

Meeting Environmental Advisory Committee March 11, 2020, 6:00 p.m.

The following were in attendance:

Staff:

Darlene Suddard

Janice Peyton

Council:

Councillor Mark Bagu

Councillor Harry Wells

Public

Ryan Waines Jack Hellinga

Members:

George McKibbon

Norbert Gieger
Trent Doan
Clayton Nadeau
Kerry Royer
Tim Hoyle

1. Call to Order

George McKibbon was Acting Chair in Beth Palma's absence.

George called the meeting to order at 6:05 p.m.

2. Adoption of the Agenda

Moved by Harry Wells Seconded by Mark Bagu

That the agenda dated March 11, 2020 be accepted as circulated. CARRIED.

3. <u>Disclosures of Interest</u>

Nil.

4. Approval / Review of Previous Meeting Minutes

Moved by Mark Bagu

Seconded by Jack Hellinga

That the minutes of January 8, 2020 be accepted as written. CARRIED.

5. Items Arising from Previous Minutes

a) Roadside Mowing Initiative Update

Darlene advised that Council received a roadside mowing initiative presentation from Patty Moss. Staff have been directed to work with Patty and the Environmental Advisory Committee in order to prepare a report to Council that investigates the recommendations proposed by Patty.

Staff have met with Patty. Patty provided a map with location requests for signs and the QR code wording. Darlene will review these requests and forward to the committee for member review.

Darlene advised that the roads staff have liability concerns; these concerns will be identified in the report to Council. The Parks department is agreeable to Patty's request to use the Friendship Trail. Parks does have some concerns about Poison Ivy in some areas. Staff have met on site with Patty regarding the feasibility of naturalizing the parcel of land at Reuter Road and Durham Street.

Darlene advised that she is working on the request of Council to provide information on Pollinator Partnership Canada.

Councillors in Ward 4 received a request to promote butterfly routes in fields rather than along roadways. Darlene advised there is an opportunity to plant pollinators in the buffer fields once drain maintenance is completed. Councillor Wells suggested planting pollinators on the trail that runs along the canal lands. Norbert suggested approaching the Region to get buy-in from all of the municipalities along the canal trail lands. Kerry thought that perhaps Vanessa Aykroyd, Landscape Architect with the Region, could assist with this initiative.

b) Draft Report on Boulevard Trees

The report on boulevard trees went before Council on January 13, 2020. Council received the report for information and staff were directed to review previous decisions on boulevard tree planting, including the tree installation policy, October 2007 and By-law No. 6175/01/15, and report back to Council.

Darlene advised that this item is currently being reviewed by Engineering staff. Inventory of urban tree species has been included in the 2020 budget request. Staff have been using the City of St. Catharines tree by-law as a model for the review. Committee members agreed that climate change should be taken into consideration.

Clayton advised that he attended a seminar on Oak Wilt disease and said that it is something to be mindful of. Oak wilt is a fungal pathogen killing thousands of oak trees in North American forests and woodlands each year.

Featured snippet from the web

As of summer 2019, Oak wilt is currently not known to occur in Ontario or any other Canadian province, but given its presence <600 meters from Windsor, ON, it is important to know about this non-native disease before it establishes.

c) Site Alteration Permit Review and Costing

The Site Alteration Permit Review and Costing report went before Council on January 13, 2020. Council received the report for information and staff were directed to consider the approach for a coordinated review and fee structure associated with a revised site alteration by-law as set out in the report, and to review the recommendation that the administration of the revised site alteration by-law be undertaken by the Director of Engineering & Operations.

Darlene advised that the report is currently under the review of the Planning department.

Jack suggested that all municipalities within the Region get together to create one all encompassing process within the Region of Niagara.

Darlene has been working on this item regarding excess soils, from a municipal perspective. Darlene commented that the financial impact on municipalities will be substantial.

d) Vale CBRA Community Status Report/Questions & Acquired Responses

This report went before Council on February 24, 2020 and was approved as presented. George advised that Councillor Desmarais spoke to the issue, advising that residents in her ward do not have a lot of trust regarding this item, because of past experience. George suggested the committee make an application for an award for this report.

Moved by Norbert Gieger

Seconded by Jack Hellinga

That EAC members make an application to the American Planning Association for an award for the Vale CBRA Community Status Report.

CARRIED.

Jack asked if Vale is contributing to the improvements that have been made to the drain that runs along the East side of Vale property. Darlene will ask the Drainage Superintendent if Vale has been approached about this.

The committee discussed the possibility of making further recommendations regarding the CBRA.

Moved by Mark Bagu Seconded by Ryan Waines

That the 5 member sub-committee meet and report back to the EAC on further measures regarding the Vale CBRA. CARRIED.

6. New/Other Business

a) GHG Emissions Reduction Plan - Darlene

Darlene provided highlights of the Greenhouse Gas Emissions Reduction Plan that was presented to Council on February 24, 2020 by Climate Change Coordinator Mae Lannan. A copy of the report is attached to the minutes.

The following emission reduction initiatives were suggested and discussed:

- Contact Citysolar (Tesla) to inquire about our City being a pilot project for electric vehicles. Darlene will discuss this with the Fleet Manager.
- Rent city owned electric vehicles to residents when they are not being used. A city in Quebec is currently carrying out this initiative. Darlene will have staff look into this.

The committee agreed that it would be useful to make a recommendation to Council in support of this plan.

Moved by Trent Doan Seconded by Norbert Gieger That Council be advised that the EAC strongly supports the Greenhouse Gas Emissions Reduction Plan for the following reasons:

- The plan provides baseline measurements of energy use and greenhouse gas emissions in order to measure progress;
- 2. The plan provides for administrative reporting to staff and to Council on the implementation of the plan and the performance of its measures;
- 3. The plan provides for a committee of staff responsible for the various facilities operated by the City and is chaired by a staff member who in turn reports to Council
- 4. The plan establishes targets and procedures for comparison with other municipalities; and
- The plan examines alternative energy sources and helps promote the electrification of the City's fleet of vehicles. CARRIED.

b) Climate Warming Adaption

George had this item placed on the agenda so that members would begin to think about how we will adapt to climate change. George wondered if some members wanted to form a sub committee to pull together some ideas.

Harry commented that Darlene has included climate change in the drinking water system risk assessment.

Darlene advised that wastewater/storm water is next for risk assessment and that climate change will be included.

Darlene and George will meet to discuss this further before the next committee meeting.

c) New Provincial Policy Statement 2020

George provided a summary of the revised Provincial Policy (attached to the minutes) Statement and reviewed what it means for Port Colborne. Committee members commended George on his summary saying that it was very informative. George wondered if members wanted to forward the summary to Council for information. Jack advised that the Region is currently preparing comments and thought it would be good to wait to see what is presented to Regional Council. Kerry added that the NPCA is pooling staff comments also. George will look at the Region and NPCA comments and report back at the next meeting.

d) Reducing Plastics

George provided an article on Lake Erie Bill of Rights. A copy is attached to the minutes. George asked if the committee would like to review the plastics report. Jack and George agreed to bring some ideas of what the committee may be able to do with regard to this item to the next committee meeting.

7. Next Meeting/Adjourn

Moved by Jack Hellinga Seconded by Kerry Royer

That with no further business to discuss, the meeting be adjourned at 7:55 p.m.

The next EAC meeting will be on May 13, 2020 at 6:00 pm.



City of Port Colborne Greenhouse Gas Emissions Reduction Plan

Prepared: February 12, 2020

Executive Summary/Abstract

Climate change is the long-term change in temperature and weather patterns, which results in rising temperatures, forecast unpredictability, extreme weather events and natural disasters such as floods, and droughts. In Niagara, climate change projections indicate a warmer, wetter future with more extreme weather events. The climate change we are seeing now is based on GHG emissions from the 1980s, which means the consequences of today's GHG emissions will not be seen for at least 25-50 years. According to Canada's Changing Climate Report (2019), Canada is warming at twice the global rate due to local conditions. Canada's loss of snow and sea ice is reducing reflectivity of the surface, which increases the absorption of solar radiation, causing larger surface warming than other regions.

Recognizing the impacts of climate change and the role that the City can play in decreasing GHG emissions, the City of Port Colborne's Greenhouse Gas Emissions Reduction Plan commits to leading by example in its own corporate operations; adopting and demonstrating sustainable, energy conserving, climate change mitigation practices that are communicated and encouraged throughout the community. The City's corporate operation sectors include buildings, fleet, streetlights, and solid waste. The energy and emissions associated with these sectors are tracked in the corporate inventory. The City's GHG emissions inventory is based on operations from 2017, with the total being 1730 tonnes of eCO₂. An overall emissions reduction target of 10% by 2030 has been set, which is based on reductions from building retrofits, employee energy training, waste diversion program, energy efficiency standard commitment for new-builds, and the application of a climate lens policy. Specific objectives have been developed under focus areas for facilities, fleet, staff, and solid waste.

Monitoring of the GGRP and its objectives will be carried out by City energy staff and the City's energy conservation committee (ECC). The status of emissions data and corresponding objectives will be compiled, analyzed, and reported to council as a supplementary component of the *Energy Consumption and Greenhouse Gas Emissions Report*. At least once every five (5) years the Plan will be reviewed and objectives will be updated to account for changes in usage, technology and availability of alternative energy sources.

Terminology

A *greenhouse gas* (GHG) is a gas that absorbs and emits radiant energy within the Earth's atmosphere. The amount of GHG's in the Earth's atmosphere has been related directly to the overall increase in the Earth's temperature.

The primary greenhouse gases in Earth's atmosphere are *carbon dioxide* (CO_2), *methane* (CH_4), and *nitrous oxide* (N_2O). When discussing emissions the focus tends to be on CO_2 , which is generally because it is the easiest to understand. All GHGs have a *global warming potential*

factor (GWP) — this means that the gases can all be expressed in terms of CO_2 and we consider this *equivalent* CO_2 (eCO₂). The quantity of eCO₂ is generally expressed in tonnes, as a frame of reference, the volume of 1 tonne of eCO₂ at standard temperature and pressure would fill a two-storey, three-bedroom house.

A common unit used to express energy is a *gigajoule* (GJ). This unit allows comparisons to be made between different sources of energy consumption.

The *Partners for Climate Protection* (PCP) program was designed to guide Canadian municipalities in taking action against climate change, through the reduction of GHG emissions.

Contents

1.	Intr	oduction	. 1
2.	Prin	ciples, Approaches, & Framework	. 2
2	.1.	Vision Statement	. 2
2	.2.	Commitment	. 2
2	.3.	Management and Leadership	. 3
	2.3.	1. Energy Conservation Committee	3
3.	Des	cription of Reporting Inclusions	. 3
4.	Bas	eline Inventory of Corporate Energy and GHG Emissions	. 4
4	.1.	Current Energy Consumption	. 5
4	.2.	Current Emissions Output	. 6
5.	Obj	ectives	. 7
6.	Qua	ntitative Goals	. 8
7.	Ene	rgy Use Management	. 9
8.	Moi	nitoring	10
8	8.1.	Reporting	11
Та	ble	and Figure List	
_		: GGR Plan Framework	. 2
		Energy Costs and eCO2 Emissions by Sector Energy Costs and eCO2 Emission by Source	
		Breakdown of corporate energy consumption by sector and energy source	
		Breakdown of emission output by sector and output by energy source	
		Description of Initiative Categories	
		Facility Emissions Change & Estimated GHG Inventory Change	
		Quantitative Goal Breakdown	
lab	ne 6:	Emission/Energy Related Projects	ΤÜ

1. Introduction

Natural Resources Canada has identified climate change as one of the defining challenges of the 21st century. It is a global problem, and tackling it requires action at all levels of government. Scientific evidence shows that the primary cause of the Earth's changing climate is due to the surge in GHG emissions from human activity. In response to this challenge, countries and cities around the world are setting targets and developing local plans to reduce their GHG emissions.

The City of Port Colborne (City) reports annually, to the province, on GHG emissions produced from City owned facilities that are heated and/or cooled. This, as well as creating and updating an Energy conservation and demand management (ECDM) plan for the City, is a provincial requirement of which the City has met. Both the annual GHG reports and the ECDM have established a starting point for the City to monitor energy trends and the associated GHG emissions. Previously, the City has not committed to a GHG emissions reduction target, or outlined specific actions to reduce GHG emissions. While the ECDM efforts to reduce energy consumption within the facilities will correspondingly reduce GHG emissions, more specific objectives are required to reduce GHG emissions and the City's contribution to climate change.

The City recognizes the importance of local governments in the fight against climate change, and has developed this plan to present a comprehensive strategy and action plan for reducing GHG emissions from the City's corporate operations. The various initiatives proposed in this plan (and their underlying actions) have been reviewed and verified by necessary staff.

The cornerstone of this GHG emissions reduction plan is the corporate GHG emissions inventory, which forms the baseline against which future emissions reduction goals can be measured. The baseline inventory also helps to inform decisions on which areas to reduce and by how much: contributing to an overall reduction target. The inventory considers both direct and indirect emissions. An example of a source of direct emissions would be gasoline used to fuel City vehicles, which releases emissions at the same time it is combusted. An indirect source of emissions would be a power plant that generates electricity for the grid in Ontario, from which City facilities draw electricity. Since the emissions are not produced in the same location or at the same time as the energy is consumed, it is an indirect source.

Council has been very supportive of mitigation initiatives that will reduce Port Colborne's GHG emissions. For example, in the past, they have directed staff to investigate the feasibility of installing a renewable passive energy generation system, which would assist in reducing GHG emissions in the Engineering and Operations Centre. This ongoing commitment, coupled with the GHG reductions plan, would ensure that reductions strategies are being integrated into the broader organization and lead to targets being met.

2. Principles, Approaches, & Framework

The City's GHG emissions reduction plan focuses on the City's corporate emissions output. The baseline emissions are calculated from energy associated with City buildings, vehicles and machinery (fleet), streetlights, and solid waste.

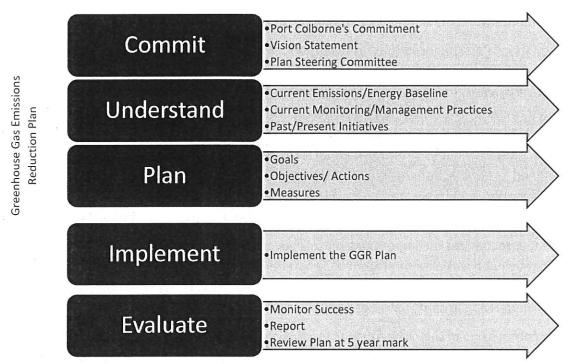


Figure 1: GGR Plan Framework

2.1. Vision Statement

To carry out the strategic and proactive pursuit of responsible emissions reduction on a local level, which contribute to the federal governments' international commitments. Bearing in mind that one of the main considerations when establishing infrastructure is climate, it can be expected that rapid change in climate will have a crippling impact on existing infrastructure. By taking action, the City has the opportunity to save money in municipal operations, lower energy costs for residents and businesses and increase investment in the local economy. Therefore, the City's GHG emissions reduction actions also contribute to the long-term environmental, economic, and social wellbeing of the residents, businesses and visitors of the City of Port Colborne.

2.2. Commitment

The City of Port Colborne aims to lead the community by example in terms of GHG emissions reductions, and demonstrate to residents and businesses how GHG emissions reductions can

be implemented locally, as well as the benefits such actions can bring to the community. Therefore, the City commits to the following:

- i. Allocation of the resources necessary to develop and implement a strategic GHG emissions reduction plan, aimed at reducing GHG emissions and the related environmental impacts, while increasing efficiency
- ii. Promotion of responsible GHG emissions/energy management throughout the City, implementing economically viable emissions reduction projects, organizational measures, and renewable energy initiatives where possible
- iii. Compliance with legislated environmental requirements and standards (i.e. annual Greenhouse Gas Report)
- iv. Continual improvement of the Plan and its projects and initiatives

The vision and subsequent commitments of the Plan outline the approach towards improving emissions output within City facilities and act as a foundation for the remainder of the Plan.

2.3. Management and Leadership

The development and implementation of the Plan is the responsibility of the City's Climate Change Coordinator and the Energy Conservation Committee.

2.3.1. Energy Conservation Committee

The Energy Conservation Committee (ECC), chaired by the Environmental Compliance Supervisor, acts as the City's steering committee, responsible for the review and implementation of this Plan. The ECC is comprised of City Staff representatives from various departments within the City in addition to an appointed member of Council (Appendix A). Members are committed to the continual improvement of the City's GHG emissions reduction and energy conservation efforts, while ensuring the success of the Plan. The Committee meets regularly to discuss energy related issues, economic considerations of initiatives, regulatory requirements, and incorporation of proposed initiatives into current policies and operational standards and to evaluate the effectiveness of the conservation and reduction efforts against the goals and objectives of this Plan.

3. Description of Reporting Inclusions

To estimate GHG emissions from corporate operations, the City applies the *PCP Protocol:* Canadian Supplement to the International Emissions Analysis for the Quantification and Reporting of Greenhouse Gas Emissions Inventories (the PCP Protocol). The PCP Protocol

identifies a number of GHG emissions sources that should be included in a municipal government's corporate GHG Inventory:

Buildings Emissions: Includes GHG emissions generated from electricity and natural gas used at City owned and leased facilities where the City pays utility costs.

Fleet Emissions: Includes emissions from all vehicles and machinery operated by City departments.

Streetlights Emissions: Includes greenhouse gas emissions from electricity used to power streetlights, traffic lights and signals, and miscellaneous outdoor lighting throughout the City.

Landfill Emissions: Includes emissions from solid waste collected at City facilities and public receptacles, which are landfilled.

Water and Wastewater Treatment: Emissions from water and water treatment are not included in the City of Port Colborne's inventory given that responsibility for these operations resides with the Niagara Region. Based on the structure of water and wastewater treatment, this sector does not meet the protocol's definition of "operational control" for a municipality, and is therefore excluded from the GHG inventory. The Niagara Region has reported energy and emissions data for water and wastewater facilities in the annual Greenhouse Gas Report, as well as the 2019 - 2023 Energy Conservation and Demand Management Plan. This data can be found on the Niagara Region website.

Land use: Land use related emissions are not included in the baseline GHG inventory as they are generally only included in community level plans to attribute emissions to agriculture, and as this Plan only applies to corporate GHG emissions.

Renewable Electricity: At this time all of the electricity purchased by the City comes from Ontario's Electricity Grid. Ontario's Electricity System is one of the lowest GHG emitting systems in North America. While there are no current renewable energy systems within the City of Port Colborne, the City commits to explore the viability of implementing and developing renewable energy systems in City facilities.

4. Baseline Inventory of Corporate Energy and GHG Emissions

Tables 1 and 2 breakdown the emissions and energy inventory, displaying the amount of energy from each sector and source, respectively, as well as the emissions. Here energy is expressed in gigajoule (GJ) of energy use, and eCO_2 is expressed in metric tonnes.

Table 1: Energy Costs and eCO2 Emissions by Sector

Sector	Energy (GJ)	Total eCO ₂ (t)
Buildings	40,593	1,164
Vehicle Fleet	6,579	469
Streetlights	1,872	10
Corporate Waste	-	87
Total	49,044	1730

Table 2: Energy Costs and eCO2 Emission by Source

Energy Type	Total Use	Energy (GJ)	Total eCO ₂ (t)
Electricity (kWh)	5,739,720	20,663	115
Natural Gas (m³)	557,380	21,755	1,059
Diesel (L)	116,648	4,468	321
Gasoline (L)	60,339	2,112	148
Waste	-		87
Total		49,044	1,730

4.1. Current Energy Consumption

Overall the City's energy consumption has increased from 2011 to 2017, with the largest increase in 2013 (attributed to the introduction of the Vale Health and Wellness Centre). As demonstrated in Figure 2, the City's buildings (facilities) sector is responsible for the majority of the City's overall energy consumption, while vehicles and streetlights make up a much smaller proportion of the City's overall energy consumption. Additionally, Figure 2 displays energy consumption broken down by energy source, which exhibits that the City has similar demands for electricity and natural gas, and quite different demands for diesel and gasoline.

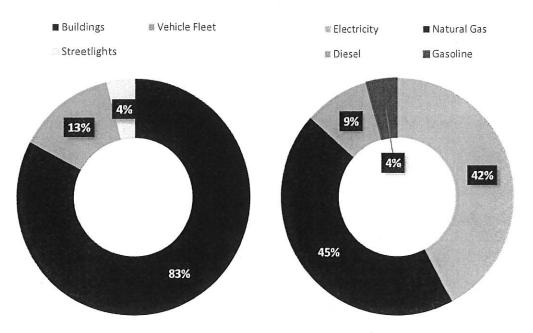


Figure 2: Breakdown of corporate energy consumption by sector and energy source

4.2. Current Emissions Output

Emissions quantities are determined by energy usage and associated emissions factors; therefore, understanding the City's energy demand and consumption trends is essential for analyzing emissions data. By knowing the emissions associated with different energy sources combined with the City's energy demand, staff can develop more accurate emissions reduction targets and objective.

In comparing Figure 2 to Figure 3, it is evident that emissions are not directly proportional to energy consumption. The emissions from the vehicle fleet (Figure 3) account for 27% of the City's GHG emissions inventory, while the fleet only accounts for 13% of the City's energy consumption (Figure 2). An additional difference in the emissions inventory is the presence of solid waste. Solid waste has no energy value in the inventory because collection is outsourced, and therefore only the emissions from the breakdown of solid waste was calculated.

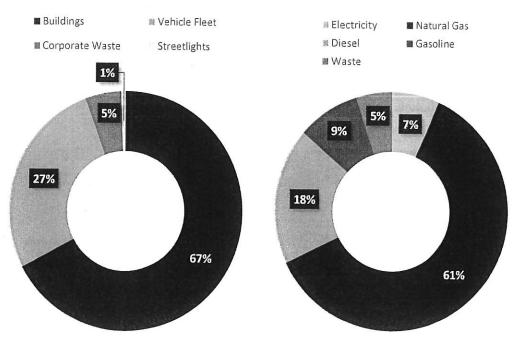


Figure 3: Breakdown of emission output by sector and output by energy source

Looking at emissions based on source is helpful to understand how the sources of energy impact the City's emissions, as seen in Figure 3 above. This also demonstrates where the greatest potential is for emissions reduction. Considering that building are the largest sector it can be assumed that this is a sector where the most reductions can be made. Looking at emissions by source gives a more detailed analysis: natural gas reductions at City facilities will have the most impact on the emissions inventory. The City's waste emissions are higher than most corporate inventories (proportionally); however, this inventory includes waste collected from public receptacles as well.

5. Objectives

In order to better categorize and manage the objectives of the City, focus areas have been generated based on the goals and overall vision. These focus areas include:

- Facilities
- Fleet
- Staff
- Solid Waste

The objectives for the Plan have been designed to provide direction on how to achieve the quantitative goals and Plan vision. Recognizing potential resource constraints, consideration has been given to the need for the City to build and enhance internal capacity in order to develop the

necessary resources to implement the Plan. As the City progresses in its emissions reduction and energy practices, it is expected that the objectives will evolve as well.

The objectives, detailed in Appendices B-E, contain information regarding the focus area, initiative commitment, required actions, measure of success, personnel required, as well as timelines. The initiatives in this plan consist of programs, processes, and/or projects which are explained in table 5 below.

Table 3: Description of Initiative Categories

Initiative Category	Definition	Example
Program	Longer term objectives with broad applications	Awareness Programs
Process	Shorter term objectives with more specific applications	Facility energy tracking
Project	Specific actions (generally capital projects) to improve efficiencies	Retrofits and upgrades to building envelopes

6. Quantitative Goals

In 2014, the Province of Ontario eliminated coal-fired electricity generation from the grid, and ramped up funding for the construction of renewable energy projects. In 2003, 25% of electricity was from coal-fired generation, and by 2017 31% of electricity was from renewable sources. This has resulted in significant GHG emission reductions which has directly benefitted the City's GHG emissions inventory. As illustrated in Table 4 below, the total annual GHG emissions for City facilities has decreased significantly, even though the total energy consumption has slightly increased. This verifies that the reduction in GHG was an indirect result of the Provincial changes to the electricity generation system rather than a result of City activities.

Table 4: Facility Emissions Change & Estimated GHG Inventory Change

	Facilities		Estimated GHG Em Change (p	
Year	GHG tonnes/year	GJ	Assumed 2013	2017 inventory
2013	1,355	34,548	inventory based on	sum
2014	1,261	34,743	facility sum	
2015	1,209	33,828	2,015	1,730
2016	1,014	33,864		/ \1.40/ abanca in
2017	1,070	36,939		(-)14% change in the inventory
Overall Change	(-)21%	7%		the inventory

The estimated 2013 GHG emissions inventory is based on the assumption that the only difference in emissions is due to the facilities sector. Considering the changes to the City's fleet and

streetlights this is likely a conservative assumption as there is no accurate data from 2013 to calculate the impacts of these changes. The estimated 2013 inventory demonstrates that the City's overall GHG emissions have decreased at least 14% as of 2017. As mentioned previously, this reduction can mainly be attributed to the phasing out of coal by the Province.

City staff have chosen 2017 as the baseline inventory year, this decision was made for a number of reasons, mainly because it is the most accurate representation of the City's current activities, with the most complete data. City staff also feel that using this baseline will mean more accurate tracking of the impact of GHG emission reduction initiatives undertaken by the City, rather than reductions from changes made on the provincial level. Thus, while many PCP municipalities in Ontario have set reduction targets of 20-30% for 2030, with a baseline inventory year prior to 2015 (meaning that coal generated power would still be included in their GHG baseline), the City of Port Colborne is aiming for a 10% reduction in corporate emissions by 2030. Although on the surface this may seem like a low target for the City to undertake, City energy staff are confident that, with the aforementioned details considered, this is realistic and ambitious target.

The 10% goal is based on a combination of initiatives summarized below:

Table 5: Quantitative Goal Breakdown

Lower Targets (1.5 – 2.5% each)
Building retrofits
Employee energy training
Waste diversion program
Energy efficiency standard commitment for new-builds
Higher targets (3 – 4% each)
Application of a Green procurement policy/ climate lens

7. Energy Use Management

Port Colborne has been proactive in improving the energy conservation and efficiency of its facilities. Table 2 below is an outline of energy related projects that have already been implemented, and/or budgeted for in City facilities. As many of these projects were carried out or began in 2018-2019, the impact of these measures has yet to be analyzed and accounted for in energy data. Future energy reports and Plans will highlight the effectiveness of various conservation projects and their impact on overall consumption (the year 2020 will be the first to be compared to the original emissions inventory).

Table 6: Emission/Energy Related Projects

Project	Facility	Year
	Museum- Heritage & Resource Centre	2019
HVAC Replacement	Museum- Complex	2019
	City Hall	2019-2021
Window Replacement	Roselawn Centre- Kitchen	2019
Timed Lighting	Lion's Field	2019
	City Hall	2018
	Vale	2019
Lighting Retrofit: T8	Roselawn	2018
to LED	Marina	2018
	Museum	2018
	Fire Hall	2018

One of the most significant initiatives to be undertaken by the City during this Plan, is the implementation of a climate lens. A climate lens is the consideration of greenhouse gas mitigation and adaptation requirements in all decision making (City of Victoria). A climate lens is intended to incent behavioral change and consideration of climate impacts into the planning of infrastructure projects with a view to reaching the City's emissions reduction target.

While the focus of this funded project is to reduce GHG emissions, it will incorporate the goals from the City's Energy Conservation and Demand Management (ECDM) Plan, which is focused on reducing energy consumption for the City's facilities and increasing energy efficiency.

8. Monitoring

The implementation of the Greenhouse Gas Emissions Reduction Plan will allow for strategic and centralized monitoring of emissions output and energy consumption. As part of the plan, a monitoring system will be developed to provide continuous information to key staff members. The overall inventory will be updated in an excel spreadsheet on an annual basis, with the results reported to council. Emissions factors for each source of GHG will need to be updated to match the monitoring year. Continual monitoring will contribute to informed decision-making and the development of stronger objectives in future Plans.

The City has committed to review and evaluate the Plan, revising and updating it as necessary. The progress towards identified goals and objectives will be evaluated and new objectives will evolve as the capacity for emission and energy management within the City grows. The review and evaluation process is ongoing and will provide critical feedback that contributes to the

commitment to continuous improvement in emission and energy management of Port Colborne's activities.

8.1. Reporting

The development of reports based on progress monitoring will deliver key information to various stakeholders:

Reports regarding progress of the Greenhouse Gas Reduction Plan, including conservation measures, and changes in the processes and implementation of programs, will be developed by the Energy Conservation Committee and delivered to key identified audiences within the City. Suggested audiences include the Mayor and Council, Directors, and the Senior Management Team.

Emissions data will be compiled and analyzed annually with a status report presented to council in conjunction with the *Energy Consumption and Greenhouse Gas Emissions Report*. At least once every five (5) years the Plan will be reviewed and objectives will be updated to account for changes in usage, technology and availability of alternative energy sources.

Appendix A: Energy Conservation Committee

Departments with Representatives
Community & Economic Development (2)
Engineering and Operations Centre
Fire & Emergency Services
Museum
Library
Facilities
An appointed member of Council is also a part of the ECC.
Environmental Compliance Supervisor, Darlene Suddard is the chair of this committee

Appendix B: Outlined Facility Focused Objectives

Objective	#	Action	Measure of Success	Personnel	Ç.	Years	01-7
The City commits to lower utility demands for	Н	Systematically upgrade lighting to the highest efficiency option to meet a particular need.	Continue to update inventory to track current and proposed energy conservation measures.	Facilities Staff	×	×	
activities and facilities	2	Where appropriate, upgrade ventilation to demand responsive technologies.	Demand response technologies are included in annual energy analysis.	Facilities Staff		×	×
The City manages its energy in a way that reduces the burden on ratepayers, while maintaining a high level of	m	Develop processes to provide departmental managers with information on the energy bills for their departments to review.	Record of utility bill analysis and critique (maybe a quarterly survey).	Energy Staff	×		
service for residents, businesses, and a healthy work environment.	4	Continually communicate with Hydro to ensure proper bill adjustments for single rate facilities.	Attempt to offset energy use start time, as to lower peak demand (possibly an intern project)	Energy Staff	×	×	×
City staff members have the training and information they require to effectively and efficiently manage their energy use and emissions within their areas of responsibilities.	ιΛ	Install automated system for monitoring lighting and temperature with an alert system for out-of-ordinary events.	Trial project for at least one major City Facility	Facilities Staff			×

Objective	#	Action	Measure of Success	Personnel	1	Years 2-5	5-10
The City monitors initiatives in other municipalities and other organizations that are designed to reduce energy use and emissions and assesses the applicability of these initiates to the City.	9	Benchmark energy use and targets against other similar municipalities.	In yearly update the City references the performance of our facilities in comparison to those of other municipalities.	Energy Staff		×	
City ensure that it monitors	7	Install sub-meters on major systems in largest energy using buildings to provide real time information to operations staff.	Yearly update of GHG inventory.	Facilities Staff			×
and tracks energy use and GHG emissions to be able to measure progress against targets.	∞	Investigate diurnal and seasonal patterns of energy use to take advantage of load shifting opportunities and reduce use of electricity during peak times when it is expensive and more carbon intensive	Yearly update of GHG inventory.	Energy Staff		×	
City has operating policies and procedures that ensure its energy-using equipment	6	Adopt new building construction standards for corporate facilities that will support the goal of 10% GHG reduction.	Included in the City's Climate Lens	Energy Staff			×
is maintained and operated to reduce energy use and emissions.	10	Develop a standard for major renovations that fits the City's energy and GHG reduction goals.	Included in the City's Climate Lens	Energy Staff	×		1

Appendix C: Outlined Fleet Focused Objectives

Objective	#	Action	Measure of Success	Personnel	Ξ.	Years 2-5	5-10
	H	Deploy cost-effective idle- reducing technologies, possibly including: LED lights, auxiliary batteries, automatic shut-off devices	Record of technology trial, and its impact on emissions.	Fleet Manager Energy Staff	×	×	×
The City commits to lower fuel demands for all fleet related activities	2	Develop a plan for implementing electric vehicle charging facilities to address near and longer-term plans for electrification of transportation	Report to council on EV charging plans	Planning Energy Staff	×	×	
	ю	Investigate phasing out purchases of gasoline light duty vehicles	Results of investigation included in the yearly council update	Fleet Manager Energy Staff		×	×
	4	When new ice resurfacing machines are purchased, choose electric models	Results of investigation included in the yearly council update				×
The City is constantly evaluating innovative ways of increasing energy efficiency, and reducing GHG emissions.	2	Test out all-electric vehicles in applications where they make sense	Results of investigation included in the yearly council update	Fleet Manager	×	×	×

Objective	#	Action	Measure of Success	Personnel	A	Years 2-5	5-10
New equipment is chosen with a consideration of its energy use, emissions, and life-cycle cost.	9	When purchasing new vehicles and other equipment consider purchasing 'best in class' options, taking into account life cycle costs and carbon intensity as per green procurement policy.	Policy is included in the City's Climate Lens	Fleet Manager Energy Staff	×		×
	7	Develop criteria for right sizing new vehicles	Policy is included in the City's Climate Lens	Fleet Manager Energy Staff	×		
The City has reached its preferred state by preparing a series of targets and milestones updated regularly along the way.	∞	Fleet and facility energy analysis	GHG inventory is updated on a yearly basis.	Energy Staff		×	
City ensure that it monitors and tracks energy use and GHG emissions to be able to measure progress against targets.	6	Ensure that data systems for fleets are capturing relevant data on distance travelled, fuel use, fuel and vehicle type, driver, etc. and that staff have knowledge in how to extract and analyze data	GHG inventory updated, and the implementation of driver training	Fleet Manager Energy Staff	×		
	10	Survey staff compliance with anti-idling	Surveys completed as needed	Energy Staff		×	

5-10		×		×
Years 2-5	×	×	×	
Ţ				
Personnel	directors	Fleet Manager Energy Staff	Fleet Manager Energy Staff	Energy Staff
Measure of Success	Strategy is endorsed by council	GHG inventory is updated to reflect this action	Trend of vehicle replacement is tracked in the five-year review of this plan.	Track internal distance traveled for meetings.
Action	Prepare/update of the Corporate Fleet Strategy addressing changes in needs, technologies and updates or creation of associated city policies, including vehicle maintenance, travelling with loads, duty cycles etc.	Eliminate underutilized or excess vehicles. (Excess availability of vehicles tends to lead to increased use.)	Accelerate replacement of oldest, least-efficient vehicles	Substitute communications technology for transportation, such as virtual meetings or work from home policies (while also encouraging carpools)
#	11	12	13	14
Objective	City has operating policies	and procedures that ensure its energy-using equipment is maintained and operated to reduce energy use and	emissions.	

Appendix D: Outlined Staff Focused Objectives

Objective	#	Action	Measure of Success	Personnel	Ţ	Years	5-10
The City commits to lower GHG output for activities	1	Consider starting a bike sharing program for staff members to get around facilities.	Include viability results in the annual update.	Energy Staff	ı	×	
The City manages its energy in a way that reduces the burden on ratepayers, while maintaining a high level of service for residents, businesses, and a healthy work environment.	7	Provide regular information on energy usage and costs to facility and vehicle operators	Include the annual GHG inventory update in Internal newsletter.	Energy Staff	×		
	33	Develop a plan for communicating about the City's energy reduction programs and initiatives to all staff	Staff training for new and existing staff	Energy Staff	×		
City staff members have the	4	Conduct an assessment of training needs of city staff as well as building operators	Record staff feedback acquired in preliminary training survey.	Energy Staff	×		
training and information they require to effectively and efficiently manage their energy use and emissions within their areas of responsibilities.	Ω	Develop an ongoing energy training and awareness plan for all levels of staff that may include workshops, lunch and learns, building systems training, utility billing training and city energy policy training.	Staff training for new and existing staff	Energy Staff	×	×	×
	9	Staff with energy management and building operations responsibilities attend conferences and trade shows for information sharing	In yearly GRP update – reference which conferences were attended	Energy Staff Facilities Staff	×	×	×

Objective	##	Action	Measure of Surrece	longonod		Years	
					-	2-5	5-10
	1	Develop resources to guide	Existence of a Climate				
	`	facility operators to make better	Lens metric system	Energy Staff	×		
**************************************		(energy) choices.	specific to the City	5			
		Work with operators to identify	Record staff feedback				
	∞	specific steps to achieve facility	acquired in preliminary	Energy Staff	MPAPA (A. A.	×	
		or vehicle type specific targets	training survey.)		:	
		Develop bi-annual training	THE RESERVE OF THE PROPERTY OF				
	-	program on efficient driving,					
		awareness of environmental	37 - 40				
N-CH HI	6	issues, anti-idling policy and	Staff training for new and	HS		×	
		practices, and potential cost	existing staff	Energy Staff		;	
		savings for staff using Corporate					
		vehicles					
		Continued meetings for the		And the second s			
		City's internal ECC, to monitor					
200		progress towards targets, and to	e e				
	10	ensure that targets for	Meeting minutes	Energy Staff	×	×	×
City collaborates with		individual areas are collectively					
others both inside and		meeting overall corporate					
outside the corporation,		targets					
such as technology firms, to		Consider energy and emissions			artio - an-		
enhance knowledge of how	11	impacts when other corporate	Incorporated into the	Energy Ctoff	>	>	>
to use and manage	***************************************	plans and policies are being	City's Climate Lens	Life By Stall	<	<	<
operation systems.		proposed.				***************************************	
				A SECURIT SECURIT SECURIT SECURIT SECURIT SECURIT SECURITION SECUR			
	12	Participate in multi-municipality	- Jo Proceed	į	;	,	
	1	fleet managers, etc.	vecord of group meetings	Energy Staff	×	×	×

Objective	#	Action	Measure of Success	Personnel	Years 1 2-5	rs 5-10
The City monitors initiatives in other municipalities and other organizations that are designed to reduce energy	13	Sponsor a series of lunch and learns on energy related initiatives with special guests from other jurisdictions, organizations and vendors.	Record of group meetings	Energy Staff	×	×
use and emissions and assesses the applicability of these initiates to the City.	14	Identify and adopt industry best practices (e.g. ORFA).	Incorporated into the City's Climate Lens	Energy Staff	×	
	15	Establish corporate standards for service provision and energy-saving equipment (e.g. light switches, ranges of acceptable temperatures).	Incorporated into the City's Climate Lens	Energy Staff	×	
The City is constantly evaluating innovative ways of increasing energy efficiency, using renewable	16	Develop interdepartmental and possibly inter-municipality competitions on reducing energy use.	Communicated in internal newsletter	Energy Staff	×	
energy, and reducing GHG emissions.	17	Monitor changes in technology, costs, performance and availability of alternative lower carbon fuels, including biodiesel, CNG, renewable diesel, and hydrogen for heavy duty vehicles	Include in the annual GGRP update to council	Energy Staff	×	×
New equipment is chosen with a consideration of its energy use, emissions, and life-cycle cost.	18	Investigate establishing a reserve account to reinvest energy savings, possibly funded by an internal carbon shadow price	In yearly GRP update – reference options	Energy Staff	×	

Objective	#	Action	Measure of Success	Personnel	·	Years 2.5	7. C
	19	**Develop a clear and well- publicized process for funding smaller projects from the energy reserve	In yearly GRP update – reference how this was used	Energy Staff	,	×	i ×
	20	Adopt the federal shadow price for carbon for the purposes of decision-making and assessing projects	Incorporated into the City's Climate Lens	Energy Staff	×	×	×
	21	Set annual targets for each sector to meet the overall efficiency targets	Evaluated in the annual GRP update to council	Energy Staff	×	×	×
	22	Consider grading the City on energy use in a yearly review to solidify implementation by developing report card for each sector	Evaluated in the annual GRP update to council	Energy Staff		×	
	23	Ensure operators have tools needed to achieve goals	Record staff feedback acquired in training survey.	Energy Staff	×	×	×
	24	Re-affirm/update targets as required to reflect progress	GRP targets are reassessed after five- years time	Energy Staff	×	×	×
	25	Evaluate the need for additional ECC members to meet the City's energy goals	Staff training for new and existing staff	Energy Staff	×		The state of the s
Council and senior management have knowledge of energy use and emissions from City operations, and ensure sufficient resources are allocated for plan implementation.	26	Develop energy KPIs (key performance indicators) to be integrated into the Business Leadership Team dashboards	Incorporated into the City's Climate Lens	Energy Staff	×	×	×

Objective	#	Action	Measure of Success	Personnel	F	Years 2-5 5-10	5-10
The City leverages its expenditures on energy efficiency, renewables, and emission reduction opportunities by taking advantage of incentives offered by utilities and other levels of government	27	Monitor new sources of funding and incentives related to energy efficiency or GHG reduction initiatives	Discussed at ECC meetings	Energy Staff ECC Members	×	×	×
City ensure that it monitors and tracks energy use and	28	Consider certifying to ISO 50001 Energy Management Systems	Included in the annual GRP update to council	Energy Staff		×	A CONTRACTOR OF THE PERSON OF
GHG emissions to be able to measure progress against targets	29	Confirm protocols for on-going monitoring and valuation of energy saving initiatives	Included in the annual GRP update to council	Energy Staff		×	

Page 1 of 2

Appendix E: Outlined Waste Focused Objectives

Potential Impact	Action Items	Implementation Plan	Department Lead(s)	Year	Years 2-5 5-10
This supports our goal of going paperless, reducing our paper usage where possible.	The printers automatically default to two-sided printing, reducing the number of sheets printed.	To begin implementation at city hall in 2020, and if successful, to look at expanding to other facilities.	L		
This has the potential to reduce our Corporate Waste by diverting items to other waste streams.	Ensuring Proper Bins in City Facilities: As new construction or retrofits occur at City facilities, that provision be made for sufficient facilities for the collection, handling and storage of source separated wastes, specifically for the three streams currently being collected.		Energy Staff Facilities Staff Community Services		
This has the potential to reduce our Corporate Waste by diverting items to other waste streams.	At existing City facilities, ensure that the collection containers for the source separation program be located conveniently and properly sized, with adequate labeling and signage in order to encourage greater participation in diversion programs.	In 2020, new recycling and organics collection containers will be in place in certain public receptacle areas.	Energy Staff Facilities Staff Community Services	×	
This has the potential to reduce our Corporate Waste by diverting the items to other waste streams.	To promote awareness of and encourage participation in the source separation program and ensure its continuing success, information should be provided to those who will use the program in the form of communication through signage,	This will require the proper bins in place first to be launched.	Energy Staff Facilities Staff Community Services		

Potential Impact	Action Items	Implementation Plan	Department Lead(s)	н	Years 2-5	Years 2-5 5-10
	labels, information on the corporate intranet or other reminders and motivational tools.					
To reduce the amount of waste by creating more awareness of how to divert waste.	Conduct waste audits and utilize the information to update the City's GHG inventory for 2021	All completed waste reduction work plans must include all reasonable actions that can be taken to reduce, reuse and recycle waste. These actions must be identified in a step-wise process that follows the 3Rs Hierarchy*	Energy Staff		×	

3Rs Hierarchy*

First – Reduce waste by developing actions that will stop waste from being produced in the first place. Next – Reuse any waste at your establishment or donate to others. Lastly – Recycle any waste materials through a recycling company. Investigate expanding textile recycling bins in public facilities

The New Provincial Policy Statement 2020: what it means for Port Colborne.

Introduction: The revised Provincial Policy Statement was released on February 28, 2020. It takes effect on May 1, 2020. Municipal planning decisions need to be consistent with the revised Policy Statement (PPS). Here is a summary of the major changes. Under each change, we explain the new policies.

Major policy initiatives on employment use that affect Port Colborne and are discussed in a separate section. We close with a discussion of related Provincial initiatives that underscore the importance of the changes to employment use policy.

This report is prepared for information purposes for Council and staff.

Major Changes: Here are the major changes:

- a) Policy 1.1.1 b places emphasis on affordable and a market-based range and mix of residential types. The emphasis on a market based range and mix is repeated in subsequent policy for emphasis. Homelessness is also emphasized as a municipal planning concern under policy in 1.2.1 h. The term also gets references in other policies as well. This is new to the PPS and is a positive and important step in Port Colborne where affordable and secure housing is an issue. Innovation is sought where the range of housing options is concerned and where residential intensification is encouraged. Amended definitions are provided for housing options and residential intensification that provide more clarity as to what the Province expects.
- b) Policy 1.1.1. i emphasizes regional and local municipalities are to prepare for the impacts of a changing climate. A definition of "impacts from a changing climate" is provided. While mitigation, such as reducing reliance on carbon-based fuels isn't mentioned, adaptation is front and centre in several policies. Where infrastructure is concerned, policy 1.2.1 states infrastructure shall be provided that prepares for the impacts of a changing climate. Unfortunately the mitigation work being undertaken on Port Colborne's Greenhouse Gas Emissions Reduction Plan isn't covered by new PPS policy.
- c) The section 3.0, protecting public health and safety emphasizes where risks arising from a changing climate exist, the Province, planning authorities and conservation authorities are to work together. Policy 3.1.3 emphasizes municipalities shall prepare for the impacts of a changing climate that may increase with risks associated with natural hazards. However, the absence of attention to mitigation policy distorts an evidence based approach to climate change. Where the PPS is silent and municipal actions on mitigation are not inconsistent with other PPS policy, municipalities can pursue local initiatives to reduce greenhouse gas emissions.

			The state of the s

k) In policy 3.2.3 planning authorities should support where feasible on site and local reuse of excess soil while protecting human health and the environment.

Major Employment Area Policy Changes: The changes to the employment area policies may be the most profound changes to the Policy Statement. These changes emphasize land use compatibility where the adverse effects associated with air, noise and odour emissions are concerned. Historically these matters were addressed through the application of the Ministry of Environment, Conservation and Park's D Series Land Use Compatibility Guidelines. The Guidelines were drafted by the MECP in the 80's and prior to the Sewell Report on the Planning Act were Provincial policy.

In the early 90s MECP changed their status to that of guidelines. In early versions of the Provincial Policy Statement, the guidelines were used to help implement policy 1.2.6.1 on land use compatibility. That policy stated land use compatibility "should" be sought between industrial and sensitive uses (e.g., residences, schools and such uses). The 2020 version of the Provincial Policy Statement strengthens this requirement substantially with new and stronger language.

Here are the new and amended policies. The amended policies are in *italics* while the new policy is <u>underlined</u>.

- 1.2.6.1 Major facilities and sensitive land use <u>shall</u> be planned and <u>developed to avoid, or if</u> <u>avoidance is not possible, minimize and mitigate any</u> potential adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the <u>long term</u> <u>operational and economic viability</u> of major facilities in accordance with provincial guidelines, standards and procedures.
- 1.2.6.1 Where avoidance is not possible in accordance with policy 1.2.6.1, planning authorities shall protect the long term viability of existing or planned industrial, manufacturing or other uses that are vulnerable to encroachment by ensuring that the planning and development of proposed adjacent land uses are only permitted if the following are demonstrated in accordance with provincial guidelines, standards and procedures:
 - a) There is an identified need for the proposed use;
 - b) Alternative locations for the proposed use have been evaluated and there are no reasonable alternative locations;
 - c) Adverse effects to the proposed sensitive use are minimized and mitigated; and
 - d) Potential impacts to industrial, manufacturing or other ses are minimized and mitigated.

Additional modified and strengthened policy follow in section 1. 3 Employment. These require municipalities to promote economic development and competitiveness by providing a mix of industrial opportunities for a diverse economic base including candidate sites where new industries can be developed e.g., market ready sites. Infrastructure is to be available to support existing and future development.

MECP's D Series Land Use Compatibility Guidelines are outdated and do not easily apply where air and odour emissions are addressed with the air modelling under OR 419 occurs. Noise is addressed by NPC 300 which isn't entirely compatible with the compatibility guidelines. Odour and fugitive emissions are another matter and may not be well addressed by OR 419. While contaminants of concern regulated by OR 419, the application of that regulation with the land use compatibility guidelines isn't well explained.

The potential implications may be profound. Low risk incidents where noise, air and odour occur may become a municipal responsibility using regulatory powers provided for by the Municipal Act. Or a mix of low risk incidents plus odour and fugitive emissions plus some noise emissions resulting from land use incompatibility may become a municipal responsibility.

Potential Future Implications: These changes may converge and leave local municipalities with more exacting planning requirements where land use compatibility policy applies.

This is further complicated by Provincial licensing requirements on aggregate and mineral resources. The land use compatibility guidelines exempt aggregate operations under the Aggregate Resources Act and Vale's operations are licensed under the Mining Act. Where Seaway lands are concerned, Federal activities are exempt from Provincial jurisdiction, but land use compatibility requirements where adjoining sensitive uses along the Welland Canal are concerned, remain. This uneven field together with the application of very sophisticated air and noise modelling techniques, risk analysis and land use design may complicate matters significantly. As matters unfold we will update this report.

			Continue
			Contract

The New Provincial Policy Statement 2020: what it means for Port Colborne.

Introduction: The revised Provincial Policy Statement was released on February 28, 2020. It takes effect on May 1, 2020. Municipal planning decisions need to be consistent with the revised Policy Statement (PPS). Here is a summary of the major changes. Under each change, we explain the new policies.

Major policy initiatives on employment use that affect Port Colborne and are discussed in a separate section. We close with a discussion of related Provincial initiatives that underscore the importance of the changes to employment use policy.

This report is prepared for information purposes for Council and staff.

Major Changes: Here are the major changes:

- a) Policy 1.1.1 b places emphasis on affordable and a market-based range and mix of residential types. The emphasis on a market based range and mix is repeated in subsequent policy for emphasis. Homelessness is also emphasized as a municipal planning concern under policy in 1.2.1 h. The term also gets references in other policies as well. This is new to the PPS and is a positive and important step in Port Colborne where affordable and secure housing is an issue. Innovation is sought where the range of housing options is concerned and where residential intensification is encouraged. Amended definitions are provided for housing options and residential intensification that provide more clarity as to what the Province expects.
- b) Policy 1.1.1. i emphasizes regional and local municipalities are to prepare for the impacts of a changing climate. A definition of "impacts from a changing climate" is provided. While mitigation, such as reducing reliance on carbon-based fuels isn't mentioned, adaptation is front and centre in several policies. Where infrastructure is concerned, policy 1.2.1 states infrastructure shall be provided that prepares for the impacts of a changing climate. Unfortunately the mitigation work being undertaken on Port Colborne's Greenhouse Gas Emissions Reduction Plan isn't covered by new PPS policy.
- c) The section 3.0, protecting public health and safety emphasizes where risks arising from a changing climate exist, the Province, planning authorities and conservation authorities are to work together. Policy 3.1.3 emphasizes municipalities **shall prepare** for the impacts of a changing climate that may increase with risks associated with natural hazards. However, the absence of attention to mitigation policy distorts an evidence based approach to climate change. Where the PPS is silent and municipal actions on mitigation are not inconsistent with other PPS policy, municipalities can pursue local initiatives to reduce greenhouse gas emissions.

k) In policy 3.2.3 planning authorities should support where feasible on site and local reuse of **excess soil** while protecting human health and the environment.

Major Employment Area Policy Changes: The changes to the employment area policies may be the most profound changes to the Policy Statement. These changes emphasize land use compatibility where the adverse effects associated with air, noise and odour emissions are concerned. Historically these matters were addressed through the application of the Ministry of Environment, Conservation and Park's D Series Land Use Compatibility Guidelines. The Guidelines were drafted by the MECP in the 80's and prior to the Sewell Report on the Planning Act were Provincial policy.

In the early 90s MECP changed their status to that of guidelines. In early versions of the Provincial Policy Statement, the guidelines were used to help implement policy 1.2.6.1 on land use compatibility. That policy stated land use compatibility "should" be sought between industrial and sensitive uses (e.g., residences, schools and such uses). The 2020 version of the Provincial Policy Statement strengthens this requirement substantially with new and stronger language.

Here are the new and amended policies. The amended policies are in *italics* while the new policy is <u>underlined</u>.

- 1.2.6.1 Major facilities and sensitive land use <u>shall</u> be planned and <u>developed to avoid, or if</u> avoidance is not possible, minimize and mitigate any potential adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the <u>long term</u> operational and economic viability of major facilities in accordance with provincial guidelines, standards and procedures.
- 1.2.6.1 Where avoidance is not possible in accordance with policy 1.2.6.1, planning authorities shall protect the long term viability of existing or planned industrial, manufacturing or other uses that are vulnerable to encroachment by ensuring that the planning and development of proposed adjacent land uses are only permitted if the following are demonstrated in accordance with provincial guidelines, standards and procedures:
 - a) There is an identified need for the proposed use;
 - b) Alternative locations for the proposed use have been evaluated and there are no reasonable alternative locations;
 - c) Adverse effects to the proposed sensitive use are minimized and mitigated; and
 - d) Potential impacts to industrial, manufacturing or other ses are minimized and mitigated.

Additional modified and strengthened policy follow in section 1. 3 Employment. These require municipalities to promote economic development and competitiveness by providing a mix of industrial opportunities for a diverse economic base including candidate sites where new industries can be developed e.g., market ready sites. Infrastructure is to be available to support existing and future development.

MECP's D Series Land Use Compatibility Guidelines are outdated and do not easily apply where air and odour emissions are addressed with the air modelling under OR 419 occurs. Noise is addressed by NPC 300 which isn't entirely compatible with the compatibility guidelines. Odour and fugitive emissions are another matter and may not be well addressed by OR 419. While contaminants of concern regulated by OR 419, the application of that regulation with the land use compatibility guidelines isn't well explained.

The potential implications may be profound. Low risk incidents where noise, air and odour occur may become a municipal responsibility using regulatory powers provided for by the Municipal Act. Or a mix of low risk incidents plus odour and fugitive emissions plus some noise emissions resulting from land use incompatibility may become a municipal responsibility.

Potential Future Implications: These changes may converge and leave local municipalities with more exacting planning requirements where land use compatibility policy applies.

This is further complicated by Provincial licensing requirements on aggregate and mineral resources. The land use compatibility guidelines exempt aggregate operations under the Aggregate Resources Act and Vale's operations are licensed under the Mining Act. Where Seaway lands are concerned, Federal activities are exempt from Provincial jurisdiction, but land use compatibility requirements where adjoining sensitive uses along the Welland Canal are concerned, remain. This uneven field together with the application of very sophisticated air and noise modelling techniques, risk analysis and land use design may complicate matters significantly. As matters unfold we will update this report.

LAKE ERIE BILL OF RIGHTS

ESTABLISHING A BILL OF RIGHTS FOR LAKE ERIE, WHICH PROHIBITS ACTIVITIES AND PROJECTS THAT WOULD VIOLATE THE BILL OF RIGHTS

We the people of the City of Toledo declare that Lake Erie and the Lake Erie watershed comprise an ecosystem upon which millions of people and countless species depend for health, drinking water and survival. We further declare that this ecosystem, which has suffered for more than a century under continuous assault and ruin due to industrialization, is in imminent danger of irreversible devastation due to continued abuse by people and corporations enabled by reckless government policies, permitting and licensing of activities that unremittingly create cumulative harm, and lack of protective intervention. Continued abuse consisting of direct dumping of industrial wastes, runoff of noxious substances from large scale agricultural practices, including factory hog and chicken farms, combined with the effects of global climate change, constitute an immediate emergency.

We the people of the City of Toledo find that this emergency requires shifting public governance from policies that urge voluntary action, or that merely regulate the amount of harm allowed by law over a given period of time, to adopting laws which prohibit activities that violate fundamental rights which, to date, have gone unprotected by government and suffered the indifference of state-chartered for-profit corporations.

We the people of the City of Toledo find that laws ostensibly enacted to protect us, and to foster our health, prosperity, and fundamental rights do neither; and that the very air, land, and water — on which our lives and happiness depend — are threatened. Thus it has become necessary that we reclaim, reaffirm, and assert our inherent and inalienable rights, and to extend legal rights to our natural environment in order to ensure that the natural world, along with our values, our interests, and our rights, are no longer subordinated to the accumulation of surplus wealth and unaccountable political power.

We the people of the City of Toledo affirm Article 1, Section 1, of the Ohio State Constitution, which states: "All men are, by nature, free and independent, and have certain inalienable rights, among which are those of enjoying and defending life and liberty, acquiring, possessing, and protecting property, and seeking and obtaining happiness and safety."

We the people of the City of Toledo affirm Article 1, Section 2, of the Ohio State Constitution, which states: "All political power is inherent in the people. Government is instituted for their equal protection and benefit, and they have the right to alter, reform, or abolish the same, whenever they may deem it necessary; and no special privileges or immunities shall ever be granted, that may not be altered, revoked, or repealed by the general assembly."

And since all power of governance is inherent in the people, we, the people of the City of Toledo, declare and enact this Lake Erie Bill of Rights, which establishes irrevocable rights for the Lake Erie Ecosystem to exist, flourish and naturally evolve, a right to a healthy

Erie Ecosystem, in or from any jurisdiction, shall be strictly liable for all harms and rights violations resulting from those activities.

(d) The Lake Erie Ecosystem may enforce its rights, and this law's prohibitions, through an action prosecuted either by the City of Toledo or a resident or residents of the City in the Lucas County Court of Common Pleas, General Division. Such court action shall be brought in the name of the Lake Erie Ecosystem as the real party in interest. Damages shall be measured by the cost of restoring the Lake Erie Ecosystem and its constituent parts at least to their status immediately before the commencement of the acts resulting in injury, and shall be paid to the City of Toledo to be used exclusively for the full and complete restoration of the Lake Erie Ecosystem and its constituent parts to that status.

Section 4 - Enforcement - Corporate Powers

- (a) Corporations that violate this law, or that seek to violate this law, shall not be deemed to be "persons" to the extent that such treatment would interfere with the rights or prohibitions enumerated by this law, nor shall they possess any other legal rights, powers, privileges, immunities, or duties that would interfere with the rights or prohibitions enumerated by this law, including the power to assert state or federal preemptive laws in an attempt to overturn this law, or the power to assert that the people of the City of Toledo lack the authority to adopt this law.
- (b) All laws adopted by the legislature of the State of Ohio, and rules adopted by any State agency, shall be the law of the City of Toledo only to the extent that they do not violate the rights or prohibitions of this law.

Section 5 - Effective Date and Existing Permit Holders

This law shall be effective immediately on the date of its enactment, at which point the law shall apply to any and all actions that would violate this law regardless of the date of any applicable local, state, or federal permit.

Section 6 - Severability

The provisions of this law are severable. If any court decides that any section, clause, sentence, part, or provision of this law is illegal, invalid, or unconstitutional, such decision shall not affect, impair, or invalidate any of the remaining sections, clauses, sentences, parts, or provisions of the law. This law would have been enacted without the invalid sections.

Section 7 - Repealer

All inconsistent provisions of prior laws adopted by the City of Toledo are hereby repealed, but only to the extent necessary to remedy the inconsistency.