

# Municipality of North Perth

## 2018 Carbon Footprint Reduction and Compensation Strategy Report

### Purpose:

1. To outline the progress that the Municipality of North Perth has made in reducing/compensating our carbon footprint in 2017.
2. To outline the actions that the Municipality of North Perth will be taking in 2018 to reduce and compensate for our carbon footprint.

### 2017 Progress

#### A. Carbon Reduction

In 2017, fuel and electricity quantities were monitored in all aspects of the Municipality's operations. The results are listed and compared to 2016 figures in the below chart:

#### 2016-2017 North Perth Carbon Comparison

Product	2017		2016		Year Difference
	Quantity	kgCO2	Quantity	kgCO2	kgCO2
Electricity	5,180,400.71 kWh	212,396.43	4,766,066.17 kWh	185,401.15	+26,995.28
Propane	27,425.50 L	41,412.51	15,454.10 L	23,335.69	+18,076.82
Natural Gas	187,616.71 m <sup>3</sup>	352,531.80	200,337.35 m <sup>3</sup>	376,433.88	-23,902.08
Furnace Oil	22,970.00 L	65,593.25	20,781.40 L	56,629.32	+8,963.93
Gasoline	33,601.06 L	76,912.83	35,484.24 L	81,223.43	-4,310.60
Diesel	153,181.45 L	407,922.20	163,939.85 L	436,571.82	-28,649.62
<b>Totals</b>		<b>1,156,769.02</b>		<b>1,159,595.29</b>	<b>-2,826.27</b>

#### Comments:

- Emissions reduction of 2,826.27 kgCO2 in 2017
- Electricity usage increased in 2017 – primarily due to running two recreation facilities at one time (Listowel Memorial Arena and Steve Kerr Memorial Complex) and owning the former Listowel Central Public School (now sold)
- Applied to the Municipal GHG Challenge Fund for solar panel system at Wastewater Treatment Plant but application was not successful.

#### B. Carbon Compensation

North Perth's Carbon Compensation Strategy is to plant three trees per tonne of CO2 emitted (Base Year 2014).

	kgCO2	tCO2	Trees per Tonne	Total Trees to be Planted
<b>Total Emissions for 2014</b>	1,316,433.18	1,316.43	3	3,949
<b>Total Emissions for 2015</b>	1,173,282.36	1,173.28	3	3,520
<b>Total Emissions for 2016</b>	1,159,595.29	1,159.60	3	3,479
<b>Total Emissions for 2017</b>	1,156,769.02	1,153.77	3	3,461

Comments:

- Tree planting on vacant property in Gowanstown

**2018 Projects/Activities**

**A. Carbon Reduction**

- Building Department will be purchasing a hybrid vehicle to replace their current inspection vehicle.
- A 250 kW solar panel system will be installed on the roof of the Steve Kerr Memorial Complex. The system will be on a Net Metering Program, which will allow the facility to generate power back onto the grid during the high production period (summer) and use the applied credits during lower production periods (winter). Estimated that the system will provide 66% of required energy for the building.
- Investigate implementing an Employee Engagement & Energy Awareness Program (EEEAP) in an effort to reduce electricity usage. LAS Train-the-Trainer workshop attended in March 2018.
- Development of a Community Energy Plan/GHG Reduction Plan in partnership with Perth County and other member municipalities.

**B. Carbon Compensation *Sequestration***

- Planned plantings for 2018 include:
  - SMKC grounds
  - Three municipal drains
  - Boulevard plantings
  - Naturalization/tree planting for Haverkamp area
- Continue to naturalize vacant green spaces in the municipality – will be developing a list of vacant properties that could be planted.
- Increase reporting on trees being planted for more effective tracking.

**Carbon Footprint Reduction Target**

Original target was to reduce our carbon footprint by 10 percent (131.6 tonnes) by 2025. A 10-year average will be used since fuel consumption is weather based. Based on the below chart, North Perth's carbon footprint has reduced by 162.66 tonnes since 2014.

	kgCO2	tCO2	Difference tCO2
<b>Total Emissions for 2014</b>	1,316,433.18	1,316.43	
<b>Total Emissions for 2015</b>	1,173,282.36	1,173.28	-143.15
<b>Total Emissions for 2016</b>	1,159,595.29	1,159.60	-13.68
<b>Total Emissions for 2017</b>	1,156,769.02	1,153.77	-5.83
<b>Total Reduction in tCO2</b>			-162.66

As the original target of reducing North Perth's carbon footprint by 10 percent by 2025 has been met, our new target as of 2018 is to reduce our carbon footprint by 25% by 2025.

**Goals Moving Forward**

1. Increase reporting on trees being planted for more effective and comprehensive tracking.
2. Continue to naturalize vacant green spaces in the municipality.
3. Reduce North Perth's carbon footprint by 25% by 2025 (Base Year 2014).