



HALIFAX
REGIONAL MUNICIPALITY



2010 Corporate Sustainability Analysis

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Executive Summary



There is no doubt that we will have no choice but to address the challenges we face in the very near future. Halifax Regional Municipality (HRM) residents are already feeling the pressures of sea level rise, high gas prices, intense storms, and aging infrastructure and they are starting to take action. But what are we doing at a corporate level to ensure that our children and grandchildren enjoy a quality of life at least equal to ours?

In 2004, HRM hired The Natural Step (TNS) to complete a Corporate Sustainability Analysis. TNS made 12 recommendations, most of which have been acted on directly or indirectly, and set three priorities for the organization: *green buildings*, *green procurement*, and *green corporate culture*. After more than 25 interviews with staff across a range of departments, the three existing priorities were repeatedly confirmed as relevant and three new priorities surfaced: *green external communications*, *green planning* and *green transportation*. To more clearly describe the implications of these priorities, I categorize each as either “holistic” or “focused”. Holistic priorities are related to the driving forces behind what we do while the focused priorities are specific areas that can strategically move us in the direction we want to go.

Below, I suggest directions for coming years based on opportunities and challenges that I heard in the interviews.

Holistic Priority: Green Corporate Culture

Why?

- Because corporate culture underlies all of our activities and processes

- Come to a consensus on what sustainability means to HRM
- Consider environmental, social and economic sustainability in the development of outcome area goals and clearly link each outcome area to the three pillars of sustainability
- Offer creative CAO-endorsed, job specific sustainability training to HRM employees
- Communicate and enforce corporate sustainability guidelines and policies (e.g. waste, meeting and catering guidelines, anti-idling) more widely
- Give internal recognition to departments or individuals who show initiative on sustainability.
- Continue developing decision-making filters to institutionalize sustainability
- Reconsider the standard template for reports to council to better integrate sustainability into Council decision-making
- Continue to target senior managers, directors, the CAO’s office, and Regional Council when engaging on sustainability. Develop systems for internal recognition on sustainability that come from above.
- Communicate our successes to make HRM an appealing employer to new workers who value sustainability
- Re-evaluate job descriptions and requirements and explore the option of new positions such as sustainability coordinators
- Have the Sustainable Transition Team endorsed by the CAO’s Office

Holistic Priority: Green External Communications

Why?

- To raise awareness
- To generate community demand for action
- Because collective action is necessary

- Infuse ongoing public engagement activities with a sustainability lens and continue to search for new, innovative ways to raise public awareness and inspire action
- Coordinate a sustainability communications strategy
- Celebrate public successes

Focused Priority: Green Buildings

Why?

- Because buildings are responsible for more than half of corporate emissions
- Because green buildings are financially justifiable and easy to understand
- Because staff are already on board
- Because visible success can motivate more action

- Prioritize the monitoring of building performance in order to learn from experiences
- Communicate green building progress with the public

Focused Priority: Green Procurement

Why?

- Because staff have already demonstrated tremendous initiative
- Because procurement is strategically positioned within the organization to have far-reaching, tangible effects

- Continue to demand contracts that integrate sustainability considerations
- Continue to explore how to incorporate social sustainability into procurement practices

Focused Priority: Green Planning

Why?

- Because how we plan for settlement, movement and governance has a significant impact on social, environmental, economic sustainability
- Because the upcoming Regional Plan review presents a great opportunity

- Use planning processes and products to encourage developers and residents to make sustainable choices about where and how to build, travel, live, work and play

Focused Priority: Green Transportation

Why?

- Because transportation is strongly associated with negative environmental, social and economic impacts
- Because our community is demanding action on transportation

- Continue exploring alternative fuels, technological solutions and an expansion of the Vehicle Right Size filter
- Aggressively strive to implement existing transit plans to achieve established goals and objectives

Sustainability and HRM



The residents of Halifax Regional Municipality (HRM) have spoken; a recent citizen survey showed that most think of HRM as a good place to live, enjoy a relatively high quality of life and believe that HRM is a good place to raise a family. This is good news for now but the array of threats that citizens across the world are grappling with is forcing us to think hard about how to keep it this way. We are just starting to catch a glimpse of the costs of climate change, the increasing scarcity of non-renewable energy, and maintaining our continuously growing cities. In HRM, we are experiencing first-hand the signs that the status quo will no longer sustain us. We are seeing increasingly strong hurricanes, rising prices at the gas pump, and aging infrastructure. The time to act is now if we hope that our children and grandchildren will also see our municipality as a great place to live.

As municipalities across the country come to terms with the urgency of contemporary global issue, they have begun to ramp up their formal commitments to environmental, social and economic sustainability. HRM's Regional Council has committed to working toward six community outcome areas that touch on all three pillars of sustainability and they have declared sustainability (alongside accessibility) an overarching theme that we, HRM staff, are to consider in everything we do. We should be proud of the great strides we have taken in recent years but we should also be acutely aware of the challenges that remain. In this analysis, I discuss some of our progress on sustainability at a corporate level and I suggest how to strategically focus our efforts in the coming years.

The Corporate Sustainability Analysis



In 2004, HRM hired The Natural Step (TNS)¹ to perform the municipality's first corporate sustainability analysis. TNS used their particular approach to make 12 recommendations and set three corporate sustainability priorities for HRM: green buildings, green procurement and green corporate culture. Similar to TNS's method six years ago, for the 2010 Corporate Sustainability Analysis, I interviewed more than 25 staff members from the departments on p2. The interviews consisted of direct follow up questions to the 2004 recommendations and of open ended questions about sustainability successes, challenges and priorities.

TNS' review of our most pressing challenges (energy, materials, land, transportation, water and social sustainability) provides a good starting point for understanding sustainability in HRM. Therefore, instead of repeating that information here, I recommend reviewing their work on sustainability challenges. In this Analysis, I begin by looking back to the recommendations made in 2004. From there, I go on to re-visit the three sustainability priorities established six years ago and, based on the information and opinions I collected in the interviews, I suggest reformulating our corporate sustainability priorities. I conclude with a list of references that might prove useful when moving forward on sustainability.

¹ The Natural Step Canada is a non-profit organization that aims to help organizations better understand and move toward sustainable decision-making: <http://www.naturalstep.org/en/canada> Its 2004 Corporate Sustainability Analysis for HRM is at: <http://www.halifax.ca/environment/documents/SustainabilityAnalysisSeptember2004.pdf>

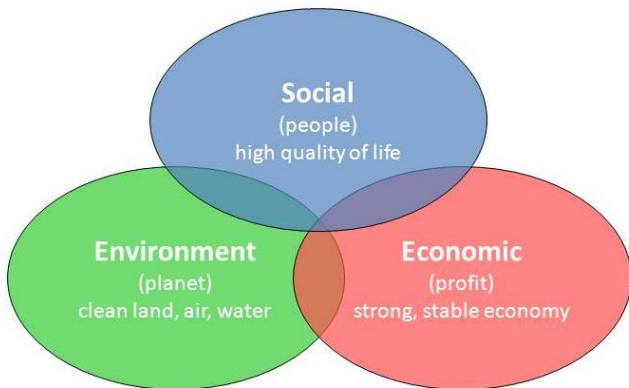
Written primarily for HRM staff and Council, the 2010 Corporate Sustainability Analysis is intended to add to the 2004 Analysis and complement other corporate activities. Ultimately, it provides a high-level review of where we are and offers guidance on how to fulfill our overarching commitment to sustainability and address some of the serious threats our community faces.

Business Units and Sections Consulted	
Infrastructure and Asset Management	Facility Development Sustainable Environment Management Office Infrastructure Planning Office
Community Development	Community Relations and Cultural Affairs Planning Services Regional and Community Planning
Transportation and Public Works	Traffic and Right of Way Solid Waste Resources Strategic Transportation Planning Real Estate and Facility Services Municipal Operations Metro Transit Corporate Fleet and Equipment
Business Planning and Information Management	Business Planning Office
Finance	Procurement Budget
Human Resources	Client Services
CAO's Office	External and Corporate Affairs
Halifax Water	Environmental Services

Approach to Sustainability



Based on the opinions shared in the interviews, I suggest that HRM move away from the TNS approach. It is clear that staff do not all have the same level of understanding of sustainability. Some have gone through TNS training, while others have not, and even those who are familiar with TNS suggest that it is too complex and/or does not adequately address certain aspects of sustainability. Instead, I suggest relying on the more common “Three Pillar” or “Triple Bottom Line” model of sustainability, especially at a high level. Under these simple models, achieving each of



the three pillars of *environmental*, *social* and *economic* sustainability is only possible in balance with the other two. (The Triple Bottom Line model is quite parallel to the three pillars model and refers to *planet*, *people*, and *profit*). The Three Pillars is one of the longest-standing sustainability models used world-wide and is easy to understand and apply at a high level of analysis. I refer to the three pillars throughout this report.

The “Three Pillar” and “Triple Bottom Line” approach to sustainability involves balancing environmental, social and economic considerations in decision-making



A Look Back: The 2004 Recommendations

The Natural Step made 12 recommendations for HRM with the intent of making improvements to existing HRM initiatives, taking advantage of new opportunities and integrating sustainability into corporate culture. Almost all have been acted on either directly or indirectly. Several recommendations involved incorporating TNS into certain processes and even if that has not been done, in most cases, staff have moved forward in their own way. While this look back does not comprehensively describe all of HRM's sustainability activities over the last six years, it is indicative of how the organization created and seized the opportunities identified at a particular point in time. I discuss more of HRM's achievements in *A Look Forward: Sustainability Priorities*.

1. Integrate the TNS framework into the Sustainable Community Reserve project review and selection process

When HRM borrowed \$20 million from the Federation of Canadian Municipalities' Green Investment Fund to help finance the Harbour Solutions Project, the loan was granted at 1.5% less than the Government of Canada bond rate, allowing HRM to save up to \$400 000 per year on loan repayments. The money saved is deposited every year into a Sustainable Community Reserve that is managed by the Sustainable Environment Management Office (SEMO) and intended to fund sustainability projects. Since its initiation, the Sustainable Community Reserve has been vital in helping SEMO and other HRM units make great strides toward a more sustainable future. The reserve has supported initiatives such as the Pollution Prevention Program and the delivery of sustainability training to HRM staff. The project review and selection process has not formally incorporated the TNS framework because the reserve has frequently been used to leverage funding from other sources. For example, \$500 000 from the Reserve was used to leverage over \$1 million in building efficiency projects. Even without screening applicants strictly based on the TNS framework, sustainability core principles are always considered when distributing Sustainable Community Reserve funds.

The loan's ten year term will be over within the next three to four years, implying that this important source of sustainability funding will soon dry up. Revenue from Adventure Earth Centre book sales will go directly into the Reserve but HRM must continue to search for other means to replenish this indispensable source of funds. The Union of Nova Scotia Municipalities' Municipal Sustainability Office lists a range of funding opportunities and may prove to be useful².

² Links to potential sustainability funding opportunities: <http://www.sustainability-unsm.ca/funding-opportunities.html>

4. Develop a green building strategy

When asked about progress on green buildings, facility development staff enthusiastically report that their practices have dramatically improved in recent years. They have taken the green building priority to heart and, despite not having developed a comprehensive green building strategy, have made some outstanding accomplishments.



New Canada Games Centre

Building to LEED (Leadership in Energy and Environmental Design) Silver³ standards is now common practice for all new municipal buildings in HRM. The LEED certification system ensures that architects and engineers consider matters such as energy conservation and air quality right from the design stages, which has not been part of traditional practice. As a result of this self-imposed standard, HRM has constructed better, more efficient and more user-friendly buildings that are responsible for far fewer greenhouse gas emissions. The new East Dartmouth Community Centre, the Gordon Snow Community Centre and the Canada Games Centre are prime examples that feature elements such as geothermal heating, enhanced access to natural light, and rainwater collection/recycling. By demanding buildings that meet LEED standards, HRM is developing its own capacity for integrated design as well as that of the local design and construction community, who are already using their Halifax experience in other parts of Nova Scotia. As this capacity grows, HRM may raise its minimum standard to LEED Gold and eventually Platinum.

The availability of stimulus money from higher governments has fuelled HRM's recent boom in new building construction but as this funding comes to an end, HRM will likely shift its focus to recapitalization. Staff are currently developing a recapitalization plan that will help them understand what they have and prioritize what they need to do to ensure that existing buildings perform optimally and sustainably. Retrofits such as the Alderney 5 geothermal cooling project⁴ and various natural gas conversions, which have saved the municipality thousands of dollars and greenhouse gas emissions annually, are already underway.

Building operations staff are also making improvements on their end with initiatives such as encouraging staff to drink tap water (rather than using a water cooler) and by looking into energy and financial savings from lighting retrofitting programs. HRM is currently taking advantage of Nova Scotia Power's (NSP) "Small

³ LEED is a green building rating system that evaluates a building's performance in sustainable site development, water efficiency, energy efficiency, materials selection and indoor air quality. <http://www.cagbc.org/leed/what/index.php>

⁴ Alderney 5 project: <http://www.halifax.ca/facilities/Alderney5.html>

Business Lighting Solutions” program⁵ that is helping to pay for the replacement of old lights with new, efficient lights.

One of HRM’s most significant green building accomplishments has been the establishment of a special reserve fuelled by the annual financial savings resulting from energy projects. For example, the 25-30% financial savings in the Burnside Transit Centre’s operations since its retrofit are deposited directly into the reserve and then used to finance further energy projects. About \$450 000 was deposited into the reserve this year and \$700 000 is expected next year. Because HRM will continue to see savings from energy projects, the reserve maintains a *continuous* supply, and is a secure source of funding for energy projects.

In addition to greening its own new and existing buildings, HRM has begun looking externally. Provincial legislation limits what HRM can demand of private sector buildings, but HRM is encouraging private sustainable building practices by including sustainable building design guidelines in its Secondary Municipal Planning Strategy for Downtown Halifax. It is also starting to offer opportunities for the public to learn about HRM’s green building initiatives with the hope of inspiring community action. For instance, the Alderney 5 project, which introduced the world’s first geothermal cold storage system, was a milestone in communicating a green building success. Besides being highly visible in the media, the project features a public viewing station that looks down into a mechanical room with clearly labelled and colour coded pipes. It also gives the public a glimpse into the world of building energy supply and mechanics that lies beyond highly visible green features such as green roofs and solar panels. The Vending Miser program was also met with a positive response from the public. The Vending Miser is a piece of equipment that powers down a vending machine when no motion is detected for 15 minutes, repowering only when needed. The small device reduces energy consumption by 30-50%, and is therefore responsible for saving greenhouse gas emissions. I discuss green buildings further in *A Look Forward: Sustainability Priorities*.



Public viewing opportunity at Alderney 5

5. Integrate principles of sustainability into HRM procurement policies

It is safe to say that HRM Procurement has acted on this recommendation and the green procurement priority that was set six years ago. It has not only invested in extensive staff training on sustainable purchasing, but it has also formally included “consideration of environmental, economic and social factors in procurement processes and decisions” as a guiding principle in HRM’s Procurement Policy. These

⁵ NSP’s Small Business Lighting Solutions:
<http://www.nspower.ca/en/home/energysavings/programs/smallbusiness/default.aspx>

efforts, along with a dedicated core group of staff, have gone a long way to making HRM a strong leader in this field.

In both 2008 and 2009, HRM was a finalist in the Leadership in Green Procurement Award competition. Its 2008 submission described the “Sustainable Procurement Collaboration Initiative”. After stepping up its engagement with HRM staff, the vendor community, other government agencies and the community, Procurement now incorporates anti-idling policies in price agreements, uses Ecologo certified products, integrates environmental performance into vendor performance evaluations, and is working toward an environmentally preferable office supply contract. One of the most important achievements of the initiative is the stronger relationship between HRM and vendors. HRM now works *with* its vendors to find sustainable solutions and to set benchmarks collaboratively. Vendors have never before been so involved in the procurement process and some are now aggressively responding to the demand for sustainable products and services.

HRM’s “Green Battery Initiative” earned it a place in the following year’s green procurement competition. This initiative replaced corporately used disposable AA and AAA batteries with rechargeable batteries and chargers to avoid throwing away more than 10 000 batteries per year. In keeping with its mission to promote behavioural changes across all municipal departments, Procurement staff communicated the initiative across the organization to successfully generate interest and buy-in from staff.

Procurement is now working with employees in each business unit to apply something similar to the Walk the Talk filter developed by the Adventure Earth Centre⁶ to all purchasing decisions. If all purchases are seen through this type of lens, no matter how large or small, HRM can further reduce its impacts on the environment, its citizens, and its budget. I return to procurement in *A Look Forward: Sustainability Priorities*.

6. Explore opportunities to recycle electronics and light bulbs

HRM is responsible for managing waste facilities, educating the public, and promoting compliance with provincial legislation, while the provincial government has sole authority on what is and is not allowed in Nova Scotia landfills. By February 2009, the provincial government had banned most common electronic equipment from landfills. Since the ban, HRM has encouraged its residents to bring their old electronic equipment to their local Atlantic Canada Electronics

⁶ The Adventure Earth Centre’s Sustainable Purchasing filter is based on three steps: 1) assessing the need for the item, 2) considering the options, and 3) exploring the impacts. <http://www.earthed.ns.ca/files/AEC%20Walk%20the%20Talk%20Filter.pdf>

-  Desktop Computers/ Computer Components
-  Portable Personal Computers (PCs)
-  Monitors
-  Televisions
-  Printers, Fax Machines and Scanners
-  Personal or Portable Audio and Video Playback/ Recording Systems
-  Home Audio and Video Playback/Recording Systems
-  Home Theatre in a Box (HTB) Systems
-  Vehicle Audio and Video Systems (aftermarket)
-  Non-cellular Telephones and Answering Machines

Electronics equipment that ACES recycles

Stewardship⁷ (ACES) recycling centre, which accept the items listed in the sidebar. Conveniently, ACES centres are co-located with enviro-depots where residents can also recycle other materials (though not all enviro-depots are also ACES centres). The ACES program properly manages unwanted electronic waste in a way that protects the environment and worker health and safety. Internally, staff try to negotiate take-back agreements with vendors on as much electronics equipment as possible (e.g. cell phones and power tools). These agreements are intended to encourage vendors to be more conscious of manufacturing materials and then to re-use this material. Residents can recycle their rechargeable batteries and cell phones at Call2Recycle drop-off locations around Halifax⁸.

Fluorescent light bulbs that contain mercury generally use less electricity than incandescent bulbs and are therefore becoming increasingly attractive for cutting energy consumption and associated costs. When released into the environment, however, mercury can have damaging effects. Some provinces have the capacity to recycle light bulbs but options are limited in Atlantic Canada. Residents can bring their used household compact fluorescent lights to Home Depot or RONA recycling programs but businesses are left to dispose of their lights on their own. Fluorescent bulbs (tubes) are not yet banned from landfills in Nova Scotia but HRM has been proactive in establishing a policy to divert commercial quantities (over 30 tubes) away from landfills and into recycling processes. This policy is designed to compel businesses to consider the proper disposal of lights before and during commercial retrofit programs. Retrofit contracts for HRM buildings, such as Nova Scotia Power’s “Small Business Lighting Solutions” program (see p5), usually ensure that old bulbs are recovered for recycling.

7. Institute an internal composting program

The institution of an internal composting program is still in progress. In 2007, Solid Waste Resources (SWR) wrote an internal policy that required all HRM owned and leased buildings to make provisions for 4-stream waste disposal. Unfortunately the policy was not highly communicated and compliance has been low. A waste audit of the Duke Tower third floor in early 2010 showed that 62% of the waste in the garbage was organic, blue bag recyclable, paper recyclable or liquid (unacceptable for the garbage). The low performance at Duke Tower was largely attributed to inadequate bins and signage. SWR recently re-wrote and tightened up the internal policy, which states that all departments have committed to developing a waste management plan. The new policy also asks business units to identify individuals



4-stream waste in an HRM office

⁷ Atlantic Canada Electronics Stewardship: <http://www.cestewardship.ca/>
⁸ Call2Recycle drop-off locations: www.rbrc.org/call2recycle

who will work with SWR on education and compliance. The new policy is expected to be approved in mid-November 2010.

8. Evaluate the sustainability of different approaches to managing playing fields

HRM has seen plenty of benefits from its three all weather (artificial) turfs: less required maintenance, greater user satisfaction, and alleviation of damage to natural fields because of the larger number of users choosing artificial over natural fields. The initial costs to buy all weather turf, however, are quite high and the turf, made mostly of non-recyclable rubber, plastic and sand, usually ends up in a landfill at the end of its life. HRM is still working through the sustainability costs and benefits of all weather fields.

Even if HRM were to choose to move forward with more all weather fields, it would still have to continue managing natural fields throughout the municipality for a long time. In order to determine the best and most sustainable way of doing this, parks staff are working with a former professor at the Nova Scotia Agricultural College to develop a turf management program. Together, they are testing various organic fertilizers and biosolids from HRM organic material and they are comparing the suitability of different types of grass seed. Additionally, staff are taking a more proactive approach to addressing playing field problems rather than waiting for user complaint calls.



Weir Field in Upper Sackville is made of artificial turf

9. Prioritize biodiesel produced from local, sustainably harvested feedstocks

Biodiesel, a mix of regular diesel and biofuel, can power most diesel vehicles without changing the engine. When burned, it emits less carbon monoxide, volatile organic compounds and particulate matter, which potentially gives it a place in a more sustainable corporate fleet. Several years ago, HRM tested various mixtures of biodiesel with 5 - 20% biofuel and after working through contamination and quality issues, the fuel performed well in most corporate vehicles. For example, Metro Transit buses running on biodiesel showed a 14% decrease in tailpipe emissions. Unfortunately, Wilson Fuels, with whom HRM still has a standing agreement, has stopped producing the fuel and HRM's diesel-powered fleet is now using regular diesel again. When the agreement with Wilson Fuels expires, HRM staff plan on exploring their options once more.

The first biodiesel that HRM purchased came from South America, which raised some concern about its sustainable use in Nova Scotia. The fuel was transported thousands of kilometres to reach its point of end use and was therefore responsible for a tremendous amount of emissions along the way. While locally harvested biodiesel is ideal, at the current time, few, if any, local producers have the capacity to produce the 2-3 million litres of biodiesel per year that HRM's corporate fleet requires.

HRM Community Outcome Areas

- safe and welcoming communities
- diverse recreation, leisure and culture
- well-planned and engaged communities
- clean and healthy environment
- integrated and affordable transportation networks
- economic prosperity

HRM Administrative Priorities

- practicing fiscal responsibility
- making HRM an employer of choice
- providing excellence in service delivery



Dr. Sofie Adolfsson Jorby

10. Integrate the TNS framework as a guide for the “healthy, vibrant and sustainable” theme of HRM’s Corporate Scorecard

Instead of using the themes in the former Corporate Scorecard, HRM is now using a Community Performance Report and a Corporate Performance Report to measure the delivery of desired community outcomes and administrative priorities (see sidebar). These reports will be based on goals that are and will be established in HRM’s Corporate Plan and outcome area plans. The TNS framework has not been used to guide the formation of these documents; however, because the outcome area plans are still under development, they present important opportunities to integrate sustainability into our business planning. First, they can articulate sustainability goals in a meaningful way and second, the inter-departmental process of developing the outcome area plans can help break down the silos that get in the way of sustainability progress. I discuss these opportunities in greater detail in *A Look Forward: Sustainability Priorities*.

11. Provide more opportunities for HRM staff to learn about sustainability

HRM employees have had multiple opportunities to learn about sustainability over the last six years. 200-300 staff members have completed a 1-hour online TNS course and some have also undergone a 4-day workshop with TNS trainers. While some trainees could easily relate to the TNS approach, others found it complex and hard to apply directly to their jobs. Since then, some departments have offered specialized training such as sustainable procurement and LEED training; however, this type of focused learning has not been widespread at this point. Recently, SEMO issued a request for expression of interest to explore options for further sustainability training, understanding that training is vital to ingraining sustainability into corporate culture.

Over the last couple of years, HRM has developed a unique learning relationship with cities in Sweden. It began with a five-month visit in 2008-09 from Dr. Sofie Adolfsson Jorby, the Environmental Coordinator with the Swedish National Board of Housing, Building and Planning. Through presentations and participation in HRM activities, she shared her knowledge and expertise about Swedish initiatives that have given her country a reputation for being well ahead of the game on social development and environmental sustainability. Following her stay in HRM, several municipal employees took part in a Sustainability Study Tour to Sweden where they saw first-hand the positive effects of transportation, energy, land use and infrastructure decisions that were made many years before⁹. Without a doubt, participants were inspired by what they saw in Sweden and upon return, some

⁹ Swedish Sustainability Tour:
<http://www.halifax.ca/environment/SwedishSustainabilityTour.html>

gave presentations to staff, Council and the community about what they learned. These types of experiential learning opportunities are often the most meaningful and effective, even if they happen on a smaller scale. For instance, the Finance Green Team reported that a visit to a local landfill was hugely influential in motivating them to change their office waste management practices.

12. Create a pilot project to explore how the TNS framework can be incorporated into environmental management systems

Halifax Water is the only part of HRM that has developed environmental management systems (EMS). Halifax Water employees have been stretched quite thin and have not had the opportunity to investigate incorporating the TNS framework into its EMS.



Swedish Sustainability Tour participants learned about Sweden's sustainable transportation systems

A Look Forward: Sustainability Priorities



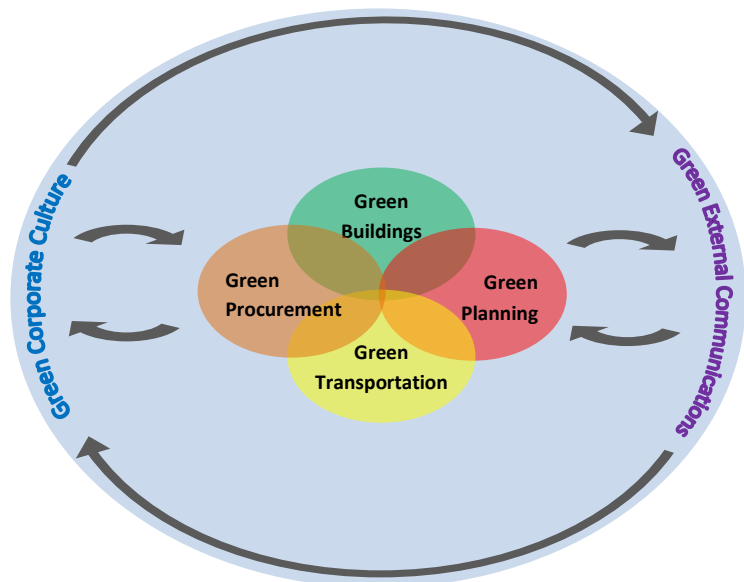
Over the last six years, HRM has been working with three core sustainability priorities, *green buildings*, *green procurement* and *green corporate culture*, which have helped us move in the right direction. Over the course of my interviews, the existing priorities were repeatedly confirmed as relevant and three others surfaced: *green external communications*, *green planning* and *green transportation*.

To better understand the implications of the priorities and their core differences, I characterize each of them as either holistic or focused (see sidebar). Priorities that term “holistic” are related to the driving forces behind what we do; our corporate culture and our relationship with our community. They reflect themes that permeated virtually all of my interviews and impact all HRM employees. “Focused” priorities apply to some staff more than others and are designed to spur action on specific HRM activities. They either take advantage of momentum already gained, make the most of processes already in place, or are expected to have a significant impact on some of our biggest sustainability challenges.

In this look forward, I aim to use some of our key successes under each priority to communicate our progress as an organization. We can use this experience to help us as we push on but we must also be mindful of the particular opportunities and challenges ahead of us. The directions I suggest emerged from the information and opinions shared in my interviews. They are designed to focus our attention on particular aspects of each priority.

These priorities are a call to consider environmental, social and economic implications in our...

Holistic	Corporate culture ... everyday activities and decision-making processes
	External Communications ... communications and engagement with the public
Focused	Buildings ... building design and construction
	Procurement ... purchasing decisions
	Planning ... plans for settlement, movement and governance
	Transportation ... fleet purchases, transit planning and operations, and transportation choices



Holistic priorities support our focused priorities and conversely, focused priorities reinforce holistic ones. Approaching sustainability from both a holistic and focused perspective is essential.

Holistic Priorities

The magnitude of greening our corporate culture and external communications can seem quite daunting at first so in this section, I break down each holistic priority to make them more manageable. I highlight some of our critical successes but also underscore key areas that still need attention and offer suggested directions. The Sustainable Transition Team, given its diverse composition, may wish to consider focusing on holistic priorities.

Holistic Priority: Green Corporate Culture

The 2004 Analysis stressed the importance of building a philosophy of sustainability into our corporate culture. A “green corporate culture” would feature organizational processes that are infused with sustainability considerations by institutionalizing them in every day activities (e.g. meetings, disposing of waste, printing) and decision-making processes (e.g. land use decisions, purchasing). Greening corporate culture is an enormous task that may take decades to fully accomplish, but six years after the first Sustainability Analysis, we are seeing the results of small shifts in corporate culture. Many interviewees, however, were still acutely aware that it is primarily small pockets of staff who are driving the change. For example, the existence of the Finance Green Team¹⁰ speaks to the enthusiasm for sustainability among some staff but the team’s struggles to engage the rest of their business unit also tell us that we have a long way to go. Here, I suggest directions to respond to certain corporate culture opportunities and challenges.

Ingraining sustainability in our business planning

While HRM’s overarching commitment to sustainability represents a shift in the right direction, plenty of HRM staff still struggle to apply sustainability principles directly to their jobs and claim that more tangible targets would enable them to do so more easily. Some Canadian cities and towns have developed statements along the lines of Wolfville, NS’s “Declaration of Sustainability”¹¹ (a one-page pronouncement in its Municipal Planning Strategy) or Surrey BC’s “Sustainability Charter”¹² (an extensive description of Surrey’s sustainability vision and implementation strategy), that more clearly define how sustainability might look. Currently, HRM does not have a consistent definition of sustainability, which limits our ability to focus on targets, adjust our decision-making and integrate

Come to a consensus what sustainability means to HRM

¹⁰ The Finance Green Team: <http://insidehrm/BusinessUnits/Finance/TheGreenTeam.html>

¹¹ Wolfville’s Declaration of Sustainability is on page 5 of its MPS: http://www.wolfville.ca/index.php?option=com_docman&task=doc_view&gid=391&tmpl=component&format=raw&Itemid=242

¹² Surrey’s Sustainability Charter: <http://www.surrey.ca/plans-strategies/3152.aspx>

sustainability into hiring practices. We have several great resources to work from (Corporate Plan, Regional Plan, Corporate Sustainability Analysis), but we may find it helpful to pull sustainability ideas together into a single, agreed upon sustainability vision. This process may correspond well with the Regional Plan review.

Consider environmental, social and economic sustainability in the development of outcome area goals and clearly link each outcome area to the three pillars of sustainability

HRM examples of effective sustainability training initiatives

- Job-specific training (e.g. sustainable procurement, LEED training)
- Field trips to waste management facilities (a visit to a local landfill and recycling facility incredibly influenced the members of the Finance Green Team)
- Environment Week emails detailing “sustainability tips” (generated a surprising amount of interest)
- Sweden Sustainability Study Tour (inspired all participants)

Offer creative CAO-endorsed, job specific sustainability training to HRM employees

Besides creating a single definition, we can help articulate sustainability in a more meaningful way through the development of outcome area plans. First, we should commend our community for identifying a “clean and healthy environment” as an outcome area, placing the environment on par with other community outcomes. However, we must remember that sustainability issues do not solely fall into this category. Candidly making connections between environmental, social and economic sustainability at all levels of our business planning is critical to ingraining sustainability thinking in HRM’s corporate culture. Second, when the outcome area plans are complete, they will contain specific goals that will filter down into business plans and employee Personal Development Plans to influence daily practice. By infusing our outcome area plans with sustainability goals, we will contribute to greening our corporate culture.

Learning about sustainability

As indicated in *A Look Back: The 2004 Recommendations*, HRM has taken the first steps toward training its staff on sustainability. Some staff have had the opportunity to learn about TNS, others have acquired job-specific training and a handful of them went to Sweden to experience the Swedish approach to sustainability. Several interviewees had observed distinct shifts in either their own or their co-workers’ attitudes after training but there is a general sense, however, that a “green” attitude has yet to permeate the entire organization. Furthermore, without a clear definition of sustainability, even those who appreciate its general importance often struggle to see how it relates to their job on a daily basis. TNS training was an excellent first step in laying the ground work but we need to engage with HRM staff in a more meaningful way.

The International Council for Local Environmental Initiatives recognizes the City of Hamilton, ON for providing effective sustainability training to its employees¹³. Hamilton city staff recognized that very few adults learn effectively in a classroom/lecture-style setting and explored various alternative methods of adult learning. Further, the city made sure to have their senior management team and city manager on board. Training is important but the method of training can considerably affect its results. HRM can look to Hamilton for guidance as it

¹³ Hamilton’s experience: <http://www.iclei.org/index.php?id=1170>

investigates further training options, but we can also learn from our own effective training experiences (see sidebar on p14).

Office habits

Knowing about sustainability is one thing, but making changes to long-held office habits is another. Some departments have already actively made changes; they make double-sided prints and copies, properly manage a 4-stream waste disposal system, limit vehicle idling, and avoid purchasing styrofoam and bottled water for meetings. HRM has even developed guidelines and policies to help business units move in the right direction (anti-idling, meetings and catering)¹⁴. These guidelines and policies, however, could be more widely communicated because despite the progress in some offices, many departments are lagging behind. Inter-office competition and internal recognition (e.g. free lunch for the office that improves their waste diversion rates the most) may motivate behaviour adjustments. While these types of adjustments will not happen overnight, they can be simple and do not require substantial time or financial investments.

Decision-making

Perhaps even more important than daily office practices, decision-making processes have begun to evolve to include sustainability considerations (see sidebar). This is significant because one sign of a green corporate culture is routine decision-making consistently undertaken with a sustainability lens.

Despite these progressive steps in the right direction, plenty of corporate decisions are still made with only short term financial considerations in mind. For two years, HRM staff worked on a decision-making sustainability filter that they hoped could be applied across all departments. Most now agree, however, that a “one-size-fits-all” filter cannot be flexible enough to speak to our diverse range of departments with different needs. The focus is now shifting to creating different filters for different types of decisions. The more tools we have, the more decision-makers learn precisely how to keep sustainability considerations at the forefront.

Reports to Council

Reports to Council prepared by staff present yet another opportunity to ingrain sustainability in corporate culture. The standard template for these reports currently includes budget and community engagement implications but does not include environmental or further social implications. Some Canadian cities are

¹⁴ HRM’s Vehicle Anti Idling Policy (see attachment 1):
<http://www.halifax.ca/council/agendasc/documents/100216cai04.pdf>
Greening our Meetings and Catering Requirements:
<http://insidehrm/BusinessUnits/SustainabilityKnowledge/Documents/GreeningourMeetingandCateringRequirements.pdf>

Communicate and enforce corporate sustainability guidelines and policies more widely

Give internal recognition to departments or individuals who show initiative on sustainability.

Examples of incorporating sustainability into decision-making

- Lifecycle considerations are being made in recapitalization projects
- The planning process for Capability Projects is currently being adjusted to include environmental and social considerations
- New vehicle purchases are being processed based on the expected need, rather than the desire (“Vehicle Right Sizing Filter”)
- The Adventure Earth Centre has developed and is using a basic sustainable purchasing filter
- HRM works with development agreement applicants to design more sustainable buildings and sites
- Provisions for alternative, sustainable modes of transportation (buses, bicycling, walking) are becoming more important components of road design and transportation planning
- Request for tenders for new HRM building design and construction include LEED Silver standards

Continue developing decision-making filters to institutionalize sustainability

Reconsider the standard template for reports to council to better integrate sustainability into Council decision-making

Continue to target senior managers, directors, the CAO's office, and Regional Council when engaging on sustainability. Develop systems for internal recognition on sustainability that come from above.

Communicate our successes to make HRM an appealing employer to new workers who value sustainability

beginning to adjust their reports to better reflect sustainability considerations. For example, the City of Calgary includes social, environmental and economic implications in its standard council reports and the City of Surrey includes sustainability considerations that relate every staff recommendation to the City's sustainability goals¹⁵. HRM may wish to reconsider its standard template for staff reports to Council.

Leadership

To really engage people, it needs to come from above, making leadership from senior managers, directors, the CAO's Office and Regional Council key components of greening our corporate culture. Plus, if we aspire to lead our community by example (that is, if we hope to prove that sustainability initiatives are not only possible but desirable and we want to encourage the community and other municipalities to follow), we have to start by enacting a similar model within our organization. If managers and directors bring sustainability issues to departmental meetings, for example, they will remind staff that sustainability is a topic of high concern. They will also set the stage for their staff to feel comfortable going to them with their own ideas related to sustainability. To go one step further, managers, directors and the CAO's Office can develop internal recognition systems for staff members who show initiative on sustainability.

HRM's workforce

Similar to most organizations across the country, a large portion of HRM staff will be eligible to retire within the next five to ten years. With a limited workforce ready to take over, HRM's ability to provide services required by the community is at risk. Simultaneously, however, this is also an opportunity. HRM will have to recruit hundreds of new employees in the coming decade, giving it the chance to bring in fresh new ideas.

In order to recruit enthusiastic new workers who value sustainability, HRM must actively promote its accomplishments and vision for the future. HRM may wish to formally include knowledge of sustainability as a core competency that job applicants are evaluated on. In order to do so, however, we must define and agree on what sustainability is (see p13).

¹⁵ Example Calgary reports to Council:
http://publicaccess.calgary.ca/ldm01/livelink.exe?func=ccpa.recentagenda#regular_council
Example Surrey reports to Council:
<http://surrey.ihostez.com/Documents/DocumentList.aspx?ID=22141>

We not only need to think about filling old jobs but we also need to think about what new positions are required in the context of today's world. New jobs such as "sustainability coordinators" in the CAO's Office and perhaps even in each business unit may help facilitate sustainability efforts.

Re-evaluate job descriptions and requirements and explore the option of new positions such as sustainability coordinators

Inter-departmental communication

Working together and communicating across departments is important for any group of people aiming for common goals but cross-departmental collaboration is even more critical when working toward sustainability. Sustainability is best understood holistically, which can only be achieved when multiple perspectives are brought together. With about 4000 employees, HRM has tremendous potential to combine expertise but unfortunately, like many other municipal governments, thick silos separate departments within the organization. Several interviewees shared anecdotes about spending hours of their time duplicating work they did not know was being done somewhere else or about poor decisions being made because the appropriate people were not consulted. Breaking down silos will lead to greater efficiency, cost savings, better relationships and ultimately, better and more informed decisions.

To address the issue of silos in a sustainability context, some municipalities have set up central sustainability offices that work out of the CAO's office, giving them the top level buy-in needed to effectively communicate with and influence departments across the organization. HRM's Sustainable Environment Management Office is a good place to start, but its efforts may only carry so far, operating out of a corner of the Infrastructure and Asset Management business unit. Furthermore, while it makes sense for SEMO to lead the way on sustainability issues and projects, continuation of an environmental focus may risk undermining the other equally important aspects of sustainability: social and economic.

Without reorganizing HRM's business structure (though this is something that could be discussed for the long term), the Sustainable Transition Team¹⁶ has the next greatest potential to break down some of the thick silos within the organization. At the very least, the Sustainable Transition Team, composed of more than 20 individuals from various HRM business units and departments, offers a venue to create a common language around sustainability and share perspectives, challenges and successes across departments. At most, it has the potential to deeply impact corporate culture in HRM by coordinating sustainability goals and efforts across departments. Formal recognition from the CAO's Office would enable

Have the Sustainable Transition Team endorsed by the CAO's Office

¹⁶ Sustainability Transition Team description:
<http://www.halifax.ca/council/agendasc/documents/100803cai04.pdf>

members to better justify spending their work time with the team and their work would carry more weight.

The team must also more clearly define its role and establish goals in order to maintain meaningful participation. I suggest some potential actions below.

Potential actions for the Sustainability Transition Team

- Actively participate in internal planning processes (Outcome Area Plans, Corporate Plan, Business Plans) to ensure that sustainability considerations are prioritized and appropriate targets are set
- Follow through with the established Sustainable Transition Team focus area of preparing an Annual Sustainability Report to keep HRM accountable to its sustainability commitment
- Create an internal contacts database for sustainability initiatives
- Communicate successes (internally and externally)
- Pursue the suggested directions in the Corporate Sustainability Analysis

Holistic Priority: Green External Communications

Greening our external communications is all about raising awareness and inspiring those outside the organization to join us in making our municipality an even better place for our children and grandchildren. As a municipal government, we are influenced by level of community support, implying that without buy-in from our community, Council will not make tough decisions that require them to spend more money now to yield something as intangible as long-term environmental benefits. We therefore need to seek innovative ways to raise awareness within our communities and build a demand for action. General public awareness is certainly on the rise (and shows through in enthusiasm for “green” projects such as the new Farmer’s Market and the Central Public Library currently in the design stages) but we still have room for more progress, particularly on less tangible threats such as the effects of gradual sea level rise and the impacts of traditional development patterns. Community demand for addressing these issues will feed into greening our decision-making processes and other activities.

Furthermore, we cannot tackle the sustainability challenges we face alone; preparing for intense storms, developing secure local sources of energy, and preventing severe health epidemics can only move forward with collective action. We not only have to raise awareness of our sustainability challenges, but we also have to inspire our community members to do their part to take action.

Raising public awareness and inspiring action

Significant public engagement activities such as the upcoming Regional Plan review offer venues for spurring meaningful discussion about the environmental, social and economic impacts of future growth in the region. These engagement processes are important opportunities to discuss the direct implications of how today's decisions will affect our children's lives in a context of global climate change and rising energy costs. The message is not an easy one to communicate, so careful consideration should be put into preparing for these discussions. Conversely, the community can also be a huge resource for ideas and inspiration. Engagement events such as these represent an important opportunity to learn from innovative community groups and individuals working on sustainability issues in our region.

Infuse ongoing public engagement activities with a sustainability lens and continue to search for new, innovative ways to raise public awareness and inspire action

Beyond HRM's ongoing public engagement activities, we should continue searching for new innovative engagement possibilities. We have already involved ourselves in several creative activities (see below) and we should use the momentum generated from these to stimulate further initiatives. Our Community Engagement department is full of resources for public engagement and they encourage staff in other departments to come to them for support.

Innovative HRM-led public engagement on sustainability

- SEMO and Cultural Affairs teamed up on a public art project designed to engage the public on sea level rise, a serious issues in our community. (This inter-departmental collaborative also helped break down silos between SEMO and Cultural Affairs)
- SEMO was part of a team that initiated a public bicycle rack design competition, which brought together issues around the environment, physical activity, and downtown revitalization.
- Similar to other Canadian municipalities, our Transportation Planning staff are considering applying social marketing techniques to inspire public behaviour changes toward more sustainable transportation.
- The Alderney 5 viewing vault permits the public to look down into the mechanical room that drives the world's first geothermal cold stage system (see p6 for an image).

Coordinating external sustainability communications

As a newcomer to the organization, I was blown away when I learned about the great work HRM is doing but not communicating. External communications are delivered in such a piecemeal manner that despite some departments' extremely "green" angles (e.g. Facility Development, Transportation Planning), few outside the organization, or sometimes even outside the department, seem to know it. Without publicly celebrating HRM's successes, we are not inspiring others to take action, nor are we attracting new employees who value sustainability, and we are

not encouraging temporary residents to make HRM a permanent home. Instead, most of the organization's sustainability achievements tend to get lost.

Departments are usually left to their own to communicate with the public but they do not have the resources to properly convey the excellent work they do. Nor are they able to make the necessary links to other HRM initiatives and present the larger picture. The Sustainable Transition Team may wish to take on coordinating a sustainability communications strategy in combination with its Annual Sustainability Report. The team could bring in an external communications member to work on strategically communicating HRM's achievements and generating public excitement about them. Part of this strategy could include developing and continuously updating an HRM sustainability webpage that connects corporate sustainability efforts across the organization.

Coordinate a sustainability communications strategy

Celebrate public successes

Finally, HRM should celebrate outstanding public sustainability successes whether formally through certificates, plaques and ceremonies or informally through mention in publications and at events. Proper recognition will reward those who are acting on a commitment to sustainability and motivate further work. Businesses, community groups and individuals can each be targets for recognition.

Celebrate public successes

Focused Priorities

We must look to our knowledgeable staff for specific direction on focused priorities but my interviews revealed some general themes within each area that warrant discussion. In this section, I describe the strategic purpose of each focused priority, illustrate some of our most significant successes to date and communicate where staff see themselves going in the coming years.

Focused Priority: Green Buildings

Building operations account for about 56% of corporate emissions¹⁷, making them an ideal target for emissions reductions. Just as *A Look Back: The 2004 Recommendations* conveys, HRM has done extensive work on greening its building practices. LEED Silver has become the standard for new buildings, older buildings are being retrofitted with new, cleaner and more efficient energy systems, money saved from energy projects funds further energy initiatives, and HRM staff are starting to really engage the public on green buildings. In the last four years, HRM has invested over \$8 million in energy efficiency projects that are saving us more

¹⁷ HRM Corporate Local Action Plan to Reduce Greenhouse Gas Emissions, p16: <http://www.halifax.ca/environment/documents/HRMCorporateClimateLocalActionPlan.pdf>

than \$2 million annually, giving taxpayers close to a 19% return on investment. With this type of success, it is easy to see how we can use green buildings to spur enthusiasm for other sustainability actions. They are the “low hanging fruit” because buildings staff are already on board and they speak to a traditional bottom line. Furthermore, if HRM expects the private sector to eventually adhere to similar standards, HRM must demonstrate that it is possible to meeting the standards itself. HRM is well on its way to proving the desirability of green buildings but it is not quite there yet. For example, even though HRM has constructed or is constructing several buildings to LEED standards, it has yet to obtain formal LEED recognition and certificates to put on the walls. Besides finalizing certifications, the next steps in prioritizing green buildings are to put more time and resources into monitoring the effects of building improvements and communicating successes.

Monitoring

After constructing new buildings and making improvements to existing buildings, HRM staff want to answer the questions “was this a good idea?” and “how can we learn from this?”. Unfortunately, staff do not currently have the time to properly track building performance. HRM has begun collecting corporate energy benchmarking data for its buildings¹⁸ but initiatives such as this must be prioritized and proper attention must be given to the analysis of the data. Factors besides energy savings and costs should also be incorporated into the monitoring process. For example, some of the new geothermal facilities are experiencing potable water problems but staff have not had time to adequately investigate the situation. With the end of the building boom very near, we are entering a perfect time to shift our focus to monitoring our progress.

Prioritize the monitoring of building performance in order to learn from experiences

Communicating successes

Communicating the progress we make on greening our buildings can be a core piece of our green external communications priority. Buildings are easy for everyone to see and understand and can generate excitement about new projects.

Communicate green building progress with the public

Focused Priority: Green Procurement

The tremendous initiative from procurement staff has propelled HRM to a leadership position in the sustainable procurement field. *A Look Back: The 2004 Recommendations* showcases some of their most significant accomplishments since the first sustainability analysis. Procurement interacts with virtually all

¹⁸ HRM corporate building benchmarking
<http://www.halifax.ca/environment/CorporateEnergyBenchmarks.html>

departments, putting it in a strategic position to push a sustainability agenda in a far-reaching way. Further, similar to green buildings, procurement practices yield tangible results that fuel enthusiasm for sustainability and feed into greening corporate culture. To further drive sustainable procurement, we should continue putting pressure on the contracting community and search for ways to better integrate social sustainability into purchasing.

Contracting and consulting community

The municipality is a significant source of revenue for contractors in the region, implying that if HRM shifts its demands, contractors will be forced to make the corresponding changes to their products and services. HRM has already influenced parts of the local contracting community by, for example, demanding that new municipal buildings meet LEED Silver standards. Because of this expectation, the design and construction community has had to learn about and become certified in green building practices. Contractors are applying their newfound knowledge locally and are already using their HRM experience in other parts of Nova Scotia. Further, HRM has been working closely with vendors in recent years to improve the work they do, which has proven to make a positive difference. HRM must continue to exert this pressure on contractors in other fields by writing sustainability requirements into requests for tenders and proposals.

This leads to a primary procurement challenge: expressing sustainability in terms of specifications in procurement processes, which need to be open, fair and transparent. To do this, every procurement opportunity must clearly delineate unambiguous, measureable criteria on which decisions will be based. At this point, unfortunately, sustainability considerations are difficult to articulate and are sometimes missed simply because they cannot be qualified or quantified. Procurement must continue to work with business units to develop an understanding of the products and services available to them and to develop clear and fair methods of integrating sustainability into its practice. HRM Procurement can take advantage of the networks it is already a part of such as the province-wide Municipal Collaboration for Ethical and Sustainable Purchasing to learn about and share best practices.

Continue to demand contracts that integrate sustainability considerations

Integration of social implications into sustainable purchasing

HRM Procurement staff are developing a good grasp on environmental considerations in purchasing. Social considerations including well-being and other health-related aspects are more challenging and less familiar. Procurement staff should continue to explore ways of bringing social aspects into procurement by tapping into local, provincial and national networks that share best practices in sustainable procurement.

Continue to explore how to incorporate social sustainability into procurement practices

Focused Priority: Green Planning

Municipal planning policies and bylaws set the stage for how developers and residents build, travel, live, work and play. Ideally, these municipal documents will encourage sustainable choices and restrict unsustainable choices, especially given that community design is emerging as a key solution (and sometimes challenge) to some of our most pressing sustainability issues¹⁹. For at least half a century, residents have been driving great distances between their suburban homes and their work and until recently, few predicted the negative consequences of this type of auto-based lifestyle and settlement patterns. We now realize that continued development on the urban fringes has led to air quality problems, encroached on natural systems, contributed to climate change, posed personal health risks, and is currently threatening economic stability in the context of rising oil prices. Furthermore, as edge development continues, municipalities are forced to extend water and sewer systems, build new roads and provide other resources, leaving little financial capacity to maintain existing resources.

In this context, it is not surprising that planners across the continent are looking to infill development and urban investment to relieve environmental, social, and economic pressures. HRM's Regional Plan takes some measures to strategically focus new development by prescribing settlement "nodes" (see *A Look Back: The 2004 Recommendations*) but some argue that it may not go far enough to ensure a sustainable future. The upcoming 2011 Regional Plan review will be a key opportunity to look back and evaluate how some of the key concepts and ideas laid out in 2006 have been playing out on the ground and are contributing to (or taking away from) our ability to sustain our city into the future.

The Regional Plan also mandated a Regional Centre Urban Design Study: "HRM by Design". The first phase of the project, a Downtown Halifax Secondary Municipal Planning Strategy and an accompanying Land-use Bylaw and Design Manual, is complete. One of its primary accomplishments (that is sometimes overlooked) is its call for greater density in the urban core. By encouraging growth and infill in the urban centre, we will make better use of the resources we already have (parks, community centres, water and sewer systems, roads, public transit and schools), while limiting the demand for costly new resources. We will also encourage more residents to use more sustainable modes of transportation including buses and active transportation because more people will generally live close to where they

Use planning processes and products to encourage developers and residents to make sustainable choices about where and how to build, travel, live, work and play

¹⁹ 57% Canadian professionals rate sustainable community design as a top energy solution in a recent global thought leader survey: <http://www.pembina.org/pub/2040>

work. The next phases of HRM by Design that will focus on other parts of the Regional Centre, will be carried out in the coming years.

Focused Priority: Green Transportation

HRM residents are becoming increasingly aware of the impacts of our transportation system. A recent survey showed that most (92%) HRM residents agreed or strongly agreed that their commute to work in their car has an impact on the environment²⁰. In addition to the environmental effects (e.g. emissions that contribute to climate change), we have also begun to learn about the social and economic impacts of our automobile-based lifestyles. Rising oil prices that force us to pay more for our cars and buses and put some in a position where they simply cannot afford to travel as much as they need to. Health problems related to air quality and increasingly sedentary lifestyles are also surfacing. These negative consequences of our current transportation system, along with our community outcome area on “integrated and affordable transportation networks”, tell us that now is the opportune time to green our transportation network. At a corporate level, we are adjusting our fleet, looking to transportation demand management strategies to influence travel behaviour, and striving to improve transit service.

Fleet

As I discussed in *A Look Back: The 2004 Recommendations*, HRM has put time and effort into using biodiesel to power its fleet. Staff are supportive of using biodiesel as long as quality standards are met, but they are also looking to other means of saving costs and reducing emissions. They acknowledge the remarkable technological advances in diesel engines over the last two decades. For example, a 2010 city bus emits only 1/60 of the emissions a 1988 bus emitted, implying that as Metro Transit continues to replace its older vehicles, it also continues to green its fleet.



Metro Transit hybrid bus



Corporate Smart Car

Mini hybrid systems in transit buses that reduce fuel consumption up to 10% are being tested in Metro Transit buses. While a passenger would not know that a particular bus is using this hidden system, they would know if they were riding on one of two hybrid articulated buses purchased with help from the provincial government. Staff remain undecided about the value of the trade-offs that come with hybrid buses (they are much more expensive and they are extremely heavy), but the buses’ bright blue exterior definitely send a positive message to the public. Communications efforts continue online where an electronic counter tracks the

²⁰ 2010 HRM transportation survey results:
<http://www.halifax.ca/TDM/Documents/Overview.pdf>

kilograms of greenhouse gases saved since the hybrid buses were put on the road²¹. A similar message is sent through HRM's corporate Smart Cars that employees can use for meetings and other work-related trips. HRM staff repeatedly receive comments and questions about the Smart Cars indicating the cars' effectiveness in engaging the public.

Finally, general fleet vehicle purchase decisions are being filtered through a Vehicle Right Size Filter and a Life-Cycle Analysis²². The filter emphasizes that we should be purchasing vehicles that are appropriately sized based on the *need* rather than the desire. It is designed to eliminate the unnecessary purchase of oversized, over-polluting vehicles and even includes an SUV justification form. The Life-Cycle Analysis ensures that purchases are evaluated on the environmental attributes of fuel efficiency and emissions by including criteria such as a greenhouse gas score. At the current time, the filter only applies to about 25% of our fleet because specialized vehicles (e.g. fire trucks, dump trucks, etc.) are much more difficult to evaluate. We should continue to search for ways to establish valid criteria for this part of HRM's fleet.

HRM must continue greening its fleet through exploring alternative fuels, looking to technological solutions and expanding its sustainable decision-making procedures.

Transportation Demand Management

Transportation demand management (TDM) is a set of strategic initiatives geared at improving the efficiency of the transportation network, encouraging alternatives to the single occupant vehicle trip and encouraging behavioural change. TDM strategies can help us deal with problems of congestion, air pollution, excessive greenhouse gas emissions, and wear and tear on road infrastructure. Some of HRM's current or completed TDM initiatives are listed in the sidebar.

Staff admit that the allure of the personal vehicle is still strong and this is one of TDM's biggest challenges. Nevertheless, as we continue to make the alternatives more convenient and accessible and as our community better understands the true value of having a diverse range of sustainable transportation options, we will see positive impacts on our environment, our society and our economy.

Metro Transit

²¹ Hybrid bus facts: <http://www.getonboardhrm.ca/busfacts/>

²² Vehicle Right Size Filter and a Life-Cycle Analysis: <http://www.halifax.ca/council/agendasc/documents/090707ca1115.pdf>

Continue exploring alternative fuels, technological solutions and an expansion of the Vehicle Right Size filter

TDM Accomplishments

Active transportation

- AT Functional Plan adopted in principle, 2006
- 80km of bike lanes

Parking

- Regional Parking Strategy developed based on TDM principles

HRMSmartTrip.ca

- A free online ride-matching system

Guaranteed Ride Home

- Assures commuters using sustainable modes of transportation that they have a ride home in the case of an emergency or if they work late

Commuter Options Program

- Gives employers the tools they need to promote sustainable transportation options to their employees (HRM currently works with five local employers)

Transit

- 5-year Strategic Operations Plan completed in 2009
- New Metro Link and Metro Express routes have successfully attracted new riders
- New Ragged Lake Terminal that will allow for the operation of 150 more buses

Public transit is a key component to an overall TDM strategy because it stands to potentially pull the most commuters from their cars (over walking, cycling, taxi, etc.). Transit also speaks to all three pillars of sustainability: with as few as six riders, a bus emits less greenhouse gases per passenger-kilometre than a car with a single occupant; it connects people to where they live, work and play and it can provide much-needed mobility for those who do not have access to a vehicle; it can save money for both riders (a bus pass is cheaper than paying car insurance, gas and maintenance every month) and the municipal taxpayer (a single bus carrying 25 people exerts less wear and tear on the roads than 25 personal vehicles).

Acknowledging these important benefits to transit, the Regional Plan expects Metro Transit to play a key role in HRM's future. It sets ambitious transit modal splits and links land use planning with public transportation. Since the adoption of the Regional Plan, Metro Transit has implemented bus rapid transit routes (Metro Link and Metro Express) that have been tremendously successful. In 2009, it unveiled a 5-year Strategic Operations Plan²³ that predicts a reduction of greenhouse gas emissions by 4.4% by the end of its implementation. The plan comprehensively pulls together and lays out strategies for essential features of a public transit system including policy, service, infrastructure and marketing. In 2010, HRM opened its new Ragged Lake Transit Centre (built to LEED Silver standards), which allows for the operation of an additional 150 buses. The new centre is also cutting operational costs and greenhouse gas emissions that would have accumulated by running "out of service" buses in Halifax all the way to the Burnside facility.

Aggressively strive to implement existing transit plans to achieve established goals and objectives

Transit provides an essential link between our communities and offers a more sustainable alternative to the personal vehicle. Despite tough economic times, HRM must strive to ensure that the strategies recommended in the 5-year transit plan are carried through.

²³ Metro Transit 5-Year Strategic Operations Plan:
<http://www.halifax.ca/metrotransit/5YearStrategicOperationsPlan.html>

Resources



The resources here are intended to be more than a bibliography – they can be useful tools for moving on sustainability.

HRM Resources and information

Adventure Earth Centre’s Sustainable Purchasing “Walk the Talk” filter

<http://www.earthed.ns.ca/files/AEC%20Walk%20the%20Talk%20Filter.pdf>

Alderney 5 project

<http://www.halifax.ca/facilities/Alderney5.html>

Citizen Survey

<http://www.halifax.ca/citizensurvey/>

Corporate building benchmarking

<http://www.halifax.ca/environment/CorporateEnergyBenchmarks.html>

Corporate Local Action Plan to Reduce Greenhouse Gas Emissions

<http://www.halifax.ca/environment/documents/HRMCorporateClimateLocalActionPlan.pdf>

Finance Green Team

<http://insidehrm/BusinessUnits/Finance/TheGreenTeam.html>

Guidelines for greening our meeting and catering requirements

<http://insidehrm/BusinessUnits/SustainabilityKnowledge/Documents/GreeningourMeetingandCateringRequirements.pdf>

Hybrid bus facts

<http://www.getonboardhrm.ca/busfacts/>

Leadership in Green Procurement Award, HRM’s 2008 submission

http://www.summitconnects.com/Summit_Magazine/LPP_Submissions/Regional%20Municipality%20of%20Halifax.pdf

Leadership in Green Procurement Award, HRM’s 2009 submission

http://www.summitconnects.com/Summit_Magazine/LPP_Submissions/Halifax_Green_Battery_initiative.pdf

Metro Transit 5-Year Strategic Operations Plan

<http://www.halifax.ca/metrotransit/5YearStrategicOperationsPlan.html>

Sustainability Study Tour to Sweden

<http://www.halifax.ca/environment/SwedishSustainabilityTour.html>

Sustainable Environment Management Office

<http://www.halifax.ca/environment/sem.html>

Transportation survey results (2010)

<http://www.halifax.ca/TDM/Documents/Overview.pdf>

Vehicle Anti Idling Policy (see attachment 1)

<http://www.halifax.ca/council/agendasc/documents/100216cai04.pdf>

Vehicle Right Sizing Filter

<http://www.halifax.ca/council/agendasc/documents/090707ca1115.pdf>

Regional Resources and Information

Atlantic Canada Electronics Stewardship

<http://www.acestewardship.ca/>

Call2Recycle

www.rbrc.org/call2recycle

Nova Scotia Power's "Small Business Lighting Solutions" program

<http://www.nspower.ca/en/home/energysavings/programs/smallbusiness/default.aspx>

Union of Nova Scotia Municipalities Municipal Sustainability Office

<http://www.sustainability-unsm.ca/>

Wolfville's Declaration of Sustainability (see page 5)

http://www.wolfville.ca/index.php?option=com_docman&task=doc_view&gid=391&tmpl=component&format=raw&Itemid=242

Resources and Information from across Canada

Calgary reports to Council

http://publicaccess.calgary.ca/lldm01/livelink.exe?func=ccpa.recentagenda#regular_council

Canada Green Building Council

<http://www.cagbc.org/leed/what/index.php>

Hamilton's sustainability training experience

<http://www.iclei.org/index.php?id=1170>

International Council for Local Environmental Initiatives

<http://www.iclei.org/>

Resources for Community Sustainability

<http://www.sharethewheel.com/>

Surrey reports to Council

<http://surrey.ihostez.com/Documents/DocumentList.aspx?ID=22141>

Surrey's Sustainability Charter

<http://www.surrey.ca/plans-strategies/3152.aspx>

Sustainability Planning toolkit for Municipalities in Ontario

http://www.amo.on.ca/AM/Template.cfm?Section=Integrated_Community_Sustainability_Plan&Template=/CM/ContentDisplay.cfm&ContentID=150880

The Natural Step Canada

<http://www.naturalstep.org/en/canada>

2010 Global Thought Leader Survey on Sustainability

<http://pubs.pembina.org/reports/thought-leader-survey-2010-pembina-summary.pdf>