

## CITY OF VAUGHAN

### **EXTRACT FROM COUNCIL MEETING MINUTES OF SEPTEMBER 20, 2016**

Item 28, Report No. 31, of the Committee of the Whole, which was adopted without amendment by the Council of the City of Vaughan on September 20, 2016.

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#### **GREEN DIRECTIONS VAUGHAN COMMUNITY SUSTAINABILITY AND ENVIRONMENTAL MASTER PLAN IMPLEMENTATION - ANNUAL UPDATE FILE #22.31**

The Committee of the Whole recommends approval of the recommendation contained in the following report of the Deputy City Manager, Planning and Growth Management, the Director of Policy Planning and Environmental Sustainability and the Manager of Environmental Sustainability, dated September 7, 2016:

##### **Recommendation**

The Deputy City Manager, Planning and Growth Management, the Director of Policy Planning and Environmental Sustainability and the Manager of Environmental Sustainability recommend:

1. THAT this report be received.

##### **Contribution to Sustainability**

*Green Directions Vaughan*, the City's Community Sustainability and Environmental Master Plan (GDV) provides a definition of sustainability, an environmental ethic, principles and actions to guide the work of the City. This includes both operational and regulatory functions. The objective is to achieve a healthy natural environment, vibrant communities and a strong economy. GDV was designed to be a "living document" with actions evolving over time as conditions and priorities change, with the core principles of sustainability remaining constant.

Objective 6.1 of *Green Directions Vaughan*, outlines the commitment "To fully support the implementation of *Green Directions* at all levels of City operations", and 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. In addition, GDV subsection 4.2, Monitoring and Reporting on Progress, notes that indicator reporting should complement the annual status update to inform the community and relevant stakeholders of any changes in the baseline sustainability/environmental indicators. Indicator reporting generates further awareness of progress in program implementation, works to celebrate successful outcomes and also identifies areas in need of additional focus, which allows for continuous program improvement and advancement.

##### **Economic Impact**

There are no economic impacts resulting from the adoption of this report. All activities related to the establishment, tracking and communication of the *Green Directions Vaughan* indicators are supported through existing budget allocations.

##### **Communications Plan**

Environmental Sustainability staff continue to work with the Corporate Communications Department on on-going communication measures such as Public Service Announcements (PSA) and social media and website updates to help promote the implementation of *Green Directions Vaughan* and to highlight the successes and achievements to date. In addition, individual communication plans are developed to launch or support programs and events that facilitate the plans objectives. This report will be made publicly available on Vaughan.ca in an effort to share the most recent updates of *Green Directions Vaughan* with the public.

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#### **Purpose**

The purpose of this report is to provide an update on the implementation of *Green Directions Vaughan* including reporting on 24 baseline indicators. Additionally, this report will outline the approach to revising *Green Directions Vaughan* for another 5-year term (2018-2023) consistent with Action 2.1.2, which provides for the review of *Green Direction Vaughan* concurrent with the City's Growth Management Strategy. As such, this staff reports constitutes the last update report on the "actions" in the existing *Green Directions Vaughan*. An update report in 2017 will focus on the quantitative indicators while the revision of *Green Directions Vaughan* is underway. Another report will be provided in the first quarter of 2017 setting out a detailed work plan, including a consultation strategy, applicable budgets, draft deliverables, implementation strategies, and the identification of new and emerging themes that will need to be considered in formulating the next iteration of GDV.

#### **Background - Analysis and Options**

##### Green Directions Vaughan: Structure and Reporting Framework

In April 2009 Council approved *Green Directions Vaughan*, the City's 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*.

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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 one or more departments 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 were 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 85 actions outlined in *Green Directions Vaughan* had been initiated and 14 of the 44 action items with an established time frame were completed. On November 26, 2012, PKI approved 24 baseline indicators to be reported on annually along with the *Green Directions Vaughan* implementation update. These core indicators were designed to be easily tracked, meaningful to the associated departments responsible for tracking the indicators and compatible with existing benchmarks.

In March 2013, it was reported that 96% of the 85 actions outlined in *Green Directions Vaughan* had been initiated. At that time, all of the actions yet to be initiated were dependent on activities that were already underway and/or had been targeted for the latter portion of the implementation timeframe. Six action items with established time frames were fully completed.

By March 2014, 98% of the 85 action items outlined in *Green Directions Vaughan* had been initiated. Sixteen of the action items were completed and a further 67 actions were ongoing as the implementation of *Green Directions* continued to progress. Only two of the 85 action items – items 2.1.2 and 2.1.3 relating to the City’s Growth Management Strategy were yet to be initiated.

As of April 2015, 98% of the 85 action items outlined in *Green Directions Vaughan* were initiated. Twenty-eight of the action items were completed and a further 55 actions were considered ongoing or in progress as implementation of *Green Directions* continued to advance. Only two of the action items – items 2.1.2 and 2.1.3 relating to the update of the City’s Growth Management Strategy – had not been actioned at the time of the report as they were scheduled for initiation and implementation in 2016. On November 17, 2015 Council directed that the City proceed with the Growth Management Strategy Update/Municipal Comprehensive Review.

As of May 2016, all of the 85 actions outlined in *Green Directions Vaughan* had been initiated: 28 of the action items were considered completed; 41 actions were ongoing; and 16 actions had been initiated and were in progress. Items 2.1.2 and 2.1.3 relating to the City’s Growth Management Strategy had been commenced since the last *GDV* update as a result of Council’s action in November of 2015.

#### Green Directions Vaughan: 2016 Update Report Format

A significant portion of the success of *Green Directions Vaughan* has depended 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:

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- The status of existing programs,
- New initiatives,
- Accomplishments, and
- 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 staff will continue to explore new initiatives and program opportunities with Council particularly as *GDV* undergoes analysis in preparation for the updated version.

Attachment 1 is based on the section within *GDV* that summarizes key actions for each of the identified action items; and the Goals, Objectives, Time Frames and Project Responsibility have been noted.

#### Indicators

In November 2012, Council adopted 24 quantitative indicators to measure the progress and impact of the outcomes of *Green Directions Vaughan*. Tracking core environmental indicators helps the City measure progress towards achieving a sustainable environment, vibrant communities and a strong economy thereby meeting the reporting commitments outlined in Section 4.2 and Appendix C of *Green Directions*. With this report constituting the final update of the current *Green Directions Vaughan* Master Plan, the changes noted in the year-over-year tracking of these indicators will work to inform the future iterations of this Master Plan.

GDV Goal	Indicator	Achievement
<b>1: What we use</b>	<b>Energy Use:</b> Total residential electricity use per capita	4% decline (2011-2012) 7% decline (2012-2013) 4% decline (2013-2014) 2% decline (2014-2015)
<b>2: How we grow</b>	<b>Sustainable Built Form:</b> Building floor area certified under recognized green building standards	73% increase (2011-2012) 3% increase (2012-2013) 43% increase (2013-2014) 15% increase (2014-2015)
<b>3. How we get around</b>	<b>Walking and Cycling Paths:</b> Length of walkways and cycling paths	10 km increase (2012-2013) Total length: 1,149 km  97 km increase (2013-2014) Total length: 1247.40 km  35.5 km increase (2014-2015) Total Length: 1282.92
<b>4: How we live</b>	<b>Active Community:</b> Total participant hours in City recreation programs	14% increase (2011-2012) 7% increase (2012-2013) 2% decrease (2013-2014) 1% increase (2014-2015)
<b>5: How we lead</b>	<b>Environmental Engagement:</b> Number of environmentally related public outreach events	8 events (2011) 9 events (2012) 12 events (2013) 12 events (2014) 8 events (2015)

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Attachment 2 of this report outlines the 24 indicators and displays the progress over the past 4 years of reporting. The 24 indicators monitored align with the strategic framework of the City; correspond to indicators being tracked in the Global City Indicators project; are meaningful to the departments responsible for tracking them; and, are compatible with existing benchmarks. The table above highlights trends for several notable indicators in each of the *Green Directions Vaughan* goal areas. Changes are articulated as a percent increase or decrease recognized as year over year progress.

Generally, the indicator trends demonstrate notable progress in several *GDV* goal areas. Positive changes from 2014 to 2015 include a 2% decline residential electricity use per person, sustainable built form has increased by 15%, 1% increase in total participant hours in City recreation programs, and a 35 km increase in the length of walking and cycling paths. Environmental engagement has declined slightly over the last year by way of fewer of environmental events.

Tracking the 24 indicators has provided the City with experience in measuring progress using quantitative metrics. Staff have addressed issues such as consistency in methodology and data availability to allow for assessment of trends. Indicator tracking will continue as a long-term initiative as the Province requires further monitoring as part of the implementation of the Provincial Plans.

#### Renewal of Green Directions Vaughan: Challenges and Opportunities in an Evolving Policy Regime

A critical component of the renewed *Green Directions 2.0* will be the alignment of its actions with the changing policy landscape at the provincial and federal levels.

Earlier this year, Ontario released the new Climate Change Action Plan that provides tools and incentives to lead growth, efficiency, and productivity in a low carbon economy. Under the Climate Change Mitigation and Low-Carbon Economy Act, 2016 (Bill 172), money earned from Ontario's cap and trade program will be deposited into a new Greenhouse Gas Reduction Account where the proceeds will be reinvested in green projects and initiatives to reduce emissions as set out in Schedule 1 of the Act. Together, the Climate Change Action Plan and cap and trade program will support public and private efforts to reduce greenhouse gas emissions 15 per cent below 1990 levels by 2020, 37 per cent by 2030, and 80 per cent by 2050.

In early 2015, Ontario embarked on a coordinated land use planning review of the Growth Plan for the Greater Golden Horseshoe, the Greenbelt Plan, the Oak Ridges Moraine Conservation Plan, and the Niagara Escarpment Plan. These four provincial land use plans work together to manage growth, build complete communities, curb sprawl, and protect the natural environment.

The Government of Ontario appointed an Advisory Panel, which conducted public consultations. It compiled a report that included 87 recommendations for consideration by the province in drafting amendments to the Plans. The amended Provincial Plans were issued in May of 2016 with further input requested by September 30, 2016 (amended to October 31, 2016). New obligations pertaining to sustainability and climate change mitigation have been identified in the amended plans. It has been indicated that the Province is intending to approve the resulting Plans by the end of this year. This may now be at question as a result of the change to the commenting date. The Region of York and the City of Vaughan are earnestly working to provide comments on these draft amendments. The final amendments and resulting regulations may not be enacted until 2017.

As the roles and obligations of municipalities become more transparent under the existing and emerging policy documents, it is imperative that *Green Directions Vaughan* be well positioned to

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align its goals, objectives, and ethics to complement the new provincial and federal policy direction. Understanding the objectives of the new and changing policies and how they interact will be essential in developing the next iteration of *GDV*. This will provide a sound framework to develop actions that satisfy, regional, and provincial goals and targets, while reflecting the local, “Made in Vaughan” conditions and objectives.

Further legislation and policy review will identify actions in *Green Directions 2.0* that will align with Vaughan’s vision as well as prepare *GDV 2.0* as a platform for implementation and to seek external funds. The following legislation and policy documents will need to be considered:

- Climate Change Action Plan, 2016
- Waste Free Ontario Act,
- Supporting Ontario’s Trails Act, 2016
- Growth Plan for the Greater Golden Horseshoe
- Greenbelt Plan
- Oak Ridges Moraine Conservation Plan
- Provincial Policy Statement, 2014
- Smart Growth for our Communities Act, 2015
- Community Hubs in Ontario: A Strategic Framework and Action Plan
- Clean Water Act, 2006
- Endangered Species Act, 2007
- The Big Move, 2008
- Green Energy Act, 2009
- Long-Term Affordable housing Strategy Update, 2016
- Biodiversity: It’s Our Nature, The Ontario Government Plan to Conserve Biodiversity, 2011
- Ontario’s Long-Term Energy Plan, 2013
- CycleON: Ontario’s Cycling Strategy, 2013
  
- Ontario Great Lakes Strategy, 2014
- Infrastructure for Jobs and Prosperity Act, 2015
- Building Together, 2011
- Freight Supportive Guidelines, 2015
- Transit Supportive Guidelines, 2012

Critical pieces of the Provincial policy framework are in flux as the Coordinated Provincial Plan review continues. With the amendments being finalized over the next number of months, the City requires a better understanding of this policy regime to shape an effective work plan and consulting assignment, before fully initiating the revision of *GDV 2.0*. Originally, it was intended that direction to proceed with the *GDV* update would be sought in the autumn of 2016. However, given the uncertainty over the policy initiatives it was decided to delay the retention of the consultant for *GDV* until there was greater clarity. Given the current situation and need to await the outcome of the Coordinated Plan Review, research and project planning will continue with in-house staff to advance the project as staff seek to develop a better understanding of the new policies and the needs and aspirations of the City’s departments.

#### *Green Directions Vaughan 2.0 (2018-2023) Revision Strategy*

The Policy Planning and Environmental Sustainability Department has \$47,500 in approved capital funds to revise *Green Directions Vaughan (GDV)* for the next term of implementation. On a preliminary basis, the program has been scoped a three phase strategy to guide the development of the next iteration of *Green Directions Vaughan*.

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**Phase 1** – Complete an internal department consultation to identify key themes and major gaps in the existing program. . This Staff Report identifies outcomes from the completion of Phase 1. Emerging themes from staff discussions are identified below.

**Phase 2** – Retain Consultant, commence external public and agency engagement and prepare the draft GDV for presentation to Council.

**Phase 3** – Finalization of the draft by addressing public, staff, and Council feedback. Staff will seek Council approval of the Plan and execute a relaunch strategy.

Milestones
<b>Phase 1</b>
Internal department consultation
2015 GDV Progress Update
<b>Phase 2</b>
Retain consultant
Explore internal and public consultation opportunities
Update and review GDV 2.0
Seek Council feedback
Refine actions, targets, and departmental responsibility
<b>Phase 3</b>
Seek final Council approval
Launch GDV 2.0

#### Phase 1

The first phase of the GDV update strategy took place in Q1/Q2 2016 and consisted of internal consultations with senior management across the City of Vaughan departments. The Environmental Sustainability team met with 22 departments and/or project teams to discuss progress on the implementation of existing actions in GDV while exploring new themes, actions, and opportunities for consideration in the next iteration of the Plan.

Throughout the consultation phase, several common themes emerged from discussions with City of Vaughan staff.

*Leading by Example* - “Leading by example” was raised by staff to increase efforts to demonstrate leadership and best practices when it comes to environmental sustainability. This reflects the emphasis on the Service Excellence initiatives currently underway.

*Health, Well-being, and the Environment* – Staff advocated for corporate and community-based initiatives to align environmental sustainability initiatives to recognize health and well-being benefits.

*Energy Efficiency and Climate Change Mitigation* - Influenced by the Paris Climate Summit (COP 21) and the Province's Climate Change Strategy and Climate Change Action Plan, energy conservation and reducing greenhouse gas (GHG) emissions is a

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prominent theme influencing corporate infrastructure and community planning matters. Achieving progress on community-wide GHG emissions reductions requires a partnership approach as documented in the recently Council-approved Vaughan Municipal Energy Plan.

*Climate Change Adaptation & Resilient Communities* - Throughout discussions with City staff, addressing climate change adaptation in the next iteration of *GDV* was considered an important cornerstone in Vaughan's overall climate strategy. Issues were raised such as climate change risk assessments, resilient infrastructure, resiliency hubs and remedial response plans to better manage and prepare for climate impacts.

*Measuring Progress* - There is a general agreement among staff that the overall structure of *GDV* is robust and clearly assigns lead roles to specific departments for implementation of actions. However, tracking success has often been more qualitative. There is an interest in developing a strategy in which milestones or progress is better articulated in the revision of *GDV*, such as identifying process indicators and outcome indicators to better demonstrate achievements, aligned with department Business Plans so that reporting requirements are met through existing staff capacity.

#### Phase 2

Phase 2 has not yet been initiated. Phase 2 will involve retaining a consultant to help focus the development of the next iteration of *GDV*, explore and conduct innovative internal and public consultation activities (such as social media engagement strategies, public meetings, event outreach, and community surveying), and prepare a draft of the revised *Green Directions Vaughan (Green Directions 2.0)* Plan for Council input.

Phase 2 will further address stakeholder engagement by leveraging the existing network of memberships and partner organizations with which the City of Vaughan has built a rapport. The Policy Planning and Environmental Sustainability department will seek input on *GDV 2.0* from partner organizations such as the Clean Air Council, Smart Commute, ClimateWise Business Network, Seeds for Change, and the Toronto and Region Conservation Authority's Partners in Project Green. Additionally, the City will leverage the expertise of the former stakeholder advisory groups that contributed to the development of the City of Vaughan's Community Climate Action Plan (2014) and the recent Municipal Energy Plan (2016). This engaged over 30 different businesses, not-for-profits, public sector agencies, and community members. Their feedback will be sought to support the development of *GDV 2.0*. Moving forward with the implementation of *GDV 2.0*, the Policy Planning and Environmental Sustainability department will work with Corporate Communications to roll out a robust community engagement strategy, providing a platform for awareness and education campaigns, as well as opportunities to celebrate milestone achievements.

The following activities will be undertaken at the outset of Phase 2, in tandem with preparation for the Municipal Comprehensive Review, in order to develop a targeted Terms of Reference for the consultant deliverables:

- Legislation/policy review and alignment;
- Review implementation strategies with City departments;
- Municipal benchmarking; and
- Communication and consultation strategy.



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#### Phase 3

Phase 3 has not yet been initiated. Phase 3 will seek Council approval of the final plan, provide for an official launch of the plan, and explore communications options to engage staff and residents in the relaunch.

#### Assessment of the First Iteration of Green Directions Vaughan

*Green Directions Vaughan* was initiated as part of the Consolidated Growth Management Strategy – 2031 that evolved into Vaughan Tomorrow. *GDV* was identified as one of three key strategic documents that would guide the City's evolution toward 2031. The guiding policy documents for Vaughan Tomorrow were Vaughan Vision 20/20, *Green Directions Vaughan* and the Vaughan Official Plan. The role of *GDV* was to provide an overarching environmental framework to guide and support the City in carrying out its regulatory and operational functions.

*GDV* was a product of its time. By the late 2000s the City was increasingly addressing issues from a sustainability perspective. However, at the time there was no overall plan or process to track, coordinate and report on the various measures. Also lacking was a corporate ethic and principles to guide decision-making toward greater consideration of sustainability and the implications for the environment and the impacts on our communities and economic competitiveness. *GDV* fulfilled these functions and its Actions responded to the challenges of the day.

*GDV* has succeeded on several levels. First, it has created a strong brand image for the City's sustainability program. This image can be built upon in subsequent updates of the plan and support the roll-out of new initiatives. *GDV* helped cement a culture change that was on-going and resulted in all of the City's staff reports having to describe its contribution to sustainability. Progress has been made on virtually all of the initiatives identified in the inaugural version of *GDV*; and the adoption of performance indicators has provided another means of tracking the City's progress. The still limited data is starting to reveal areas of success.

As in 2008, the City is now into an updating of its Growth Management Strategy and conducting a Municipal Comprehensive Review. Consistent with City policy, this also triggers an update of *Green Directions Vaughan* as a key contributor to both processes. Since 2008, there have been substantial changes to the Provincial policy framework governing the environment, the economy and how municipalities are to grow and evolve. It is in this context that the next version of *GDV* needs to be prepared. Prior to proceeding there will be the need for an in depth understanding of these documents, many of which are still evolving. The current *GDV* provides a sound foundation for the next iteration of the Plan.

#### **Relationship to Term of Council Service Excellence Strategy Map (2014-2018)**

This report is consistent with the Term of Council Priority, "Continue to Cultivate an Environmentally Sustainable City". Currently, *Green Directions Vaughan* is tracked as a key activity to indicate progress under this priority in the Strategy Map. The next iteration of *Green Directions Vaughan* will retain the vision, ethics, and principles to guide the community to a more sustainable future by addressing environmental, cultural, social, and economic issues. The plan will continue to influence all aspects of the City's operational and regulatory activities.

#### **Regional Implications**

In 2007, York Region released its Sustainability Strategy, outlining its commitment to creating a sustainable future for the current and future residents of York Region. With the goal to balance a sustainable natural environment and a healthy community with economic vitality, the regional plan

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aims to inform decision making processes within the region. Of the nine municipalities in York Region, seven have drafted integrated community sustainability plans and/or sustainability development guidelines. The City of Vaughan was one of the first of these municipalities to draft and release an established plan with *Green Directions Vaughan*. The revision of *Green Directions Vaughan* will incorporate other relevant Regional requirements and guidance through the Region Official Plan, York Region Vision 2051, the Greening Strategy, and other operational and infrastructure master plans (e.g. Economic Development Action Plan, Integrated Waste Management Master Plan, Transportation Master Plan, Pedestrian and Cycling Master Plan, Water and Wastewater Master Plan, Long Term Water Conservation Strategy).

The continued progress and communication of the achievements and successes of this plan will work to establish the City of Vaughan as an environmental leader within the region. In addition, under the guidance of *Green Directions*, the City continues to contribute positively as a member of the Greater Toronto and Hamilton Area Clean Air Council. Working collaboratively with partner municipalities across the Region, the City's actions under *Green Directions Vaughan* work to advance regional clean air and climate change solutions.

#### **Conclusion**

The implementation phase of *Green Directions Vaughan*, the City of Vaughan's Community Sustainability and Environmental Master Plan continued throughout 2015. A number of the major initiatives as outlined in the plan have progressed significantly. To date, 100% of the 85 actions outlined in *Green Directions Vaughan* have been initiated: 28 of the action items are complete; 41 actions are ongoing; and 16 actions have been initiated and are in progress.

The fifth and final year of qualitative reporting continued to be complemented by a set of 24 quantitative indicators. These quantitative indicators, approved by Council in November 2012, are working to measure the impact and outcomes of *Green Directions Vaughan* and to highlight successes and identify areas in need of continued focus and improvement. Modest changes in

the tracked indicators were noted this reporting year, signifying the ongoing progress and success of *Green Directions Vaughan* actions and programs.

As the final year of implementation of *Green Directions Vaughan* comes to a close, the next steps are to move forward with the three phase update strategy to launch the second iteration of the Plan. As the Policy Planning and Environmental Sustainability department embarks on Phase 2, the team will identify key priorities to be updated in the plan with the aid of a consultant as well as monitor influential policy developments at the provincial and federal levels. During the development of *Green Directions Vaughan 2.0*, the Policy Planning and Environmental Sustainability team will continue to report annually on the 24 indicators in an effort to continue to measure progress as the City transitions to a revised set of Provincial policies, and corresponding City actions.

#### **Attachments**

1. Green Directions Vaughan Community Sustainability and Environmental Master Plan Implementation Update September 2016
2. Green Directions Vaughan Indicators

#### **Report prepared by:**

Tony Iacobelli, Manager, Environmental Sustainability, ext. 8630  
Kailyn Smith, Sustainability Coordinator, ext. 8941

(A copy of the attachments referred to in the foregoing have been forwarded to each Member of Council and a copy thereof is also on file in the office of the City Clerk.)

**GREEN DIRECTIONS VAUGHAN  
COMMUNITY SUSTAINABILITY AND  
ENVIRONMENTAL MASTER PLAN IMPLEMENTATION - ANNUAL UPDATE  
FILE #22.31**

**Recommendation**

The Deputy City Manager, Planning and Growth Management, the Director of Policy Planning and Environmental Sustainability and the Manager of Environmental Sustainability recommend:

1. THAT this report be received.

**Contribution to Sustainability**

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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 one or more departments 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 were 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 85 actions outlined in *Green Directions Vaughan* had been initiated and 14 of the 44 action items with an established time frame were completed. On November 26, 2012, PKI approved 24 baseline indicators to be reported on annually along with the *Green Directions Vaughan* implementation update. These core indicators were designed to be easily tracked, meaningful to the associated departments responsible for tracking the indicators and compatible with existing benchmarks.

In March 2013, it was reported that 96% of the 85 actions outlined in *Green Directions Vaughan* had been initiated. At that time, all of the actions yet to be initiated were dependent on activities that were already underway and/or had been targeted for the latter portion of the implementation timeframe. Six action items with established time frames were fully completed.

By March 2014, 98% of the 85 action items outlined in *Green Directions Vaughan* had been initiated. Sixteen of the action items were completed and a further 67 actions were ongoing as the implementation of *Green Directions* continued to progress. Only two of the 85 action items – items 2.1.2 and 2.1.3 relating to the City’s Growth Management Strategy were yet to be initiated.

As of April 2015, 98% of the 85 action items outlined in *Green Directions Vaughan* were initiated. Twenty-eight of the action items were completed and a further 55 actions were considered ongoing or in progress as implementation of *Green Directions* continued to advance. Only two of the action items – items 2.1.2 and 2.1.3 relating to the update of the City’s Growth Management Strategy – had not been actioned at the time of the report as they were scheduled for initiation and implementation in 2016. On November 17, 2015 Council directed that the City proceed with the Growth Management Strategy Update/Municipal Comprehensive Review.

As of May 2016, all of the 85 actions outlined in *Green Directions Vaughan* had been initiated: 28 of the action items were considered completed; 41 actions were ongoing; and 16 actions had been initiated and were in progress. Items 2.1.2 and 2.1.3 relating to the City’s Growth Management Strategy had been commenced since the last *GDV* update as a result of Council’s action in November of 2015.

#### Green Directions Vaughan: 2016 Update Report Format

A significant portion of the success of *Green Directions Vaughan* has depended 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, and
- 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 staff will continue to explore new initiatives and program opportunities with Council particularly as *GDV* undergoes analysis in preparation for the updated version.

Attachment 1 is based on the section within *GDV* that summarizes key actions for each of the identified action items; and the Goals, Objectives, Time Frames and Project Responsibility have been noted.

### Indicators

In November 2012, Council adopted 24 quantitative indicators to measure the progress and impact of the outcomes of *Green Directions Vaughan*. Tracking core environmental indicators helps the City measure progress towards achieving a sustainable environment, vibrant communities and a strong economy thereby meeting the reporting commitments outlined in Section 4.2 and Appendix C of *Green Directions*. With this report constituting the final update of the current *Green Directions Vaughan* Master Plan, the changes noted in the year-over-year tracking of these indicators will work to inform the future iterations of this Master Plan.

GDV Goal	Indicator	Achievement
<b>1: What we use</b>	<b>Energy Use:</b> Total residential electricity use per capita	4% decline (2011-2012) 7% decline (2012-2013) 4% decline (2013-2014) 2% decline (2014-2015)
<b>2: How we grow</b>	<b>Sustainable Built Form:</b> Building floor area certified under recognized green building standards	73% increase (2011-2012) 3% increase (2012-2013) 43% increase (2013-2014) 15% increase (2014-2015)
<b>3. How we get around</b>	<b>Walking and Cycling Paths:</b> Length of walkways and cycling paths	10 km increase (2012-2013) Total length: 1,149 km  97 km increase (2013-2014) Total length: 1247.40 km  35.5 km increase (2014-2015) Total Length: 1282.92
<b>4: How we live</b>	<b>Active Community:</b> Total participant hours in City recreation programs	14% increase (2011-2012) 7% increase (2012-2013) 2% decrease (2013-2014) 1% increase (2014-2015)
<b>5: How we lead</b>	<b>Environmental Engagement:</b> Number of environmentally related public outreach events	8 events (2011) 9 events (2012) 12 events (2013) 12 events (2014) 8 events (2015)

Attachment 2 of this report outlines the 24 indicators and displays the progress over the past 4 years of reporting. The 24 indicators monitored align with the strategic framework of the City; correspond to indicators being tracked in the Global City Indicators project; are meaningful to the departments responsible for tracking them; and, are compatible with existing benchmarks. The table above highlights trends for several notable indicators in each of the *Green Directions Vaughan* goal areas. Changes are articulated as a percent increase or decrease recognized as year over year progress.

Generally, the indicator trends demonstrate notable progress in several *GDV* goal areas. Positive changes from 2014 to 2015 include a 2% decline residential electricity use per person, sustainable built form has increased by 15%, 1% increase in total participant hours in City recreation programs, and a 35 km increase in the length of walking and cycling paths. Environmental engagement has declined slightly over the last year by way of fewer of environmental events.

Tracking the 24 indicators has provided the City with experience in measuring progress using quantitative metrics. Staff have addressed issues such as consistency in methodology and data availability to allow for assessment of trends. Indicator tracking will continue as a long-term initiative as the Province requires further monitoring as part of the implementation of the Provincial Plans.

#### Renewal of Green Directions Vaughan: Challenges and Opportunities in an Evolving Policy Regime

A critical component of the renewed *Green Directions 2.0* will be the alignment of its actions with the changing policy landscape at the provincial and federal levels.

Earlier this year, Ontario released the new Climate Change Action Plan that provides tools and incentives to lead growth, efficiency, and productivity in a low carbon economy. Under the Climate Change Mitigation and Low-Carbon Economy Act, 2016 (Bill 172), money earned from Ontario's cap and trade program will be deposited into a new Greenhouse Gas Reduction Account where the proceeds will be reinvested in green projects and initiatives to reduce emissions as set out in Schedule 1 of the Act. Together, the Climate Change Action Plan and cap and trade program will support public and private efforts to reduce greenhouse gas emissions 15 per cent below 1990 levels by 2020, 37 per cent by 2030, and 80 per cent by 2050.

In early 2015, Ontario embarked on a coordinated land use planning review of the Growth Plan for the Greater Golden Horseshoe, the Greenbelt Plan, the Oak Ridges Moraine Conservation Plan, and the Niagara Escarpment Plan. These four provincial land use plans work together to manage growth, build complete communities, curb sprawl, and protect the natural environment.

The Government of Ontario appointed an Advisory Panel, which conducted public consultations. It compiled a report that included 87 recommendations for consideration by the province in drafting amendments to the Plans. The amended Provincial Plans were issued in May of 2016 with further input requested by September 30, 2016 (amended to October 31, 2016). New obligations pertaining to sustainability and climate change mitigation have been identified in the amended plans. It has been indicated that the Province is intending to approve the resulting Plans by the end of this year. This may now be at question as a result of the change to the commenting date. The Region of York and the City of Vaughan are earnestly working to provide comments on these draft amendments. The final amendments and resulting regulations may not be enacted until 2017.

As the roles and obligations of municipalities become more transparent under the existing and emerging policy documents, it is imperative that *Green Directions Vaughan* be well positioned to align its goals, objectives, and ethics to complement the new provincial and federal policy direction. Understanding the objectives of the new and changing policies and how they interact will be essential in developing the next iteration of *GDV*. This will provide a sound framework to develop actions that satisfy, regional, and provincial goals and targets, while reflecting the local, "Made in Vaughan" conditions and objectives.

Further legislation and policy review will identify actions in *Green Directions 2.0* that will align with Vaughan's vision as well as prepare *GDV 2.0* as a platform for implementation and to seek external funds. The following legislation and policy documents will need to be considered:

Climate Change Action Plan, 2016  
 Waste Free Ontario Act,  
 Supporting Ontario's Trails Act, 2016  
 Growth Plan for the Greater Golden Horseshoe  
 Greenbelt Plan  
 Oak Ridges Moraine Conservation Plan  
 Provincial Policy Statement, 2014  
 Smart Growth for our Communities Act, 2015  
 Community Hubs in Ontario: A Strategic Framework and Action Plan  
 Clean Water Act, 2006  
 Endangered Species Act, 2007  
 The Big Move, 2008  
 Green Energy Act, 2009  
 Long-Term Affordable housing Strategy Update, 2016  
 Biodiversity: It's Our Nature, The Ontario Government Plan to Conserve Biodiversity,  
 2011  
 Ontario's Long-Term Energy Plan, 2013  
 CycleON: Ontario's Cycling Strategy, 2013  
  
 Ontario Great Lakes Strategy, 2014  
 Infrastructure for Jobs and Prosperity Act, 2015  
 Building Together, 2011  
 Freight Supportive Guidelines, 2015  
 Transit Supportive Guidelines, 2012

Critical pieces of the Provincial policy framework are in flux as the Coordinated Provincial Plan review continues. With the amendments being finalized over the next number of months, the City requires a better understanding of this policy regime to shape an effective work plan and consulting assignment, before fully initiating the revision of *GDV 2.0*. Originally, it was intended that direction to proceed with the GDV update would be sought in the autumn of 2016. However, given the uncertainty over the policy initiatives it was decided to delay the retention of the consultant for *GDV* until there was greater clarity. Given the current situation and need to await the outcome of the Coordinated Plan Review, research and project planning will continue with in-house staff to advance the project as staff seek to develop a better understanding of the new policies and the needs and aspirations of the City's departments.

#### *Green Directions Vaughan 2.0 (2018-2023) Revision Strategy*

The Policy Planning and Environmental Sustainability Department has \$47,500 in approved capital funds to revise *Green Directions Vaughan (GDV)* for the next term of implementation. On a preliminary basis, the program has been scoped a three phase strategy to guide the development of the next iteration of *Green Directions Vaughan*.

**Phase 1** – Complete an internal department consultation to identify key themes and major gaps in the existing program. . This Staff Report identifies outcomes from the completion of Phase 1. Emerging themes from staff discussions are identified below.

**Phase 2** – Retain Consultant, commence external public and agency engagement and prepare the draft GDV for presentation to Council.

**Phase 3** – Finalization of the draft by addressing public, staff, and Council feedback. Staff will seek Council approval of the Plan and execute a relaunch strategy.



<b>Milestones</b>
<b>Phase 1</b>
Internal department consultation
2015 <i>GDV</i> Progress Update
<b>Phase 2</b>
Retain consultant
Explore internal and public consultation opportunities
Update and review <i>GDV 2.0</i>
Seek Council feedback
Refine actions, targets, and departmental responsibility
<b>Phase 3</b>
Seek final Council approval
Launch <i>GDV 2.0</i>

### Phase 1

The first phase of the *GDV* update strategy took place in Q1/Q2 2016 and consisted of internal consultations with senior management across the City of Vaughan departments. The Environmental Sustainability team met with 22 departments and/or project teams to discuss progress on the implementation of existing actions in *GDV* while exploring new themes, actions, and opportunities for consideration in the next iteration of the Plan.

Throughout the consultation phase, several common themes emerged from discussions with City of Vaughan staff.

*Leading by Example* - “Leading by example” was raised by staff to increase efforts to demonstrate leadership and best practices when it comes to environmental sustainability. This reflects the emphasis on the Service Excellence initiatives currently underway.

*Health, Well-being, and the Environment* – Staff advocated for corporate and community-based initiatives to align environmental sustainability initiatives to recognize health and well-being benefits.

*Energy Efficiency and Climate Change Mitigation* - Influenced by the Paris Climate Summit (COP 21) and the Province's Climate Change Strategy and Climate Change Action Plan, energy conservation and reducing greenhouse gas (GHG) emissions is a prominent theme influencing corporate infrastructure and community planning matters. Achieving progress on community-wide GHG emissions reductions requires a partnership approach as documented in the recently Council-approved Vaughan Municipal Energy Plan.

*Climate Change Adaptation & Resilient Communities* - Throughout discussions with City staff, addressing climate change adaptation in the next iteration of *GDV* was considered an important cornerstone in Vaughan's overall climate strategy. Issues were raised such as climate change risk assessments, resilient infrastructure, resiliency hubs and remedial response plans to better manage and prepare for climate impacts.

*Measuring Progress* - There is a general agreement among staff that the overall structure of *GDV* is robust and clearly assigns lead roles to specific departments for implementation of actions. However, tracking success has often been more qualitative. There is an interest in developing a strategy in which milestones or progress is better articulated in the revision of *GDV*, such as identifying process indicators and outcome indicators to better demonstrate achievements, aligned with department Business Plans so that reporting requirements are met through existing staff capacity.

## Phase 2

Phase 2 has not yet been initiated. Phase 2 will involve retaining a consultant to help focus the development of the next iteration of *GDV*, explore and conduct innovative internal and public consultation activities (such as social media engagement strategies, public meetings, event outreach, and community surveying), and prepare a draft of the revised *Green Directions Vaughan (Green Directions 2.0)* Plan for Council input.

Phase 2 will further address stakeholder engagement by leveraging the existing network of memberships and partner organizations with which the City of Vaughan has built a rapport. The Policy Planning and Environmental Sustainability department will seek input on *GDV 2.0* from partner organizations such as the Clean Air Council, Smart Commute, ClimateWise Business Network, Seeds for Change, and the Toronto and Region Conservation Authority's Partners in Project Green. Additionally, the City will leverage the expertise of the former stakeholder advisory groups that contributed to the development of the City of Vaughan's Community Climate Action Plan (2014) and the recent Municipal Energy Plan (2016). This engaged over 30 different businesses, not-for-profits, public sector agencies, and community members. Their feedback will be sought to support the development of *GDV 2.0*. Moving forward with the implementation of *GDV 2.0*, the Policy Planning and Environmental Sustainability department will work with Corporate Communications to roll out a robust community engagement strategy, providing a platform for awareness and education campaigns, as well as opportunities to celebrate milestone achievements.

The following activities will be undertaken at the outset of Phase 2, in tandem with preparation for the Municipal Comprehensive Review, in order to develop a targeted Terms of Reference for the consultant deliverables:

- Legislation/policy review and alignment;
- Review implementation strategies with City departments;
- Municipal benchmarking; and
- Communication and consultation strategy.

## Phase 3

Phase 3 has not yet been initiated. Phase 3 will seek Council approval of the final plan, provide for an official launch of the plan, and explore communications options to engage staff and residents in the relaunch.

## Assessment of the First Iteration of Green Directions Vaughan

*Green Directions Vaughan* was initiated as part of the Consolidated Growth Management Strategy – 2031 that evolved into Vaughan Tomorrow. *GDV* was identified as one of three key strategic documents that would guide the City's evolution toward 2031. The guiding policy documents for Vaughan Tomorrow were Vaughan Vision 20/20, *Green Directions Vaughan* and the Vaughan Official Plan. The role of *GDV* was to provide an overarching environmental framework to guide and support the City in carrying out its regulatory and operational functions.

*GDV* was a product of its time. By the late 2000s the City was increasingly addressing issues from a sustainability perspective. However, at the time there was no overall plan or process to track, coordinate and report on the various measures. Also lacking was a corporate ethic and principles to guide decision-making toward greater consideration of sustainability and the implications for the environment and the impacts on our communities and economic competitiveness. *GDV* fulfilled these functions and its Actions responded to the challenges of the day.

*GDV* has succeeded on several levels. First, it has created a strong brand image for the City's sustainability program. This image can be built upon in subsequent updates of the plan and support the roll-out of new initiatives. *GDV* helped cement a culture change that was on-going and resulted in all of the City's staff reports having to describe its contribution to sustainability. Progress has been made on virtually all of the initiatives identified in the inaugural version of *GDV*; and the adoption of performance indicators has provided another means of tracking the City's progress. The still limited data is starting to reveal areas of success.

As in 2008, the City is now into an updating of its Growth Management Strategy and conducting a Municipal Comprehensive Review. Consistent with City policy, this also triggers an update of *Green Directions Vaughan* as a key contributor to both processes. Since 2008, there have been substantial changes to the Provincial policy framework governing the environment, the economy and how municipalities are to grow and evolve. It is in this context that the next version of *GDV* needs to be prepared. Prior to proceeding there will be the need for an in depth understanding of these documents, many of which are still evolving. The current *GDV* provides a sound foundation for the next iteration of the Plan.

#### **Relationship to Term of Council Service Excellence Strategy Map (2014-2018)**

This report is consistent with the Term of Council Priority, "Continue to Cultivate an Environmentally Sustainable City". Currently, *Green Directions Vaughan* is tracked as a key activity to indicate progress under this priority in the Strategy Map. The next iteration of *Green Directions Vaughan* will retain the vision, ethics, and principles to guide the community to a more sustainable future by addressing environmental, cultural, social, and economic issues. The plan will continue to influence all aspects of the City's operational and regulatory activities.

#### **Regional Implications**

In 2007, York Region released its Sustainability Strategy, outlining its commitment to creating a sustainable future for the current and future residents of York Region. With the goal to balance a sustainable natural environment and a healthy community with economic vitality, the regional plan aims to inform decision making processes within the region. Of the nine municipalities in York Region, seven have drafted integrated community sustainability plans and/or sustainability development guidelines. The City of Vaughan was one of the first of these municipalities to draft and release an established plan with *Green Directions Vaughan*. The revision of *Green Directions Vaughan* will incorporate other relevant Regional requirements and guidance through the Region Official Plan, York Region Vision 2051, the Greening Strategy, and other operational and infrastructure master plans (e.g. Economic Development Action Plan, Integrated Waste Management Master Plan, Transportation Master Plan, Pedestrian and Cycling Master Plan, Water and Wastewater Master Plan, Long Term Water Conservation Strategy).

The continued progress and communication of the achievements and successes of this plan will work to establish the City of Vaughan as an environmental leader within the region. In addition, under the guidance of *Green Directions*, the City continues to contribute positively as a member of the Greater Toronto and Hamilton Area Clean Air Council. Working collaboratively with partner municipalities across the Region, the City's actions under *Green Directions Vaughan* work to advance regional clean air and climate change solutions.

## **Conclusion**

The implementation phase of *Green Directions Vaughan*, the City of Vaughan's Community Sustainability and Environmental Master Plan continued throughout 2015. A number of the major initiatives as outlined in the plan have progressed significantly. To date, 100% of the 85 actions outlined in *Green Directions Vaughan* have been initiated: 28 of the action items are complete; 41 actions are ongoing; and 16 actions have been initiated and are in progress.

The fifth and final year of qualitative reporting continued to be complemented by a set of 24 quantitative indicators. These quantitative indicators, approved by Council in November 2012, are working to measure the impact and outcomes of *Green Directions Vaughan* and to highlight successes and identify areas in need of continued focus and improvement. Modest changes in the tracked indicators were noted this reporting year, signifying the ongoing progress and success of *Green Directions Vaughan* actions and programs.

As the final year of implementation of *Green Directions Vaughan* comes to a close, the next steps are to move forward with the three phase update strategy to launch the second iteration of the Plan. As the Policy Planning and Environmental Sustainability department embarks on Phase 2, the team will identify key priorities to be updated in the plan with the aid of a consultant as well as monitor influential policy developments at the provincial and federal levels. During the development of *Green Directions Vaughan 2.0*, the Policy Planning and Environmental Sustainability team will continue to report annually on the 24 indicators in an effort to continue to measure progress as the City transitions to a revised set of Provincial policies, and corresponding City actions.

## **Attachments**

1. Green Directions Vaughan Community Sustainability and Environmental Master Plan Implementation Update September 2016
2. Green Directions Vaughan Indicators

## **Report prepared by:**

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Respectfully submitted,

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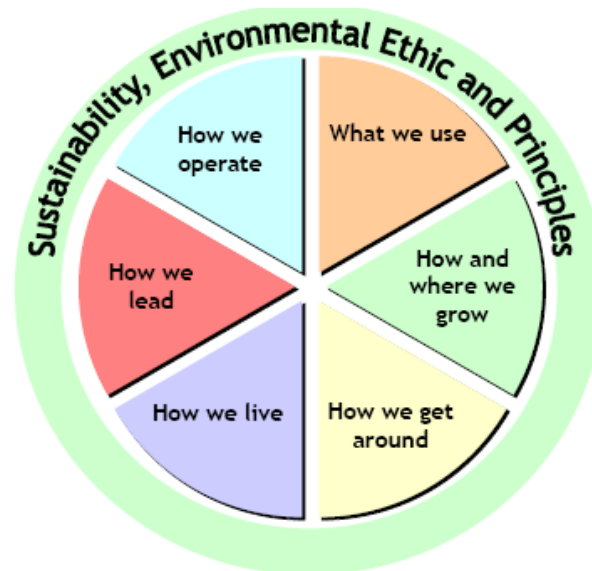
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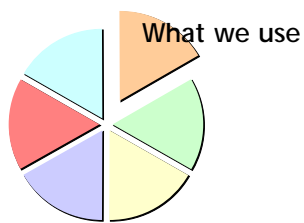
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## COMMUNITY SUSTAINABILITY AND ENVIRONMENTAL MASTER PLAN IMPLEMENTATION UPDATE



September 2016



## 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 2015
		Owner	Resources	
1.1.1. Seek creative funding for energy saving projects in municipal facilities, including: <ul style="list-style-type: none"> <li>Developing an energy savings policy to ensure that the funds recouped from energy savings are reinvested into energy-related initiatives; and</li> <li>Applying to the Municipal Eco Challenge Fund (MECF).</li> </ul>	Ongoing	Community Services	Engineering and Public Works	The City of Vaughan received significant funding from the Ontario Power Authority and Independent Electricity System Operator to explore energy savings projects such as the Energy audit, LED retrofits, mechanical system upgrades and enhanced power management for computing units. We are working with staff to reach a target of 2000 MWh energy savings on an annual basis.
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).	2009-2010 Complete	Community Services Works	Engineering and Public	Completed. The energy audit at 28 City of Vaughan facilities was completed Q4. 2013. The results of the audit contributed to the Conservation Demand Management Plan that was developed in 2014. Initiatives identified in the 2013 audit continue to be implemented.

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

Actions	Time Frame	Project Responsibility		Status 2015
		Owner	Resources	
<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"> <li><i>An itemized description of significant energy consuming technologies and operations;</i></li> <li><i>Annual energy usage of each of the technologies and operations;</i></li> <li><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></li> <li><i>A summary of the programs and achievements in energy conservation and other reductions since the previous plan; and</i></li> <li><i>Any such information as may be prescribed.*</i></li> </ul>	Complete	Community Services	Engineering and Public Works & Vaughan Fire and Rescue Services	The Conservation Demand Management Plan continues to be implemented by Facility Maintenance Services in partnership with the Policy Planning and Environmental Sustainability Department. The five year plan was approved by Council in Q2 of 2014. The plan will be renewed every 5th anniversary as per provincial regulation.
<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>	Complete	Community Services	Engineering and Public Works	Completed. City of Vaughan obtained membership following approval of Council in March 2011. The City has achieved Milestone 3 and is working toward Milestone 4 in the 5 step framework.

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

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

Actions	Time Frame	Project Responsibility	Status
		Owner Resources	2015
<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"> <li>• Moving towards carbon neutrality;</li> <li>• Potential savings in new buildings and existing infrastructure (retrofits);</li> <li>• Implementing a "lights-out" initiative for municipal buildings;</li> <li>• Energy conserving streetlight pilots; and</li> <li>• Support for local, renewable sources of energy.</li> </ul>	Complete	Community Services Engineering and Public Works	<p>This action is being addressed in concert with Action 1.1.3. under the Conservation Demand Management Plan, launched in 2014. The Embedded Energy Manager position works in partnership with PowerStream to identify initiatives and opportunities to further reduce energy and emissions.</p> <p>The Community Climate Action Plan established the first GHG reduction target for the City of Vaughan and was approved by Council in 2014. The recent adoption of Vaughan's Municipal Energy Plan in 2016 addresses a refined GHG target and a series of actions and opportunities to reduce energy consumption and establish a culture of conservation in Vaughan.</p>
<p>1.1.6. Develop a comprehensive green fleet strategy</p>	2011-2014 Complete	Community Services Engineering and Public Works & Vaughan Fire and Rescue Services	<p>Completed. Implementation is progressing through a series of concerted efforts targeting various aspects of the strategy.</p> <p>City staff are currently investigating feasibility of monitoring devices for fleet vehicles has per the Vaughan Community Health Centre's recommendation put forth in the 2015 Vaughan Community Wellbeing Report.</p>



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

Actions	Time Frame	Project Responsibility		Status 2015
		Owner	Resources	
1.2.1. Demonstrate support for renewable energy use and generation by businesses and citizens, by:				
<ul style="list-style-type: none"> <li>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);</li> </ul>	Ongoing	Economic Development		Economic Development will continue to provide information and assistance to businesses that are seeking to manage energy costs by helping them to access appropriate contacts and government programs.
<ul style="list-style-type: none"> <li>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;</li> </ul>	2009-2010	Planning	Legal	In Fall of 2013 City provided blanket approval for on-site generation via rooftop solar FIT and continues to support the program.
<ul style="list-style-type: none"> <li>Advocating, where appropriate, for the use of existing infrastructure to allow citizens and businesses to share excess capacity to the energy grid; and</li> </ul>	On-going	Strategic & Corporate Services		Completed. 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.
<ul style="list-style-type: none"> <li>Providing access to education about alternatives and grants (e.g. The Community Power Fund to support community-owned renewable energy</li> </ul>	2009-2010	Strategic & Corporate	Corporate Communications	

projects in Ontario).

Services

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

	Actions	Time Frame	Project Responsibility		Status 2015
			Owner	Resources	
1.2.2.	<p>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"> <li>• Energy conservation measures applied to community and building design, implemented through the planning process;</li> <li>• District energy systems;</li> <li>• Co-generation and distributed power generation; and</li> <li>• Photovoltaic, geothermal and wind systems.</li> </ul> <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>	2009-2010 Complete	Strategic & Corporate Services	Engineering and Public Works	The City of Vaughan Community Climate Change Action Plan, approved by Council in 2014 and the subsequent Municipal Energy Plan approved in 2016 provides the community with practical ways to reduce greenhouse gas emissions from community sources. The Municipal Energy Plan documents GHG emission reduction actions such as driving business uptake of utility conservation programs, residential retrofits, partnerships for roof top solar photovoltaic projects, new constructions requirements, etc. to reduce energy use.
1.2.3.	Identify and work with partners to evaluate the community's greenhouse gas emissions (PCP Milestone 1)	2011-2014 Complete	Strategic & Corporate Services		Completed. The greenhouse gas corporate and community inventories were presented and approved by Council in May 2013. The Federation of Canadian Municipalities confirmed that the City of Vaughan had achieved PCP Milestone 1.

1.2.4.	Develop an emissions reductions plan (PCP Milestone 2) for, and in partnership with, the community.	2011-2014 Complete	Strategic & Corporate Services	Completed. The City of Vaughan Community Climate Action Plan completed in Q4, 2013 with the support of 30 + community stakeholders was adopted by Council in April 2014. Vaughan's Municipal Energy Plan approved in Q2 2016 will replace the Community Climate Action Plan by building on the initial actions and opportunities identified for emission reduction.
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## Objective 1.2: To promote reduction of greenhouse gas emissions in the City of Vaughan, continued

	Actions	Time Frame	Project Responsibility		Status 2015
			Owner	Resources	
1.2.5.	<p>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"> <li>Developing a local action plan;</li> <li>Implementing the local action plan or a set of activities; and</li> <li>Monitoring progress and reporting results; evaluate and report annually on changes in energy use.</li> </ul>	2011-2014	Strategic & Corporate Services		As per action 1.2.4, the development of the Community Climate Change Action Plan was adopted by Council in April of 2014; satisfying Milestone 3 of the Partners for Climate Protection Program. Implementation of the actions and opportunities have been initiated, such as electric mobility projects and developing a sustainability leaders forum. The Municipal Energy Plan has replaced the Community Climate Action Plan. The Municipal Energy Plan Stakeholder Advisory Group along with City staff will oversee implementation of the actions and opportunities in an effort to complete Milestones 4 and 5.

## 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	Project Responsibility		Status 2015
			Owner	Resources	
1.3.1.	Continue pilot programs to examine various technologies and techniques to improve winter road maintenance (e.g. salt reduction).	Ongoing	Engineering and Public Works		Full implementation of alternative deliver (Thawrox) continued during the winter of 2014-2015. Final salt usage for the past winter season is up slightly from the previous year, primarily due to the extremely cold conditions experienced throughout the season. Overall salt usage is down considerably when compared to the period from 2009 to 2012. This can be attributed to reduced application rates using the alternative deicer, and permanent changes in operational procedures.
1.3.2.	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.	Ongoing	Planning	Engineering and Public Works & Community Services	<p>The NHN study is complete as of June 2015 following 4 years of project work and extensive consultation. The findings of the NHN Study are recommended to be implemented as an official plan amendment to VOP 2010 to revise Schedule 2, add three new Schedules in accordance with Provincial requirements, amend 11 policies, and add three new policies.</p> <p>On February 16, 2016 Vaughan Council adopted the recommendation of the Committee of the Whole, "that the Natural Heritage Network Study and any potential Schedule 2 modifications be referred to the next Comprehensive Review of the Vaughan Official Plan".</p>
1.3.3.	Continue to work with other partners (such as the Toronto and Region Conservation Authority) to implement policies and	Ongoing	Engineering and Public Works	Planning	A formal Stormwater Pond inspection form was developed and implemented. Over 40 stormwater ponds have been

*undertake activities that support high water quality in Vaughan's watersheds.*

- 1.3.4. *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 consistent with emerging legislation, and ensure protection from significant flooding (adapted from Vaughan Vision 2020)\**

2009-2010  
Complete

Engineering  
and  
Public Works

inspected to date.

A stormwater pond water quality monitoring program is currently being drafted following a review of approaches to this issue in other jurisdictions.

New water quality standards and criteria for new development have been established through the City-Wide Storm Drainage & Stormwater Management Master Plan.

City-wide Phase 2 Drainage Study has been completed that recommends improvements to Franklin Ave SWM pond to mitigate flooding risk.

Engineering Staff participated with colleagues from Aurora and Markham in climate change risk assessment workshops for stormwater and wastewater assets. City of Toronto's Risk Assessment Tool was used in the analysis.

Staff will participate with York Region project consultant and will provide input on climate change risk assessment for stormwater assets in Vaughan.

Design criteria study: Ongoing comments have been received on this study since posted on City's website in Q2 of 2013. These comments will be addressed and Design Criteria Study is anticipated to be finalized by Q4 of 2015.

Staff continues to actively participate in

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

the Municipal Stormwater Management Discussion Group meetings of southern Ontario municipalities.

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  
Complete

Engineering  
and  
Public Works

Updated Master Plan system models for water, wastewater, and stormwater management are now in use and will be closely coordinated with York Region's all pipes model.

1.3.6. Update the sanitary sewer by-law

2009-2010

Engineering  
and  
Public Works

Legal and  
Finance

The Sewer Use Bylaw and its related programs are set to go to Committee of the Whole Working Session on June 1, 2016.

1.3.7. Create a stormwater by-law

2009-2010

Engineering  
and Public  
Works

Legal and  
Finance

A stormwater charge was approved by Council on March 22, 2016 with scheduled implementation in 2017.

The stormwater charge will support the development of a comprehensive stormwater management program. The program will include:

- Testing quality of stormwater before it enters streams and creeks
- Inspecting stormwater outlets to ensure there are no blockages to water flow
- Maintaining and repairing the hundreds of kilometers of pipes that make up the public drainage system to prevent backups and counteract the impacts of spills

- Finding solutions for cleaning stormwater ponds in densely populated areas of the city
- Street sweeping to remove debris before it reaches streams

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

Actions		Time Frame	Project Responsibility		Status
			Owner	Resources	2015
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 Complete	Community Services	Engineering and Public Works	The energy audit completed in Q4, 2014 included water usage and recommendations to reduce water usage. We are currently integrating water tracking with energy tracking using Clear Point to measure water consumption and cost. The Conservation Demand Management Plan will be expanded to include water components in future years.
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"><li>• Education programs for employees (including lessons learned from York's Water for Tomorrow program);</li><li>• Evaluating the feasibility of grey water treatment and delivery in municipal buildings;</li><li>• Making better use of captured water for lawn and garden watering; and</li><li>• Infrastructure retrofits.</li></ul>	2010-2011	Community Services	Engineering and Public Works	The baseline data use has now been established with the completion of the Energy audit in Q4, 2013. The Conservation Demand Management Plan will be expanded to include water components in future years.

- 1.4.3. Evaluate and report annually on changes in water use at the City.

2009-2011  
Complete

Community  
Services

Engineering  
and  
Public Works

As indicated in 1.4.2, the Conservation Demand Management Plan will provide a framework for reporting on water reduction actions. A web based tracking system is being utilized to assist with tracking 15 facilities using the most water.

## 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	Project Responsibility		Status 2015
			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 continue to be in place.  No demolition is scheduled at this time.
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	Waste audit is on hold pending Waste Management resources.
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"> <li>Promoting the six Rs (Refuse, Reduce, Reuse, Renew, Recycle, and Recover) in facilities through an education campaign;</li> <li>Eliminating or reducing PET water bottles, plastic cutlery and Styrofoam in City facilities; and</li> <li>Introducing three stream waste diversion in all municipal buildings and facilities.</li> </ul>	Ongoing	Engineering and Public Works	Community Services & Human Resources	The viability of three stream waste collection needs further discussion with representatives from Buildings and Facilities as well as Parks and Forestry. A waste audit at various locations was discussed to help inform the viability of moving forward with three stream waste collection.  City Hall currently operates three stream waste diversion along with toner, battery, electronic, writing utensil, and K Cup recycling services. Vaughan Public Libraries are piloting small electronic collection program. The JOC has installed units to prepare for electronic recycling services.



1.5.4.	Evaluate and report annually on the amount of waste generated and track progress in achieving the waste reduction target.	2011-2014 Complete	Community Services	Engineering and Public Works	Completed. Waste diverted from Landfills at City facilities is being tracked as one of the Green Directions Vaughan indicators.
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 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.	2009-2010	Purchasing	All	The Green Procurement Policy has been explored with Purchasing. A draft has been developed but has yet to be approved by Finance, Administration and Audit and implemented.

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

Actions	Time Frame	Project Responsibility		Status 2015
		Owner	Resources	
1.6.1. <i>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		This initiative has been embedded in the York Region's long term Integrated Waste Management Master Plan. City staff continue to meet with the Region and discuss the plan as part of the Strategic Waste Policy Committee.

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.\**

2011-2014

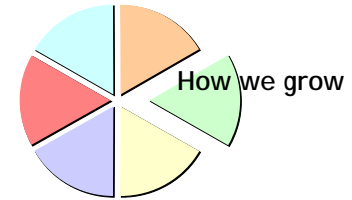
Engineering  
and  
Public Works

Curbside waste diversion rate for 2015 was approximately 62% (this is an estimate, still pending Waste Diversion Ontario verification). The City continues to advocate, promote, and educate residents about waste diversion initiatives offered by the City through print and social media. The City is committed to working with York Region to increase awareness and understanding of waste diversion and to implement new and innovative ways to reduce waste.

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\* 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	Project Responsibility		Status 2015
		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"> <li><i>• Green Directions Vaughan, the City's first Community Sustainability and Environmental Master Plan;</i></li> <li><i>• The new Official Plan;</i></li> <li><i>• The Transportation Master Plan;</i></li> <li><i>• Water and Sewer Master Plan;</i></li> <li><i>• The Drainage and Stormwater Master Plan;</i></li> <li><i>• Employment Sectors Strategy;</i></li> <li><i>• The Fire and Rescue Services Master Plan;</i></li> <li><i>• The Parks, Recreation, Facilities and Libraries Master Plan; and</i></li> <li><i>• The Long Range Financial Plan.</i></li> </ul>	Ongoing	City Manager's Office	All	Vaughan Official Plan 2010 was adopted in September 2010. Volume 1 is in effect, except for a few policies and Volume 2 is continuing to proceed through the OMB process, with the remaining site and area specific appeals continuing to toward full approval. All of the Master Plans are in effect and are being implemented. This process will continue for the foreseeable future. The VOP 2010 and Master Plans are up for renewal as part of the City's Growth Management Strategy Update and the Municipal Comprehensive Review starting in 2016-17.

**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, continued**

Actions	Time Frame	Project Responsibility		Status 2015
		Owner	Resources	
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>	2015-2020	City Manager's Office	All	With the approval process for VOP 2010 entering into its latter stages and the completion of the Master Plans, this provides a trigger to begin the process to conduct a Growth Management Strategy Update and Statutory 5-Year Review. This would also be twinned with a Municipal Comprehensive Review, as a result of Amendment No. 2 to the Provincial Growth Plan, which assigned new population and employment projections to 2041. The Region of York has initiated its MCR and in November of 2015 Council authorized the City to proceed with its Growth Management Strategy Update and Municipal Comprehensive Review.
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>	2015-2020	City Manager's Office	All	The initial stages of this work were addressed in the November 2015 report to Council on the Growth Management Strategy Update and Municipal Comprehensive Review. Program/Project Charters will be approved for both of these initiatives.

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

## 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	Project Responsibility		Status 2015
		Owner	Resources	
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>	Ongoing	Planning		Concord GO and Maple GO Secondary Plans are approved and in effect. A number of secondary plans remain in the approval process as a result of Ontario Municipal Board appeals. This includes the Yonge-Steeles Corridor Secondary Plan, the Vaughan Metropolitan Centre Secondary Plan and the Centre Street Study. The Kipling Avenue and Highway 7 (NE Corner) and Dufferin and Centre Intersection Land use studies are also underway.  The Vaughan Mills Centre Secondary Plan has been adopted by Council and was subsequently appealed and is now in mediation.
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.	2009-2011 Complete	Community Services		Completed.

2.2.3. Continue to develop a Parkland/Open Space Acquisition Strategy

2011-2014

Community Services

Legal & Planning

Terms of Reference for Land Acquisition Strategy in progress by Real Estate Services.

Parkland acquisition strategies for the VMC are being reviewed with the VMC Development Facilitator with the goal of achieving 20ha of parkland within the VMC.

Staff continue to seek opportunities to maximize the City's parkland holdings in effort to meet the City-wide target of 2.2ha/1000population.

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

Actions	Time Frame	Project Responsibility		Status 2015
		Owner	Resources	
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: <ul style="list-style-type: none"> <li>Develop an inventory of Vaughan's natural heritage, and identify opportunities for habitat restoration;</li> <li><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></li> <li><i>Develop policies to create opportunities for near urban agriculture within Vaughan's rural areas, through policies</i></li> </ul>	Ongoing	Planning		<p>The NHN Study is complete as of June 2015. Council adopted the recommendation "that the Natural Heritage Network Study and any potential Schedule 2 modifications be referred to the next Comprehensive Review of Vaughan Official Plan".</p> <p>Policies in Section 5.2.8 and 7.4.1 of the VOP 2010 generally support agriculture and local food production, including urban agriculture. The policies include attention to community gardens, use of park land, encourage food hubs, a food charter, and supporting farmers' markets among other initiatives.</p>

*described in the City's new Official Plan*

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	Strategies for reducing the impacts of storm water run-off and considerations for low-impact design continue to be explored.  A Parks Development staff team has been established to review sustainable design and construction standards for parks development and trail projects.
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## Objective 2.3: To create a City with sustainable built form

Actions	Time Frame	Project Responsibility		Status 2015
		Owner	Resources	
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>	Ongoing	Planning	All	<p>Testing stage of the Sustainability Metrics continues with an aim to report to Council in Q1 2017.</p> <p>Collaboration continues with municipal partners (City of Brampton and Town of Richmond Hill).</p> <p>City staff continue to promote uptake of the Sustainability Metrics by other municipalities through the work of the Clean Air Council.</p>
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		<p>Staff continue to work with TRCA and applicants to ensure the 10mm target achieved through the development review process.</p>
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>	Complete	Planning		<p>Statutory Public Hearing regarding the City-wide Secondary Suites Study took place March 3, 2015.</p> <p>Refining draft Official Plan and zoning by-law.</p> <p>City of Vaughan's Term of Council Priorities includes to "create and manage affordable housing options (secondary suites)".</p>

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

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	VOP 2010 policies supporting energy efficiency and renewable energy include: Section 5.2 (Diversifying Vaughan's Economy) - Policy 5.2.1.4 to encourage green industries; - Policy 5.2.1.5 to encourage eco-industrial parks and district energy systems. Section 8.5 (Energy Conservation) refers to requirements for community energy plans and refers to measures for reducing peak electricity consumption and district energy systems.  Policy 8.6.1.8 identifies the opportunity to investigate energy-from-waste options.  Policy 20.1.2.9 refers to supporting district energy through Section 37 implementation.
2.3.5.	<i>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.).</i>	2011-2014 Complete	Planning	The Sustainability Metrics is now required as part of a complete application and testing phase is underway.  The City has enlisted the assistance of Enbridge's Savings by Design program to identify energy efficiency and renewable energy generation in relation to future build-out in the New Community Areas, and to determine the appropriate City role in encourage uptake in the residential and institutional sectors.

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

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  
Complete

Community  
Services

Engineering  
and  
Public Works

Completed. New facilities continue to be specified to LEED standards.



## 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	Project Responsibility		Status 2015
		Owner	Resources	
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>	Ongoing	Engineering and Public Works & Community Services	Planning	Through monitoring the newly implemented pilot bike facilities, an increase in cycling has been observed in both the Napa Valley and Peter Rupert corridors. Staff are conducting additional bike counts before reporting back to Council in Fall 2016.  The Pedestrian and Bicycle strategy will be integrated into the Transportation Master Plan Update.
3.1.2. <i>Through policies to be described in the new Official Plan, develop a more walkable and transit-friendly community</i>	Ongoing	Planning	Engineering and Public Works	Vaughan City-Wide Streetscape Implementation Manual & Financial Strategy approved by Council

with adequate public spaces and a finer grain network of streets.

September 2014.  
Vaughan City-Wide Urban Design  
Guidelines commencing August 2016.

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

Actions	Time Frame	Project Responsibility		Status 2015
		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		DEIPS staff continue to liaise with York Region Transit on local service routes, bus pad/ shelter installations, bike racks at stops and pedestrian linkages.  Staff continue 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 continue 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	Finance	Staff are continuing with the implementation of the Pavement Management Program. This includes preventative maintenance, road rehabilitation and reconstruction. In 2014, \$650k was invested in crack sealing treatment, as well as \$6.5M in road resurfacing renewing 20km of roadway. Additional resources have been acquired to meet the increased demand in maintenance and operations.

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

3.2.3. *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.*

Ongoing

Engineering  
and  
Public Works

Staff continue to explore and implement alternative, environmentally friendly, construction methodologies within projects. In 2014 and 2015, road projects specified the use of warm mix asphalt. This asphalt mix uses less energy at the production plant, reducing carbon emissions and can accommodate an increased percentage of recycled construction materials in the asphalt mix design.

Final version of the updated City design criteria and standard document is under review by the new Transportation Services & Forestry Operation and Environmental Services Departments before final release.

3.2.4. *Conduct the City-wide Parking Standards Review (as per Vaughan Vision 2020).*

2009-2010  
Complete

Planning

Engineering  
and  
Public Works  
&  
Legal

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.

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

Actions	Time Frame	Project Responsibility		Status 2015
		Owner	Resources	

3.3.1. *Develop and implement an Employee Trip Reduction/active transportation strategy for City staff. This may include such initiatives as:*

- Increasing incentives and opportunities for carpooling;
- 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

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.

The City of Vaughan was considered a 'Gold Member' for 2015. City Hall received a special Gold designation and the Joint Operations Centre received a Silver designation for increased active and sustainable transportation promotion during the 2015 Pan Am and Parapan Am Games.

In 2015, the City of Vaughan had over 30 active carpool groups, 250 participants in the "Pedometer Challenge", and 3 registered electric vehicle users.

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

Actions	Time Frame	Project Responsibility Owner      Resources	Status 2015
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\* 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.

Ongoing

Engineering  
and  
Public Works

All

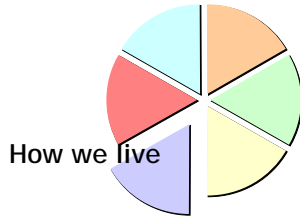
The Vaughan Transportation Demand Management (TDM) Policy Study strategy will be integrated into the Transportation Management Plan (TMP) Update.

Communications Plan for promoting and marketing the TMP is on hold until the launch of the TMP update.

Staff are continuing to request all new developments to provide accessible parking spaces as per the new Accessibility for Ontarians with Disabilities Act (AODA) requirements, both in-terms of dimensions and the number of spaces.

In regards to establishing City-wide parking standards to promote alternatives to single-occupancy vehicle (SOV) trips, revised parking rates are in effect in the VMC. Parking rate reductions (as per the Draft Parking Standards) are considered in high-density developments along intensification corridors and high order transit hubs. These reductions can be in-terms of reduced rates and/or reductions based on certain sustainable transportation measures provided.





## 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	Project Responsibility		Status May 2015
		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>Year five objectives of the Physical Activity Strategy were completed in 2013. The objectives of the strategy continue to be fulfilled through various programs and events.</p> <p>Collaborated with other lead departments in the planning of new facilities in new community areas, with a particular interest in co-location of community facilities.</p> <p>Developed and led a community consultation plan for a number of key initiatives:</p> <ul style="list-style-type: none"> <li>• User fee policy update</li> <li>• Older Adult Strategy</li> <li>• Garnet A. Williams Community Centre upgrade</li> </ul>
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>	Ongoing	Community Services		Continue to present/partner with community groups to present community arts and culture initiatives and events.
	June 2010			VMC Culture and Public Art Framework and City-Wide Public Art Program approved by Council June, 2016.

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

4.1.3. *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.*

Ongoing

Planning  
&  
Community  
Services

Review of Heritage Permit Process and Procedures underway.

2017 Budget Request to inventory, evaluate and designate cultural landscapes in the City of Vaughan.

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

Actions	Time Frame	Project Responsibility		Status 2015
		Owner	Resources	
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>	Ongoing	Planning & Community Services		Vaughan City-Wide Urban Design Guidelines commencing August 2016. This document will develop guidelines for the design of Privately-Owned Publically Accessible Spaces (POPS).  VMC Culture and Public Art Framework and City-Wide Public Art Program approved by Council June, 2016.  VMC Urban Design Guidelines that address Privately-Owned Publically Accessible Spaces (POPS) approved by Council Q1 2016.
4.1.5. <i>Provide access to, and information about, the City's services at community centres.</i>	Ongoing	Community Services	Strategic & Corporate Services	Improved community information boards at community centres.  Continue to make improvements on Recreation Services website with updated information on services and programs.

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

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

Actions	Time Frame	Project Responsibility		Status 2015
		Owner	Resources	
4.1.6. <i>Provide more partnership opportunities for existing non-profit and volunteer groups to meet the community's social, cultural and recreational needs.</i>	Ongoing	Community Services		Continue to partner with government organizations, non-profit groups, etc. on initiatives and introduced other opportunities/programs for the benefit of the community.
4.1.7. <i>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).</i>	Ongoing	Strategic Planning		In September 2015, Council approved the Term of Council Service Excellence Strategy Map that identifies Council's priorities for 2014-2018 (Term of Council Priorities) and the strategic initiatives the City will undertake. The Map was developed to align the City's priorities, people, processes, and technology so that we can deliver on commitments for this term of Council. One of the initiatives identified was "Citizens Engaged in Decision Making". Key activities have been identified to support this initiative and will be carried out during this term of Council. Specific activities are still being explored.

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

Actions	Time Frame	Project Responsibility		Status 2015
		Owner	Resources	
4.1.8. <i>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).</i>	Ongoing	City Manager's Office		One of the Term of Council Priorities identified in the approved Term of Council Service Excellence Strategy Map is to "Support the development of the Hospital". The City of Vaughan is moving forward with the next phase of work on the future site of the Mackenzie Vaughan Hospital. The Vaughan Health Care Centre Precinct Plan provides a framework for the development of the hospital site and the balance of City-owned lands. It includes a master servicing strategy, a functional transportation master plan, a community energy plan, an urban design framework, and the phasing of proposed development. The precinct plan allows for the development of a hospital in addition to healthcare-related uses including medical and dental offices, research and laboratory facilities, rehabilitation and long-term care facilities, education and conference facilities related to healthcare, and other uses that promote health and wellness.

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

Actions	Time Frame	Project Responsibility		Status 2015
		Owner	Resources	
4.1.9. <i>Support outdoor recreation activities that engage citizens and visitors in our natural and green spaces as described in Vaughan's Active Together Master Plan.</i>	Ongoing	Community Services		<p>Recreation &amp; Seniors Month activities.</p> <p>New outdoor camps:</p> <ul style="list-style-type: none"> <li>• Ecosense Discovery</li> <li>• Camp Compassion (animal sanctuary)</li> <li>• Outdoor Leadership</li> </ul> <p>RecAssist Outdoor Spinathon &amp; Adventure Walk/Run</p>
4.1.10. <i>Develop accessible service standards as part of compliance with the Accessibility for Ontarians with Disabilities Act, 2005.</i>	2009-2010 Complete	Community Services	All	<p>Halloween Haunted House and Forest. Completed. The City of Vaughan Accessibility Plan (2012) and Accessibility policy were approved by Council. Accessibility Condition Assessment completed in Q2 2016 and will assist with prioritization of further capital initiatives.</p>

**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	Project Responsibility		Status 2015		
		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 Complete	City Manager's Office (Econ. Dev't.)	Planning	Economic Development completed in Q3 2010.	Strategy	
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 Complete	City Manager's Office (Econ. Dev't.)		Economic Development completed in Q3 2010.	Strategy	

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

Actions	Time Frame	Project Responsibility		Status 2015		
		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 (Econ. Dev't.)		Economic Development is working with Development Engineering and Building Standards to assist the Innovation Park with its development requirements. Construction on the Visitor Centre will commence in 2017. Development timing is under control of the TRCA.		

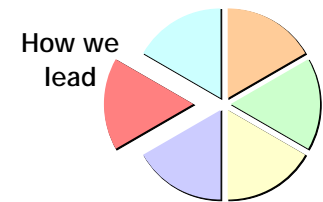
\* Actions in italics represent municipally-mandated responsibilities or initiatives that are already underway (or planned for) at the City

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

Actions		Time Frame	Project Responsibility		Status 2015
			Owner	Resources	
4.3.2.	Undertake an eco-industrial park feasibility study.	2009-2010	City Manager's Office (Econ. Dev't.)	Planning	Economic Development staff sits on an internal working group examining how the City might approach establishing eco-industrial parks or some other form of business-driven partnership. In 2013, the internal working group, led by Policy Planning, has not met.
4.3.3.	Investigate opportunities for farmers' markets at civic facilities to establish support for urban and near urban agriculture.	2011-2014 Complete	City Manager's Office (Econ. Dev't.)		Economic Development and Recreation Services will be providing space and marketing support to the Woodbridge Farmers Market in their 2016 season.



## 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	Project Responsibility		Status 2015
		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	Strategic & Corporate Services	All	Consultation with citizens, businesses and partners continue in an effort to enhance transparency related to sharing sustainable best practices. Projects such as the Climate Wise program led by Windfall Ecology Centre engages businesses and community partners in target based sustainability programs. Over the course of 2015, the City engaged the Stakeholder Advisory Committee in the development of Vaughan's Municipal Energy Plan with regular meetings attended by a variety of businesses, community groups, and utility partners.

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

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 continue to actively support the Region led Water Conservation Strategy. City staff provided input on a pilot project targeted for Kleinburg, promoting fusion gardening, rainwater harvesting and water efficient landscapes.
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	Strategic & Corporate Services	Community Services	Continued to provide tours that educate visitors as to the LEED aspects of the City Hall. The LEEDing by Example YouTube video, which highlights the key environmental features of Vaughan City Hall, continues to attract interest. This outreach activity is linked to Action 5.1.7 which provides for the development of a broader public education strategy addressing businesses and citizens.
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	Strategic & Corporate Services	All	Planning for climate change adaptation risk assessment with neighbouring York Region municipalities continued in 2015. City of Vaughan has access to a climate change risk assessment tool developed by Deloitte for City of Toronto. The Environmental Sustainability and Environmental Services are currently in the process of piloting the risk assessment tool on City of Vaughan's stormwater assets with support from the TRCA.  In addition, a baseline review of all City Master Plans identifying climate change related activities was completed in Q3, 2013.

5.1.5.	Develop an environmental education strategy to familiarize <b>staff</b> with the provisions of Green Directions expanding into an on-going education program.	2009-2010 Complete	Strategic & 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. Highlights in 2015 have included a targeted Caught Green Handed campaign focussing on energy conservation, and a variety of staff programming such as the Pedometer Challenge, Vaughan's Most Unlikely Cyclist, and 20-Minute Makeover.
5.1.6.	Develop an information kit and provide copies of Green Directions for use in Vaughan's schools.	2009-2010 Complete	Strategic & Corporate Services	Corporate Communications	Regular contact is maintained with Vaughan schools through ongoing outreach programs, such as the 20 Minute Makeover and Earth Hour Vaughan. 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 <b>businesses</b> and <b>citizens</b> . 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 Complete	Strategic & Corporate Services	All	Completed. The Citizen and Business Engagement strategy was approved by Council in November 2011. Further, the City of Vaughan is working to reinvigorate outreach to local businesses through initiatives such as Climate Wise Business Network and working with Economic Development to support uptake of utility conservation programming. Signature events such as 20 Minute Makeover, Environmental Days, and Earth Hour continue to engage citizens and businesses alike.

## Objective 5.2: To continue the City's role in advocacy and information sharing on environmental issues

Actions	Time Frame	Project Responsibility		Status 2015
		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 & Corporate Services	All	The Environmental Sustainability team continues to participate in regional initiatives such as the Greater Toronto Area Clean Air partnership, York Region's Environmental Advisory Committee, York Region Climate Change Adaptation Working Group, TRCA's Partners in Project Green, and the Climate Wise Network (a regional initiative with Windfall Ecology Centre).
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 & Corporate Services	All	A formal strategy has yet to be developed although the Environmental Sustainability team continues to evaluate advocacy opportunities. A draft policy is currently under review within the Policy Planning and Environmental Sustainability.
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 & Corporate Services	All	A draft strategy is currently in development. We continue to participate in opportunities to share environmental best practices regionally, provincially and nationally. Participation in regular Clean Air Partnership meetings, the quarterly York Region Advisory Committee, and sharing best practices in an FCM webinar are just some examples of the Environmental Sustainability team's involvement in inter-governmental forums.

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

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).	2009-2010	Strategic & Corporate Services	All	A formal strategy is under development. Several partnerships were initiated and/or continued in 2015 that resulted in tangible results. These included Earth Hour Vaughan, Seeds for Change, Vaughan CARES, TRCA's Partners in Project Green, and the launch of the Climate Wise Network in partnership with Windfall Ecology Centre.
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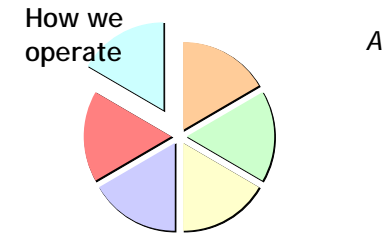
### Objective 5.2: To continue the City's role in advocacy and information sharing on environmental issues, continued

Actions	Time Frame	Project Responsibility		Status 2015
		Owner	Resources	
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.	2009-2010 Complete	Strategic & Corporate Services	All	Completed. 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 TRCA's Partners in Project Green. All of these initiatives have an environmental component and provide profile for the City.

## Objective 5.2: To continue the City's role in advocacy and information sharing on environmental issues, continued

Actions	Time Frame	Project Responsibility Owner	Resources	Status 2015
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.	2009-2010	Strategic & Corporate Services	Clerks	<p>Other means, such as the Partners for a More Sustainable Vaughan and the York Region Environmental Advisory Committee continue to be pursued to gather perspectives on environmental sustainability issues. Partnerships with environmental non-profit groups such as Earth Hour Vaughan, Seeds for Change, York Regional Food Network, and Vaughan CARES have generated productive results.</p> <p>The launch of the Climate Wise Network with Windfall Ecology Group under the Sustainability Co-lab project has forged a network of regional stakeholders interested in developing target based sustainability programs. Additionally, online forums such as Twitter, Facebook and the City Blog provide a platform for citizens to learn more about environmental initiatives at the City and leave comments.</p>

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



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	Project Responsibility		Status 2015
		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, and the York Region Climate Change Adaptation Working group to help 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 Complete	Strategic & Corporate Services	Engineering and Public Works (GVAC component) & 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  
Complete

Strategic  
&  
Corporate  
Services

All

Completed. The Manager of Environmental Sustainability has been in place since June 2010 and the Sustainability Coordinator since Oct 2010. In 2014, the Environmental Sustainability team received funding to support an Embedded Energy Manager position. The Embedded Energy Manager is tasked with facilitating implementation of Vaughan's Conservation Demand Management Plan in concert with PowerStream and various City departments. The funding model is contingent on Vaughan meeting certain energy reduction expectations and targets and covers 80% of the position's salary. The City is seeking to renew the Embedded Energy Manager Agreement with PowerStream.

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.



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

Actions	Time Frame	Project Responsibility		Status 2015
		Owner	Resources	
6.1.5. Prepare annual environmental/sustainability project plans for endorsement by the Budget Committee.	Annually	Strategic & Corporate Services	All	Each affected department prepares project plans on an annual basis for or endorsement through the budget approval process.
6.1.6. Prepare an annual report to the Environment Committee on, among other things: <ul style="list-style-type: none"> <li>• The status of existing programs (milestones);</li> <li>• Accomplishments;</li> <li>• New initiatives; and</li> <li>• Further opportunities</li> </ul> For the purpose of monitoring the implementation of the plan.	Annually	Strategic & Corporate Services	All	The annual update in 2015 was brought forward to Priorities & Key Initiatives Committee in June 2015 and released to the public in August 2015. The report provided access to the table with updates to all the action items for Green Directions Vaughan and the 24 baseline indicators. Additionally, eight of the Green Directions Vaughan indicators have been highlighted in the Performance Measurement Dashboard developed by Strategic Planning – ‘How Do We Measure Up’.

### Indicators: Community Sustainability and Environmental Master Plan

Δ Denotes that data is unavailable.

Goal Area	Category	Indicator (unit)	2011	2012	2013	2014	2015
Resource Use (What we use)	Energy	- Total residential electric use per capita (kWh/pp)	2561 kWh/pp	2454 kWh/pp	2290 kWh/pp	2190 kWh/pp	2655 kWh/pp
		- City of Vaughan buildings Energy use (kWh per 1000 ft <sup>2</sup> )	750,368 kWh/1000 ft <sup>2</sup>	672,269 kWh/1000 ft <sup>2</sup>	21, 462.72 kWh/1000 ft <sup>2</sup>	18, 931.7 kWh/1000 ft <sup>2</sup>	Δ <sup>6</sup>
	Air Quality	- Particulate matter (PM2.5) (micrograms per m <sup>3</sup> )	6.2 µg / m <sup>3</sup> (2010)	Δ	6 µg /m <sup>3</sup> (2011)	8.3 µg /m <sup>3</sup> (2013) <sup>7</sup>	9.3 µg / m <sup>3</sup>
		- Percentage of Low emission vehicles within City Fleet (%)	2 %	2 %	2 %	2%	2%
		- Number of days when the Air Quality Index (AQI) is poor (AQI over 49)	2 (2010)	Δ	1	4	4
	Climate Change	- Community Greenhouse gas emissions as a whole (eCO <sub>2</sub> -equivalent carbon dioxide)	1,330,359 tonnes of eCO <sub>2</sub> (2006)	Δ	1,739,783 tonnes of eCO <sub>2</sub>	Δ	Δ <sup>8</sup>

<sup>6</sup> Vaughan facility energy use data for 2015 is currently unavailable. 2015 energy data will be updated in accordance with the Energy Performance Reporting, Ontario Reg. 397/11 - Energy Conservation and Demand Management Plans in June, 2017.

<sup>8</sup> In 2015, the City of Vaughan undertook a GHG inventory using 2013 as the baseline year for developing the Municipal Energy Plan (MEP). As the MEP is updated in future years, staff will undertake community GHG inventories to measure progress towards the City's GHG reduction target.

Goal Area	Category	Indicator (unit)	2011	2012	2013	2014	2015
		- Corporate Greenhouse gas emissions per resident served (eCO <sub>2</sub> -equivalent carbon dioxide in tonnes/pp)	0.0559 tonnes eCO <sub>2</sub> /pp (2008)	0.0473 tonnes eCO <sub>2</sub> /pp	0.0483 tonnes eCO <sub>2</sub> /pp	Δ	Δ <sup>9</sup>
	<b>Storm water Management</b>	- Percentage of area with storm water controls (%)	92 % (2009)	Δ	92 %	92 %	Δ <sup>10</sup>
	<b>Solid Waste</b>	- Residential Waste Diverted from Landfill- (%)	55% <sup>11</sup>	61 %	58 %	63.1 % <sup>12</sup>	62% <sup>13</sup>
		- Waste Diverted from Landfill-City facilities (%)	11.8 %	5.8 %	5.2 %	Δ	Δ <sup>14</sup>
	<b>Water Use</b>	- Daily volume of water used per person (L)	274 L (2009)	214 L	205 L	180 L	210 L <sup>15</sup>

<sup>9</sup> A complete data set for calculating corporate greenhouse gas emissions per resident is currently unavailable.

<sup>10</sup> Data unavailable at this time.

<sup>11</sup> Community waste diversion data has been updated to reflect diversion verified by Waste Diversion Ontario (WDO).

<sup>12</sup> Has not been recalculated since WDO adjustment, pending further review.

<sup>13</sup> Estimate provided, pending confirmation from WDO.

<sup>14</sup> Data unavailable at this time.

<sup>15</sup> Indicates regional average for estimated residential water consumption for the Region of York.

<b>Growth (How we grow)</b>	<b>Land Use</b>	- Greenspace <sup>16</sup> (hectares per 1000 people)	Δ	Δ	3.52 ha/1000 pp	3.52 ha/1000 pp	3.46 ha/1000pp
	<b>Urban forest</b>	- Tree Canopy cover as a percentage of urban area (%)	19.5 %	19.5 %	19.5 %	Δ	Δ <sup>17</sup>
	<b>Sustainable Built Form</b>	- Building floor area certified under recognized green building programs (ft <sup>2</sup> )	2,317,250	4,019,223	4,138,435	5,897,819	9,482,116
<b>Transportation (How we get around)</b>	<b>Walking and Cycling Paths</b>	- Length of walkways and cycling paths (km)	Δ	1,138.37	1,149.52	1247.40	1282.92
		- Percentage of walkways and paths which are linked (%)	Δ	77 %	83 %	83%	83%
	<b>Transit</b>	- Passenger trips per person (#/pp)	18.2 /pp	Δ	20.09/pp	19.61/pp	21.35/pp <sup>18</sup>

<sup>16</sup> 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.

<sup>17</sup> Unable to obtain accurate data as the ice storm has impacted tree canopy and new study has not yet commenced.

<sup>18</sup> Represents the average passenger trips per person based on regional ridership and regional population figures for the Region of York.

<b>Community</b> (How we live)	<b>Economic Activity</b>	- Level of Construction Activity (\$ value of Building permits)	\$1038.9 M	\$ 778.8 M	\$ 1102.4 M	\$ 886.9 M	\$1405.1M
		- Ratio of Population to jobs	1.77	1.63	1.58	1.62	1.59
		- Number of jobs provided by Vaughan businesses (#)	170,140	180,200	199,470	194,900	201,008
	<b>Active Community</b>	- Total participant hours for recreation programs (hours)	11,717,442	13,414,830	14,354,123	14,059,714	14,226,267
		- Number of stakeholders involved in different community mechanisms (community meetings, social media, on-line newsletter)	746,955	820,347	177,204	802, 770	888,200
	<b>Creative Community</b>	- Number of cultural initiatives supported, endorsed by the City (#)	40	40	50	52	55
<b>Leadership</b> (How we lead)	<b>Engagement</b>	- Number of environmentally related public outreach events held by the City of Vaughan and number of attendees at these events (#)	8 events 13,150	9 events 10,662	12 events 10,580	13 events 19,040	8 events 18,883