

DATE: November 9, 2020

REPORT NO: CAO-08-2020

SUBJECT: Recommendation Report – Township of West Lincoln’s Plan to Mitigate Environmental Impacts

CONTACT: Meghan Birbeck, Planner I
Bev Hendry, Chief Administrative Officer

OVERVIEW:

- In February 2019, the Corporation of the Township of West Lincoln was awarded a staff support grant from the Federation of Canadian Municipalities (FCM).
- The grant is intended to help support the salary of a staff member who coordinates the development of a local plan to mitigate environmental impacts, predominantly climate change.
- In order to receive the grant of 80% for the salary of the individual coordinating the development of the plan FCM has several milestones that have to be completed by the Coordinator every four months.
- In July 2019, Council approved a resolution to participate in the Partners for Climate Protection (PCP) program. The program provides resources for municipal governments to address climate change by reducing greenhouse gas (GHG) emissions.
- The PCP program also administers a 5-step framework on how to reduce emissions in a municipal corporation and its associated community.
- FCM’s grant is now in its final four months and in order to meet the last milestone a local Plan is needed to be endorsed by Council.
- The Township’s Plan to Mitigate Environmental Impacts is attached to this report as Schedule ‘A’.
- This report is written to advise Council to endorse the attached Plan, which would allow staff to begin working to implement it.
- Should the attached Plan not be endorsed, the final installment of the support grant will not be provided by FCM and the Township would not be meeting the requirements of the PCP program.

RECOMMENDATION:

1. That, report CAO-08-2020, dated November 9, 2020 regarding the Township of West Lincoln’s “Plan to Mitigate Environmental Impacts,” be received; and,
2. That, the “Plan to Mitigate Environmental Impacts” for 2020-2025 be endorsed by Council; and,
3. That, Council direct Staff to publish, make available to the public and implement the Township’s Plan to Mitigate Environmental Impacts, 2020-2025.

ALIGNMENT TO STRATEGIC PLAN:

Theme #1, #2, #5, and #6

- Strong Transportation Connections
- Support for Business and Employment Opportunities for Residents
- Community Health and Safety
- Efficient, Fiscally Responsible Operations

BACKGROUND:

Climate change has been identified as one of the defining challenges of the 21st century by Natural Resources Canada. Based on scientific evidence, the primary cause of the Earth's changing climate is due to the surge in greenhouse gas (GHG) emissions from human activity. All across Canada, municipal governments are taking action to reduce GHG emissions and mitigate their effect on climate change. The implementation of these local GHG emissions reduction plans encourage municipalities to create tangible changes in their local communities, while together tackling a global concern.

In February 2019, the Township was awarded a staff support grant from the Federation of Canadian Municipalities (FCM). This grant is intended to supplement 80% of the salary for up to 24 months for a full time employee through FCM's Municipalities for Climate Innovation Program. West Lincoln was one of 64 municipalities across Canada, and one of five municipalities in Niagara that had received funding to implement specific municipal initiatives focused on climate change mitigation or adaptation.

The Township of West Lincoln selected the climate change mitigation option, whereby the Township's primary concern would be to work on reducing municipal GHG emissions. As such, part of the Corporation's requirements has been to develop a comprehensive five-year corporate Energy Conservation and Demand Management Plan and to construct a Plan to Mitigate Environmental Impacts (Plan). Prior to the FCM grant, the Corporation had indirectly been considering climate change with many of their supporting municipal documents acknowledging the need to be stewards to the natural environment to create a healthy community for its residents. Such municipal documents that suggest this sentiment include the Corporation's 2018 Official Plan, 2016 Asset Management Plan, and 2019 Strategic Plan.

Council has supported energy-saving initiatives that have reduced West Lincoln's energy consumption, energy costs, and GHG emissions. For example, in the past, they have supported staff in converting municipal streetlights to LED bulbs, which would assist in reducing GHG emissions, energy consumption, and energy costs for the Corporation. Additionally, the Council supported the Township's new community centre to be built in a way that met LEED Silver certification requirements. This ongoing commitment, coupled with the attached Plan, provides optimism that the reduction strategies within the Plan plan will be integrated into the broader Corporation and lead to GHG reduction targets being met.

The Plan is a five-year plan that will help the Township of West Lincoln combat climate change over the long term. While this plan focuses on mitigating climate change it also

considers adaptation when possible. Climate change impacts the quality of life for citizens across the planet. Specifically, the adverse impacts of climate change will affect the economic, social, and environmental well-being of our children and grandchildren's lives.

The Plan will guide the Township of West Lincoln in establishing emissions reduction practices, promoting successes in emission reductions, and integrating these measures into all aspects of the organization. Doing so will save money in municipal operations, lower energy costs for residents and businesses and increase investment in the local economy. Therefore, the City's climate change action items ultimately contribute to the long-term environmental, economic, and social well-being of the residents, businesses and visitors of the Township. The Plan will evolve as the understanding of the Township's energy demands and emissions reduction opportunities develop.

CURRENT SITUATION:

1. Partners for Climate Protection Program

In July 2019, Council further demonstrated West Lincoln's commitment to taking action on climate change and approved a resolution put forth by the Climate Change and Sustainability Coordinator to join the Partners for Climate Protection (PCP) program. The PCP program is a collaborative effort of FCM and Local Governments for Sustainability Canada, and consists of a national network of over 350 municipal governments working to address climate change by reducing GHG emissions. The PCP program administers a 5-step Milestone Framework to take action on climate change by reducing emissions in a municipal corporation and its associated community. By joining the PCP program, the Corporation gained access to the PCPTool, which allowed the Climate Change and Sustainability Coordinator access to a web-based resource that helps quantify, monitor, and manage GHG emissions. The PCPTool along with the PCP's document on Canadian Supplement to the International Emissions Analysis Protocol were used in the Plan to create a GHG emission inventory. In October 2019, the Township successfully achieved Milestone 1 (creating a GHG emission inventory) of the PCP program and through Council's endorsement of this Plan, has achieved Milestones 2 (setting emissions reduction targets) and 3 (developing a local action plan).

2. Methodology

To prepare the action items provided in the Plan the Township's Climate Change and Sustainability Coordinator analysed key external documentation identifying the use of assets and services that emit GHGs. In addition, the coordinator chaired the Green Teams meetings and published several Township and Community surveys. Through the utilization of the identified methods, it is hoped that a 'Made-in-West Lincoln' approach was achieved and represented in the action items of the Plan. Action items are intended to be practical and applicable to the Township when implemented on a departmental level.

The Plan developed a 2019 GHG emission inventory for both the community and the corporation. The following sector and subsectors were analysed for the community inventory: stationary energy (residential, commercial, and industrial buildings), transportation (on-road commuters), and waste (curb side solid waste). While the

following sectors were analysed for the corporate inventory: facilities, fleet, streetlights, and solid waste. Emissions were analysed at a sector level to understand which sectors are producing emissions at the highest rates. Supplementary to the sector data, an analysis of the sources of emissions has also been done. The sources that were analysed for both the community and corporation's emissions inventories were: natural gas, electricity, diesel, gasoline, and methane.

3. GHG Emissions

West Lincoln emits approximately 102,978 tCO₂e, with corporate emissions accounting for less than 1% (874 tCO₂e) of West Lincoln's total GHG emissions, while the community is responsible for emitting 99% of the Township's GHG emissions (102,974 tCO₂e).

In 2019, Transportation is the largest emitter of GHGs in the community's inventory, accounting for 58% (59,734 tCO₂e) of West Lincoln's total community emissions. The personal vehicle, in large part, remains the dominant method of choice for travel in our area, which can be attributed to the largely rural setting of the community. The residential sector was the second largest emitter of community emissions in 2019. GHG emissions from the energy used by the residential sector was approximately 17,729 tCO₂e.

The corporate data inventoried focuses exclusively on GHG emissions that are directly controlled by the Township. It does not include emissions that are a consequence of activities from sources not controlled or owned by the Township (including third-party contractors, construction activities, or businesses) or those that occur outside West Lincoln's geographical boundary. In 2019, the Corporation's GHG emissions predominately stem from facilities (54%) and fleet (44%). Facilities emissions are generated from the heating and powering facilities with natural gas (49%) and electricity (5%), while fleet emissions are generated from diesel (34%) and gasoline (10%) consumption.

4. GHG Emissions Forecast

In 2019, 102,104 tCO₂e were emitted through community day-to-day activities. Based upon the projected increase of the Township's population as forecasted in the Niagara Region's 2016 Municipal Comprehensive Review, the Township's community GHG emission forecast is projected per a 2.98% annual population growth rate to 2031. As a result of the projected increase and considering business-as-usual (BAU) operations, GHG emissions are expected to grow to 145,236 tCO₂e (42.2%) by 2031, if no significant action is taken. This increase over 2019 GHG emission levels would allow an additional 43,132 tCO₂e to be emitted by the community by 2031.

In 2019, the Township's corporate GHG emissions were 874 tCO₂e as a result of day-to-day municipal operations. Based upon the same projected increase of the Township's population the corporate GHG emissions are expected to grow to 1213 tCO₂e (38.8%) by 2031. As GHG emissions are directly correlated to energy costs, the expectation is that municipal expenses would also increase relative to this increase of GHGs.

5. GHG Emissions Reduction Target

The community of West Lincoln is aiming to achieve a 5% reduction in its GHG emissions from the 2019 baseline by 2031. This target represents an absolute emission reduction of 5,106 less tCO₂e relative to the 2019 baseline, and a 2031 target of 96,998 tCO₂e.

The Corporation is aiming to achieve an internal GHG emissions reduction target of 20% below 2019 levels by 2031. This target represents an absolute emissions reduction of 192 tCO₂e relative to baseline year, having the Township strive to emit no more than 682 total tCO₂e from corporate activities in 2031. Under the Paris Agreement, Canada has committed to reducing GHG emissions by 30% below 2005 levels by 2030. The 20% target to be achieved by the Township remains consistent with the selected Federal target.

Based on West Lincoln's utility bills the commodity price for energy consumption (natural gas and electricity) in 2019 was approximately \$256,829 for the Township owned buildings. Achieving a 20% GHG reduction target would result in a projected cost-savings of up-to approximately \$51,365 from the facilities alone over the next ten years, or \$5,136 per year. This is a conservative estimate, which considers average annual costs for buildings and facilities only, with the opportunity for greater cost savings highly likely if the targets are achieved and GHG emissions are reduced across each of the 5 sectors.

Of West Lincoln's eight (8) owned facilities, five have been constantly requiring more energy than the average provincial facility in their operational classification. These facilities are the administrative building, public works operations centre, Township arena, Wellandport Library, and Fire station #2. However, it is important to note that the Township's arena was demolished in the summer of 2019.

The objectives and action items for the Plan have been designed to provide direction on how to achieve the Plans reduction Target. Recognizing potential resource constraints, consideration has been given to the need for the Township to build and enhance internal capacity in order to develop the necessary resources to implement the Plan. As the Township progresses in its emissions reduction and energy practices, it is expected that the objectives and action items will evolve as well.

In order to better categorize and manage the objectives and action items of the Township, focus areas have been generated. These focus areas include:

- Staff
- Facilities
- Transportation
- Waste
- Agriculture

The objectives and action items, detailed in the "Next Steps" section of the attached plan, contain information regarding the focus area, ease of implementation, outputs, personnel required, CO₂ savings, estimated costs, as well as timelines.

Emissions data will be compiled and analysed annually with a status report presented to

Council in conjunction with the Energy Conservation and Demand Management Plan. At least 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.

FINANCIAL IMPLICATIONS:

1. Do nothing

The impacts of doing nothing on the local level means that the City's GHG emissions output would continually increase, which will contribute to severe changes to climate in the long term. By not taking action, the City misses the opportunity to save money in municipal operations, lower energy costs for residents and businesses and increase investment in the local economy.

2. Other options

Council may choose to review the attached Plan to Mitigate Environmental Impacts (2020) to provide feedback regarding the applicability of goals and objectives currently outlined, and/or to provide suggestions for further inclusion, in order for Staff to finalize the Plan.

Council may choose to approve the current plan and provide confirmation of approval, or ask for revisions to be made.

INTER-DEPARTMENTAL COMMENTS:

The Corporation's Green Team led this report to completion by providing their valuable insights throughout the entire development of the attached Plan. The Green Team serves as an agency (1) to provide an opportunity for the flow of strategic advice and expertise between staff and Council for the continued implementation of the Plan and (2) to facilitate staff discussion on how particular environmental, economic, and social issues impact municipal operations as well as the broader community.

The Corporation's Green Team consists of staff across all departments. Current and past members of the Green Team include:

- Bev Hendry, Chief Administrative Officer
- Bob Denison, Manager of Parks, Recreation and Facilities
- Else Khoury, Former Deputy Clerk
 - Replaced by Jessica Dyson, Deputy Clerk
- Jeni Fisher, Planning Secretary
- Jennifer Bernard, Engineering Services Coordinator
- Lauren Mous, Library Technical Services Supervisor, West Lincoln Public Library
- Madyson Etzl, Planner II
- Melinda Dent, Former Coordinator of Revenue Services
 - Replaced by Ognjen Coric, GIS and Asset Management Coordinator
- Tray Benish, Public Works Supervisor
- Vanessa Holm, Chief Executive Officer, West Lincoln Public Library
- Wendy Beaty, Coordinator of Recreation Services

All of the Green Team's comments have been implemented into this report and the attached Plan.

CONCLUSION:

Staff recommends that Township Council endorses the Plan to Mitigate Environmental Impacts so that staff can send the Plan to the FCM and meet the requirements of their Municipalities for Climate Innovation Program, which helped fund the Plan. The endorsement of the Plan to Mitigate Environmental Impacts will also enable the Township to complete Milestones 2 (setting emissions reduction targets) and 3 (develop a local action plan) of the PCP program.

ATTACHMENTS:

1. Schedule 'A': The Township of West Lincoln's Plan to Mitigate Environmental Impacts.

Prepared & Submitted by:



Meghan Birbeck
Planner I

Approved by:



Bev Hendry
CAO