



Council Focus Area 2007/8

Infrastructure

Date: December 5, 2006

Introduction

Prior to the budget and business planning cycle for 2006/07, Council identified key areas of concern that were to be addressed through the planning process. These concerns included transit services and standards, support for Harbour Link and rural transit, traffic congestion, transportation improvements, responsibilities of Traffic Authority, condition of infrastructure, asset deterioration, and building recapitalization. These issues ultimately became the basis for the following three (3) strategic focus areas in terms of setting priorities.

- Infrastructure
- Traffic
- Transit

On October 3, 2006, Council motioned to reduce the number of focus areas and a new focus area of Infrastructure was created representing an amalgamation of the original three (3) cited above. Infrastructure refers to a series of interconnected structural elements that provide the framework supporting HRM as a municipality. For clarity, infrastructure is extended to refer to all asset categories including buildings and facilities, solid waste, transit and transportation networks, fleet, and supporting infrastructure items including information technology and data.

During these same discussions, Council approved overall criteria for setting priorities with respect to infrastructure capital planning initiatives. In order to better position the organization now and into the future and to further the development of a long-term capital strategy, an Infrastructure and Capital Planning steering group of senior staff officials has been established. In addition to the steering group, four working groups have begun to work on the identification of asset condition by asset classes in advance of capital budget preparation.

This report is written with the assumption that the legislative changes anticipated with respect to wastewater and stormwater will occur and that overall responsibility will reside with Halifax Regional Water Commission.

The purpose of this report is to provide a summary of progress on the three (3) original focus area as well as to provide recommended approaches for advancing the Infrastructure focus area.

Part 1 - Update from Previous Year's Council Focus Areas and Current Initiatives

The following provides a progress report on initiatives identified by Council as particular areas of concern within the three (3) Council Focus Areas that fall under the focus area of "Infrastructure".

Infrastructure - during the Council Focus Area discussion on infrastructure, Council approved the pre-tendering of playground and capital projects. Council accepted staff recommendations on key areas in which direction was sought but there was not any allocation of Council Focus Area funding by Council to additionally support identified initiatives. All were funded within existing envelopes.

Commitment

Progress

Pre-tendering of playground and recreation capital projects

Early funding approval led to projects being tendered earlier than in previous years resulting in more effective project delivery and being better positioned to deliver projects during a short construction season as planning and design is completed earlier.

Reallocation of capital funding for streets, roads, sidewalks and land acquisitions

At the beginning of the capital budget discussion funds were reallocated within the capital budget to include increased funding for streets, roads, sidewalks, and land acquisitions however there was a partial reallocation as a result of the strategic decision to shift funding to meet identified needs in the areas of stormwater and wastewater servicing.

Consideration of HRM buildings in relation to culture

A culture and heritage facility review is currently underway as identified as a priority within the Cultural Plan. In addition, plans are underway to develop cultural space and programs within new and existing recreation / community facilities.

Proceed with Regional Plan

Regional Plan initiatives regarding transportation and active transportation are being implemented and appropriate functional plans are being developed.

Proceed with Asset Management	Continue to build an asset management plan as a link to deliver strategic plans and core services. Focus on what assets are required to deliver service and the service level or performance required. The processes of asset information collection, currently in place in HRM, have been documented and are being assessed for quality and completeness. Issues identified related to policy requirements, process and data collection are being documented with recommendations to close gaps.
Continue with development of infrastructure plan	There is an established steering committee that will apply a holistic approach through the consolidation of all infrastructure projects for consideration recommending the priorities for the next five years based on the findings of the four supporting working groups.
25 year Stormwater and Wastewater Plan	Additional funding was reallocated into this category in 2006/07. This initiative is currently underway with Wastewater Management Plans for Eastern Passage and Halifax Sewersheds.
Regional Plan Implementation	With the plan being adopted by Council several infrastructure and transportation initiatives are underway including the development of functional plans.
Early Capital Budget Approval (streets and sidewalks)	The phased early capital budget approval has resulted in 94% of all projects identified for 2006/07 being tendered as of November 15.
Library Master Plan	No progress has been made on the implementation of the Plan. Business cases for replacement of the Spring Garden Road Library have been submitted each year since the Report's completion; however, funding has not been allotted to address them. The Library has developed the framework for a Capital Campaign to support the first priority of building a new Central Library.
Rural Fire Station Recapitalization	During 2006/07 budget deliberation \$500,00 was

allocated specifically to address health and safety issues regarding code compliance and exhaust extraction within rural fire facilities. The overall project is underway with 50% of identified issues addressed and the remainder in progress. Anticipate that the work will be completed by end of the fiscal year.

Transportation - in the Council Focus Area discussion last year there were a number of transportation improvements identified to improve existing traffic congestion levels while providing some capacity for future growth.

Commitment

Progress

Armdale Rotary Project

As a result of the changes in the Motor Vehicle Act to the operational rules of rotaries, changes have been implemented to the Armdale Rotary with respect to signage, traffic signal operation and the removal of the afternoon peak hour restriction including an educational campaign on the operating rules. The traffic flow through the roundabout has improved and will be further enhanced with the physical modifications as functional planning is completed. Engineering design will follow and construction of the first phases of the work will likely begin in 2007.

Strategic transportation projects

The following projects, all identified in the Regional Plan, have been initiated. Direction on these projects is being given by the newly-formed Joint Strategic Transportation Committee.

Both the Wright Ave/Hwy 118 and Mount Hope/Hwy 111 interchanges are now completed and will be open to the public for December 2006. The design of the Wright Avenue Extension to connect to Dartmouth Crossing is underway and will be completed in January of 2007. It is anticipated that construction can start as early as the spring of 2007.

Engineering design and land acquisition was initiated for the Chebucto Road Reversing Lane project but was put on hold pending an independent review of the project.

In partnership with the Halifax-Dartmouth Bridge Commission, design work and property acquisition has begun on the Fairview Interchange and McKay Bridge Approaches upgrades. The project consists of a series of four upgrade locations, the first of which is scheduled to begin construction in 2007.

Land assembly for Margeson Drive (Beaver Bank Bypass) and Maroon Drive has begun. These roads will connect Middle Sackville and Lucasville to a new interchange on Highway 101 that the Province is being pressed for a commitment on.

Functional planning for the Burnside-Sackville Expressway has begun in cooperation with the Province.

Active Transportation

Significant progress has been made to improve the Active Transportation network. A total of approximately 6.0 km of bike lanes has been completed on the Bedford Hwy, Kearney Lake Road, Main Street and St. Margaret's Bay Road in 2006. Kearney Lake Road included a total reconstruction of approximately 1.5 km of roadway with bike lanes including the replacement of guardrails and the repair of the embankments along Kearney Lake. The Main Street project widened the roadway to provide the bike lanes as well as left turn holding lanes, new sidewalks and curb and gutter.

Optimize current transportation network

The traffic signal rehabilitation / compliance / controller programs are underway which are starting to address deficiencies. Long term on-going project that will continue.

Preserve funds for opportunity land

Funds are allocated in each fiscal year for strategic

purchased land purchases for infrastructure, transit and transportation network optimization. Funding may not always adequately meet the required level.

Transit - as a result of last years Council Focus Area discussion there has been continued investment in HRM's transit system with the acknowledgement there that there continues to be continued growth in ridership and increasing demands for expanded transit services.

Commitment

Progress

HarbourLink

Council identified this project as an initiative that must be achieved. Planning for implementation continues while simultaneously pursuing additional federal funding.

Taking care of Transit ridership

Continued improvements to service routing and the implementation of additional buses for peak service.

Core service standards

Continue to be make improvements to the existing service standards

Improve passenger facilities

Overall passenger facilities have been improved most specifically the Ferry Terminals.

Plan for construction of satellite garage

Satellite garage has opened at 150 Thornhill Drive alleviating the capacity constraints encountered at 200 Ilsley Avenue. This expansion frees up short term capability capacity until expanded transit services exceed facility capacity.

Continue to recapitalize fleet and technology

Continued purchasing of new buses, replacement of bus fareboxes, and the preliminary implementation of AVL system, a replacement for GoTime. Implementation will need to continue.

Plan for introduction of rural express for 2007-08

Planning underway for targeted implementation of a rural express route in 2007-08.

Part 2 - Issues, Risks and Recommendations

Definitions

- **Infrastructure Capability Deficiency** - the acquisition or construction of a new capital asset, normally resulting from an increase in a municipal service or service area. Examples:
 - Replace Central Library (has a significant service enhancement)
 - Expand the transit fleet
 - Improve the Armdale Rotary
 - Increase the capacity of an intersection
 - Increase leverage of technology infrastructure
- **Infrastructure Maintenance Deficiency** - a capital improvement required to maintain the safe operating function of an asset, or a class of assets, within their normal life cycle. Examples:
 - Re-roof a building
 - Re-pave a street
 - Upgrade software
 - Replace a portion of the general, emergency, or transit fleet

Asset Management is an approach which provides the linkage of municipal strategic plans to capital and operational resources, ensuring the delivery of core services is done in a cost-effective manner. An Asset Management Plan ensures the municipality has a stronger focus on what is required to deliver service, rather than simply accounting for the consumption of resources. It also ensures that all infrastructure assets supporting service delivery must be acquired, operated, and managed in such a way as to maximize use, minimize cost, and promote development of new ways to provide sustainability. Furthermore Asset Management:

- Provides a linkage between asset resources and service delivery;
- Imposes a discipline in the acquisition, creation, operation and management of all assets and asset information;
- It supports decision making through the provision of reliable, timely and accurate infrastructure information; and
- It considers business risks and a performance-based approach to infrastructure asset management.

Factors that are influencing the need for a more effective Asset Management approach are:

- Need for multi-year capital planning based on what is required to deliver core service;
- Anticipation of future federal funding dependant on ability to report on state of the infrastructure;
- Current inflationary effect on service delivery;
- Current and projected labour shortage with increased service delivery requirements;
- Necessity to maximize the usefulness and life of an asset while minimizing the cost;
- Need to be able to analyse full costs of service delivery in order to encourage new and inventive ways to deliver service;
- Understanding the criticality of assets and the levels of service required to support them;
- Performance level expectations with service delivery;
- Need to pro-actively plan for future asset requirements to minimize the impact on service delivery;
- Need to align financial, operational and governmental legislative requirements to produce an integrated vision and strategy of asset requirements; and
- Need to build public support and acceptance that we are good asset stewards.

Infrastructure Plan (as reflected in the CAO Goals and Objectives) has two components:

One product of sound asset management is an Infrastructure Plan. An Infrastructure Plan has two components:

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

Infrastructure Capability Plan - plan resulting from the prioritization of capability deficiencies.

Issues with respect to infrastructure are identified below within the scope of an approach as how to best overcome the issue. These options are subject to further refinement by the Infrastructure and Capital Planning steering team and working groups which are currently assessing each category.

Issue # 1 FIVE YEAR INFRASTRUCTURE CAPABILITY PLAN

Identifying and allocating suitable levels of funding for capability project work will continue to be a challenge. There are significant capability requirements stemming from the Regional Plan, Cultural Plan, Indoor Facility Master Plan, multi-sport games opportunities, and the upcoming Transportation Plan. HRM needs to be absolutely specific in the appropriation of funds over the next five years in order to maximize the impact of this particularly limited resource.

<i>Recommendation</i>	<i>Risks of Not Doing</i>
<p>Prepare a five year Infrastructure Capability Plan for the following areas:</p> <ul style="list-style-type: none"> • Transportation Systems - complete current approved strategic transportation projects and traffic improvements over the next five years; • Buildings and Facilities - construct East Dartmouth, Fall River, Mainland Common Recreation Centre, Central Library (land, design), Satellite Garage and Fire Station Relocation study • Waste Water Systems and Solid Waste (assumes merger proceeds) • Address technology and data capacity issues in support of business requirements for service delivery. • Build Emergency Measures comfort centres in new facilities as identified by EMO. 	<p>In absence of a well-balanced, funded approach to infrastructure capability, there continues to be a growing risk of disparity of service levels across infrastructure categories and within areas of the municipality.</p>

<i>Recommendation (continued)</i>	<i>Risks of Not Doing</i>
<p>A Five-Year Plan requires a commitment to the outcomes of the capital requirements. In short, the projects can be delivered within that window if the capital capacity in the five years is adequate enabling staff to propose cash plans and focus on key projects. This will require commitment to a certain funding capacity.</p> <p>Continue to fund Reserves to provide future funding flexibility.</p>	

Issue #2 FIVE YEAR INFRASTRUCTURE RECAPITALIZATION PLANS

The condition of HRM’s infrastructure continues to decline. Most asset classes require some increased annual funding to mitigate further decline. For 07/08 Council has an expectation that there will be increases in recapitalization funding for buildings, which includes fire stations, libraries, recreation facilities.

<i>Recommendation</i>	<i>Risks of Not Doing</i>
<p>Prepare a Five-Year Recapitalization Funding Plan for the groups of HRM assets. Priority will continue to be given to those assets and asset classes where public health and safety are at risk or basic operations of the organization.</p> <p>Increase facility recapitalization funding by 75 - 100 % (first priority for additional funds).</p> <p>Consider additional recap funding for streets and roads and sidewalks (second priority for additional funding).</p> <p>Consider additional recap funding for technology and data (third priority for additional funds).</p> <p>Sustain funding levels for traffic improvements, fleet (all forms)</p>	<p>In absence of a significant funding allocation toward recapitalization HRM’s asset base will continue to deteriorate, resulting in greater health and safety issues combined with increasing maintenance and operating costs.</p>

Issue #3 INCREASED TRANSIT SERVICE STANDARDS

Continued, planned increases to transit service standards are a focus of the capital budget. With federal transit programs, tax incentives, and increased demand for service continued capital funding needs to be directed in this municipal service area.

<i>Recommendation</i>	<i>Risks of Not Doing</i>
<p><i>Over the next five years:</i></p> <p>Complete bus purchase program to meet existing service standards.</p> <p>Complete two spines of a rural express bus service.</p> <p>Introduce MSVU U-Pass</p> <p>Build Satellite Garage</p> <p>Secure federal funding for Harbour Link.</p> <p>Introduce Clayton Park Metro Link</p> <p>Peninsula Corridor</p> <p>Service for Dartmouth Crossing</p>	<p>Only risk of not continuing with the enhancement of transit services is the stagnation of the quality of service and furthering the gap between public expectations and actual service.</p>

Issue #4 CAPITAL PLANNING AND PROJECT DELIVERY

Many factors are influencing staff's ability to effectively deliver the various capital projects. Staff has initiated an Asset Management Project which, in time, will provide staff with better tools to more effectively plan and deliver capital work. Some considerations are as follows:

- Growth of capital funding with a marginal increase in staff compliment
- Labour shortage and industry's ability to deliver work
- Various inflationary pressures
- Likelihood of increased federal funding in capital from future programs more developed asset management practices of other cities.
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<i>Recommendation</i>	<i>Risks of Not Doing</i>
Increase staff complement anticipating project delivery requirements. Consider internal alignments to support better infrastructure and capital planning. Fund next portions of the Asset Management Project. Investigate benefit of reserve funding for recapitalization work	Operating within the current environment no longer meets the organizational needs respecting good asset management practices.