



# Sustainability in HRM

Leading by Example



# We're #1

- Don't just take our word for it... In 2009, Corporate Knights Magazine placed Halifax first for medium-sized cities in their National Sustainable Cities Ranking
- Initiatives such as the Harbour Solutions Project, pesticide use reduction program, the upcoming corporate sustainability filter, composting and recycling systems, and the Alderney 5 Geothermal Energy Project were some of the significant factors in HRM's excellent ranking.
- Sustainability is becoming ingrained in our corporate culture. In HRM we are committed to a being a healthy, sustainable and vibrant community.



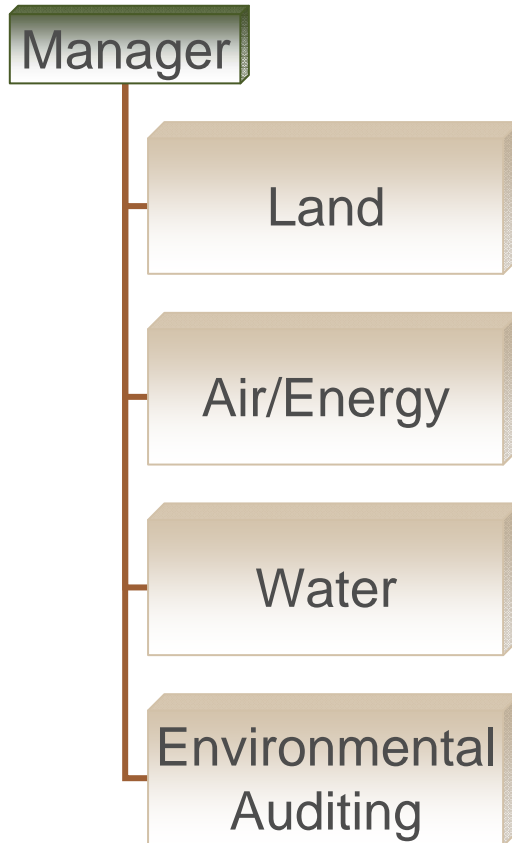


# Sustainable Environmental Management Office

- Corporate Lead for Sustainability and Environmental Policy, Strategy, Reporting and Performance Monitoring
- HRM has taken an integrated systems approach to clean air, land, water and energy



# SEMO Structure



**All are responsible for environmental monitoring, reporting, and due diligence**



# Clean Land - Examples

- Regional Plan – 25 Year Sustainable Land Use Planning
- Solid Waste Management – High Waste Diversion Rates
- Sustainable Landscape Maintenance Practices – Corporate and Community
- Pesticide Use Reduction – Residential Areas and HRM Properties



# Clean Land – Solid Waste Diversion



- 60% waste diversion from landfill in 2008 – 2009
- 90% participant satisfaction with waste /resource management program



# Clean Energy - Examples

## Community Energy Planning

- Transit/ Transportation Long Range Plans
- Natural Gas Synergy
- Wind Power - Green Power Purchase
- Energy Performance Contracts - Metro Transit Facility
- LED Lights/Savings
- Landfill Gas Recovery
- Alderney Five Project



# Clean Energy – Alderney 5 Energy Project



- \$3.6 million energy-efficiency retrofit of five municipal buildings on the Dartmouth waterfront
- First large scale application of geothermal seasonal cold-energy storage anywhere in the world
- Will heat and cool 330,000 ft<sup>2</sup>
- Innovative public-private partnership model



# Clean Air - Examples

- Climate SMART – Climate Change Strategy
- Greenhouse Gas Emission Reduction Plans – 20% by 2012
- Bus Rapid Transit – Enhanced System – Emission Reduction
- Bio-Fuels – Buses and Buildings
- Reduced Idling Campaigns
- Methane Capture – former Landfill
- Clean Air Strategy



# Clean Air – Active Transportation Plan



- 41% of residents who live on the peninsula and work downtown walk to work
- 214.3 km of active transportation corridors
- HRM's Active Transportation Plan has been created to ensure that all residents can participate in active modes. Everyone from 0 to 100 + can get out and be active.



# Clean Water Examples

- Harbour Solutions Project – Clean Harbour
- Wastewater/ Stormwater Strategy – 25 Year Plan
- Water Quality Monitoring Program
- Water and Sewer Extensions
- Road Salt Management
- Groundwater/Septic Stewardships
- Biosolids Program
- Upgrade WWT Facilities



# Clean Water – Harbour Solutions



- 200,000,000 litres of sewage now diverted and treated daily
- Harbour Beaches re-open after almost 30 years
- Project remains on budget at \$333,000,000



# Other Initiatives



- The Natural Step, a non-profit organization promoting sustainability, has conducted a Sustainability Analysis for HRM's corporate operations. The report can be viewed online.
- As per a request from Council, HRM is developing a corporate policy with respect to bottled water use in municipally owned facilities.





# Corporate Sustainability Analysis

- 12 High Level corporate wide recommendations
- 3 Immediate Priorities
  - Green Corporate Culture**
  - Green Buildings**
  - Green Procurement**
- Numerous initiatives underway in each of these priority areas





# Early Activities Included

- **Green Corporate Culture**
- Training; Transition Team; etc.
- **Corporate wide Sustainability Training**  
(Building the rigor and understanding behind the sustainability systems approach)
- Specialized/ focused workshops
- Continuing to build critical mass internally/ externally
- **Green Building** Policy Workshops; LEED Construction; Energy Efficiency Initiatives
- **Green Procurement**; Eco-Labeling; Training; etc.
- **Sustainability Filter** – decision making tool to measure corporate sustainability impacts



# Sustainability Transition Team

- Established in June, 2007
- The fundamental mandate of the Sustainability Transition Team includes, “greening the corporate culture through the promotion of sustainability practices, policies, education and awareness throughout HRM”.
- Includes representatives from:
  - Transportation and Public Works
  - Finance
  - Fire
  - Police
  - Community Development
  - Infrastructure and Asset Management



# LEED Silver Rating



- East Dartmouth Community Centre
- Mainland Common Centre
- Prospect Road Community Centre
- Gordon R. Snow Community Centre/Fire station
- Ragged Lake Satellite Transit Garage
- Dutch Settlement Fire Station



# East Dartmouth Community Centre



- This 21,760 ft<sup>2</sup> facility features a Halifax Regional Police office, full sized gymnasium, multi-purpose programming space, meeting rooms, kitchen and associated amenities serving the needs of the building. It is also home to the Boys and Girls Club of East Dartmouth.
- Building designed to meet "LEED" Silver Rating. Some key environmental building design features are:
  - Ground source geothermal heating system.
  - Onsite Storm water management system.
  - High efficiency lighting and controls.
  - Green roof.
  - 15% post-consumer recycled content.
  - Low VOC emitting building materials.
  - 75% diversion of construction waste from landfill.
  - Onsite bicycle storage and changing rooms.
  - No irrigation required for landscaping.
  - High emissivity roofing material.
  - Ultra low flow plumbing fixtures.
  - 20% local/regional material source.
  - Green housekeeping practices.
  - Proximity to bus routes.



# Mainland Common Centre



- 176,000 sf<sup>2</sup> facility which will house an aquatic centre, field house, health, fitness and wellness centre, dance/arts/culture studio room, Youth centre, Community multi-purpose rooms, Canadian Sport Centre Atlantic, Sports medicine/physiotherapy clinic, Café, Community meeting spaces.
- Building designed to meet or exceed "LEED" Silver Rating. Some key environmental building design features are:
  - Ground source geothermal heating system.
  - Proximity to bus routes.
  - Onsite Storm water management system.
  - High efficiency lighting and controls.
  - Post-consumer recycled content.
  - Rapidly renewable material usage.
  - 50% diversion of construction waste from landfill.
  - Onsite bicycle storage and changing rooms.
  - Redevelopment of contaminated site.
  - Limited irrigation required for landscaping.
  - Independent Building Commissioning Agent.
  - Ultra low flow plumbing fixtures.
  - Low VOC emitting building materials.
  - Local/regional material source.



# Prospect Road Community Centre



- 22,720 ft<sup>2</sup> facility featuring full sized Gymnasium, Multi-purpose Programming Space, Fitness Room, Arts and Cultural Room, Meeting Rooms, Kitchen and associated amenities serving the needs of the building.
- Building designed to meet or exceed "LEED" Silver Rating. Some key environmental building design features are:
  - Ground source geothermal heating system.
  - Onsite Storm water management system.
  - High emissivity roofing material.
  - 10% Post-Consumer Recycled Content.
  - Low VOC emitting building materials.
  - Independent Building Commissioning Agent
  - Onsite bicycle storage and changing rooms.
  - High efficiency lighting and controls.
  - Ultra low flow plumbing fixtures.
  - 50% local/regional material source.



# Gordon R. Snow Community Centre & Fire Station 45



- The facility is approximately 38,000 ft<sup>2</sup> (including 26,000 ft<sup>2</sup> recreation facility) and features Apparatus Bay, an RCMP Community Policing Office, full sized Gymnasium, Multi-purpose programming space, meeting rooms, fitness centre, skate park, kitchen and associated amenities serving the needs of the building.
- Building designed to meet "LEED" Silver Rating. Some key environmental building design features are:
  - Ground source geothermal heating system.
  - Designated Carpool Parking.
  - No irrigation required for landscaping.
  - Ultra low flow plumbing fixtures.
  - 20% local/regional material source.
  - 75% diversion of construction waste from landfill.
  - Onsite bicycle storage and changing rooms.
  - Onsite Storm water management system.
  - High efficiency lighting and controls.
  - 15% post-consumer recycled content.
  - Low VOC emitting building materials.
  - Green housekeeping practices.



# Ragged Lake Transit Centre

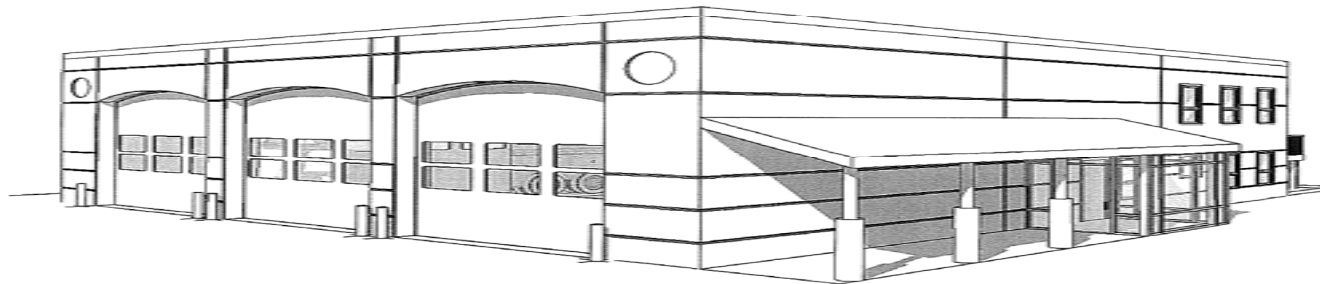


SERVICE GARAGE RENDERING

- Building designed to meet or exceed "LEED" Silver Rating. Some key environmental building design features are:
  - Onsite Storm water management system.
  - Low VOC emitting building materials.
  - High emissivity roofing material.
  - 10% Post-Consumer Recycled Content.
  - construction waste management.
  - Onsite bicycle storage and changing rooms.
  - High efficiency lighting and controls.
  - Ultra low flow plumbing fixtures.
  - 50% local/regional material source



# Dutch Settlement Fire Station



Design Development Phase  
HRM - New Dutch Settlement Fire Station  
March 2009

e n VISION  
ARCHITECTURE

- 5,400 ft<sup>2</sup> (including 1,200 ft<sup>2</sup> mezzanine) and features Apparatus Bay (for three trucks), Office, Watch Desk, Kitchen, Training Room and associated amenities serving the needs of the building.
- Building designed to meet or exceed "LEED" Silver Rating. Some key environmental building design features are:
  - Ground source geothermal heating system.
  - High efficiency lighting and controls.
  - Ultra low flow plumbing fixtures.
  - 50% local/regional material source.
  - Independent Building Commissioning Agent
  - Low VOC emitting building materials.
  - Onsite Storm water management system.
  - High emissivity roofing material
  - 10% Post-Consumer Recycled Content





# Into a Sustainable Future

## Key Success Factors

- Staffing/Business Planning
- Performance Monitoring & Reporting
- Strategic Partnerships

