal service or extension of a service to a new area. Capability Projects produce new assets or increase capacity and/or provide significant new features for an existing asset. The Infrastructure Capability Plan is meant to address “Capability” issues.

**“Base Project”** refers to a capital improvement that results in maintenance of a current service level or asset life (not asset level). These projects can be predicted at the time of initial purchase or commissioning and include maintenance, renewal, repairs, restoration, and renovations. Recapitalization of an asset is a “Base Project” unless the service potential is being significantly expanded. The Infrastructure Recapitalization Plan is meant to address “Base” issues.

**“5-Year Capital Plan”:**

A 5-year capital plan has two components:

**Capital Base Plan(s)** - plan resulting from prioritization of infrastructure maintenance (“Base”) deficiencies in each asset class (fleet, buildings, technology and data, streets, sidewalks, etc.); and

**Capital Capability Plan** - plan resulting from prioritization of “Capability” deficiencies.

### **3. INFRASTRUCTURE CFA PROGRESS 2009/10**

#### **a) New 5-Year Capital Planning Process**

In 2006, Regional Council confirmed that HRM should take a 5-year view of infrastructure-related efforts and that a better balance of “Capability” (new) and “Base” (recapitalization) work should be implemented. In 2008/09, the 3-year capital budget process was upgraded and, for the first time Regional Council was presented with a 5-year capital budget. In 2009/10 processes and technical resources to generate a 5-year Capital Plan have been further refined and implemented as standard operating procedure. The new process is designed to increase accountability and document decisions of the Capital Steering Committee during preparation of a draft Capital Plan for Regional Council's consideration.

Identifying and allocating suitable levels of funding for “Capability” project work continues to be a challenge. There are significant “Capability” requirements and public expectations articulated in the various strategic planning documents such as the Regional Plan, Cultural Plan, Economic Strategy, the Active Transportation Plan, HRM by Design, Community Vision Plans, and recreation facility requirements. Considering these demands in a longer, 5 year time frame has increased our ability to minimize the impacts of the funding challenges.

The success of the 5-year Capital Plan requires commitment to the planned outcomes. The 5-year horizon provides the necessary predictability to effectively manage maintenance and recapitalization of existing assets. At the same time, new capability projects can be planned and implemented at a manageable pace. This will require commitment to a set funding capacity as well as the continued funding of reserves, in order to provide for future funding flexibility and to mitigate future debt requirements.

Considerations or planning assumptions used in the development of the 5-Year Capital Plan are:

- Integrity of the capital budget must be maintained;
- Capital cost trends are changing. In past years, costs were rising at about 5% per year. This trend has continued locally despite the global economic situation and is expected to continue;
- As debt funding per capita decreases, Capital from Operating expenses will increase by an equal amount;
- The existing Infrastructure Gap needs to be closed;
- There is a waste water funding strategy in place until 09/10, involving both the water dividend and gas tax funds. This was put in place as a transitional measure when waste water was transferred to HRWC and until a waste water rate and long term strategy could be developed. These funds return to HRM's budget starting in 10/11; and
- Need to use reserves as an integral tool to do long term capital planning and plan for major expenditures.

Historically, provincial and federal funding programs have been directed towards “Capability” projects. It is anticipated this will significantly decrease during the next 5 years, and that the majority of major infrastructure funding will come from the Gas Tax Program.

Following, is a brief summary of the status of existing funding programs:

- Gas Tax - The Federal Government has made this program permanent and an agreement with the Province of Nova Scotia has extended the benefit to HRM to 2013/14. It is estimated HRM will receive \$24.6 million per annum;
- MRIF - No new project applications are being accepted;
- CNSIP - No new project applications are being accepted;
- PCAP - Still operating, and targeted at water, sewer, solid waste;
- Strategic Transit - HRM has received approximately \$47 million over the course of the program which ends March 31, 2010;
- “Green” Opportunities - there are many funding programs that were under Environment Canada and Natural Resources Canada, that are being re-packaged. Also, the Federation of Canadian Municipalities’ Green Municipal Funds are still funding opportunities for HRM;
- Build Canada - It is expected that over \$235 million will be spent in Nova Scotia, with a “Major Infrastructure Component” available to HRM and CBRM. It is not presently known what the amounts or parameters of this program will be for HRM. It is likely to be entirely application driven. To date, HRM has successfully leveraged funding for two major projects through Build Canada (the Mainland Common Recreation Centre / Canada Winter Games Center and the new Central Library). The Larry Uteck Interchange and Margeson Drive also received Build Canada funding, but it was through the Provincial “Base” allotment and was not an application driven process; and
- Infrastructure Stimulus Program - The federal and provincial governments announced combined funding of \$22.4 million in 2009/10. HRM’s matching share will be \$11.2 million with expenditures to be complete by March 31, 2011.

**b) The Capital Evaluation Matrix is Now in Use for “Capability” Projects**

The Capital Evaluation Matrix has been approved by Regional Council and is now being actively used as a tool in the process for reviewing and prioritizing potential capital infrastructure projects. Adoption and implementation of this tool are the initial steps in an ongoing process of reconciling Regional Council’s objectives against the range of infrastructure related service demands presented to HRM. It must be acknowledged that this is a “living” document that will be regularly refined in response to new strategic priorities and unforeseen circumstances (eg. the availability of this year’s stimulus funding programs).

**c) The Infrastructure List is Now Complete and Ready for Review and Update**

The Infrastructure List consists of unfunded or partially funded projects, and is the basis for determining HRM’s Infrastructure GAP. The list includes HRM projects, Halifax Water projects and community projects that are seeking HRM support. In 2009, Regional Council used the Capital Evaluation Matrix to rank the “Capability Projects” on the list and determined the “Top Twenty” “Capability Projects”. The ranked list of “Capability Projects” along with the “Base

Projects” have been used as a basis for setting priorities, to help match the right project with the right funding program.

The Infrastructure List is a tool for documenting and tracking requests for new projects, determining and communicating the infrastructure gap, and communicating priorities to senior levels of government.

The list includes projects in the capital plan as well as those that are not currently funded. The total value of the projects contained on the Infrastructure List is currently \$2.25 billion. The list does NOT include District Activity, Business Parks, Non-transit fleet, and Business Tools projects that are in the 5 year plan and are valued at \$104,724,000. Furthermore, the list does not include a number of water and wastewater extensions projects that are currently under review for the development of cost estimates.

#### **d) The Corporate Asset Management Plan is Now Under Development**

Factors suggesting demand for a more effective Asset Management (AM) approach are:

- The need for multi-year capital planning based on what is required to deliver core service;
- An anticipation of future federal funding dependant on ability to report on state of the infrastructure;
- The current inflationary effect on service delivery;
- The current and projected labour shortage combined with increased service delivery demands;
- The necessity to maximize the usefulness and life of assets while minimizing the cost;
- The need to analyze the full costs of services to encourage new and inventive methods of service delivery;
- Understanding the importance of assets and the service levels required to support them;
- Increased performance level expectations relative to service delivery;
- The need for effective advance planning for future asset requirements to minimize the impact on service delivery;
- The need to align financial, operational and legislative requirements to produce a clear vision and management strategy for assets;
- Need to build public support and acknowledgment that HRM is a responsible steward of our inventory of assets; and
- Regional Council’s approval of Asset Condition as a key indicator of fiscal health.

Resourcing issues related to management of stimulus funding projects led to a delayed start on the Corporate Asset Management Plan but it is now under development. Producing a fully integrated AM Plan will occur over several years. The Plan will build upon the inventory and valuation work carried out under the PSAB project by bringing together asset condition, service standards, asset performance measurement, demand projection from the Regional Plan and other planning documents, risk analysis, life cycle planning, and long-range budgeting.

Work to date on the Asset Management Plan includes:

- a draft framework for condition assessment, rating and reporting;
- an inventory of adopted service standards; and
- a preliminary condition reporting on select assets to accompany the 3<sup>rd</sup> quarter financial report.

Over the next year, the following steps are planned:

- technological tools will begin to be implemented;
- future capital requirements outlined in HRM's various planning documents will be validated; and
- individual record-keeping processes for bundled assets (i.e. bridges, sidewalks, playgrounds) will be implemented.

#### **e) Capital Project Delivery**

In 2007/08 Regional Council recognized that staffing capacity and alignment will be key to effectively dealing with the 5-year plan. Many factors are influencing staff's ability to effectively deliver the various capital projects. The Asset Management Project in time, will provide staff with better tools to more effectively plan and deliver capital work, but some other considerations are as follows:

- The growth in staff to deliver capital projects has not kept pace with the growth of capital funding;
- There is an existing labour shortage in this sector and, in general, the industry's ability to deliver work has been reduced;
- Various inflationary pressures;
- Unforeseen stimulus funding has created financial capacity in the short term which will strain the resources tasked with the related project delivery. The extent of these demands remains unknown at this time due to a significant number of projects being at their initial stages; and,
- HRM must be cautious with regard to filling permanent salary positions dedicated to short term project tasks generated by recent stimulus funding.

#### **f) Progress - Capital "Base" Plan**

In addition to the above referenced procedural and strategic progress during the 2009/10 business cycle, additional progress was made related relative to management of "Base" infrastructure.

The condition of HRM's infrastructure continues to decline. Most asset classes require some increased annual funding to mitigate further decline. In 07/08 Regional Council expressed an expectation that there will be increases in "Base" infrastructure funding for buildings including fire stations, libraries, recreation facilities. This renewed focus on "Base" infrastructure continued through the 2008/09 and 2009/10 business cycles and is projected forward within the 5-Year Capital Plan.

Considerations or planning assumptions used to approach the Capital “Base” Plan are:

- Life safety and compliance issues are a priority;
- The industry standard for building recapitalization is 2 - 4% of replacement value;
- Street paving, renewals, and resurfacing are prioritized based on SDI;
- For sidewalks, aim to have those above 70% defective upgraded;
- Business tools renewal needs to continue in accordance with a long term strategy;
- Equipment and fleet are doing better than other asset classes; and
- Plans such as the Library Master Plan, the Indoor Facility Master Plan, and the Fire Station Optimization/Location studies should shape recapitalization versus replacement or decommissioning decisions.

The table below summarizes the 2009 status of the most significant initiatives of the Capital “Base” Plan:

<b>Initiative</b>	<b>Status</b>
Prepare a Five-Year Recapitalization Funding Plan for HRM assets groups	Maintained funding levels for most asset classes.
Increase facility recapitalization funding by 75 - 100 %	Has increased by approximately 110% since 06/07, but is still insufficient to meet known requirements.
Consider additional recap funding for streets and roads and sidewalks	Funding has increased for streets, roads and sidewalks by a one time injection in 2009 of \$3.4 million generated from surplus funds in closed streets and roads capital accounts. However, \$25M per year is required to maintain asset condition, but the typical allocation is approximately \$20M. A general decline in asset condition can be expected without an increase in funding
Sustain funding levels for traffic improvements, fleet (all forms)	Ongoing - Have held the line for funding levels of traffic improvements and fleet, and will likely continue to do so.

In summary, the 2009/10 Capital Budget included \$65.6 million in “Base” (recapitalization) funding.

**g) Progress - Significant “Capability” Infrastructure**

In addition to the above referenced procedural and strategic accomplishments in the 2009/10 business cycle, there were also a number of significant “Capability” infrastructure projects under development.



The following table summarizes the most significant projects and the most recent status:

<b>Project</b>	<b>Status</b>
New 4-Pad Arena	Construction underway and targeted for completion September 2010
New Central Library	Design Process underway including the funding plan
Canada Games Center	Construction underway targeted for completion February 2011 and open to public March 2011
Ragged Lake Transit Center	Construction underway
Various Canada Games Facility Upgrades	Underway/complete
Lake Banook Canoe 09 Facility Improvements	Complete
Prospect Recreation Center	Construction underway
Larry Uteck and Margeson Drive interchanges	Construction underway
Beaverbank Kinsac Community Center reconstruction	Planning underway
Various Transit Investments	Underway
Alderney 5 Energy Project	Underway
Gordon R. Snow Community Center	Complete
Woodlawn Library Relocation	Construction underway
\$33 million in capital work for Stimulus projects	Planning and design underway

HRM currently has a total \$390 million of capability projects underway. This includes projects in the planning , design, construction and commissioning phases.

#### **4. KEY INFLUENCES 2010/11 and Beyond**

As we move forward into the coming years, there are several major, high level influences that will impact HRM's approach to management of infrastructure related issues:

a) **Global financial circumstances**

Regional Council recently adopted a revised Debt Servicing Policy, the objective of which is to grow the Capital Budget while reducing reliance on debt, and increasing capital from operating. The goal is to eventually have all ongoing “Base” Capital (ie recapitalization) funded through Capital from Operating or Reserves and to use debt only for new “Capability” projects.

To achieve this, debt targets incorporate growth factors by establishing the target for tax supported debt on a per dwelling unit amount. Tax supported debt per dwelling will be reduced by 3% each year, while Capital from Operating per dwelling will grow by 3% each year (after the consumer price index). The combination of these two factors will allow the capital budget to grow but the proportion of that budget being funded by debt to fall. The amount of debt which can be assumed in any given year depends on the growth in total dwellings. The amount of capital from operating as always depends on the growth in the assessment base.

It is important that HRM’s debt continue to decline as debt financing on-going capital costs leads to greater pressure on future budgets and tax rates, may increase operating costs, and reduces budget flexibility.

In recent years there has been stable but low growth in both dwelling units as well as assessment base. The current economic crisis has resulted in significantly fewer new units being constructed in the past year and the normal market lift on the assessment base is lower than predicted. Both of these trends will have a significant impact on the capital budget in 2010/11.

b) **Anticipated declines in Federal and Provincial infrastructure funding programs**

As noted earlier, federal and provincial funding programs have provided substantial financial support for municipal infrastructure projects. Many of the ongoing programs and projects outlined in Section 3 of this report have received funding from senior government agencies through these programs. However, the same financial constraints that are impacting municipal operations are also impacting the ability of other levels of government to maintain these funding streams. As a result, it is anticipated the majority of federal and provincial infrastructure related funding programs will be discontinued within the next 5 years. This will require municipal governments to develop alternate funding streams to support future “Capability” projects.

c) **Human Resource Challenges**

While challenges related to infrastructure are typically expressed in terms of funding sources and project costs, supporting capital project delivery with adequate human resources is expected to also be a significant challenge in both the short and long terms.

The long term challenges are not unique and can generally be characterized as difficulties

associated with finding sufficient numbers of adequately qualified staff and providing operating funds to ensure effective delivery of capital work.

The short term challenge is similar to the long term issue but it is complicated by the relatively large amount of capital project work that has been recently approved in response to the availability of senior government funding programs. As described in 4 b above, it is anticipated this funding source will not continue to be widely available in future years. Therefore, the amount of capital project work delivered by HRM is expected to decrease as the existing inventory of projects are concluded. The problem then becomes finding a sufficient number of qualified resources that can be engaged on a temporary basis allowing delivery of the existing project inventory while not causing overstaffing in the period following the substantial completion of the current project list.

## **5. 2010/11 OBJECTIVES**

As we move forward into the 2010/11 business cycle there are several key objectives that are at the forefront of the Infrastructure CFA. These are the logical extension of the Infrastructure CFA and should be considered in the context of the current year's progress and the significant influences outlined in section 4 above:

### **a) Capital Project Program Delivery**

Operational delivery of capital work will always be a key component of the Infrastructure CFA. This is particularly so for the 2010/11 business cycle given the large number of significant projects underway or in the preliminary planning stages. Many of the "Capability" projects summarized in section 3g of this report will continue to be priorities in the coming business cycle. Effective delivery of these projects in conjunction with delivery of the "Base" programs remains a primary objective within the Infrastructure CFA.

### **b) Corporate Asset Management Plan Development**

During 2010/11, the focus of the Asset Management Program will be on assembling the required inputs for the integrated plan. The objectives of the Program over the next year are as follows:

Enhanced asset knowledge:

Assets which are currently bundled for financial reporting purposes will be broken down into their discrete components so that they may be individually managed (i.e. Parks bundle - Parks will be separately identified so that condition information will be available on each.) Facility condition assessments are also planned for 10/11.

Understanding of service levels:

Work on documenting approved service standards and documenting existing levels of service will be completed. This will include validating service levels presented in the Functional Plans which flow from the Regional Plan.

Predicting asset demand:

Functional Plans and other strategic plans will be validated to determine long-range asset requirements.

Supporting asset management with technology:

Asset-specific life cycle management software will be implemented for Fleet and Roads. A needs assessment will be carried out for strategic asset management software. The software will facilitate acquisition, maintenance and rehabilitation planning, and developing various budget scenarios.

- c) **Continue Alignment of HRM's Assets to meet the needs of Council's other Focus Areas**  
The Infrastructure CFA on its own represents a key strategy in support of Regional Council's desired community outcomes. However, it must also be noted that a healthy system of infrastructure maintenance and growth also strongly supports other Council Focus Areas such as Public Safety, Transportation, and Community Planning. As an extension of the above referenced Capital Project Program and the Corporate Asset Management Plan, it is a primary objective of the Infrastructure CFA to maximize support for all CFAs by closely aligning future infrastructure projects with the defined objectives of all Council Focus Areas.

## **6) MED AND LONG TERM OBJECTIVES**

### **a) Challenges/un-funded projects over the next 5 years**

There are a number of significant unresolved challenges on the 5-year horizon related to infrastructure and funding requirements associated with existing master plan objectives and in support of essential service delivery such as:

- Library Master Plan
- Community Energy Plan
- Fire Facility Needs
- Transit Facility Needs
- CCC Master Plan Areas
- General asset class deficiencies
- New landfill cells;
- Trunk mobile radio;
- Bedford West service over sizing; and
- Emergency breathing apparatus procurement and implementation.

### **b) Longer term Capital Planning**

More Robust Asset Management Program

Asset Management will be the primary strategy for improving the effectiveness and efficiency of our capital planning and capital project delivery. It is expected this effort will have wide-ranging benefits including increased value for money, improved customer service and compliance with legislation.

A fully developed Asset Management based approach will:

- Provide a link between assets and service delivery and promote pro-active and efficient use of public funds for infrastructure;
- Balance the acquisition of assets and their operation and maintenance to effectively support a defined level of service;
- Support decision making through reliable, timely and accurate infrastructure information;
- Consider business risks and a performance-based approach to infrastructure asset management;
- Produce asset information around historical values, replacement costs, depreciated values, useful life, and condition ratings, that will enable HRM to become compliant with Public Sector Accounting Board (PSAB) Standard 3150 (Tangible Capital Assets); and
- Strike an appropriate balance between “Base” and “Capability” capital projects in support of defined service levels.