

PRIORITIES AND KEY INITIATIVES COMMITTEE – MAY 27, 2013

GREEN DIRECTIONS VAUGHAN COMMUNITY SUSTAINABILITY AND ENVIRONMENTAL MASTER PLAN IMPLEMENTATION UPDATE

Recommendation

The Commissioner of Strategic and Corporate Services and the Manager of Environmental Sustainability in consultation with the Senior Management Team recommend:

1. That Attachment 1, 2 and 3, outlining progress to date in implementing the actions prescribed in *Green Directions Vaughan* and associated community sustainability and environmental indicators be received for information purposes; and,
2. That a Media Release be issued to inform the public of the advances made in implementing *Green Directions Vaughan* in the fourth year of implementation.

Contribution to Sustainability

Objective 6.1 of *Green Directions Vaughan (GDV)*, “To fully support the implementation of Green Directions at all levels of City operations”, provides under Action 6.1.6 that, an annual report to the Environment Committee be prepared on the status of existing programs and accomplishments for the purpose of monitoring the implementation of the plan. With the sun setting of the Environment Committee in 2010, all subsequent update reports have been directed to the Priorities and Key Initiatives Committee. In addition, *GDV* subsection 4.2 Monitoring and Reporting on Progress notes that indicator reporting should complement the annual status update. Indicator reporting generates further awareness of the implementation progress.

Economic Impact

There will be no economic impact resulting from the adoption of this report.

Communications Plan

Following the fourth year of implementation of *Green Directions Vaughan* and first time reporting of indicators it would be worthwhile to issue a News Release highlighting this milestone. This is consistent with Goal 5 of *Green Directions Vaughan*, “To be leaders in advocacy and education on sustainability issues”, where “Vaughan is committed to sharing its successes with the community”. Staff will prepare a News Release showcasing areas of progress and notable indicators as *Green Directions Vaughan* implementation continues. The Environmental Sustainability area of the Vaughan on-line website will highlight implementation status on all areas of the community sustainability and environmental master plan and feature all 24 *GDV* indicators.

Purpose

The purpose of this report is to provide the Priorities and Key Initiatives Committee with an update on the implementation of *Green Directions Vaughan* including reporting of 24 indicators.

Background - Analysis and Options

Background

In April 2009 Council approved the *Green Directions Vaughan*, our Community Sustainability and Environmental Master Plan. As the City's sustainability plan, *Green Directions Vaughan* contains a set of recommended actions that address the range of municipal responsibilities including both operational and regulatory functions. It also serves as the City's Integrated Community Sustainability Plan (ICSP). The ICSP is a long-term plan designed to guide the community toward a more sustainable future by addressing environmental, cultural, social and economic issues.

Green Directions establishes a definition of "sustainability", an "environmental ethic" and a set of "principles" to guide the implementation of the plan. The definition of sustainability reflects the breadth of municipal responsibilities, where, "Sustainability means we make decisions and take actions that ensure a healthy environment, vibrant communities and economic vitality for current and future generations."

The plan identifies six categories that classify Vaughan's functions. These are further broken down into goals, objectives and a series of actions, which describe how each of the goals can be achieved. The categories and goals include:

What We Use:

Goal 1: To significantly reduce our use of natural resources and the amount of waste we generate.

How and Where we Grow:

Goal 2: To ensure sustainable development and redevelopment.

How We Get Around:

Goal 3: To ensure that Vaughan is a city that is easy to get around with low environmental impact.

How We Live:

Goal 4: To create a vibrant community where citizens, businesses and visitors thrive.

How we Lead:

Goal 5: To be leaders in advocacy and education on sustainability issues.

How we Operate:

Goal 6: To ensure a supportive system for the implementation of *Green Directions*.

The objectives are more specific statements of the general goals and they describe how the goals will be achieved. Each of the goals has multiple objectives. The actions refer to tasks that need to be undertaken to achieve the prescribed objective. There can be multiple actions attached to each objective. Actions are assigned to a Commission for implementation within a specific timeframe.

On May 25, 2010, a report was received on the implementation of *Green Directions Vaughan* following the first anniversary of its approval. The report highlighted the status of existing programs, key accomplishments, new initiatives and further opportunities for the purposes of monitoring the implementation of the plan. The primary focus of the report was directed to projects that are identified in the 2009-10 timeframe or those that were targeted as "on-going".

On April 5, 2011, a report was ratified by Council on the implementation of Green Directions Vaughan following the second anniversary of its approval. A media release and web based report highlighting specific actions under each of the six goal areas were generated as a result of the report recommendations.

In March 2012, it was reported that over 94% of the eighty five actions outlined in Green Directions Vaughan had been initiated. Fourteen of the forty-four action items which have established time frames were completed. On November 26, 2012, PKI approved 24 baseline indicators which would be reported on annually along with the *Green Directions Vaughan* implementation update beginning with the 2012 update in Q2/2013.

Report Format

A significant portion of the success of *Green Directions Vaughan* will depend on the internal operations and functions that support its implementation. In order to monitor the implementation of the plan, action 6.1.6 indicates the City should prepare an annual report addressing, among other things:

- The status of existing programs
- New Initiatives
- Accomplishments
- Further opportunities.

Although action 6.1.6 makes reference to new initiatives, this report will focus predominantly on the action items that have been implemented, planned within the initial timeframe of *GDV* or classified as ongoing. In an effort to keep the Community Sustainability and Environmental Master Plan a dynamic and living document, the Environmental Sustainability Office will continue to explore new initiatives with Council particularly as *GDV* comes up for renewal.

As of March 2013, 96% of the 85 actions outlined in *Green Directions Vaughan* have been initiated. All of the actions yet to be initiated are dependent on activities currently underway and have been targeted for the later portion of the implementation timeframe. Six action items which have established time frames are fully completed as no further updates were provided. The owners of the actions with established time frames will be encouraged to finalize these actions throughout 2013 where possible.

Five actions within *Green Directions Vaughan* were determined to be progressing below expectations in 2012. These actions include: 1.1.6 Green Fleet strategy; 1.4.2 City facilities water reduction target; 1.4.3 City Facilities water use; 1.5.2 City facilities waste audit; 1.5.5 Green Procurement policy. Usually, these actions had been assigned a time frame earlier in the implementation schedule and had not yet been completed or the action reported was deemed to show very little advancement compared to previous years. In these cases, senior leadership was made aware of the situation and a methodology for enhancing implementation success was developed. It is expected that these efforts should lead to improved implementation results in 2013.

Attachment No.1 is based on the section within *GDV* that summarizes actions for each action item; the Goals, Objectives, Time Frames and Project Responsibility have been noted. A final column summarizes the update for each action item as of March 2013.

Highlights

In order to highlight the implementation progress of *Green Directions*, a few initiatives have been selected to report back on. These select projects are currently underway or have been recently completed. These representative projects also correspond to the three main pillars of sustainability; healthy environment, economic vitality and vibrant community. Further details about these highlighted initiatives noted below can be found in Attachment 2

- Develop and implement a citizens engagement strategy
- Demonstrate support for renewable energy use and generation by businesses and citizens.
- Evaluate greenhouse gas emissions
- Develop a comprehensive Natural Heritage Strategy
- Encourage environmentally friendly or progressive businesses to set up in Vaughan

Indicators

Core indicators help to measure the impact of the outcomes and outputs of *Green Directions Vaughan*. In section 4.2 of *Green Directions Vaughan*, reference is made to reporting on changes in sustainability/environmental indicators for the purposes of reporting on implementation progress. Sustainability Indicators are also referenced in Appendix C of the Community Sustainability and Environmental Master Plan as the City of Vaughan's funding agreement with the Association of Municipalities of Ontario on Federal Gas Tax Revenues noted that indicators related to cleaner air, cleaner water and lower greenhouse gas emissions should be established. With implementation of *Green Directions Vaughan* well underway, it is important to establish indicators in order to monitor the changes that have occurred as a result of implementing the Master Plan.

In November 2012, Council adopted 24 quantitative indicators to measure the impact of the outcomes of *Green Directions Vaughan*. The indicators selected align with the strategic framework of the City; correspond to indicators being tracked in the Global City Indicators project; meaningful to the departments responsible for tracking them; and, compatible with existing benchmarks.

Initially, 2011 was intended to be established as the baseline year for the 24 indicators. However, two of the indicators pertaining to air quality, the 2011 and 2012 data sets have yet to be released by the Ministry of the Environment. Therefore, the most recent year has been highlighted in the summary table. Similarly, baseline numbers for water use and community greenhouse emissions were noted for the years for which the data was available. Another data set on land use, specifically on greenspace, is pending data verification and will be sent to Council under separate communication in Q2/2013.

Although it is still very early in the indicator tracking environment, it was encouraging to see notable improvements in several categories. The daily volume of water used per person experienced a 22% decrease between 2009 and 2012. The volume of building floor area, certified under recognized green building programs, increased by 77% from 2011 to 2012. Another measure for determining an active community (which monitors total participant hours in recreation programs) increased by 14% from 2011 to 2012. In terms of economic activity, the number of jobs provided by Vaughan based businesses increased slightly by 3% from 2011 to 2012.

A few of the indicators experienced a small drop between 2011 and 2012. Environmentally related public outreach events held by the City of Vaughan increased by one event but the overall number of attendees decreased by 19%. The Earth Hour celebration at City Hall, which attracted 500 participants, was added however participation in the 20 Minute Makeover decreased in 2012.

As discussed in the November 2012 PKI staff report, there are several initiatives which could provide useful comparators for *Green Directions Vaughan* indicators. These include Global City Indicators, the Toronto Region Conservation Authority Living City Report Card and the Green Cities Index. For this initial reporting on *GDV* indicators, it would be worthwhile to determine if a select few *GDV* indicators were in the same range as the aforementioned indicator sets. Table 1 outlines a few select indicators and appropriate benchmarks. Another *GDV* indicator, Building floor area certified under recognized green building programs compares very favourably with the Green Cities Index indicator of

number of LEED certified buildings per 100,000 people. While developing the *GDV* indicator it was determined that there were 20 LEED certified buildings in Vaughan in 2011 (6.6/100,000 people) which is slightly above the Green City Index average of 6.4/100,000 people. Attachment 3 outlines all 24 indicators for 2011 and 2012.

Table 1: Benchmarking GDV Indicators

Indicator	Green Directions Vaughan	Benchmark indicator	Source
Residential waste diversion	69 %	50 %	Living City Report
Daily volume of water used per person	214 L	274 L (2009)	2011 Municipal Water Use – Environment Canada
Community Greenhouse Gas emissions	1.33 M tonnes eCO ₂	53 M tonnes eCO ₂ (GTA wide)	Living City Report

Relationship to Vaughan Vision 2020/Strategic Plan

This report is consistent with the *Green Directions Vaughan* objective to lead and promote environmental sustainability and implement the Community Sustainability and Environmental Master Plan.

Regional Implications

There are no Regional implications resulting from the adoption of this report.

Conclusion

The implementation phase of *Green Directions Vaughan*, the City of Vaughan's Community Sustainability and Environmental Master Plan continued throughout 2012. A number of the major initiatives have progressed significantly as to be expected during this maturing stage of the implementation process.

Five actions within *Green Directions Vaughan*, representing about 6% of the total actions, are progressing slowly. A methodology for enhancing implementation success of each of the actions has been established. It is anticipated that significant progress on these actions will be achieved in 2013.

The fourth year of reporting qualitatively was complemented by a set of 24 quantitative indicators. These quantitative indicators, approved by Council in November 2012, were derived from a combination of internal and external sources. Some of the indicators showed improvement between 2011 and 2012. However, given the infancy of indicator tracking more time is required to determine if the indicator results are reflective of the implementation of *Green Directions Vaughan*.

Attachments

1. Green Directions Vaughan
Community Sustainability and Environmental Master Plan
Implementation Update
March 2013
2. Highlights- Green Directions Vaughan Implementation
3. Green Directions Vaughan Indicators

Report prepared by:

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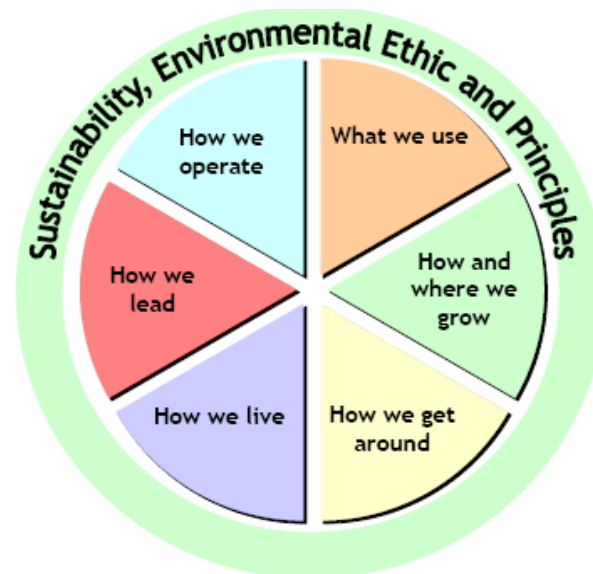
Respectfully submitted,

Joseph Pittari, MSc
Commissioner, Strategic & Corporate Services

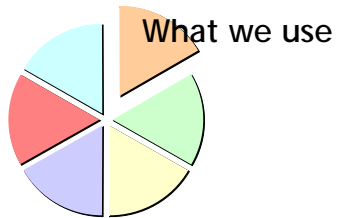
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COMMUNITY SUSTAINABILITY AND ENVIRONMENTAL MASTER PLAN IMPLEMENTATION UPDATE



Priorities and Key Initiatives Committee
May 2013



Goal 1: To significantly reduce our use of natural resources and the amount of waste we generate

The City of Vaughan, as a leader in sustainability, is committed to making prudent choices about its consumption of goods and resources. The action plans related to “what we use” in Vaughan focus on sustainable energy use to reduce our greenhouse gas emissions and improve air quality, a more conservative approach to water use in our facilities and a commitment to reducing the amount of garbage generated in our own facilities and a 100% waste diversion target as part of the Greening Vaughan strategy. In addition, the City encourages sustainable procurement and the use of local, renewable energy sources. The action plans associated with this goal were created with a recognition of global climate change, implementation of the Energy Conservation Leadership Act, and the need to monitor and reduce energy consumption.

Objective 1.1: To reduce greenhouse gas emissions and move towards carbon neutrality for the City of Vaughan's facilities and infrastructure

Actions	Time Frame	Project Responsibility		Status March 2013
		Owner	Resources	
<p>1.1.1. Seek creative funding for energy saving projects in municipal facilities, including:</p> <ul style="list-style-type: none"> Developing an energy savings policy to ensure that the funds recouped from energy savings are reinvested into energy-related initiatives; and Applying to the Municipal Eco Challenge Fund (MECF). 	Ongoing	Finance	Community Services Manager & Engineering and Public Works	As a participant in PowerStream's Roving Energy Manager initiative, the City of Vaughan has been accessing Ontario Power Authority incentives for power users to implement energy saving measures in their facilities. The energy savings measures vary from lighting to enhanced power management. Additional incentives will be pursued once the Energy audit is completed in Q3, 2013.
<p>1.1.2. Evaluate the city's greenhouse gas emissions by completing an energy audit on all City facilities (Partners for Climate Protection Milestone 1) by building upon the ongoing work of other municipalities (i.e., templates).</p>	2009-2010	Community Services	Engineering and Public Works	The successful proponent of the RFP process has been selected and the energy audit of City facilities is expected to occur in Q2, 2013. Application has been made to the Ontario Power Authority Save on Energy program to fund a portion of the audit costs
<p>1.1.3. <i>Prepare an annual energy conservation plan pursuant to the Energy Conservation Leadership Act, 2006, S.O. 2006, C3. Such plan shall be prepared in accordance with the requirements of the Act, including:</i></p> <ul style="list-style-type: none"> <i>An itemized description of significant energy consuming technologies and operations;</i> <i>Annual energy usage of each of the technologies and operations;</i> <i>Current and proposed activities and measures to conserve energy used by the technologies and operations and otherwise reduce the amount of energy used;</i> <i>A summary of the programs and achievements in energy conservation</i> 	As determined by the regulations (not yet issued by the Province)	Community Services	Engineering and Public Works & Vaughan Fire and Rescue Services	In Oct 2012, Building and Facilities Department in partnership with the Environmental Sustainability Office, made Council award of the regulatory requirements of reporting corporate energy usage and energy management planning. Work continues on collecting the information necessary to report corporate facility energy usage to the Ministry of Energy by July 1, 2013.

and other reductions since the previous plan; and

- *Any such information as may be prescribed.**

<p>1.1.4. In preparation for the provincially-mandated responsibilities associated with 1.1.3, join Partners for Climate Protection (PCP is a network of 166 Canadian municipal governments who have committed to reducing greenhouse gases and acting on climate change) as a way of showing leadership on climate protection issues.</p>	<p>Based on the timing of the implementation of 1.1.3. and 1.1.2.</p>	<p>Community Services</p>	<p>Engineering and Public Works</p>	<p>Completed. City of Vaughan obtained membership following approval of Council in March 2011.</p>
<p>1.1.5. Develop an emissions reductions plan (PCP Milestone 2) for City facilities. This reduction plan should examine:</p> <ul style="list-style-type: none"> • Moving towards carbon neutrality; • Potential savings in new buildings and existing infrastructure (retrofits); • Implementing a “lights-out” initiative for municipal buildings; • Energy conserving streetlight pilots; and • Support for local, renewable sources of energy. 	<p>Based on the result of the audit performed in 1.1.2.</p>	<p>Community Services</p>	<p>Engineering and Public Works</p>	<p>Through staff initiatives and support from the PowerStream Roving Energy Manager various energy saving initiatives have been implemented. Results from Energy Audit initiated in Q2/2013 , from Action 1.1.2, of City owned-facilities will be used to further develop additional energy reduction initiatives and a comprehensive emission reductions plan.</p>
<p>1.1.6. Develop a comprehensive green fleet strategy</p>	<p>2011-2014</p>	<p>Community Services</p>	<p>Engineering and Public Works & Vaughan Fire and Rescue Services</p>	<p>An evaluation of the progress on each of the eight areas of the strategy Fleet is responsible for was conducted in early 2013. A series of next steps to help advance key areas of the strategy will be prioritized and acted on.</p>

* *Actions in italics represent municipally-mandated responsibilities or initiatives that are already underway (or planned for) at the City*

Objective 1.2: To promote reduction of greenhouse gas emissions in the City of Vaughan

Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
<p>1.2.1. Demonstrate support for renewable energy use and generation by businesses and citizens, by:</p> <ul style="list-style-type: none"> Identifying partnership opportunities with business, industry, utilities and agencies in the implementation of new and alternative energy sources or systems (including options for landfill gas); Reviewing City by-laws to minimize, where appropriate, obstacles to the development of alternative energy sources and where regulation is necessary (subject to the proposed <i>Green Energy Act</i>), develop the necessary standards; Advocating, where appropriate, for the use of existing infrastructure to allow citizens and businesses to share excess capacity to the energy grid; and Providing access to education about alternatives and grants (e.g. The Community Power Fund to support community-owned renewable energy projects in Ontario). 	Ongoing	Economic Development		The Economic Development Department has been involved in the District Energy project for the Vaughan Metropolitan Centre (VMC). Support to the lead including identifying land ownership and creation of maps/materials. In addition the District Energy concept continues to be marketed as a value proposition for the VMC.
	2009-2010	Planning	Legal	Planning staff are continuing to monitor development of guidelines and regulations under Green Energy Act. The Comprehensive Zoning By-Law review will take into account Green Energy Act requirements.
	On-going	Building and Facilities	Finance	As a result of changes to the way the Ontario Power Authority's Feed in Tariff Program (FIT) program evaluates potential projects, renewable energy proponents were asked to obtain municipal support resolutions. Approximately 100 resolutions were provided to proponents wishing to install solar photovoltaic system on Vaughan properties for the latest round of FIT applications in late 2012-early 2013. This demonstrates the willingness of the City to promote renewable energy within the community.
	2009-2010	Finance	Corporate Comm.	The City of Vaughan continues to provide a means to disseminate information regarding renewable energy. Our Learning from the Leaders page within the Environment area on the Vaughan on-line website highlights several renewable energy profiles of Vaughan citizens engaged in this activity. Funding information is provided via the website as well.

<p>1.2.2. Through partnership, consider the opportunities for developing community energy strategies for new development areas for the purpose of reducing energy use on a community or neighbourhood basis, by applying such measures as:</p> <ul style="list-style-type: none"> • Energy conservation measures applied to community and building design, implemented through the planning process; • District energy systems; • Co-generation and distributed power generation; and • Photovoltaic, geothermal and wind systems. <p>The City evaluates all major development areas for their potential for district energy systems and other appropriate alternative energy forms. As a pilot program, initiate a feasibility study to examine the opportunities for developing a district energy system in the Vaughan Corporate Centre, concurrent with the review of the Vaughan Corporate Centre Secondary Plan.</p>	<p>2009-2010</p>	<p>Engineering and Public Works</p>	<p>Planning</p>	<p>Work continued on educating the developers in the area on the benefits of district energy system. A letter of support was provided to the Canadian District Energy Association and its partners who are working to raise the importance of integrated community energy systems, including district energy, with the Ontario Ministry of Municipal Affairs and Housing.</p>
<p>1.2.3. Identify and work with partners to evaluate the community's greenhouse gas emissions (PCP Milestone 1)</p>	<p>2011-2014</p>	<p>Strategic & Corporate Services</p>	<p>Engineering and Public Works and Community Services</p>	<p>Staff has collected and analyzed the required data for the Community GHG emissions evaluation. A staff report has been drafted and is in the process of being edited. Once the draft is completed, it will be circulated to interested parties.</p>
<p>1.2.4. Develop an emissions reductions plan (PCP Milestone 2) for, and in partnership with, the community.</p>	<p>2011-2014</p>	<p>Strategic & Corporate Services</p>	<p>Engineering and Public Works and Community Services</p>	<p>Budget approval has been secured Results from Energy Audit, from Action 1.1.2, of City owned-facilities will be used to develop emission reductions plan.</p>
<p>1.2.5. Complete PCP Milestones 3, 4 and 5 of the Partners for Climate Protection Framework in partnership with the community, including:</p> <ul style="list-style-type: none"> • Developing a local action plan; • Implementing the local action plan or a set of activities; and • Monitoring progress and reporting results; evaluate and report annually on changes in energy use. 	<p>2011-2014</p>	<p>Strategic & Corporate Services</p>		<p>Targeted for the latter part of the timeframe (2011-14). This action is also consistent with a corresponding policy set out in Section 8.5.1.2 of the Official Plan. The completed plan will be presented for Council approval.</p>

Objective 1.3: To support enhanced standards of stormwater management at the City and work with others to care for Vaughan's watersheds

Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
1.3.1. <i>Continue pilot programs to examine various technologies and techniques to improve winter road maintenance (e.g. salt reduction).</i>	Ongoing	Engineering and Public Works		Alternative de-icers were tendered as part of the Co-Op Tender process. Sifto was awarded the bid and Thawrox is the product supplied by Sifto. Due to the mild winter of 2011-2012, it was not possible to fully evaluate the product. This past winter (2012-2013), had significantly more snow events, and the product has proven to be very effective. Final salt use tonnage for the 2012-2013 winter will not be known until May 2013.
1.3.2. <i>Through the development of the City's new Official Plan, and in partnership with the Toronto and Region Conservation Authority, ensure protection of remaining natural features and explore opportunities for habitat restoration in headwater areas, along riparian corridors, and around wetlands.</i>	Ongoing	Planning	Engineering and Public Works & Community Services	Phase 1 of work was completed by Q4 2012. Council awarded Phases 2 to 4 of the work in January 2013 and, depending on level of cooperation from owners and stakeholders, the study is tracking for completion in Q1 2014. Staff continue to work with landowners to secure access to conduct field investigations.
1.3.3. <i>Continue to work with other partners (such as the Toronto and Region Conservation Authority) to implement policies and undertake activities that support high water quality in Vaughan's watersheds.</i>	Ongoing	Engineering and Public Works	Planning	In 2012, ponds 15 and 105 were cleaned and sediment removed. Ponds 42, 94, and 119 are scheduled for 2013.
1.3.4. <i>Review and assess the Engineering Department design criteria and strategy for storm drainage and storm water management facilities to manage the anticipated impacts of climate change, be</i>	2009-2010	Engineering and Public Works		As noted previously, the number of ponds cleaned annually will vary, depending on the condition of the pond, and available funding. VMC Black Creek Renewal Class EA Study is currently underway to facilitate flooding improvements to the existing Black Creek and related road crossings. A consolidated urban design vision will

consistent with emerging legislation, and ensure protection from significant flooding (adapted from Vaughan Vision 2020)

1.3.5. *Complete a local water, wastewater and storm sewer assessment system model for the purpose of optimizing flows (adapted from Vaughan Vision 2020).*

2009-2010

Engineering and Public Works

be completed for overall corridor, from north of Highway 7 down to Highway 407 along east of Jane Street. A consolidated plan is the integration of all the three components including hydraulics, urban design and parks development in compliance with VMC Secondary plan. The study will be completed by Q4 of 2013.

A draft report of the City-Wide Storm Drainage / Storm Water Management Master Plan Study has been completed and circulated to TRCA for review and comments. The final approval and Notice of Completion is anticipated for Q3 of 2013.

A draft of the Engineering Design Criteria Review Study has been completed and circulated to staff for review and comments. The final version will be posted on the City's website for public review in Q2 of 2013.

Weather-Water Information Gateway project: Metadata Management Tool has been developed to allow users to have access to the GIS data and information products contributed by several government agencies. This information can be found on MNR website.

A draft of the City-Wide Water / Wastewater Master Plan Study was issued to Development/Transportation Engineering in Q1-2013 for review and comments. The final approval and Notice of Completion is anticipated for Q3 of 2013.

City Staff continues to actively participate with York Region in all inflow and infiltration reduction programs and

* *Actions in italics represent municipally-mandated responsibilities or initiatives that are already underway (or planned for) at the City*

1.3.6. Update the sanitary sewer by-law	2009-2010	Engineering and Public Works	Legal and Finance	<p>initiatives in order to satisfy MOE conditions of approval for the Southeast Collector Sewer.</p> <p>A draft report of the Phase 2 Drainage Study has been completed. The micro-drainage analysis of the Thornhill Area has been completed and a storm sewer system assessment model has been prepared. The anticipated completion is Q2 of 2013.</p> <p>As a part of SWM Master Plan Class EA Study, an update to the Rainbow Creek Sub-watershed Study has been completed that includes the storm sewer system assessment of the study area. The anticipated completion is Q3 of 2013.</p> <p>The Region's by-law was passed late 2012, with only the food waste grinder portion still unresolved. Once the Water/Wastewater Engineer is hired, they will review the City's existing by-law and re-write it to mirror the Region's by-law.</p>
1.3.7. Create a stormwater by-law	2009-2010	Engineering and Public Works	Legal and Finance	<p>A new study will be initiated to evaluate the full maintenance and replacement costs of the City's existing and future stormwater infrastructure. Although there was some research conducted on this issue as part of the 2009 Water and Wastewater Rate Study, it is essential to better identify and detail the potential funding gaps within the stormwater management program. The Study may start in Q3 of 2013 subject to Council approval.</p>

Objective 1.4: To ensure efficient and appropriate use of potable water in City facilities

Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
1.4.1. Evaluate the City's use of potable water by completing an audit on all City facilities (this could be part of energy audit as defined in Action 1.1.2.)	2009-2010	Community Services	Engineering and Public Works	RFP was awarded in March 2013 with completion expected in Q3. Not included in the audit are water play parks, baseball diamonds and soccer fields where a separate effort may be required to realize savings in those areas.
1.4.2. Develop a target for the City's efficient water use and develop an action plan to move towards the lower target, including: <ul style="list-style-type: none"> • Education programs for employees (including lessons learned from York's Water for Tomorrow program); • Evaluating the feasibility of grey water treatment and delivery in municipal buildings; • Making better use of captured water for lawn and garden watering; and • Infrastructure retrofits. 	2010-2011	Community Services	Engineering and Public Works	No further progress as water audit to solidify baseline has not been completed.
1.4.3. Evaluate and report annually on changes in water use at the City.	2009-2011	Community Services	Engineering and Public Works	No further progress as water audit to solidify baseline has not been completed. Water saving opportunities continue to be evaluated and implemented for any new buildings.

Objective 1.5: To reduce the amount of waste generated in City owned facilities and procure sustainable products for the City's use

Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
1.5.1. <i>Continue to recycle and reuse construction material using the LEED building criteria where possible. Costs would be built into future construction tenders under the direction of an overall procurement policy.</i>	Ongoing	Community Services		Green building demolition practices were taken into during demolition of the old Civic centre. The contractor is expected to achieve 95 % waste diversion, once the project is concluded.
1.5.2. Calculate the amount of waste that the City of Vaughan's facilities generate annually by completing a waste audit.	2009-2010	Community Services	Engineering and Public Works	Current practice provides a yearly comparison of waste and recycling weights/costs, which suggests that Vaughan is diverting waste to recycling however it doesn't help determine if additional opportunities exist for reduction and diversion. Procurement policies have been amended to ensure less packaging is used.
1.5.3. Develop a waste management strategy for City facilities with a few smaller, but high profile initiatives such as: <ul style="list-style-type: none"> Promoting the six Rs (Refuse, Reduce, Reuse, Renew, Recycle, and Recover) in facilities through an education campaign; Eliminating or reducing PET water bottles, plastic cutlery and Styrofoam in City facilities; and Introducing three stream waste diversion in all municipal buildings and facilities. 	Ongoing	Engineering and Public Works	Community Services and Human Resources	3-stream recycling is currently offered at City Hall and the Joint Operations Centre Next phase for consideration includes libraries, community centres and fire halls.
1.5.4. Evaluate and report annually on the amount of waste generated and track progress in achieving the waste reduction target.	2011-2014	Community Services	Engineering and Public Works	In cooperation with the current service provider, a tracking chart is being maintained and updated regularly.
1.5.5. Develop and implement a policy to purchase more sustainable products; including preferences for cleaning products with low VOCs (volatile organic compounds), recycled paper, reusable office supplies, office equipment, etc. Build	2009-2010	Purchasing	All	The draft Green Procurement Policy was reviewed by Committee of the Whole in Q1/2012. Committee requested that ethical purchasing components be integrated into the Policy based on the success achieved by other jurisdictions. At

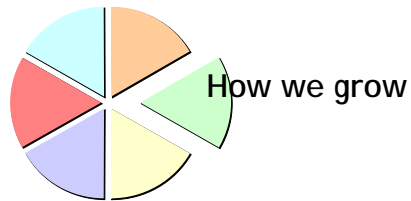
on the work of other municipal governments (i.e., reference to Governments Incorporating Procurement Policies to Eliminate Refuse (GIPPER)) to create a “Made in Vaughan” solution.

the Q3/2012 Finance and Administration Committee meeting, Purchasing committed to bring a report to the Committee of the Whole (Working Session) for a more fulsome discussion on elements of a draft Green and Ethical procurement policy given the broader scope and implications of the revised Policy.

Objective 1.6: To continue to reduce the amount of waste generated by Vaughan citizens, businesses and institutions

Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
<i>1.6.1. Continue to work with the Ministry of the Environment to support the enforcement of regulations to encourage waste audits, waste reduction work plans and source separation programs for Industrial, Commercial and Institutional waste generators in Vaughan.</i>	Ongoing	Engineering and Public Works		Advocacy is part of the Region's draft long-term waste strategy. Staff continue to meet with the Region and fully participate in the development of this Integrated Waste Management Master Plan.
<i>1.6.2. Through advocacy efforts and in partnership with the Region of York, aim for a 100% residential waste diversion target; this will be accomplished in accordance with the Greening Vaughan strategy and an evaluation of the potential for high rise residential waste collection.</i>	2011-2014	Engineering and Public Works		The preliminary 2012 curbside diversion rate was 68%; however, this number is subject to change.

* Actions in italics represent municipally-mandated responsibilities or initiatives that are already underway (or planned for) at the City



Goal 2: To ensure sustainable development and redevelopment

Vaughan is committed to sustainable land use. Vaughan Tomorrow, our consolidated Growth Management Strategy - 2031, has a central focus on creating a cutting-edge Official Plan that will provide for increased land use densities, efficient public transit, considerations for employment lands and open space systems, as well as walkable, human scale neighbourhoods that include services, retail, and an attractive public realm. The completion of the City's New Official Plan is expected in 2010 and it will address all elements of effective, sustainable and successful city-building while managing projected growth over the next 25 years. The plan will guide the creation of the physical form that will reflect a "complete" community. The policies in the Official Plan, and the actions associated with this goal, will be strongly influenced by the Province's Places to Grow program to manage growth and development in Ontario through regional growth plans.

Objective 2.1: To achieve sustainable growth and development by completing and implementing Vaughan Tomorrow, the City's Consolidated Growth Management Strategy-2031, and by ensuring that the strategy is subject to periodic review and renewal

Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
<p>2.1.1. <i>In accordance with the requirements of the Strategic Plan, Vaughan Vision 2020, complete and implement Vaughan Tomorrow, the City's Consolidated Growth Management Strategy – 2031. Such strategy will fulfill the requirements for an Integrated Community Sustainability Plan. The strategy will be prepared in accordance with the requirements of the Places to Grow plan and will be in conformity with the Region of York Official Plan. The Consolidated Growth Management Strategy will be composed of the following elements:</i></p> <ul style="list-style-type: none"> • <i>Green Directions Vaughan, the City's first Community Sustainability and Environmental Master Plan;</i> • <i>The new Official Plan;</i> • <i>The Transportation Master Plan;</i> • <i>Water and Sewer Master Plan;</i> • <i>The Drainage and Stormwater Master Plan;</i> • <i>Employment Sectors Strategy;</i> • <i>The Fire and Rescue Services Master Plan;</i> • <i>The Parks, Recreation, Facilities and Libraries Master Plan; and</i> • <i>The Long Range Financial Plan.</i> 	Ongoing	City Manager's Office	All	The Official Plan Vaughan Tomorrow has been adopted by Council and is awaiting approval from the Region. Other Master Plans such as Green Directions, the VFRS Master Plan, the Active Together Master Plan, Long Range Financial Plan and the Employment Sectors Strategy Study are in various stages of implementation. The Consolidated Growth Management Strategy encompasses all of the above noted projects as well as other appropriate strategic initiatives which are part of the Vaughan Vision 2020 strategic plan.

<p>2.1.2. <i>Review the City's Growth Management Strategy at five-year intervals concurrent with the statutory five-year review of the Official Plan and such review shall be coordinated with the periodic review of the Strategic Plan.</i></p>	<p>2015-2020</p>	<p>City Manager's Office</p>	<p>All</p>	<p>To commence in 2015</p>
<p>2.1.3. <i>At the time of initiating the review referred to in 2.1.2, develop a comprehensive framework for reviewing the strategy. This will include the evaluation and updating where necessary, of the plans cited in 2.1.1.</i></p>	<p>2015-2020</p>	<p>City Manager's Office</p>	<p>All</p>	<p>Would provide the basis for the 2015 Growth Management Review.</p>

Objective 2.2: To develop Vaughan as a City with maximum greenspace and an urban form that supports our expected population growth

Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
<p>2.2.1. <i>Through the policies in the new Official Plan, create a Vaughan in 2031 that has more intensification with increased height and density and mixed use in thoughtfully developed nodes and along transit corridors.</i></p>	<p>Ongoing</p>	<p>Planning</p>		<p>The Vaughan Official Plan (VOP) 2010 was endorsed by Region and is subject to appeal by stakeholders to OMB. Staff are working to implement Council approved VOP2010 sustainability policies in review of development applications across the City.</p>
<p>2.2.2. Undertake an Urban Forest Strategic Plan that will identify targets for the urban forest in the City and provide strategies for achieving it including planning, maintenance, species and planting recommendations.</p>	<p>2009-2011</p>	<p>Community Services</p>		<p>The Parks and Forestry Operations Department received the results from the UFORE study in the fall of 2012. The study helped to establish a baseline from which future changes to Vaughan's urban forest can be measured and evaluated. Within the 22 recommendations, the study highlighted: target planting areas, a focus on continued genus and species diversification and the need for adequate soil quantity and quality. The study also acknowledged the impact that Emerald Ash Borer (EAB) will have over the next 7-9 years. To that end, Vaughan's Forestry</p>

* *Actions in italics represent municipally-mandated responsibilities or initiatives that are already underway (or planned for) at the City*

2.2.3. Continue to develop a Parkland/Open Space Acquisition Strategy	2011-2014	Community Services	Legal and Planning	<p>section has implemented a planting strategy where no more than 10% of any one genus and 20% of any one species is utilized. An EAB Management Plan was implemented and presented at Priorities and Key Initiatives committee in November 2012. The section is also currently working on a comprehensive soils analysis and program which will ultimately provide our recommendations for soil quality, volume and suitable species.</p> <p>The Park land environmental land acquisition strategy is currently under review pending legal comments.</p>
<p>2.2.4. Develop a comprehensive Natural Heritage Strategy that examines the City's natural capital and diversity and how best to enhance and connect it. As part of this action:</p> <ul style="list-style-type: none"> • Develop an inventory of Vaughan's natural heritage, and identify opportunities for habitat restoration; • <i>Ensure that policies in the City's new Official Plan protect all ecological features and functions as per current provincial and regional policies, and also include consideration for locally significant natural features and functions</i> • <i>Develop policies to create opportunities for near urban agriculture within Vaughan's rural areas, through policies described in the City's new Official Plan</i> 	Ongoing	Planning		<p>Phase 1 of work was completed by Q4 2012.</p> <p>Council awarded Phases 2 to 4 of the work in January 2013 and, depending on level of cooperation from owners and stakeholders, the study is tracking for completion in Q1 2014.</p> <p>Staff are working with landowners to secure access to conduct field investigations</p>
2.2.5. Implement initiatives to reduce run-off in park facilities, trail systems, and selected City of Vaughan parking facilities; this may include developing permeable paving standards, created wetlands, bio-swales and/or polishing areas.	2011-2014	Community Services	Engineering and Public Works	<p>This work is continuous & ongoing and being implemented throughout both new and existing parks. It involves developing permeable paving standards, created wetlands, bioswales (landscape elements designed to remove pollution from surface runoff) and polishing areas where storm water can be filtered before entering drainage systems. Examples where these initiatives have been implemented include:</p> <ul style="list-style-type: none"> - Ohr Menachem Park- bioswale with infiltration area

- Freedom Trail Park- infiltration areas
- Hillside Park- bioswales
- Carville Mill Park- low flow swales, polishing areas
- Eagles Landing Park- rain garden
- Twelve Oaks Park
- Vehicle Gate Park
- Southview Park retrofit

Objective 2.3: To create a City with sustainable built form

Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
<p>2.3.1. <i>Develop sustainable development evaluation criteria, supported by provisions in Bill 51 and Places to Grow, that can be applied from neighbourhoods to sites and include these five areas: (1) development form/sustainable sites; (2) resource efficiency; (3) transportation; (4) public realm ; and (5) greenspace and wildlife.</i></p>	Ongoing	Planning	All	<p>Phase 1 is scheduled to go to Council in Brampton on April 8, 2013.</p> <p>The consulting team of Halsall and The Planning Partnership was hired in the Spring of 2012 and Phase 2 was underway by May 2012. The following milestones have been met:</p> <ul style="list-style-type: none"> - two full-day staff workshops (in September 2012 and November 2012) to test sustainability metrics; - one half-day developer forum (October 2012); - First Milestone Report to FCM delivered in December 2012 (second Milestone Report scheduled for April 15, 2013); - Interim Report on developing and testing metrics (January 2013); and - Draft Comprehensive Report prepared by the consulting team (March 2013), which will be made available for public comment in April 2013 by the three municipal partners. <p>A report and presentation to the Priorities and Key Initiatives Committee of Council was presented on March 18, 2013 with a focus on the broader linkages between healthy populations</p>

			and sustainable communities.
2.3.2. <i>Redefine the maximum amount of impermeable area permitted on a building site. Work with developers to create alternative surfaces with the objective of increasing overall site permeability.</i>	Ongoing	Planning & Engineering and Public Works	Draft Comprehensive Report of the sustainability guidelines project identifies a storm water metric recognizing: <ul style="list-style-type: none"> - mandatory standard to retain 5 mm of precipitation on site; - minimum recommended (enhanced) target to retain 10 mm of precipitation on site; and - aspirational (enhanced) target to retain 15 mm of precipitation on site. A range of LID measures are recognized, but not prescribed as site-specific conditions will determine the appropriate treatment train approach
2.3.3. <i>Through the policies to be developed in the new Official Plan, ensure that a mix of housing types are provided in Vaughan and that affordability is a consideration in planning.</i>	Completed	Planning	Secondary Suites Study awarded to SHS Consultants and Planning Alliance and work will be brought forward for COW by Q3 2013.
2.3.4. Conduct a review to ensure that Official Plan policies and zoning by-laws do not unreasonably restrict the application of building technologies and uses that will promote conservation measures and/or the production and distribution of energy.	Ongoing (Zoning by-laws to be initiated after the completion of the Official Plan)	Planning	Reported on process for managing requests for solar FIT technologies. Draft Comprehensive Report of the sustainability guidelines project identifies metrics relating to: <ul style="list-style-type: none"> - solar readiness; - building energy efficiency above the Ontario Building Code; - water conservation; and - solar alignment for passive solar heat gain in winter.

* *Actions in italics represent municipally-mandated responsibilities or initiatives that are already underway (or planned for) at the City*

2.3.5. *Based on the lessons learned from the implementation of Energy Star standards for new low density residential homes, continue to apply energy efficient building standard options for new developments in the City, including other building forms (i.e., townhouses, condominiums) and building standards (i.e., EnerGuide, LEED, etc.).*

2011-2014

Planning

Development Planning and Building Standards is continuing to require sustainable measures in new developments including:
 -requirements for nature landscaping
 -rainwater harvesting
 -energy efficient glazing
 -electric car charging parking stations in surface parking lots
 -native plant species
 -edge management planting plan
 -use of permeable pavers
 -providing residents with information and education packages outlining the sustainability features of their units and the surrounding area and amenities (i.e. transit routes, bike routes, presto passes, web links to sustainable websites, and other transit information

Draft Comprehensive Report of the sustainability guidelines project identifies metrics relating to:
 – solar readiness;
 – building energy efficiency above the Ontario Building Code;
 – water conservation; and
 – solar alignment for passive solar heat gain in winter.

2.3.6. Develop and implement a Vaughan green building policy, which will ensure that all new and existing municipal buildings perform to the highest environmental standards that are practical taking into account such considerations as energy efficiency, greenhouse gas emissions, water consumption, waste management, site design, landscaping, etc.

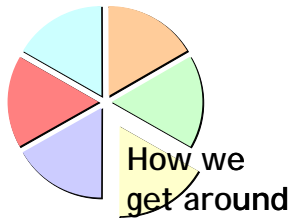
2009-2011

Community Services

Engineering and Public Works

Completed. New facilities continue to be specified to LEED standards including the new library for North Thornhill.

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Goal 3: To ensure that Vaughan is a city that is easy to get around with a low environmental impact

Vaughan is committed to making choices that will reduce automobile dependency, traffic congestion and transportation-related greenhouse gas emissions. Vaughan, as an active partner with the Region of York, surrounding municipalities, the Province and the Federal government, commits to supporting the development of a public transit network that is responsive to our population's needs. As well, Vaughan promotes active transportation options for its employees and citizens such as walking and biking. In addition to reducing greenhouse gas emissions and reducing congestion, active transportation has corollary health benefits and enhances social cohesion. The actions associated with this goal will be influenced by the policies in the City's new Official Plan, the Active Together Master Plan, new provincial accessibility policies, the forthcoming Transportation Master Plan from York Region and the City of Vaughan and the Metrolinx Regional Transportation Plan ("The Big Move").

Objective 3.1: To develop and sustain a network of sidewalks, paths and trails that supports all modes of non-vehicular transportation

Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
<p>3.1.1. <i>Develop an implementation plan for the initiatives described in the City's Pedestrian and Bicycle Master Plan through a phased and budgeted implementation program.</i></p>	<p>Ongoing</p>	<p>Engineering and Public Works & Community Services</p>	<p>Planning</p>	<p>Three corridors for new cycle facilities have been selected from the Pedestrian and Bicycle Master Plan (PMBP) to provide connections to the existing cycle network. The PBMP proposes bike lanes for these corridors. However, staff is progressing with stakeholder consultation to help determine the most appropriate cycle facility for each corridor. Funding for future cycle facilities continues to be secured via yearly budget deliberations. Staff has held two VCF meetings to open dialogue with Vaughan cyclists and provide feedback for staff developing Vaughan's Cycling Strategy. Staff continue to participate on the Steering Committee for Ontario Traffic Manual Book 18: Bicycle Facilities. The consultant is currently finalizing Book 18.</p>
<p>3.1.2. <i>Through policies to be described in the new Official Plan, develop a more walkable and transit-friendly community with adequate public spaces and a finer grain network of streets.</i></p>	<p>Ongoing</p>	<p>Planning</p>	<p>Engineering and Public Works</p>	<p>Urban Design policies for WVEA Secondary Plan area currently being prepared and design policies are being reflected in progress secondary plans (Maple GO, Vaughan Mills, etc.).</p> <p>Draft Comprehensive Report of the sustainability guidelines project identifies metrics relating to mobility (walkability) and transit-friendly design at the Block Plan and Site Plan scales.</p>

Objective 3.2: To develop and sustain a network of roads that supports efficient and accessible public and private transit

Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
3.2.1. <i>Continue to work with York Region Transit to develop appropriate local routes to serve users' needs.</i>	Ongoing	Engineering and Public Works		DTE staff continue to liaise with York Region Transit on local service routes, bus pad / shelter installations and pedestrian linkages. Staff continues to ensure the identification and installation of sidewalk links on arterial roads as part of the development / Block Plan review and approval process. Staff also continues to lead the review and coordination of all Toronto-York Spadina Subway Extension and York Region Bus Rapid Transit projects and initiatives with City services.
3.2.2. <i>Continue to support the maintenance, repair and renewal of the existing road network.</i>	Ongoing	Engineering and Public Works		Additional Roads staff were approved in the 2012 and 2013 Budgets.
3.2.3. <i>Continue on-going comprehensive review and update of engineering standards and design criteria including lighting, sidewalks, road cross-sections, etc. consistent with the intent of other City policies including the new Official Plan.</i>	Ongoing	Engineering and Public Works		The final draft of the Engineering Design Criteria has been prepared. The documents will be finalized and put into practice following consultation with BILD and stakeholders in 2013.
3.2.4. <i>Conduct the City-wide Parking Standards Review (as per Vaughan Vision 2020).</i>	2009-2010	Engineering and Public Works		Completed IBI Study to address parking standards and implementing new standards in applications. Zoning By-law review will address new Standards on a City-wide basis

* Actions in italics represent municipally-mandated responsibilities or initiatives that are already underway (or planned for) at the City

Objective 3.3: Reduce single occupant vehicle (SOV) trips by supporting active transportation, car pooling and public transit

Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
<p>3.3.1. <i>Develop and implement an Employee Trip Reduction/active transportation strategy for City staff. This may include such initiatives as:</i></p> <ul style="list-style-type: none"> • Increasing incentives and opportunities for car pooling; • Participating in public transit promotions with incentives; and • Exploring work arrangements to reduce SOV travel such as flex time and tele-work options for employees. 	Ongoing	Strategic & Corporate Services	Engineering and Public Works Finance Planning & Human Resources	<p>The Smart Commute North Toronto-Vaughan Employee Trip Reduction program continues to be a cornerstone of our Employee Education strategy. The current program includes an online ride-matching service, emergency ride home program, yearly events and education campaigns.</p> <p>Improvements in the past year have included installing electric vehicle parking spots at City Hall, increasing the number of carpool spots at City Hall and installing carpool spots at Woodbridge Yard as well as the JOC. A Follow-up Commuting Survey was completed in 2012. The results and recommendations were presented to Senior Management Team in May 2013.</p>

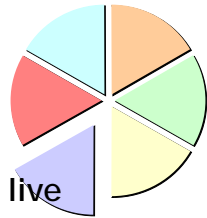
* Actions in italics represent municipally-mandated responsibilities or initiatives that are already underway (or planned for) at the City

3.3.2. Work with partners to develop and implement a trip reduction/active transportation strategy **for the community** (including businesses and institutions). This may include such transportation demand management initiatives as:

- Working with transit authorities to ensure bicycle parking and supportive infrastructure (e.g. GO Transit, VIVA YRT);
- Promoting public transit with incentives, creative advertising and a focus on youth;
- Ensuring mobility options for those unable to use cars (elderly, those with physical limitations, etc.);
- Working with the Region of York on accessibility issues related to the Ontarians with Disabilities Act;
- Supporting regional initiatives such as high occupancy vehicle (HOV) lane expansions;
- A pilot project with Active & Safe Routes to School; and
- Establishing City-wide parking standards to promote alternatives to SOV trips.

This action may be supported by a series of policies to be developed in the new Official Plan, the upcoming Transportation Master Plan, and the Employee Trip Reduction plan under development at the City.

<p>Ongoing</p>	<p>Engineering and Public Works</p>	<p>All</p> <p>The TMP was approved by Council in 2011.</p> <p>The Vaughan TDM Policy Study has been delayed to 2013 as York Region is currently developing their TDM Strategy, which will impact the scope of the City's study. DTE staff are active participants on the Technical Advisory Committee for the York Region TDM Strategy.</p> <p>Staff are also active participants on the GTHA TDM Coordinating Committee.</p> <p>In October 2012, staff launched the Active Routes are the Way to Go program at a pilot school – St Michael the Archangel. The City intends to support up to two schools per year starting in 2013/14.</p> <p>Capital budget approval for a Parking Management Strategy Study has been secured for 2013 to develop a parking management mandate and associated staff responsibilities.</p> <p>Development / Transportation Engineering Staff continues to ensure the identification and installation of sidewalk links on arterial roads as part of the development / Block Plan review and approval process. Staff also continues to lead the review and coordination of all Toronto-York Spadina Subway Extension and York Region Bus Rapid Transit projects and initiatives with City services.</p>
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Goal 4: To create a vibrant community where citizens, business and visitors thrive

As described in our Strategic Plan, Vaughan Vision 2020, our city will continue to be a community of choice that promotes diversity, innovation and opportunity for all citizens, fostering a vibrant community life that is inclusive, progressive, environmentally responsible and sustainable. This vision for Vaughan was confirmed through the Vaughan Tomorrow Visioning sessions for the new Official Plan and Green Directions. Citizens, staff and Council are clear that they want Vaughan, now and in 2031, to be a complete community where citizens, businesses and visitors thrive. This goal addresses the social, cultural and economic aspects of a sustainable community. Many of the actions suggested in the goal are ongoing and will be brought to fruition through existing City plans such as Vaughan Vision 2020, the Active Together Master Plan, and the new Official Plan.

Objective 4.1: To foster a city with strong social cohesion, an engaging arts scene, and a clear sense of its culture and heritage

Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
4.1.1. <i>Develop an implementation plan for the initiatives described in the City's Active Together Master Plan through a phased and budgeted program.</i>	Ongoing	Community Services	Planning	<p>Completed year four objectives including: Objective One-Plan Identity and Recognition: To create an identity and launch for the "Active Together" strategy that will serve to draw attention to the physical activity issue, create a sense of urgency and prompt residents to respond to the call to action.</p> <p>Objective 1 -Strengthening Community Partnerships: To develop and strengthen community partnerships with organizations who can play their part in increasing the level, intensity and duration of physical activity in Vaughan.</p> <p>Objective 2 - Active Programs and Initiatives: To boast an abundant inventory of physical activity opportunities in Vaughan and create programs and initiatives to prompt physical activity where there are apparent gaps.</p> <p>Objective 4- Infrastructure: To support the maintenance and development of infrastructure and amenities that can increase the capacity and range of choice that enables the enjoyment of safe physical activity.</p> <p>Objective 5 - Social Environments and Support</p> <p>Objective 6 - Including Under-represented Groups</p> <p>Objective 7 - Workplace Initiatives</p> <p>Objective 8 - Policy Support Considerations</p>

<p>4.1.2. <i>Develop a strategy to increase support for and promotion of the arts and culture in the community (from Vaughan Vision 2020).</i></p>	<p>Ongoing June 2010</p>	<p>Community Services</p>	<p>Continued arts and culture programming at City Hall Atrium and Vaughan Arts space in conjunction with local artists and community groups/organizations. New programming in 2013 includes New Horizons Seniors program where over 100 seniors participated in arts and cultural cuisine programming. Vaughan Arts programming will also be launched in the later part of 2013. Other new exhibits/programs include: Vaughan in Focus photography exhibit ; National Youth Arts Week; Planet Earth Series.</p>
<p>4.1.3. <i>As planned through the Official Plan update, develop maps of archeological sites, cultural landscapes and built heritage resources; build on Vaughan's unique assets by developing policies to preserve and promote these features.</i></p>	<p>Ongoing</p>	<p>Planning & Community Services</p>	<p>Currently working on bringing policies into force and effect through resolution of OMB appeals of VOP2010.</p>
<p>4.1.4. <i>Through creative urban design, as to be described in the new Official Plan, enhance social cohesion by creating more (1) common indoor and outdoor public spaces; (2) public art; (3) parks and open space; and (4) central, accessible hubs for arts, culture, and recreation.</i></p>	<p>Ongoing</p>		<p>Currently working on bringing policies into force and effect through resolution of OMB appeals of VOP2010.</p>
<p>4.1.5. <i>Provide access to, and information about, the City's services at community centres.</i></p>	<p>Ongoing</p>	<p>Community Services (IT)</p>	<p>Youth "green" pocket guide which outlines all recreation and culture information for youth. Newcomers package about active opportunities in Vaughan. Updated active together webpage which features all active together opportunities.</p> <p>New YPG2 APP and Guidebook APP providing residents with digital access to programs and events.</p> <p>Multi-use services continue to be promoted: sales of garbage tags, postage stamps, green bins and blue boxes, YRT tickets and passes.</p>

* *Actions in italics represent municipally-mandated responsibilities or initiatives that are already underway (or planned for) at the City*

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4.1.6. *Provide more partnership opportunities for existing non-profit and volunteer groups to meet the community's social, cultural and recreational needs.*

Ongoing

Community Services

Partnered with Vaughan Community Housing Corporation to provide active programs for those needing financial assistance. Partnered with community groups to celebrate arts and culture i.e.) Jewish Heritage, Italian Heritage, Festival of Lights, Black History etc.

New community service organizations include Girls on the Run, National Congress of Italian Canadians, Portuguese Cultural Club of Vaughan, Woodbridge Basketball Association, Caledon-Vaughan Lacrosse Assoc., Healthy Start-Healthy Future and Tzivos Hashem Canada.

Various program partnerships have been established at community centres to bring new program offerings to citizens via third party providers.

4.1.7. *Develop a civic engagement strategy to help citizens (including youth and newcomers) become aware of, and participate in, municipal processes and community volunteer opportunities (related to the Diversity Strategy in Vaughan Vision 2020).*

Ongoing

City Manager's Office

Corporate Comm

The City completed a citizen survey in March 2012 to obtain feedback from residents on strategic priorities and City services. 95% of citizens were satisfied or very satisfied with the delivery of City services. The Vaughan Vision 2020 strategic plan will next implement a comprehensive public engagement process in 2015 upon the start of a new council term.

4.1.8. *Provide continued support for the development of a future hospital for Vaughan and continue to work with other levels of government and the Vaughan Health Campus of Care to provide comprehensive and integrated health care to citizens (from Vaughan Vision 2020).*

Ongoing

City Manager's Office All

The City is continuing to work with Mackenzie Health to move forward with planning for the Northwest Quadrant Jane Street/Major Mackenzie Precinct Plan within which the new Mackenzie Vaughan Hospital will be built. The City recently retained the project management firm Prism Partners Inc. to lead the city's land development team in the development of a Precinct Plan. The team's work in preparing the 82 acre site will support Mackenzie Health's mandate to plan, build and operate Mackenzie Vaughan Hospital. The City is moving forward with developing a zoning by-law and draft plan of subdivision to facilitate the development of the Precinct Plan that will be presented to Vaughan Council for approval later this year.

4.1.9. *Support outdoor recreation activities that engage citizens and visitors in our natural and green spaces as described in Vaughan's Active Together Master Plan.*

Ongoing

Community Services

In Progress for 2013

Walk to School Pilot project: Working with City and Regional staff to implement School Travel Plans at Maple High School. Looking to expand the program in Fall 2013.

Celebration of Recreation and Parks Month activities - June 2013.

Active Together Youth Pix Photo Contest - photos taken around Vaughan promoting families getting active outside.

4.1.10. *Develop accessible service standards as part of compliance with the Accessibility for Ontarians with Disabilities Act, 2005.*

2009-2010	Community Services	All	<p>The City of Vaughan Accessibility Plan (2012) and Accessibility policy were approved by Council. Multi year accessibility plan being developed.</p> <p>The second accessibility report to the Ministry will be completed and filed before the end of 2013</p> <p>Departmental meetings are ongoing with staff throughout the organization.</p> <p>The new AODA Accessibility Standard entitled Design of Public Spaces in the Built Environment was released by the Ministry in December 2012 which outlines new requirements for municipalities to incorporate into the design of new public spaces starting in 2016.</p>
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Objective 4.2: Ensure that the City of Vaughan attracts businesses and investment that will result in well-paying jobs for Vaughan citizens, a sustainable tax base and continuing prosperity into the 21st Century

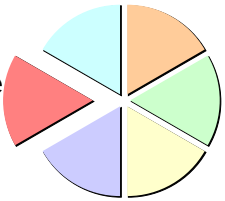
Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
4.2.1. <i>Complete the Employment Sectors Strategy Study as part of the Vaughan Tomorrow program and implement its recommendations through the adoption of a new Official Plan.*</i>	Ongoing	City Manager's Office (Ec. Dev.)	Planning	Economic Development Strategy completed in Q3 2010.
4.2.2. <i>Revise and update the City's Economic Development Strategy (Vaughan Vision 2020) taking into consideration the results of the Employment Sector Strategy Study.</i>	2009-2010	City Manager's Office (Ec. Dec.)		Economic Development Strategy completed in Q3 2010.

* Actions in italics represent municipally-mandated responsibilities or initiatives that are already underway (or planned for) at the City

Objective 4.3: To encourage the establishment of green businesses and sustainable business practices

Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
4.3.1. <i>Develop a business attraction and retention strategy to encourage environmentally-friendly or progressive businesses to set up in Vaughan (with clear definitions, and through the update to the Economic Development Strategy).</i>	2009-2010	City Manager's Office (Ec. Dev.)		Staff are undertaking a Business Mission to Israel in late 2013. The focus will be on cleantech/greentech businesses. A Business plan for a Centre of Excellence focused on green technologies and advanced manufacturing in the building products sector has been developed by TRCA and is in the process of securing funding for infrastructure work.
4.3.2. Undertake an eco-industrial park feasibility study.	2009-2010	City Manager's Office (Ec. Dev.)	Planning Strategic Corporate Services	and Economic Development staff sits on a and internal working group examining how the City might approach establishing eco-industrial parks or some other form of business-driven partnership (e.g. Project Green @Pearson).
4.3.3. Investigate opportunities for farmers' markets at civic facilities to establish support for urban and near urban agriculture.	2011-2014	City Manager's Office (Ec. Dev.)	Community Services	Providing on-going support to the Woodbridge Farmer's Market. Exploring other market options with Kleinburg Business Improvement Association (KBIA).

How we
lead



Goal 5: To be leaders in advocacy and education on sustainability issues

Vaughan is committed to providing leadership by implementing sustainable best practices in its own municipal operations and through its regulatory functions. In addition to internal leadership, Vaughan is committed to sharing its successes with the community and learning from others. Vaughan has an active role to play in advocating for the needs of our community. In addition, community members, of all ages, are encouraged to participate actively in civic affairs and to contribute to the enhancement of our community. Vaughan is committed to facilitating opportunities for citizens to come together to strengthen our City.

Objective 5.1: To share sustainable best practices and ideas between and among municipal staff and the community

Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
5.1.1. <i>Continue to seek the advice and opinion of our citizens, businesses and partners on significant policies, plans and programs (for example, builder and developer involvement in the drafting of sustainable development criteria.)</i>	Ongoing	City Manager's Office	All	Consultation with citizens, businesses and partners continued in an effort to enhance transparency related to sharing sustainable best practices. Projects such as the Measuring Sustainability of New Development is one example of such an effort.
5.1.2. <i>Work with the Region of York to support residential water reduction activities through the Water for Tomorrow program, encouraging downspout disconnections and the potential sale of rain barrels.</i>	Ongoing	Engineering and Public Works		Staff are working with York Region, Markham, and Richmond Hill to better quantify and reduce non-revenue water use. Downspout disconnection is promoted to the public, and current Inflow & Infiltration works performed by the City include: manhole repairs and lining, mainline repairs, lateral repairs, CCTV inspections etc.
5.1.3. <i>Use the Vaughan Civic Centre and other sustainably constructed facilities as learning centres by providing tours about sustainable construction and energy conservation.</i>	Ongoing	City Manager's Office	Community Services	Continued to provide tours that educate visitors as to the LEED aspects of the City Hall. This activity is linked to Action 5.1.7 which provides for the development of a broader public education strategy addressing businesses and citizens.

Actions in italics represent municipally-mandated responsibilities or initiatives that are already underway (or planned for) at the City

5.1.4	Include a climate change planning strategy for all City master plans. The strategy shall assess vulnerability to climate change and develop plans for mitigating impacts and remedial responses.	Ongoing	City Manager's Office	All	Little progress was achieved as the Environmental Sustainability Office is tasked with reviewing all City Master Plans to identify climate change related activities. With much of our efforts focused on greenhouse gas inventorying, minimal planning efforts have occurred. Discussions were held with fellow York Region municipalities to determine if adaptation measures could be achieved on a Regional basis.
5.1.5.	Develop an environmental education strategy to familiarize staff with the provisions of Green Directions expanding into an on-going education program.	2009-2010	Strategic and Corporate Services	All	A cross departmental advisory team continued to meet regularly to provide strategic advice on the implementation of on-going employee environmental/sustainability strategy and core programs/campaigns. In 2012, delivery continued of core programs such as the 20 Minute Makeover, Smart Commute and the Take the Stairs Challenge. Vaughan Unplugged was added to increase energy conservation awareness.
5.1.6.	Develop an information kit and provide copies of Green Directions for use in Vaughan's schools.	2009-2010	Strategic and Corporate Services	Corporate Communications	Regular contact is maintained with Vaughan schools through ongoing outreach programs, such as the <i>20 Minute Makeover</i> . Information on environmental programs at the City of Vaughan, <i>Green Directions Vaughan</i> pamphlets, guest speaking engagements, tours of LEED features of City Hall, and school materials (pens, pencils, anti-idling bookmarks and posters), are provided to schools on a "as requested" basis.

5.1.7. Develop an environmental education strategy for **businesses** and **citizens**. This strategy will highlight the steps that citizens and businesses can take to create a more sustainable Vaughan. This might include examples from the city, other businesses, schools boards or other communities around the world. This strategy could also focus on highlighting the ongoing work at the City on these issues. This might include calculating the ecological footprint of an average Vaughan citizen or business.

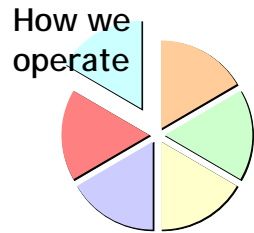
2011-2014	Strategic and Corporate Services	All	The Citizen and Business Engagement strategies were presented at the Nov 11, 2011 Priorities Committee meeting and subsequently ratified by Council. More progress has been achieved with the citizen strategy as all but one the components has been implemented to date. The creation of a new website provided an opportunity to add new sections such as Learning from the Leaders, Making a Difference, Environmental Education and Stewardship and enhanced on-line content. Recruitment for Partners for a More Sustainable Vaughan continued with the goal of setting up training for these volunteers. Of the six initiatives under the GDV Business Education Strategy, four were initiated or continued in 2012. Again, due to the revamped website, significant progress was made on information sharing, awareness and education. A higher profile Earth Hour celebration hosted at Vaughan City Hall helped to generate greater business participation in this event.
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Objective 5.2: To continue the City's role in advocacy and information sharing on environmental issues

Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
5.2.1. <i>Continue Vaughan's participation in regional initiatives such as the annual Environment First Symposium for the purpose of fostering ongoing education and discussion of sustainability issues.</i>	Ongoing	Strategic and Corporate Services	All	The Environmental Sustainability Office continues to participate in regional initiatives such as the Greater Toronto Area Clean Air Partnership. York Region specific initiatives include the Climate Change Adaptation Working group and the Environmental Initiatives Working Group. The YREIWG is attempting to identify collaborative projects on citizen engagement that could be executed Region wide.
5.2.2. Develop an advocacy policy to identify, evaluate and select the environmental issues that the City wishes to take a formal advocacy role, including such matters as level of involvement and resources required.	2009-2010	Strategic and Corporate Services	All	A formal strategy has yet to be developed although some advocacy work has occurred. A letter of support was provided to the Canadian District Energy Association as they requested that the Ontario Ministry of Housing and Municipal Affairs to include new thermal energy policies in the provincial policy statement.
5.2.3. Create an inter-government relations strategy ensuring that the City of Vaughan participates in provincial, national and international forums and collaborates with neighbouring municipalities to share best practices (adapted from Vaughan Vision).	2009-2010	Strategic and Corporate Services	All	Although a formal strategy has not been developed, we continue to participate in opportunities to share environmental best practices regionally, provincially and nationally. Attending FCM's Sustainable Communities Conference and presenting as part of a panel at Sustainability Applied, a GTA conference, are examples of activities completed in 2012 to share best practices on environmental issues.

* Actions in italics represent municipally-mandated responsibilities or initiatives that are already underway (or planned for) at the City

<p>5.2.4. Develop a policy for the consideration of partnering opportunities that may be initiated by the City, other governments and the private sector or public agencies (e.g. Green GTA Initiative, Eco-schools).</p>	<p>2009-2010</p>	<p>City Manager's Office</p>	<p>All</p>	<p>Although a formal strategy has not been developed, several partnerships were initiated and/or continued in 2012 that resulted in tangible results. These included Earth Hour Vaughan, Seeds for Change, Vaughan CARES and the Toronto Chinese for Ecological Living.</p>
<p>5.2.5. Identify organizations for which the City should obtain membership. Participation in such initiatives should improve the City's profile, offer contact opportunities, provide for the beneficial exchange of information and opportunities for advocacy in areas of strategic importance.</p>	<p>2009-2010</p>	<p>Strategic and Corporate Services</p>	<p>All</p>	<p>The City of Vaughan is involved in membership based programs such as the GTA Clean Air Council, the Federation of Canadian Municipalities Partners for Climate Protection and the Global City Indicators Facility. All of these initiatives have an environmental component and provide profile for the City.</p>
<p>5.2.6. Explore opportunities to work in partnership to create a public Vaughan Community Sustainability Forum to gather interested stakeholders together to share best practices in environmental and sustainability issues and facilitate the implementation of the outcomes.</p>	<p>2009-2010</p>	<p>Strategic and Corporate Services</p>	<p>All</p>	<p>Other means, such as the Partners for a More Sustainable Vaughan and the York Region Environmental Advisory Committee have been pursued to gather perspectives of citizens on environmental and sustainability issues. Partnerships with locally based environmental non-profit groups such as Earth Hour Vaughan, Seeds for Change, Vaughan CARES and the Toronto Chinese for Ecological Living have generated productive results from a variety of projects.</p>



Goal 6: To ensure a supportive system for the implementation of the Community Sustainability and Environmental Master Plan

A large portion of the success of Green Directions will depend on the internal operations and functions that support its implementation. Therefore, Vaughan commits to a series of administrative, oversight, and monitoring actions to ensure Green Directions is fully integrated into our day-to-day municipal operations.

Objective 6.1: To fully support the implementation of Green Directions at all levels of City operations

Actions	Time Frame	Responsibility		Status March 2013
		Owner	Resources	
6.1.1. <i>Ensure, through on-going hiring practices, that the City retains staff with the necessary expertise in environmental/sustainability measures, standards and practices (as per Vaughan Vision 2020)</i>	Ongoing	All	Legal and Admin (Human Resources)	Human Resources will continue to support this initiative through the City's recruitment practices.
6.1.2 <i>Continue to work with York Region and other area municipalities to coordinate policies, where beneficial, and to develop common and coordinated monitoring criteria.</i>	Ongoing	All		Continued working through forums such as the GTA Clean Air Council, York Region Environmental Advisory Committee, York Region Climate Change Adaptation Working group and the York Region Environmental Initiatives Working Group to help to develop a coordinated approach to addressing key issues of interest to municipalities.
6.1.3. Review and confirm the Mandate, Terms of Reference and Membership of the Environment Committee, in consideration of the approval of Green Directions. Also assess the future role of the Greening Vaughan Advisory Committee - GVAC.	2009-2010	Strategic and Corporate Services	Engineering & Public Works (GVAC component) and Clerks.	Completed. All matters related to Green Directions are being directed to the Priorities and Key Initiatives Committee. Further evaluation of the Greening Vaughan Advisory Committee has yet to occur.
6.1.4. Make required organizational and staffing adjustments to support the Environment Committee and the implementation of Green Directions which will include additional resources.	2009-2010	City Manager's Office	All	Completed. The Manager of Environmental Sustainability has been in place since June 2010 and the Sustainability Coordinator since Oct 2010. The Employee Environmental Education Internal Advisory Team, is a cross functional work team from across the organization that continues to meet quarterly to advise on the implementation of the Green Directions Vaughan Employee Education strategy
6.1.5. Prepare annual environmental/sustainability project plans for endorsement by the Budget Committee.	Annually	Strategic and Corporate Services	All	Each affected department prepares project plans on an annual basis for approval through the budget approval process.

- 6.1.6. Prepare an annual report to the Environment Committee on, among other things:
- The status of existing programs (milestones);
 - Accomplishments;
 - New initiatives; and
 - Further opportunities for the purpose of monitoring the implementation of the plan.

Annually	Strategic and Corporate Services	All	The annual update in 2012 was brought forward to Priorities & Key Initiatives Committee and released to the public in June 2012. The public report highlighted one action item from each of the six areas of the Community Sustainability and Environmental Master Plan as well as provided access to the table with updates to all the action items. In Nov 2012, Priorities & Key Initiatives Committee approved 24 indicators that would help to monitor Green Directions Vaughan implementation.
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ATTACHMENT 2:HIGHLIGHTS OF GREEN DIRECTIONS VAUGHAN IMPLEMENTATION

i) Develop and implement a citizens engagement strategy

Sharing sustainable best practices between and among municipal staff and the community is one component of the goal of leading and advocating on sustainability issues. Action 5.1.7 commits the City to developing and implementing a citizen education strategy.

The creation of a new website provided an opportunity to add new sections such as Learning from the Leaders, Making a Difference, Environmental Education and Stewardship and enhanced on-line content. Recruitment for Partners for a More Sustainable Vaughan continued with the goal of setting up training for these volunteers.

ii) Demonstrate support for renewable energy use and generation by businesses and citizens.

Action 1.2.1 of *Green Directions Vaughan* outlines a number of activities to demonstrate support for renewable energy including developing partnerships for alternative energy systems, advocating for sharing excess energy capacity to the grid, reducing regulatory barriers and providing education about community owned energy projects.

The City of Vaughan Building Standards department provided support to businesses pursuing renewable energy projects. As a result of changes to the way the Ontario Power Authority's Feed in Tariff Program (FIT) program evaluates potential projects, renewable energy proponents were asked to obtain municipal support resolutions. Approximately 100 resolutions were provided to proponents wishing to install solar photovoltaic system on Vaughan properties for the latest round of FIT applications in late 2012-early 2013. This demonstrates the willingness of the City to promote renewable energy within the community.

iii) Evaluate greenhouse gas emissions

By inventorying greenhouse gas(GHG) emissions, the City of Vaughan will be in a better position to take actions on reducing emissions that contribute to climate change and poorer air quality. Action 1.1.2 specifies that the inventorying process should be modeled after the Federation of Canadian Municipalities Partners for Climate Protection Milestone 1 and linked to the City facilities audit.

Throughout 2012 the GHG inventory for corporate and community was developed. A greenhouse gas inventory brings together data on community and municipal energy use and solid waste generation in order to estimate greenhouse gas (GHG) emissions in a given year. The inventory consists of a community inventory including residential, institutional, commercial, industrial, transportation, and solid waste sectors as well as a corporate inventory including municipal facilities and operations, including buildings, street lighting, water and wastewater treatment, municipal fleet, and corporate and/or community solid waste. The GHG inventory is expected to be shared with Committee of the Whole in late May 2013.

iv) Develop a comprehensive Natural Heritage Strategy

Protection, restoration and enhancement of natural areas in the City's Natural Heritage Network is one component of achieving healthy and vibrant communities that is reflected in *Green Directions Vaughan*. Goal area 2 within *Green Directions Vaughan* makes reference to the need to develop Vaughan with maximum greenspace and an urban form that supports population growth. Action 2.2.4, develop a comprehensive Natural Heritage Strategy that examines the City's natural capital and diversity and how best to enhance and connect it.

Phase 1 of the Natural Heritage Network Study was completed in Q4/2012. One of the main objectives of the phase 1 work was to provide recommendations to improve the clarity and effectiveness of the Environmental Management Guideline for the submission of environmental reports, such as an Environmental Impact Study and Master Environment and Servicing Plan.

v) *Encourage environmentally friendly or progressive business to set up in Vaughan*

Environmentally progressive companies have the ability to demonstrate strong economic vitality. Goal area 5 makes reference to creating a community where citizens, business and visitors thrive. Action 4.3.1 requires development of a business attraction and retention strategy to encourage environmentally friendly or progressive companies to Vaughan.

ATTACHMENT 3

INDICATORS: COMMUNITY SUSTAINABILITY AND ENVIRONMENTAL MASTER PLAN

Goal Area	Category	Indicator (unit)	2011	2012
Resource Use (What we use)	Energy	- *Total residential electric use per capita (kWh/pp)	2561 kWh/pp	2454 kWh/pp
		- City of Vaughan buildings Energy use (kWh per 1000 sq ft ²)	750,368 kWh/1000 ft ²	672,269 kWh/1000 ft ²
	Air Quality	- *Particulate matter (PM2.5) (micrograms per m ³)	6.2 mg/ m ³ (2010)	Δ ¹
		- Percentage of Low emission vehicles within City Fleet (%)	2%	2%
		- Number of days when the Air Quality Index (AQI) is poor (AQI over 49)	2 (2010)	Δ
	Climate Change	- Community Greenhouse gas emissions as a whole (eCO ₂ -equivalent carbon dioxide)	1,330,359 tonnes of eCO ₂ (2006)	Δ
		- Corporate Greenhouse gas emissions per resident served (eCO ₂ -equivalent carbon dioxide in tonnes/pp)	0.0559 tonnes eCO ₂ /pp (2008)	Δ
	Storm water Management	- Percentage of area with storm water controls (%)	92 % (2009)	Δ
Solid Waste	- Residential Waste Diverted from Landfill- (%)	69 %	68%	
	- Waste Diverted from Landfill-City facilities (%)	11.8 %	Δ	
Water Use	- Daily volume of water used per person (L)	274 L (2009)	214 L	
Growth (How we grow)	Land Use	- Greenspace ² (hectares per 1000 people)	Δ	Δ
	Urban forest	-Tree Canopy cover as a percentage of urban area (%)	19.5 %	19.5 %

¹ΔData currently unavailable

² Green space refers to publicly accessible lands, owned by conservation authorities, municipalities, the Governments of Ontario and Canada, and includes parks, ravines, nature reserves and hazard lands.

Goal Area	Category	Indicator (unit)	2011	2012
	Sustainable Built Form	- Building floor area certified under recognized green building programs (ft ²)	2,317,250	4,019,223
Transportation (How we get around)	Walking and Cycling Paths	- Length of walkways and cycling paths (km)	Δ	1126.98
		- Percentage of walkways and paths which are linked (%)	Δ	77 %
	Transit	- Passenger trips per person (#/pp)	18.2 /pp	Δ
Community (how we live)	Economic Activity	- Level of Construction Activity (\$ value of Building permits)	\$1038.9 M	\$ 778.8 M
		- Ratio of Population to jobs	1.77	1.75
		- Number of jobs provided by Vaughan businesses (#)	170,140	175,504
	Active Community	- Total participant hours for recreation programs (hours)	11,717,442	13,414,830
		- Number of stakeholders in involved in different community mechanisms (community meetings, social media, on-line newsletter)	748955	820347
	Creative Community	- Number of cultural initiatives supported, endorsed by the City (#)	40	40
Leadership (How we lead)	Engagement	- Number of environmentally related public outreach events held by the City of Vaughan and number of attendees at these events (#)	8 events	9 events
			13,150	10,662