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Report DP-2011-086

To: Mayor and Members of Council
From: Development Approval & Planning Policy
Meeting: November 15, 2011
Subject: Caledon Community Climate Change Plan

RECOMMENDATION

That Report DP-2011-086 regarding Caledon Community Climate Change Plan, be received;

That Council endorse the Plan and the new community reduction target: 17% below 2006 levels by 2021; and,

That Council direct staff to move forward on the implementation strategy and to consider the following Town led actions:

- a community anti-idling by-law;
- a green home or green subdivision demonstration project within Mayfield West Phase 2 Secondary Plan, Caledon's newest community to educate new residents and prospective buyers on the benefits of green features and low impact development; and,
- a school focused Community Green Fund.

That subject to approval of the 2012 operating budget inclusive of a \$60,000 unavoidable budget increase for the implementation of the Peel Climate Change Strategy, staff recommend the establishment of a \$15,000 one-year School Green Fund pilot program, administered by the Energy and Environment Section, funded from the \$60,000 unavoidable budget increase;

That a new capital project, in the amount of \$40,200 (excluding in-kind costs), be established for the Sustainable Community Policy Framework project funded from the Ontario Power Authority Conservation Fund grant, \$29,500, and from Energy and Environment's 2011 capital project #11-51, \$10,700; and

That in-kind costs, in the estimated amount of \$8,450, be tracked separately by the Energy and Environment Section for grant reporting purposes.

ORIGIN/BACKGROUND

Council Resolution (W-59-2003) was passed on February 10, 2003 to support the Town's Partners for Climate Protection Program (PCP) membership. This Program is a partnership between the Federation of Canadian Municipalities and ICLEI- Local Governments for Sustainability and is part of the International Cities for Climate Protection network. Over 200 municipalities are PCP members.

The main intention of Partners for Climate Protection is community and corporate greenhouse gas reduction. To achieve this, municipalities are required to complete five

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milestones which are listed below. Each milestone is to be developed for the corporation and the community.

1. Create a greenhouse gas emissions inventory and forecast
2. Set emission reduction targets
3. Develop a local action plan
4. Implement the local action plan
5. Monitor progress and report results

This report will update Council on the revised community greenhouse gas reduction target and community local action planning process (milestones two and three) that commenced in November 2010.

DISCUSSION

The 2003 Resolution endorsing the Town's Partners for Climate Protection (PCP) membership committed the Town to "work towards reducing greenhouse gas (ghg) emissions in municipal operations (corporate) by 20% below 1990 levels, and 6% below 1990 levels throughout the community within ten years of joining the program". These PCP recommended targets were similar to the Kyoto Protocol commitments. When staff initiated the PCP milestones, it became clear there was insufficient 1990 data. Staff realized a new baseline year (for both the corporate and community) would be required. The baseline year change has impacted each milestone which is described below. Many other municipalities have faced a similar 1990 baseline predicament since it is very difficult (if not impossible) to obtain this data.

The Partners for Climate Protection work described in this Report complements and addresses Peel Climate Change Strategy actions. The Strategy is being implemented in collaboration with the City of Brampton, City of Mississauga, Region of Peel, Credit Valley Conservation Authority, and Toronto and Region Conservation Authority.

Community Greenhouse Gas Inventory

A community greenhouse gas inventory was completed in 2008 by Jacques Whitford Consulting. Since the Town did not have comprehensive 1990 data, Town staff relied on two census years: 2001 as a baseline and 2006 as an update. Town staff chose the 2006 inventory as its community inventory baseline to align closely with the 2007 corporate inventory baseline. Council approved the community inventory for the development of a community local action plan through Resolution W-776-2009. When completing the Community Action Plan, some changes were made to improve the inventory's accuracy. This has resulted in a slight reduction in community transportation emissions and the total emissions as indicated below.

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2006 Baseline Community Inventory

Sector	Emissions	Percentage of Total
Transportation	116,203- revised 2011 (136,787)	37%- revised percentage
Residential	69,207	22%
Commercial	49,892	16%
Agriculture	34,446	11%
Waste	24,071	8%
Industrial	18,481	6%

**Total Emissions: 312,300- revised 2011
(332,884)**

Community Climate Change Plan

Action Plans for the corporation and broader community are critical as they contain reduction actions to help achieve the greenhouse gas targets.

For a corporate Action Plan, staff has relied on the implementation of actions contained in the Town's Environmental Progress Action Plan, new Corporate Energy Management Plan and various other past and ongoing environmental initiatives.

Caledon's Community Climate Change Plan was initiated in November 2010 which entailed the establishment of a Community Working Group; consideration of a new community reduction target; execution of a public consultation strategy; and other associated tasks.

Community Working Group (CWG)

The Community Working Group (CWG) members are shown in Schedule A which consists of various sector representation: schools, developers, utilities, Region of Peel, Conservation Authorities (Toronto Region Conservation and Credit Valley Conservation), agriculture, transportation, waste management and small business. Members from the Caledon Environmental Advisory Committee, Town's Development Approval and Planning Policy Department, Town Council and a local community environmental group are also on the Working Group. Staff retained Genivar Consultants to assist with this work.

Four Community Working Group meetings were held which were publicized in the local newspaper. The Working Group's key tasks were agreeing to a new community reduction target and providing input on proposed actions with the goal of meeting the target.



New Community Reduction Target

A new community reduction target was the subject of the first Community Working Group meeting. From information presented by the consultant, the Community Working Group agreed and recommended a new target of 17% below 2006 levels by 2021. This is similar to the Western Climate Initiative (WCI) target, a voluntary cap and trade program with American and Canadian representation. Canadian Western Climate partners include Ontario, Quebec, Manitoba and British Columbia.

Proposed Actions

To achieve the new community greenhouse gas reduction target, the Community Working Group with assistance from Genivar Consultants, created a list of proposed greenhouse gas reduction actions. The actions are categorized according to agriculture; energy; greening new development; transportation; schools; waste; community education and engagement; and longer term actions. Given Caledon's projected growth, many of the proposed actions relate to new development which are important to highlight. For new residential development, a green home or green subdivision demonstration project has been highlighted to educate residents and prospective buyers on the value of green features and low impact development.

Broader Consultation

Public consultation occurred from February to September 2011 on the proposed greenhouse gas reduction actions. This included a key stakeholder session; two community engagement sessions (one in Bolton and one in Inglewood) in partnership with the Caledon Public Library, Green T and ecoCaledon; a www.caledonclimateplan.ca project website; regular Caledon Environmental Advisory Committee updates; and public surveys at Caledon Day and the Caledon Farmers' Market Opening Day.

In August, a media release was also issued that referenced a reader friendly version of the Plan and short survey to seek further public input. The public was encouraged to "have their say on Caledon's Community Climate Change Action Plan" by visiting the project website or contacting Town Energy and Environment staff. Lastly, the July Council Workshop presentation and reader friendly version of the Plan was circulated to appropriate Town staff in August and September for comment.

A summary of comments received through the Key Stakeholder Workshop (March 2011), two community information sessions (April 2011), resident surveys, and from the Caledon Environmental Advisory Committee is provided in Schedule B. Caledon Environmental Advisory Committee's full comments were provided in the July 12, 2011 Council Workshop information package.

Final Actions and Partners for Climate Protection Review

The final list of actions is provided in Schedule C as part of the reader friendly version of the Plan. (Upon request, the full version can be provided). From the consultation described, minor changes have occurred and additional refinements are expected throughout the implementation strategy.



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As indicated in the July 2011 Council Workshop, these actions account for a 15% reduction which is less than the agreed upon community target (17% below 2006 baseline by 2021). However, greenhouse gas reductions associated with local food and some of the agricultural actions cannot be counted towards the target for the purposes of receiving PCP milestone three. Further, when addressing PCP technical review comments, the total reductions decreased slightly. Based on these changes, the final actions account for close to a 12% reduction. The estimated greenhouse gas reductions will be refined through the implementation stage. Town staff also intends to monitor the actual greenhouse gas reductions through a more up to date greenhouse gas inventory.

To receive Partners for Climate Protection milestone three (for the community), the final draft Plan was submitted to Partners for Climate Protection and ICLEI- Local Governments for Sustainability staff. Based on technical review, Town staff was advised that community milestone three has been granted.

With this milestone achievement; the following summarizes Caledon's Partners for Climate Protection overall corporate and community progress.

PCP Milestone	Community	Corporate
1) Greenhouse gas inventory	✓	In progress- inventory drafted, working copy provided to PCP staff for initial comment. Town staff to make changes and finalize.
2) Reduction Target	✓ Pending council approval of new target based on 2006 baseline	Due to difficulty in 1990 baseline year and lack of historical energy data, a new corporate reduction target is being assessed that will align with community efforts.
3) Local Action Plan	✓ Pending council approval	Staff has relied on implementation of actions contained in the Town's Environmental Progress Action Plan, new Corporate Energy Management Plan and various other past and ongoing environmental initiatives.
4) Implement Local Action Plan	In progress and will continue with development of Implementation Strategy.	
5) Monitor progress	Monitoring progress on meeting the greenhouse gas reduction target is a challenging and resource intensive task that requires frequent inventory updates. For the Community Action Plan, the implementation strategy will address monitoring approaches. Once the Corporate Energy Management System is in place, it will assist in measuring progress towards the corporate greenhouse gas reduction target.	



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Next Steps: Implementation

Implementation of the Plan's actions comprises: Council consideration of three key actions described below; the development of an Implementation Strategy; and the continuation of ongoing actions or recently initiated actions.

Council Consideration of Three Key Actions

One of the Report's recommendations is to ask Council to direct staff to consider three key actions described below. These actions were deliberately chosen since they garnered stakeholder support and will demonstrate the Town's leadership and commitment to greenhouse gas reduction, a critical step in catalyzing community action.

1) Community anti-idling by-law

Over 25 Ontario municipalities have Idling Control By-laws, including Markham, Guelph, Huntsville, Orillia, Pickering, Stratford, Burlington and Whitchurch-Stouffville. Within Peel Region, both Mississauga and most recently Brampton also have Idling Control By-Laws. Although most municipalities recognize the enforcement challenge or have limited by-law resources, a combination of regulatory (By-laws) and voluntary (public education campaign) approaches are recommended and have often been adopted for effective idling behavior change. Therefore, a public education strategy and potential Idling Control By-law would be recommended simultaneously.

If Council wishes staff to pursue an Idling By-law, the Regulatory Services Section within Public Works would provide a further Council Report on the proposed By-law, enforcement options and the resource implications. Regarding any By-law exemptions, since school bus idling emerged as a concern within the Community Local Action Plan a potential by-law should also consider how best to address (rather than exempt) school buses.

2) Green home or green subdivision demonstration project

A green home or subdivision demonstration project created much discussion during the Key Stakeholder Workshop. Given Caledon's projected growth, a green demonstration project is an ideal opportunity for educating new and prospective Caledon residents on the value of green home features. To many these features (high efficiency furnace and efficient windows and doors, high insulation levels, water reduction devices, tree friendly and native landscaping) and their associated benefits are not tangible or offer the same aesthetic appeal as other features or upgrades. As summarized well from the Workshop, *a green model home will help educate the public who need to move beyond specialized material counter tops and other cosmetic housing items to green home features*. Through Mayfield West Phase 2, Caledon's newest community, it is recommended that Town staff initiate conversations with the developer group to make a green model home or subdivision a reality.

3) School focused Community Green Fund

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The Community Green Fund, a Town grant program for local not for profit or voluntary groups engaging in community environmental projects was established in 2006. Although the Fund was not designed or intended for schools, ten of the over 30 grants supported outdoor learning or green education projects at local schools. James Bolton Public School, Belfountain Public School, Herb Campbell Public School and St. Cornelius School are examples of Green Fund recipients. For the 2011 fall application intake, four of the six letters of intent were for school related projects.

Educating young students and youth is considered the most effective way, by many, to instil an environmentally conscious generation while impacting adult behavior change. To continually support these school education efforts, a school focused Community Green Fund is recommended. It would also address a funding gap for schools who wish to pursue environmental projects since minimal funding is provided by the local School Boards. As evident from the Community Green Fund, schools and other recipients can successfully leverage other funding sources with a small Green Fund grant.

A devoted School Green Fund would also support the Ontario EcoSchools Program which all Caledon schools under the Dufferin Peel Catholic District School Board are being encouraged to certify as by 2013. Caledon schools under the Peel District School Board (PDSB) are invited to participate in EcoSchools however four out of fifteen PDSB schools were EcoSchool certified in 2010-2011 and currently nine schools are participating in 2011-2012 at some level. This Program was created in 2002 to address environmental issues in the formal education system and operates with provincial funding. It provides a framework to weave practices that foster environmental sustainability and stewardship into what students learn and how schools operate through four pillars: 1) ecological literacy, 2) energy conservation, 3) waste minimization and 4) school ground greening.

Assuming Council approval, Staff will develop a School Green Fund Framework for further Council consideration. The maximum grant requests will likely be less than the current \$5000 maximum for Community Green Fund project funding and the application criteria and project requirements will be tailored towards Schools and their associated EcoSchool and related greening projects. It is expected that the total School Green Fund request would not exceed \$10-\$15,000 annually and could be launched initially as a one year pilot.

Implementation Strategy Development

To maintain the momentum of Community Local Action Plan exercise, Town staff will be proceeding with an Implementation Strategy, a "how to" guide for many of the more community focused short and mid-term actions; in particular those that have more of an external agency lead or actions the Town may not yet have considered. A Request for Proposal was issued and Town staff is in the process of awarding the contract.

Through much consultation and facilitation with the Community Working Group members and other applicable agencies (i.e. utilities, school board), this Strategy will make recommendations on practical and fiscally sound implementation strategies, an effective monitoring approach that will include performance measures, and any steps necessary to support the ongoing implementation and administration of many of the actions.

Ongoing Initiatives

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Although the proposed list of community reduction actions is lengthy and ambitious, some of the actions are ongoing, have recently been initiated or are seeking future budget approval. Brief examples from each of the major action areas are provided below.

✓ *Transportation*

As an active Smart Commute Brampton Caledon participant and local Board member, efforts are underway to promote and encourage more Caledon employers to become involved. Most recently, Mars (formerly Effem) has become a new Smart Commute Brampton Caledon member and Husky Injection Molding Systems has agreed to rejoin. Town staff is also participating with other partners on the Region's Five Year Transportation Demand Management Social Marketing Plan which aims to create measurable travel behavior change amongst all Peel residents. Lastly, Energy and Environment staff is conducting a scan on government and other agency electric vehicle initiatives to identify opportunities for supporting electric vehicles.

✓ *Energy*

As Council is aware, a Corporate Green Building Standard is being developed which will allow the Town to lead by example in energy conservation and renewable energy use (and other green objectives) in new municipal facilities. Energy and Environment staff are also exploring a community energy map as a 2012 project. This project would provide a visual picture of how the form of a community influences how people access and use energy in their daily lives. It will provide an opportunity to evaluate actions for implementing energy efficiency. Leading municipalities such as Guelph, Barrie, East Gwillimbury and others have embarked on the development of an integrated community energy map.

✓ *Greening New Development- Ontario Power Authority Grant Project*

The Town obtained a small Ontario Power Authority Conservation Fund grant to develop and implement innovative and sustainable community planning policies for new residential developments based on best practices and stakeholder consultation. As a short term outcome, Town staff will recommend the policy is incorporated into Caledon's newest community- Mayfield West Phase 2 and its secondary plan.

✓ *Schools*

Caledon Schools are already utilizing the Community Green Fund to fund their outdoor classroom or other EcoSchools related projects. Due to the number of school applications each year and assuming Council approval for this Report; Town staff will explore a separate Community Green Fund solely for schools.

✓ *Agriculture*

There are a multitude of initiatives within the agriculture sector and various partner organizations such as Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), Agriculture Canada, Ontario Soil and Crop Improvement Association, University of



Guelph, Peel Federation of Agriculture and the local Conservation Authorities. Town staff will assess these initiatives and determine what actions remain to assist in meeting the proposed community target.

✓ *Solid Waste*

Again, much is happening in this sector. To further promote and accelerate master composting, which is a Plan action, Toronto Region Conservation Authority and Region of Peel staff are planning workshops for the general public in the spring of 2012.

✓ *Local Food*

Town staff is exploring a Food System Strategy as a response to the Peel Climate Change Strategy, Caledon's Community Climate Change Plan and various other strategic documents. Containing a vision, strategic goals, actions (at the regional and/or local levels) and implementation tactics, the Strategy could assist in achieving a "sustainable, resilient and healthy food system" in Caledon. Some initial shared interest or objectives that this Strategy could include are: increasing the ability and capacity of the community to produce healthy, quality food; and improving the productivity, profitability and long term sustainability of local farmers and food processors.

✓ *Community Awareness*

Through the Peel Climate Change Strategy Communications Group (with representation from all municipalities, the Region of Peel and the two Conservation Authorities), a communications strategy is being developed for the Strategy and its call to action. There may be a way to benefit from this future work and to localize the Peel Strategy through promotion of Caledon's Climate Change Plan and its various actions.

FINANCIAL IMPLICATIONS

Although some high level cost estimates have been provided for the actions, Town staff anticipates these costs to be refined as part of the implementation strategy. On October 4, 2011, Council approved that \$60,000 to assist in the implementation of the Peel Climate Change Strategy be included in the Energy and Environment's 2012 operating budget as an unavoidable budget increase, through report DP-2011-079 - Peel Climate Change Strategy Budget Implications.

Since Caledon's Community Climate Change Plan and many of its actions are recommendations within the Peel Climate Change Strategy, these recently approved funds may be used to finance some of the Community Climate Change implementation efforts. Accordingly, subject to Council approval of the 2012 operating budget inclusive of \$60,000 (unavoidable budget increase) for the implementation of the Peel Climate Change Strategy, staff recommend the establishment of a \$15,000 one-year School Green Fund pilot program (as outlined on page 7 of this report), administered by the Energy and Environment Section, be funded from the \$60,000 unavoidable budget increase.

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On February 1, 2011, Council authorized staff to proceed with the submission of two expression of interest applications for the Ontario Power Authority Sustainable Communities Initiative grant funding: 1) implementation of an eco-business policy framework that supports and accelerates Eco Industrial Parks and eco business activity; and 2) greening residential development best practices study and recommendation (report PD-2011-007 – Partners for Climate Protection and Community Local Action Plan Status Update and Sustainable Communities Initiative Funding Opportunity report). The report also stated that should the Sustainable Communities Initiative Fund expressions of interest be successful, the Treasurer will report on how the Town will fund its 50% share of eligible costs.

As outlined on page 8 in the Greening New Development Section, the Town was successful in obtaining an Ontario Power Authority Sustainable Communities Initiative grant for a Sustainable Community Policy Framework for new residential developments (specifically within Mayfield West Phase 2). The project budget is \$48,650 with \$8,450 representing in-kind contribution from the Town of Caledon (e.g. staff resources related to the project). The balance of the project \$40,200 (\$48,650 less in-kind \$8,450) will be funded from the Ontario Power Authority Conservation Fund grant, in the amount of \$29,500, and \$10,700 from the Energy and Environment's 2011 capital project #11-51 – Energy and Environment Studies (account 005.05.006.080.1151).

Upon Council approval, a new capital project, in the amount of \$40,200, will be established for the Sustainable Community Policy Framework funded as outlined above. The Energy and Environment Section will track in-kind costs separately in order to report total costs related to this project for grant reporting purposes.

LEGAL IMPLICATIONS

Any legal implications associated with these actions will be flagged through the implementation strategy development. At that time, staff will consult with appropriate legal staff and outside Counsel.

NEXT STEPS

- Pursue actions recommended within this Report
- Initiate the Community Climate Change Plan implementation strategy
- Continue to work on the remaining PCP milestones in collaboration with internal and external stakeholders.

COMMUNITY BASED STRATEGIC PLAN

The work described in this Report addresses actions contained within goals 1 and 6 of the new Community Based Strategic Plan (CBSP). Specifically, these include protecting and enhancing air quality and reducing impacts of climate change; supporting green energy and energy reduction; and promoting green living and building community capacity under goal 1 and providing leadership in communicating with, and consulting with the community in a transparent and inclusive manner pertaining to municipal decisions under goal 6.



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POLICIES/LEGISLATION

Caledon's Community Climate Change Plan and its actions support and address many elements of the Provincial Green Energy and Green Economy Act such as promoting conservation in Ontario through working with utilities to help them reach conservation targets set by the Province; creating new energy efficiency standards for Ontario's Building Code and household appliances and; promoting the development of community renewable energy projects such as co-operatives.

CONSULTATIONS

Externally, the public consultation process was described in the Report.

Energy and Environment staff also consulted internally with staff from Development Approval and Planning Policy, Public Works' Regulatory Services Section, the Treasurer, Town Managers, the Senior Management Team and various other staff (depending on the particular action). Further consultation will be required for the implementation strategy.

ATTACHMENTS

Schedule A: Community Working Group Members

Schedule B: Summary of Comments

Schedule C: Reader Friendly Version of Community Climate Change Plan

CONCLUSION

Caledon's Community Climate Change Plan responds directly to the Peel Climate Change Strategy, various actions in the Community Based Strategic Plan, Corporate Energy Management Plan and Environmental Progress Action Plan. Through Council endorsement, staff will initiate an implementation strategy for many of the short and mid-term actions.

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Schedule 'A' to Development Approval & Planning Policy
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Sector	Name
1. Conservation Authority- Toronto Region Conservation	Kasey Livingston, Stewardship Coordinator, Humber River
2. Conservation Authority- Credit Valley Conservation	Lisa Brusse, Supervisor Rural Outreach
3. Schools- Peel District School Board	Tracy Appleton, Peel District School Board EcoSchools Coordinator
4. Council	Richard Paterak, Regional Councillor Ward 1 Patti Foley, Regional Councillor Ward 5 Nick DeBoer, Area Councillor Wards 3 and 4 (alternate)
5. Caledon Environmental Advisory Committee	Barb Campbell and Neil Morris
6. Local Business Owner	Jack MacDonnell, EnerMotion
7. Agriculture- Peel Federation of Agriculture	Randy McLeod
8. Utilities- Hydro One	Jackie Hunter, Senior Conservation Analyst
9. Utilities- Enbridge	Tim Short, Manager Distributed Energy and Sustainable Energy Solutions Bill Chichata, Portfolio Manager, Mass Markets DSM
10. Developers- Residential	Genstar: Peter Le Blanc, Senior Development Manager National Homes: Pino Trentadue
11. Developers- Commercial	David Rezmanovitz, Fieldgate Commercial
12. Urban Strategies	Melanie Hare, Partner
13. ProLogis	Jeff Miller, Vice President
14. Town Staff	Sara Peckford, Environmental Progress Officer; Tim Manley, Senior Policy Planner, Planning and Development Ohi Izirein, Senior Policy Planner Jeremy Schembri, Energy and Environmental Coordinator;
15. Region of Peel	Liliana DaSilva, Planner, Planning Policy and Research Division Karyn Hogan, Technical Analyst, Waste Program Planning
16. Caledon Countryside Alliance	Karen Hutchinson, Executive Director
17. Smart Commute Brampton Caledon	Peter Paz, Senior Program Specialist
18. Genivar Consulting	Benoit Lagarde Pat Becker John Chadwick

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Summary of Community Climate Change Plan Comments		
Comment Origin	Comments Made	Changes to Plan/Response
Key Stakeholder Workshop	<p>Agriculture</p> <p><i>Group Discussion Findings</i></p> <p>Farm operations have slim profit margins, and therefore, are unlikely to adopt recommended reduction actions unless it can be shown that actions achieve intended goal, and ultimately affect profit. Needs to be effective research and demonstration projects, and a cooperative program that transfers knowledge and technology to farmers and addresses their concerns about risk. This could involve external agencies such as OMAFRA, Agriculture Canada, Ontario Soil and Crop Improvement Association, etc.</p> <p>Consider revising participation target for nitrogen use and no till and reward nitrogen action to say "better nitrogen management versus reduction".</p> <p><i>New Actions to Consider:</i> Add biogas feasibility study as Town action; biomass action; speak with Ontario Ministry of Agriculture, Food and Rural Affairs about other greenhouse gas reductions or (carbon offset actions) including planting of bioenergy crops such as switch grass, miscanthus, native grasses or fast-growing woody plants like willow; energy conservation efforts within barn and other farm buildings; reforestation through shelter belts, wind breaks, etc.; and using biomethane from anaerobic digestion for fleet vehicle fuels.</p> <p><i>Individual Comments:</i> Ensure that policies (e.g., zoning) are favourable to 'rebuilding' the local food system and moving towards sustainable farming/agriculture (i.e., favourable to development/establishment of: processing facilities, farmers markets, local trade hub, community gardens, new innovative farms (such as Spirit Tree Cidery, Albion Hills Community Farm); Have policies to enable small farm/market garden businesses through strategic zones (production of 'local food' to reduce transportation of food); include 'carbon sequestration' (i.e., need farm/forests for ecosystem services)</p>	<ul style="list-style-type: none"> ✓ Rewarded nitrogen action to better nitrogen management ✓ Acknowledged need for research and demonstration projects and knowledge transfer with other outside agencies such as Agriculture Canada, Ontario Ministry of Agriculture, Food and Rural Affairs ✓ Added biogas feasibility study action, reference to biomass and reforestation ✓ Other agriculture comments related to supporting local food are included in new local food action (A37-40)

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<p>Greening New Development</p> <p><i>Group Discussion Findings</i></p> <p>Group agreed that proposed actions are modest and a realistic starting point. In deciding on first steps, Town should look at existing best practices such as Town of East Gwillimbury. Much discussion on green home or development demonstration project. Town should consider this by partnering with developer, buying a couple of building lots, erecting a green building and use building as showcase and model home for residents. Green model home will help educate public who need to move beyond granite counter tops and other cosmetic housing items to green home features.</p> <p>Concern there is no quality assurance requirement for EnerGuide 80 to ensure homes achieve score- random audits/test should be considered to ensure homes are consistently built to this standard. What would be done if they do not meet 80 score? Who enforces this? Group agreed to leave district energy in as long term action.</p> <p><i>New Actions to Consider:</i> reduction in development charges for new green residential development</p> <p><i>Individual Comments:</i> economies of retrofitting pipe system really harm business case, see if there is a way of "roughing" district energy in during Greenfield construction and why only "centralized" geothermal production are there combined heat and power (CHP) opportunities? have higher standards - look at Town of East Gwillimbury requiring developments of "green" houses or move to meet higher energy/water standards; promote heating through non-fossil fuel sources (e.g., geothermal, heat pump; promote energy storage to shift demands to non-peak times where there isn't fossil fuel/electricity (not just residential)).</p> <p>Energy and Air Quality</p> <p><i>Group Discussion Findings</i></p> <p>Need to reword fossil fuel conversion action to be more clear- what types of fossil fuel would be converted to gas? Also need to establish greenhouse gas reduction payoffs- if point is to reduce greenhouse gas emissions, does it make sense to convert from one fossil fuel type to another? Group didn't feel that fossil fuel heating system conversion to natural gas was very progressive.</p>	<p>✓ Reference to considering Town of East Gwillimbury greening new development policies added as well as Town to explore other policy mechanisms (A16) for encouraging new green residential development in Caledon such as requiring homes to exceed Energy Star through Greenhouse Certified Construction; LEED Canada for Homes or requiring Energy Star certification a condition of draft site plan approval.</p> <p>✓ Green home demonstration action is included as one of four quick win actions in Council Report DP-2011-086 Community Climate Change Plan</p> <p>✓ Action A24 already exists on developing a centralized website for residents to track energy efficiency upgrades and other actions</p> <p>✓ Action A28 enhanced to "encourage community based renewable through administering and promotion of a community renewable energy cooperative"</p>
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<p><i>New Actions to Consider:</i> Region has a lot of wood waste that is shipped to Ajax. (From discussions with Regional staff, clean wood waste is sent to the Region's composting facility. Non-clean wood waste is shipped to Brampton Pallet in Oakville and the materials are shredded and recycled. The Region has also had a consultant conduct a study on using wood waste for energy.); Advocate for waste oil furnaces since Province doesn't permit it; Through partnership with utilities, create a centralized website for Caledon residents so energy upgrades can be centrally registered with possible energy saving estimates; Perhaps an action should be rephrased to say 'support community based renewable energy projects'.</p> <p><i>Individual Comments:</i> Highlight and give attention to good examples of sustainable energy use in Peel; Add transportation component to reduce energy consumption and CO₂ reduction through demonstration of alternative fuelled vehicles (e.g., plug-in electric hybrid cars and trucks)- *Should be moved to transportation section; Geothermal heating/cooling use resulted in higher electricity use with decreased propane usage – find it difficult to meter real time propane usage, it is not easy to put the numbers side by side and figure out exactly where the CO₂ savings are; difficult to have "10 to 100%" participation range for some actions – need to put this into context to better understand the range; Promote Bullfrog Power to residential customers (low cost and effort for Town in return for huge impact on greenhouse gas emissions - may account for reduction of 2.42 tonnes of CO₂/year for average detached household)</p>	<p>✓ Alternative fuelled vehicle action (such as plug in electric hybrid) already included</p> <p>✓ Action (A27ii) enhanced to state "promote green energy purchase options (such as Bullfrog Power) or others (renewable green gas from local gas utility) as source of greener energy</p> <p><i>Individual Comments:</i> Highlight and give attention to good examples of sustainable energy use in Peel; Add transportation component to reduce energy consumption and CO₂ reduction through demonstration of alternative fuelled vehicles (e.g., plug-in electric hybrid cars and trucks)- *Should be moved to transportation section; Geothermal heating/cooling use resulted in higher electricity use with decreased propane usage – find it difficult to meter real time propane usage, it is not easy to put the numbers side by side and figure out exactly where the CO₂ savings are; difficult to have "10 to 100%" participation range for some actions – need to put this into context to better understand the range; Promote Bullfrog Power to residential customers (low cost and effort for Town in return for huge impact on greenhouse gas emissions - may account for reduction of 2.42 tonnes of CO₂/year for average detached household)</p>	<p>✓ Active transportation added to one of transportation actions (A1) promote active transportation as another sustainable mode of transportation</p> <p>✓ Acknowledgement of Region's Active Transportation Plan in Responsibility Section of Actions A1 and A1ii;</p> <p>Transportation Demand Management Activities for Residential Commute</p>
	<p><i>Group Discussion Findings</i></p> <p>There was strong support for idling by-law.</p> <p><i>New Actions to Consider:</i> New technology (i.e. electric cars) is missing link- need to be developed through demonstration projects. Need to have facilities to charge electric vehicles. More promotion and awareness of electric cars as a clean alternative; Stronger reference or a separate active transportation action under transportation actions. Should acknowledge Region of Peel's development of an active transportation plan.; Town to explore possibility of helping Brampton Flight Centre get shuttle bus service for its students- would build on existing shuttle bus service.</p> <p><i>Individual Comments:</i> More use of bicycles - where practical new roads and development should be bike</p>	

<p>friendly and look at homes linked to shopping businesses such as "rental bikes available" (e.g., in Bolton); Consider electric vehicles (potential reductions are 50% or more per km driven) and additional benefit if electric vehicles are used for carpooling; "Active Transportation Committee" will soon be established for the Town.</p>	<p>✓ School bus idling action included in A32</p> <p>✓ New Local Food Initiative and series of actions added (A37-40)</p> <p>Community Education and Outreach, Schools, and Waste</p> <p>School bus idling is huge issue that needs to be addressed/identified through these actions and covered under idling by-law if it was to proceed. Has a compost program for schools been considered? Community, Communication and Collaboration!</p> <p><i>New Actions to Consider:</i> Use of non-fossil fuels for school buses in another issue/action that should be incorporated; include action that relates to importance of local food; include action that relates to improved communication and increasing awareness of existing programs to public (i.e. website); actions related to ensuring phosphates and road salt don't go into rivers thru buffers; Master composting program should emphasize need to still use Region's green cart program for non-backyard compost items.</p> <p><i>Individual Comments:</i> sewage & garbage releases substantial greenhouse gas emissions, need mechanism to collect this gas which stops emission of greenhouse gases (e.g., methane) and displaces generation of heat/electricity from fossil fuel burning; Garbage can divert new and process differently (composted) - capture greenhouse gas emissions and burn; drill into old dumps and harvest methane; Green Tea Environmental Awareness can help with outreach through their Speakers series and monthly newsletters (e.g., promote use of backyard composters); Compost program almost at capacity – need public education reminding people again about establishing their own backyard composters even if only for 'fair weather' months; Are there plans for actions geared towards educating business of green business opportunities?; Public Education outreach is done by the Region – could speak to them for ideas on this issue</p>
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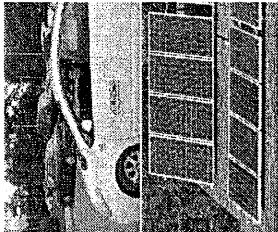
Community Information Sessions- Inglewood and Bolton	<p>Written comments on both the community inventory and local action plan were provided to Town staff which was distributed at the July 12 Council Workshop. The major overarching comments are as follows:</p> <ul style="list-style-type: none">- Inventory provides approximate indicator but has limitations related to emission uncertainties and agriculture gaps- Target is acceptable for PCP but falls short of what scientific consensus says is required to avert serious problems- Plan has short term target date (2021) but no longer term target, hence it focuses on lower impact actions that show early results- Longer term targets recommended by the international scientific community are far more aggressive and would require different types of actions.- Actions have other environmental co-benefits and costs that should be taken into account when prioritizing actions- Climate change issue should be viewed through lens of "sustainability".- Growth will impact Town's ability to reduce greenhouse gas emissions and may ultimately make the task impossible- Degree to which Town can influence community emissions varies. Where influence is high, Town should take strong action regardless of any potential opposition. Where influence is low, Town should take strong and cooperative action.	<p>Town acknowledge and largely support CEAC's commitments and note the following:</p> <ul style="list-style-type: none">- The community inventory was approved by Partners for Climate Protection (PCP) although staff recognizes as well as PCP that inventories are very complex.- Community inventories also rely heavily on external community data so in trying to mitigate for data uncertainty, the 2006 inventory relied on Statistics Canada census information. Further, given Caledon's uniqueness, staff and the consulting firm ensured the inventory was reflective of the Caledon community and its various sectors (i.e. inclusion of agriculture).- The Peel Climate Change Strategy which Town staff has brought to Council for receipt has a long term greenhouse gas reduction target (which is based on the Intergovernmental Panel on Climate Change Reports); 80% below 1990
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	<p>levels by 2050. Caledon's Community Climate Change Plan's target and work will assist in meeting the longer term Strategy target.</p> <ul style="list-style-type: none">- Town staff recognizes Caledon's projected growth which is why a "Greening New Development" section has been added to the Plan.- Through the implementation strategy, the actions other environmental co-benefits will be taken into account when prioritizing.- Town staff recognizes that climate change is just one aspect of sustainability and there is much more to do on the sustainability front.
<p>Resident Surveys from Caledon Day, Caledon Farmers' Market Opening Day and On-line Survey</p>	<p>From the public surveys completed, 54 out of 62 Caledon residents agreed with implementing an anti-idling bylaw. Many surveyed felt that car idling was unnecessary and wasteful. People against such a bylaw cited the difficulty in enforcing it as a primary concern.</p> <p>The majority of residents surveyed had made, or were planning to make, energy efficient upgrades to their homes. These ranged from installing energy efficient light bulbs to buying energy STAR appliances and programmable thermostats.</p> <p>40 residents surveyed said they would consider buying a 'green' home that may have a higher initial price tag but lower annual costs. For many this would depend on initial cost, monthly carrying cost and long-term</p>

payback	<p>The majority of residents surveyed had taken steps to reduce their energy consumption citing reduced costs and reduced environmental impact as primary reasons.</p> <p>Almost all residents expressed interest in attending educational seminars on topics such as waste reduction, importance of local food, general climate change info, energy conservation tips, etc.</p> <p>On line Survey based on 8 respondents:</p> <ul style="list-style-type: none">- 50% would consider ride sharing or carpooling to work; 50% would consider ridesharing or carpooling to no work activities; 50% said they would seriously consider biking, walking or other active transportation, no one said they would not consider participation given any of the above.- 75% were in favour of the Town passing an anti-idling bylaw and 25% were not in favour of a by-law. The 2 respondents who were not in favour of a by-law referenced the following reasons: difficulty in enforcing it, The amount of time the survey mentioned a by-law that would prohibit idling over a certain amount of minutes (i.e. 2-3) should be longer. It should be directed to the people outside of grocery stores for instance, for ten-fifteen minutes.- Respondents listed the following energy upgrades they have completed or are planning in their home: extra insulation, efficient lighting, programmable thermostat, new doors or windows- 50% of respondents would consider renewable energy for their home- 75% indicated they would purchase a green home option that may have a higher price tag- The community education and engagement program that had the highest response was the importance of local food
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COMMUNITY CLIMATE CHANGE ACTION PLAN



Project Background

The Town of Caledon, widely-respected for its progressive approach on environmental matters, has been developing a *Community Climate Change Action Plan* since November 2010. This Plan builds on prior environmental achievements and addresses the Town's Partners for Climate Protection commitments.

What is Partners for Climate Protection?

Since 2003, the Town has been a member of Partners for Climate Protection – a network of more than 200 Canadian municipal governments committed to greenhouse gas reduction and climate change action. This group of municipalities recognize they have a role to play with climate change given that “up to half of Canada’s greenhouse gas emissions are under the direct or indirect control or influence of municipal governments”¹.

There are five milestones associated with Partners for Climate Protection: 1) creating a greenhouse gas emissions inventory and forecast; 2) setting an emissions reduction target; 3) developing a local action plan; 4) implementing the action plan or set of activities; and 5) Monitoring progress and reporting results. More information on Partners for Climate Protection or climate change science can be found online at www.gmf.fcm.ca/partners-for-climate-protection.

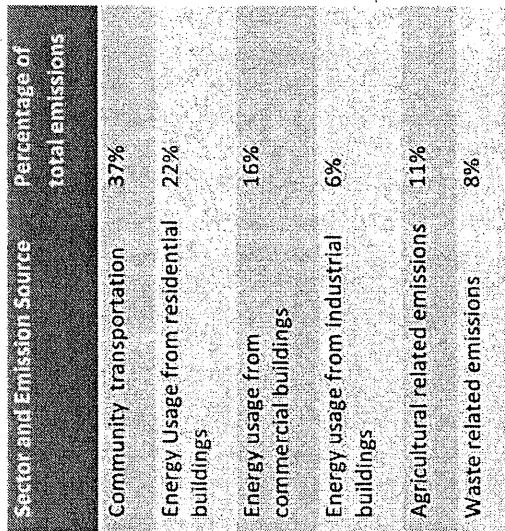
The Town has been working on these five milestones over the past few years. The *Community Climate Change Action Plan* builds on a community greenhouse gas inventory that was developed in 2008 and 2009. This chart illustrates the community contributors of greenhouse gas emissions as revealed in the inventory.

Based on these findings, the *Community Climate Change Action Plan* contains a series of proposed greenhouse gas reduction actions, categorized as follows: transportation; green development; energy; schools; agriculture; community awareness; tree planting and naturalization; waste; local food; and longer term actions.

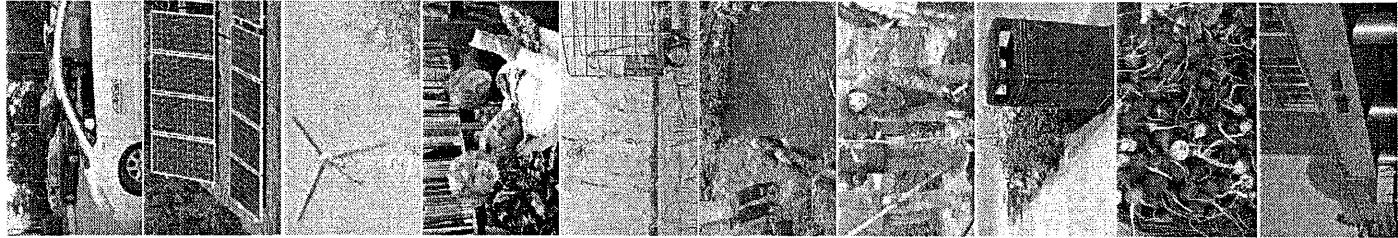
To receive Partners for Climate Protection milestone three (for the community), the final draft Plan was submitted to Partners for Climate Protection and ICLEI-Local Governments for Sustainability staff. Based on technical review, Town staff was advised that community milestone three has been granted.

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COMMUNITY CLIMATE CHANGE ACTION PLAN



Peel Climate Change Strategy

As an active partner in the development of the Peel Climate Change Strategy, the Town's *Community Climate Change Action Plan* is timely because work completed under the Action Plan will help implement several initiatives in the Peel Climate Change Strategy. This Strategy, developed in partnership with the Region of Peel, the cities of Brampton and Mississauga, the Town of Caledon, the Toronto and Region Conservation Authority and the Credit Valley Conservation was recently adopted by Regional Council and received by Town of Caledon Council. The Strategy's vision is: "a region where everyone does their part to mitigate and adapt to climate change by leading greener lifestyles, embracing a low carbon economy, enhancing and protecting our natural systems." More information on the Strategy can be found at www.peelregion.ca/climatechange.

Community Climate Change Action Plan Approach

The *Community Climate Change Action Plan* was initiated primarily to meet the Town's Partners for Climate Protection membership commitments. With an objective to effectively engage and represent all sectors within Caledon, the project included the establishment of a Community Working Group; a Key Stakeholder Workshop; a project specific website (www.caledonclimateplan.ca) and two community information sessions in partnership with the Caledon Public Library, ecoCaledon, Green T Environmental Awareness and other community partners. Town staff also attended Caledon Day and the Caledon Farmers' Market opening day to solicit input on the Plan's proposed actions via a survey.

The Community Working Group consists of representatives from the school board, developers, utilities, Region of Peel, conservation authorities (Toronto Region Conservation and Credit Valley Conservation), agriculture, transportation, waste management and small business. A representative from the Caledon Environmental Advisory Committee, the Town's Development Approval and Planning Policy Department, Town Council and a local community environmental group are also on the Working Group. Genivar Consultants were retained to assist with this work.

Finally, in August, a media release was issued to encourage the community to review the reader-friendly version of the Plan and to complete a short survey on some of the Plan's actions.

The final list of actions is provided in this reader friendly version of the Plan. Upon request to the Town's Energy & Environment staff, at environment@caledon.ca, the full version can be provided.

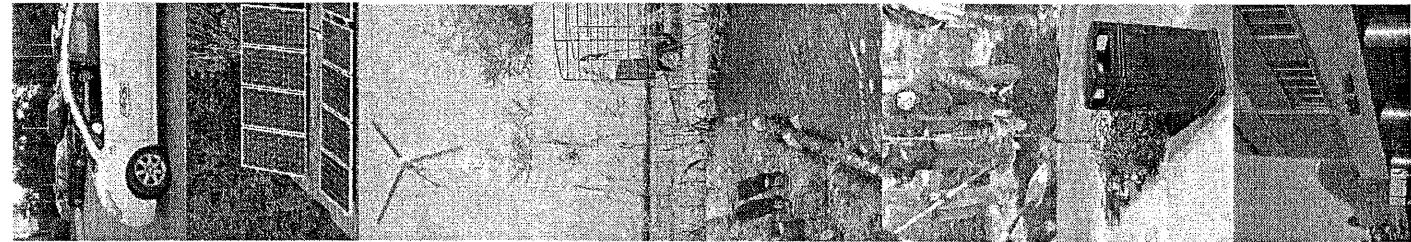
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COMMUNITY CLIMATE CHANGE ACTION PLAN



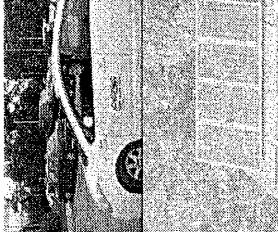
Next Steps

To maintain the momentum of the Community Local Action Plan exercise, Town staff is proceeding with an implementation strategy – a “how to” guide for many of the more community-focused short and mid-term actions, in particular, those that have more of an external agency lead or actions the Town may not yet have considered.

Through much consultation and facilitation with the Community Working Group members and other applicable agencies (i.e. utilities, school board), this Strategy will make recommendations on practical and fiscally sound implementation strategies, an effective monitoring approach that will include performance measures, and any steps necessary to support the ongoing implementation and administration of many of the actions.

Implementation of ongoing actions is also occurring, for example, in transportation. As an active Smart Commute Brampton Caledon participant and local Board member, efforts are underway to promote and encourage more Caledon employers to become involved. Most recently, Mars (formerly Effem) has become a new Smart Commute Brampton Caledon member and Husky Injection Molding Systems has agreed to rejoin. Town staff is also participating with other partners on the Region’s Five Year Transportation Demand Management Social Marketing Plan which aims to create measurable travel behavior change amongst all Peel residents. Lastly, the Town’s Energy and Environment staff is conducting a scan on government and other agency electric vehicle initiatives to identify opportunities for supporting electric vehicles.

TRANSPORTATION



The Community Transportation sector represents 37% of Caledon's Community Greenhouse Gas Emissions (based on the 2006 baseline year).

Transportation Demand Management (TDM) Activities for Residential Commute

Proposed Actions:

In partnership with the Region of Peel and appropriate agencies, the Town will work to encourage residents to reduce single occupant vehicle use. This may include working with the Region on the implementation of their five year Transportation Demand Management Social Marketing Plan. The Town will also conduct surveys in order to understand the community displacement habits and identify additional appropriate facilities, programs and services that could be offered.

- A1: Develop a transportation demand management marketing strategy and incentives for residents. Promote public transportation and demand management (TDM) websites (such as www.carpoolzone.ca and www.walkandrollpeel.ca), existing carpool parking lots and provide necessary TDM programs to residents. Promote active transportation as another sustainable mode of transportation. (Priority: Short to mid-term)
- A1-(ii): Conduct a sustainable mobility plan to better understand the community displacement habits and the most sustainable commute options for future years. (Priority: Short to mid-term)

Targets:

- A1: Increase residential carpooling and active transportation by 2-3%. Reduction of 3,303 tCO₂e/year.
- A1-(ii): Qualitative Target: Obtain a better understanding of community displacement habits.

Responsibility:

The Town may have a role in these actions by:

- 1) seeking funding to assist local developers and other applicable stakeholders to develop and execute a residential promotional campaign on carpooling and active transportation;
- 2) exploring incentives and Town policy mechanisms for the activities mentioned above. (This may include requiring developers to submit a transportation demand management plan with development applications.); and
- 3) supporting the implementation of the Town's Trails Master Plan; the Region's Active Transportation Plan; the Region's five year Transportation Demand Management Social Marketing Plan and other related Town and Region sustainable transportation initiatives.

Transportation Demand Management Activities for Employment Commute through ongoing work with Smart Commute Brampton-Caledon

Proposed Actions:

Smart Commute Brampton-Caledon is ongoing and currently offers a number of services to employers to make their employees' commuting easier in the Greater Toronto and Hamilton Area. Carpool Zone (ride-sharing software program) and Emergency Ride

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www.caledonclimateplan.ca



TRANSPORTATION



Home (a guaranteed ride home program for those who carpool) are the two most common services. Smart Commute can also customize programs depending on the employer or property manager's specific needs and challenges.

- A2: Increase participation and support for Smart Commute or other applicable organization. (Priority: Short-term/ongoing)

Targets:

- Current reduction of 7,580,503 vehicle kilometres traveled (VKT). Reduction of 1,917 tCO2e/year.
- Increase sustainable commute transportation by 5% to 7% within 10 years; estimated reduction of 7,707 tCO2e/year.

Responsibility:

- 1) The Town intends to work closely with Smart Commute Brampton-Caledon (or other similar organization) on promotion of services to Caledon's large employers over the next 10 years.

Anti-idling

Proposed Actions:

Reduce car idling and fuel consumption by 1% of the total fuel consumption from the transportation sector through the following actions:

- A3: Town Council to pass a municipal anti-idling by law which prohibits idling over a certain amount of time, i.e. 3-4 minutes. (Priority: Short to mid-term)
- A4: Reduce car idling and fuel consumption by utilizing smart signaling (synchronize lights, triggers, etc.) and roundabouts. (Priority: Long-term)

Targets:

- A3: Adopt an anti-idling by-law. Target: 1% fuel reduction. Reduction of 1,101 tCO2e.
- A4: Conduct a more targeted study and modeling on signaling and roundabout options to reduce fuel consumption by 1% of the total fuel consumption from Community Transportation. Reduction of 1,101 tCO2e.

Responsibility:

- A3: Town staff to develop and propose by-law to Council. Town to assess feasibility of OPP to enforce by-law given limited by-law staff resources.
- A4: Town's Development Approval and Planning Policy Department and Public Works Department to determine feasibility of smart signalling, roundabouts and other feasible options.
- A4 (ii): Town to explore policy mechanisms for encouraging and supporting the reduction of greenhouse gas emissions from idling heavy trucks through adoption of anti-idling regulations similar to those implemented in the State of California, emission reduction technology purchase incentives and by supporting demonstration trials of such anti-idling technologies.

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TRANSPORTATION

Provision of Public Transit Services

Proposed Actions:

Through Metrolinx's recent Bolton Commuter Rail Service Feasibility Study, plans for a Bolton GO train station have been raised and could possibly allow development of Public Transit in the Town of Caledon.

- A5: Integration of Carpool Lots at Mayfield Road and Highway 50 with GO Transit, York Transit and Brampton Transit. (Priority: Mid to long-term)
- A6: Provision of GO Rail Services to Bolton. (Priority: Long-term)

Targets:

- A5 and A6: Provisional target of 1% increasing within 10 years. Potential reduction of 1,101 tCO₂e.

Responsibility:

- A5: Town's Development Approvals and Planning Policy Department in collaboration with the Region of Peel, to pursue discussions with appropriate transit authorities such as GO Transit, York Transit and Brampton Transit to make this carpool lot (at Mayfield Road and Highway 50) a transit hub.
- A6: The Town to request Metrolinx to expedite the implementation of GO commuter rail service to Bolton and accordingly initiate the property protection process, environmental assessment study and detailed design process and to amend its capital budget to include construction within a 10 year priority time frame to facilitate early implementation for the GO rail service to Bolton.

Alternative Fuel Types

Proposed Actions:

The use of alternative fuels (such as biodiesel and electricity) may be an option for greenhouse gas reduction due to their reliance on non-fossil fuels. (Priority: Mid to long-term). Consideration may also be given to natural gas fuels vehicles.

- A7: Encourage and support use of biodiesel for large fleet and trucks and hybrid power units for auxiliary power requirements for large fleet and heavy trucks.
- A8: Encourage and support use of electric vehicles, i.e. hybrid gas-electric vehicles in short-term, plug-in hybrid electric vehicles in mid-term and fully electric vehicles in long-term.
- A9: Encourage, support and lead the development of an electric vehicle charging infrastructure that is symbiotic with the Ontario Smart Grid.

Targets:

- A7: Using a BD20 biodiesel (20% biofuel, 80% diesel oil) allows a GHG reduction by 20% (BD 20s GHG emission = 2.2 kg CO₂e/L of fuel consumed and Diesel's GHG emission = 2.732 kg CO₂e/L of diesel consumed). (Ref. Environment Canada, 2010).

TRANSPORTATION



RB12.25

- A8: According to *Getting to Carbon Neutral: A Guide for Canadian Municipalities*, the percentage reduction of carbon emissions relative to conventional gasoline is:
 - 52% for a hybrid gas electric vehicle 30 (30 mile electric-only range);
 - 75% for a plug in hybrid electric vehicle 20 (20 mile electric-only range); and
 - 83% for a plug in hybrid electric vehicle 30 (30 mile electric only range).

According to Transport Canada, the percentage reduction of carbon emissions relative to conventional gasoline is:

- 50 % for an electric vehicle (about 3 tCO₂e/car.year⁻¹, based on a 20,000 km/year mileage).
- A9: Qualitative target: Having enough charging infrastructure for anticipated demands.

Responsibilities:

- A7/A8: Town to demonstrate alternative fuel leadership through continued use and expansion of biodiesel and hybrid gas-electric vehicles. The Town should build on this leadership through the pilot use of plug in electric and full electric vehicle options in Town fleet.
- Town to explore other policy mechanisms for encouraging and supporting the commercialization of alternative fuels (and low emission vehicles) through taxi fleet regulations, parking incentives and providing electric vehicle charging infrastructure.
- A9: Complete needs assessment for electric vehicle infrastructure in partnership with the private owners of the community's larger fleets.

GREEN DEVELOPMENT



Green New Residential Development

Proposed Actions:

- A16: Effective January 1, 2012, the Ontario Building Code will require all new houses to meet or exceed the EnerGuide 80 standards through conforming to one of the new prescriptive construction option packages (upgraded insulation, higher efficiency mechanical equipment, high rated windows, etc.) or have the home tested by a qualified energy consultant to certify the home as constructed meets the requirements of EnerGuide 80. The Town to immediately require EnerGuide 80 as minimum standard for all new (and applicable) residential development to promote green residential development and to decrease residential energy demand. (Priority: Short-term)

Town to explore other policy mechanisms for encouraging new green residential development in Caledon such as requiring homes to exceed Energy Star through Greenhouse Certified Construction, LEED Canada for Homes or requiring Energy Star certification a condition of draft site plan approval. Town to explore options to adopt a voluntary energy performance labelling program for homes. Town to also consider value of a green home or green subdivision demonstration project that could educate residents and prospective buyers on the benefits of green features and low impact development. Town to explore or consider a similar Green Development Program that provides financial incentives for greening new residential development. (Priority: Short-term)

- A17: As per Official Plan Amendment 226, Town should require proponents of redevelopment to submit a Sustainability Design Brief as part of a complete application which addresses sustainability objectives. (Priority: Short to mid-term)

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- A18: As per Official Plan Amendment 226, the Town should require a Sustainability Checklist (which is currently in draft form to be used when reviewing planning applications including plans of subdivision, Official Plan and Zoning By-Law amendments and site plan control to determine how each development proposal will assist in achieving the sustainability objectives and policies of the Official Plan's new sustainability policies. (Priority: Short to mid-term)

Targets:

- All new (and applicable) residential development.
- Effective January 1, 2012, the Ontario Building Code will require all new houses to meet or exceed the National Research Council's EnerGuide standard in one of two ways: 1) Conform to one of the new prescriptive construction option packages effective January 1, 2012 or 2) have the home tested by a qualified energy consultant to certify that the home as constructed meets the requirements of EnerGuide 80.
- Number of homes with an energy performance label.

GREEN DEVELOPMENT



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ENERGY

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The Industrial, Commercial and Institutional (ICI) sector represents 22% of Caledon's Community Greenhouse Gas Emissions. Commercial and Institutional energy usage accounts for 16% and Industrial energy usage accounts for 6%.

Energy Efficiency

Proposed Actions:

- A10: (short term) Develop an eco business policy framework that supports and accelerates Eco Industrial Parks and eco business activity. The Town of Caledon has been working with the Toronto Regional Conservation Authority (TRCA) on the development of a Greenfield eco-industrial park. The inherit characteristics of industrial parks lend itself to symbiotic relationships and culture change.
- A11: (short term) Encourage building audits and retrofits through the promotion of utility and other government incentives through existing Economic Development promotional vehicles. Equipment includes lighting system, water heating, heating system, air conditioning and ventilation system. This action leverages existing programs:
 - Enbridge Business Solutions - Multiple program/audit services, incentives and rebates for the ICI sectors;
 - PowerWISE Business Incentive Programs that initiate energy conservation and load management projects through rebates and incentives; and,
 - Bolton Community Improvement Plan's energy retrofit grants.
- A12: (short term) Leadership in Energy and Environmental Design (LEED) certification for new industrial and commercial buildings. Expand Town's current Green Development Program incentives and continue to create supportive environment for LEED buildings.
- A13: (mid to long term) All new ICI buildings and major renovations are recommended to have energy performance labelling. Energy performance labels will indicate the energy efficiency rating of the building.
- A14: (mid to long term) Energy efficiency in commercial heating system: increase efficiency of existing heating systems via boiler/furnace replacements.

Targets:

- A10: Estimated reduction of 5,000 tCO2e.
- A11: Estimated reduction of 1,135 tCO2e.
- A12: 20% of new commercial development as LEED (or equivalent) certified buildings. Reduction of 1,271 tCO2e.
- A13: To be determined.
- A14: 15.6% reduction in energy consumption. Reduction of 4,158 tCO2e.

Responsibility:

- A10: Town to continually advance eco business policy framework so these types of uses are supported and promoted in Caledon
- A11 and A12: Town of Caledon to help promote existing utility and upper level government incentives through existing

ENERGY



- Economic Development promotional vehicles. Hydro-One and/or Enbridge Gas to implement conservation and demand management programs.
- A12 and A13: Town to promote green building standards for new construction such as LEED, BOMA and Energy Star Certification. Caledon to continually lobby the Region of Peel to provide matching development charge discounts for LEED commercial and industrial buildings through Town's Green Development Program. Town to expand promotional efforts for Green Development Program and additional industrial discounts which are seeking Council approval in July 2011.
- A14: Town to assist with facilitation of energy performance labelling, where appropriate.

Energy Supply

Proposed Actions:

The Town encourages the Industrial, Commercial and Institutional sectors to generate and/or use renewable energy where possible.

- A15: Conversion from fossil fuel to biomass or other renewable energy in industrial, commercial and institutional heating system. (short to mid term)

Targets:

- A15: 10% participation in industrial sector - reduction of 311 tCO2e.
- A15ii: 10% participation in commercial and institutional sector - reduction of 607 tCO2e.

Responsibility:

- Primary responsibility of local utilities (Hydro One, Enbridge Gas, etc.). The Town to help promote existing utility and upper level government incentives through existing Economic Development promotional vehicles.
- Promoted through the Green Development program.

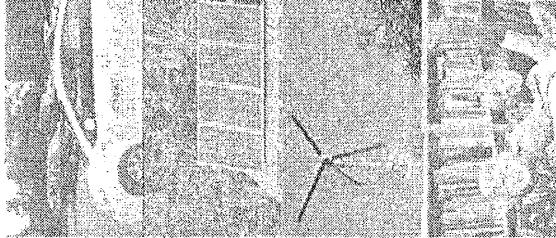
Energy Efficiency- Residential Sector

Proposed Actions:

The Town to encourage residential sector to implement better energy consumption practices and use less inefficient equipment by the following medium-term actions:

- A19: Installation of Certified Energy Star Lighting; switching from traditional light to more efficient lighting source.
- A20: Installation of Certified Energy Star Equipment – Electrical appliances: switching from traditional equipment to energy star equipment: refrigerator, freezer, dishwasher and washing machine.
- A21: Installation of programmable (thermostat) to control and stabilize/decrease room temperature.
- A22: Insulation upgrade: good participation rates are expected from residents since this action can provide financial savings.
- A23: Installation of home energy management system which will allow home owners to monitor energy consumption in real-

ENERGY



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time and make educated decisions about energy use.

- A24: As an environmental leader Caledon will offer its community as a provincial prototype for adjusted regulatory and business models to guide Ontario in meeting its energy and climate change challenges of the future.
- A24-(ii): Develop web space to support implementation and monitoring of residential energy retrofits.

Targets:

- A19: 100% participation given provincial ban on sale of inefficient bulbs by 2012. Anticipate a reduction of 1,268 tCO2e.
- A20: 75% participation. Reduction of 1,566 tCO2e.
- A21: 90% participation. Reduction of 3,238 tCO2e.
- A22: 25% participation. Reduction of 899 tCO2e.
- A23: qualitative target.
- A24 and A24 (ii): qualitative target.

Responsibility:

- Town to work with utilities (such as Hydro-One, Enbridge Gas) to better promote existing residential incentive programs.
- Town to seek partnership with utilities to develop a residential energy reduction promotional website to provide information and track participation in the various programs offered to the community. The website would provide on-line resources and links to facilitate individual action and provide a centralized location for all residential-related reduction opportunities.
- Town to explore feasibility of residential rebate programs for energy efficiency measures or incentive programs for homeowners that choose to renovate "green" (such as waived or reduced building permit fees).
- Explore opportunities to arrange bulk purchase of energy efficient products on the behalf of residents.
- Work with Region of Peel's Waste Management Division on the promotion of proper and safe disposal methods for CFLs.

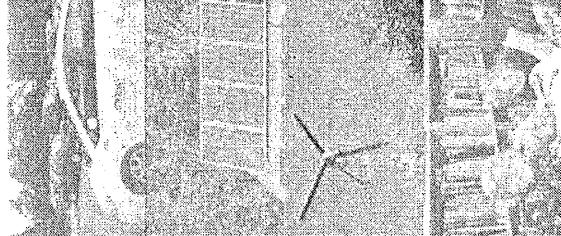
Energy Supply- Residential Sector

Proposed Actions:

The Town to encourage the residential sector to consider and use renewable energy where possible or other fossil fuel alternatives.

- A25: installation of solar water heating. (short to mid term)
- A26: Light oil heating system conversion to natural gas. (mid term)
- A27: Conversion from propane to geothermal in residential heating system through the renewable energy incentives program from the Ontario's Ministry of Energy. (mid term)
- A27 ii: Promote green energy purchase options (such as Bullfrog Power) or others (renewable green gas from local gas utility) as source of greener energy. (short term, ongoing)
- A28: Encourage community renewable energy through administering and promotion of a community renewable energy cooperative. (Timeframe to be determined)

ENERGY



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- A29- Development of a Community Energy Map with the intent to allow for the evaluation of the community's energy profile and prepare a practical, cost-effective energy efficiency response that integrates the transportation systems, the built environment, and the energy supply mix of a community at one time. (Timeframe to be determined)

Targets:

- A25: 1% participation. Reduction of 18 tCO2e.
- A26: 30% participation. Reduction of 462 tCO2e.
- A27: Action already implemented. Participation of 130 households in 2009. 1% additional participation is planned. Reduction of 662 tCO2e.
- A27 (ii): reduction of 4 tCO2e. Per household (participation rate 3%) 840 households @ 4 tons each totals a reduction of 3360 ton CO2 eq.
- A28 and A29: qualitative target

Responsibility:

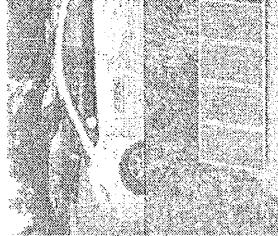
- A25 and A26: Town to work with utilities (such as Hydro-One and/or Enbridge Gas) to better promote existing residential incentive programs. Town to seek partnership with utilities so a residential energy reduction promotional website is developed to provide information and so residents can register upgrades on a central site.
- A27 to A29: to be determined

RB12.31



TOWN OF CALEDON

SCHOOLS



Ontario EcoSchools Promotion

Proposed Actions:

The Peel District School Board (PDSB) is currently looking at developing and implementing operating procedures to accompany School Board's environmental policy and guiding principles. Many Caledon schools are also participating in the Ontario EcoSchools program.

- A30: Developing and implementing procedures to accompany Peel District School Board's environmental policy and guiding principles that address water, waste and energy. (Priority: Short to mid-term)
- A31: Increasing Eco-school certification at Caledon schools via EcoSchools Program: Ontario EcoSchools program incorporates environmental sustainability and stewardship into students learning's and school operations through four key pillars: ecological literacy, energy conservation, waste minimization and school ground greening. Annual certificates of recognition are provided based on clearly defined point system. (Priority: Short to mid-term)



Targets:

- A30: to be determined.
 - A31: Peel District School Board (PDSB) goal: 8 certified schools in 2011 and all schools to be certified by 2013.
- Dufferin Peel Catholic District School Board: encouraging all schools to be certified by 2013.
- GHG Reduction from Caledon schools in PDSB = 1,843 tCO2e. Anticipated GHG Reduction from the six Dufferin Peel Catholic District School Board's school (using a mean area) = 790 tCO2e.

Responsibility:

- A30: The Town will have a limited role if any. School board's responsibility.
- A31: Town to provide local curriculum materials, staff for in-school presentations and funding mechanism (i.e. via a new Community Green Fund for schools) for environmental school projects.

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SCHOOLS

Reduction of School Buses Idling

Proposed Actions:

- A32: Conduct a school ant-idling campaign which could include student engagement; parent education; education sessions with bus companies and operators via a week long anti-idling blitz. (Short to mid-term)
- A32 (ii): Reduce idling time from Caledon's school bus fleet through the development of bus anti-idling policies. (Short to mid-term)

Targets:

- A32: To be determined.
- A32 (ii): 10 minutes idling reduction. GHG Reduction of 53.6 tCO2e/176 buses' fleet.

Responsibility:

- Primary responsibility is schools and School Boards. The Town and other community groups can assist with development and implementation of a school anti-idling campaign and bus policies as appropriate.

RB12.33



AGRICULTURE



The agricultural sector represents 11% of Caledon's Community Greenhouse gas emissions. These were estimated primarily from Methane emissions from livestock.

Nitrogen Use Reduction and Management; No-till Farming; Biomass and Reforestation

Proposed Actions:

An Environmental Farm Plan is one way that farms can achieve greenhouse gas reductions and possible financial savings. Many Caledon farms already have these plans.

- A33: Conduct a feasibility study on manure management and biogas recovery opportunities for Caledon's farming community. (Priority: Mid to long-term)
- A34: Agricultural biomass usage as an alternative fuel to fossil fuel. (Priority: To be determined)

Other agricultural actions will be implemented such as better nitrogen use, no till farming and reforestation. However these actions are outside the GHG inventory boundaries and are not counted as a reduction within the Partners for Climate Protection program. They will however, be pursued with appropriate partners.

Targets:

- A33: To be determined following the feasibility study conclusions.
- A34: To be determined. 2.732 kgCO₂e reduced/L of bunker (oil #6) replaced, 2.377 kgCO₂e reduced/L of light oil (oil #2) replaced.

Responsibility:

Other partners: farming community, Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), Agriculture Canada, Ontario Soil and Crop Improvement Association, University of Guelph, Peel Federation of Agriculture. Credit Valley Conservation, Toronto and Region Conservation may also be potential partners given the Peel Rural Water Quality Program that is delivered by both conservation authorities. Credit Valley Conservation also offers outreach and education to the equestrian sector on nutrient and manure management.

- A33: Town to assist through necessary zoning changes and other policy and planning mechanisms.
- A34: To be determined.

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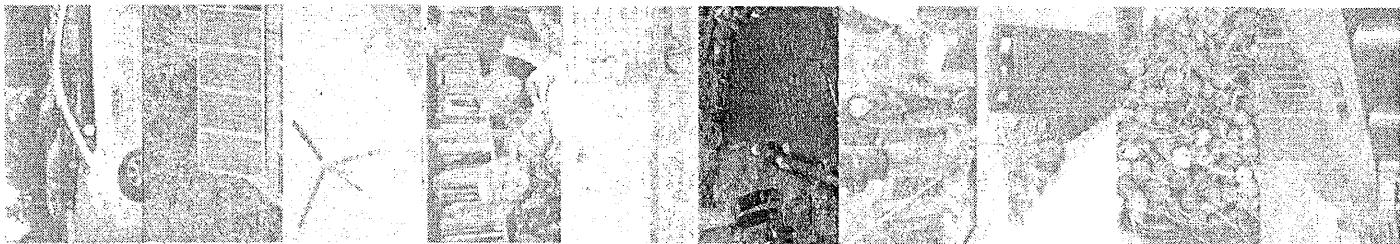
COMMUNITY AWARENESS

Community Awareness and Engagement

Increasing community awareness and the level of engagement about climate change and its necessary "call to action" is a critical success factor in implementing the Plan's actions. A strong education, awareness and engagement program is required which includes messages on the reality of climate change and its local impacts; ways to reduce greenhouse gas emissions; the need for informed decision making and action; and the opportunities for local actions in all sectors to make a difference. A successful program can be informed through market research which can identify the community residents and sectors motivations and barriers to desired sustainable behaviours. Information will need to be customized to reflect various target audiences and should build on existing educational campaigns such as the Life is Better in Peel campaign.

Possible actions which will assist in community awareness and engagement include the following:

- Conducting market research to identify barriers and motivations for desired sustainable behaviours; creating a shared vision through the branding of Caledon's Community Climate Change Action Plan and conducting a coordinated campaign to build awareness for the Plan and to highlight successes and action in the community;
- Identify, map, engage and support existing programs in the community that support actions within the Community Climate Change Action Plan and determine tools that could be provided to assist them in their efforts;
- Liaise with corporate leaders and business associations to establish support for and participation in the Community Climate Change Action Plan's implementation;
- Develop and launch a central website that provides residents with one stop information, tools resources and support for community actions to reduce greenhouse gas emissions; and,
- Continually support and explore expansion of Community Green Fund to provide resources to community champions, non governmental or voluntary groups for projects that are consistent with the Community Climate Change Action Plan.



TREE PLANTING

Tree Planting and Naturalization Programs

Preserving and expanding tree planting and related naturalization programs can play a large role in countering the effects of greenhouse gas emissions through carbon sequestration. It also contributes to energy conservation because shading a building reduces cooling load, and, sheltering homes from winter winds cuts down on heating costs. Tree planting may also reduce snow clearing needs if roads are lined with trees to reduce snow coverage.

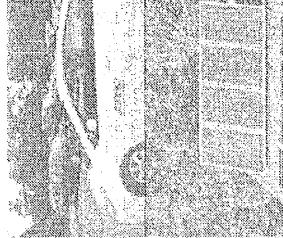
According to Peel Region's draft Urban Forest Strategy, the carbon stored and sequestered by Caledon's urban forest within Bolton and Caledon East account for 1.1 tonnes/hectare/year. Through the Town's seeding program which has led to 118,000 native seedlings for planting by local residents across 120 acres of land, an additional 4600 tonnes of CO₂ has been sequestered.

Further actions to build on these efforts and to maximize Caledon's carbon sequestration may include: continued tree planting programs for both rural and urban properties; naturalization of urban parks; partnerships with landowners to create carbon sequestration opportunities such as incentives, compensation and outreach; determining ways of valuing carbon sequestration to meet regional targets; and supporting Peel Region's Urban Forest Strategy. Many of these actions relate to residential programs since 45% of Peel Region's urban canopy cover is located on residential property. Since Credit Valley Conservation (CVC), Toronto Region Conservation (TRCA) and Region of Peel currently offer tree planting (naturalization and reforestation) programs for Caledon landowners, there is an opportunity to build on these programs.

RB1236



WASTE



Master Composting Plan

Proposed Actions:

Initiative consists of diverting organics degradable waste from landfilling through various ongoing and short-term measures.

- A35: Diversion of solid waste through organics recycling program;
- A35-(ii): Master Composting Program implementation: diversion of compostable organics and yards waste from landfill disposal. Acquire and distribute household composting units to households in collaboration with Region of Peel. This program would complement existing Region of Peel's green cart program.

Targets:

- A35: Diversion of 91,800 tonnes of solid waste. Reduction estimated to 7,200 tCO₂e (without biogas collection system).
- A35-(ii): Diversion of 89,000 tonnes of solid waste. Reduction estimated to 6,981 tCO₂e (without biogas collection system).
- Additional 5% of total residential waste diverted from disposal to composting. Additional reduction of 500 tCO₂e.

Responsibility:

- Town of Caledon to work in collaboration with Region of Peel on implementation of any waste related programs.

Lobby for better packaging

Proposed Actions:

Town of Caledon will encourage Commercial Sector to offer goods that are less packaged.

- A36: Develop a lobbying plan for better packaging. Option for implementation include municipal ban on plastic shopping bags; lobby upper levels of government for more sustainable packaging; promote bottled water ban through community. (Priority: Mid-term)

Target: ICI waste generation reduction by 5%.

Responsibility: Town of Caledon and Peel Region to work together lobby for better packaging.

LOCAL FOOD

Local Food and Farming Production and Distribution

Proposed Actions:

Support local food production and distribution through the following actions and continued support of the regional initiatives associated with the Strategic Plan for Food and Farming in the Golden Horseshoe. (a timeframe for implementation will be determined)

- A37: Promote local food and farming to change buying habits of consumers, businesses, government and institutions and increase the type and quantity of local food purchased. Continue to promote the Caledon Farmers Market and Inglewood Farmers Market.
- A38: Identify and support opportunities for local food production and procurement to help address food security and support small scale local food production.
- A39: Explore strategies for reducing food waste from field to fork for consumers, business, government and institutions. This includes edible food that becomes waste and how food waste is disposed.
- A40: Educate youth, consumers, businesses, government and institutions on the importance of agriculture and local food including: eating with the seasons; shopping local; cooking fresh; growing your own; avoiding food waste; and recognizing and celebrating safe and nutritious locally-produced food and the awareness of the physical characteristics of the sights, sounds and smells of normal agriculture.

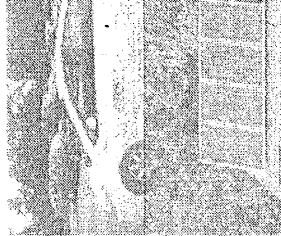
Targets:

- According to the Food Miles, Environmental Implications of Food Imports to Waterloo Region Study dated 2005, “replacing all the studied food items (58 commonly eaten foods) with products of southwestern Ontario would produce an annual reduction in GHG emissions of 49,485 tonnes” (or about 0.11 tCO₂e/hab)
- Town of Caledon, maximum GHG Reduction is to be determined tCO₂e in 2021 (For the purposes of receiving Partners for Climate Protection milestone recognition, the ghg reductions associated with local food are not counted towards meeting the 17% reduction target)

Responsibility:

- Demonstrate local food and farming support through the development of a local food and farming strategy that builds on current efforts such as the ongoing coordination of the Caledon Farmers’ Market.
- Ensure municipal planning policies and by-laws support local food and farming production and distribution.
- Develop purchasing policies to support local food procurement within its own facilities.
- Develop policies to encourage residents to grow their own food in backyards or community gardens.
- Develop a local food and farming education policy.

LONG TERM ACTIONS



Longer Term Actions for Consideration

Promote District Energy use within the Town's Official Plan or other land use planning mechanisms and centralized geothermal energy production. Another longer term action is related to providing public transit options which could help with the Town's community transportation emissions.

Responsibility:

Once Town's densities increase, Town to work with developers and utilities to consider district energy for new development. The Town will also continually support and advocate for Caledon public transit options.

RB12.39

