

# Energy Conservation and Demand Management Plan 2019 Update

---

Municipality of Trent Lakes



Approved by Council: May 21, 2019  
Resolution Number: R2019-336

## Executive Summary

On June 11, 2014 the Municipality of Trent Lakes (Municipality) adopted an Energy Conservation and Demand Management Plan in compliance with Ontario Regulation 397/11 – *Energy Conservation and Demand Management Plans* (O. Reg. 397/11). The regulation also required municipalities and other public sector groups to report annually on energy use and greenhouse gas (GHG) emissions for buildings and facilities in which the agency conducts its operations, that are heated or cooled or are related to the treatment or pumping of water or sewage. The Municipality began this reporting in 2013 for the year 2011 and has continued to do so annually.

O. Reg. 397/11 was replaced with Ontario Regulation 507/18 – *Broader Public Sector: Energy Reporting and Conservation and Demand Management Plans* (O. Reg. 507/18) on January 1, 2019. The new regulation requires the Municipality to develop and publish a five-year update to the Municipality's Energy Plan by July 1, 2019.

The Municipality of Trent Lakes is committed to energy management as a key component of its operations. It understands the social, environmental and financial implications of energy management and is striving to deliver improvements in a responsible way. Through proactive monitoring of energy usage and forward-thinking facility renovations and building service equipment upgrades, the Municipality is committed to managing and reducing energy consumption across its facilities and operations.

As part of this commitment, the Municipality updated its Asset Management Plan in 2017 to include several items related to energy consumption, integrating energy management as an important factor of its operations. Furthermore, in 2014, the Municipality joined with the rest of the Greater Peterborough Area's member communities to develop a Climate Change Action Plan (CCAP) aimed at reducing GHG emissions.

Since 2014, the Municipality has completed many energy conservation measures, both large and small. Small actions have included removing rarely-used, high-energy appliances, replacing light fixtures with LED alternatives, and installing programmable, remote-access thermostats. Large projects included replacing inefficient furnaces and HVAC systems with high-efficiency alternatives and decommissioning the old Oak Shores Firehall 4 and replacing it with a new Nogies Creek Firehall 4 that was built to LEED standards. The Municipality has also adopted several operational strategies to conserve energy including a regular service schedule for all HVAC systems to ensure maximum efficiency, fostering a staff culture of energy reduction, and monitoring grant and funding opportunities for energy conservation projects.

Going forward, the Municipality will utilize the following five strategies to continue to progress towards its energy conservation and GHG emissions reduction objectives:

1. Institutionalize energy efficiency and low carbon thinking into the organization;
2. Enhance operational efficiency of existing buildings;
3. Build municipal facilities to ensure high environmental performance;
4. Improve environmental performance of existing municipal facilities; and,
5. Utilize renewable energy sources.

The Municipality's commitment to energy conservation and reducing GHG emissions has allowed the Municipality to hold its total gross GHG emissions at a consistent level, despite a growth in the Municipality's building inventory. However, many opportunities for further energy conservation remain. Through proactive monitoring of energy consumption and forward-thinking facility renovations and building service equipment upgrades, the Municipality is striving to manage its energy usage in a responsible way.

# Table of Contents

- Executive Summary ..... i
- List of Tables.....iv
- List of Figures..... v
- 1.0 Introduction ..... 1
  - 1.1 Background..... 1
  - 1.2 Purpose and Scope ..... 2
  - 1.3 Data Assessment and Compliance Reporting Methodology ..... 3
- 2.0 Commitment ..... 5
  - 2.1 Goals and Objectives ..... 5
- 3.0 Energy Conservation Actions ..... 7
  - 3.1 Community Centres ..... 7
  - 3.2 Firehalls ..... 8
  - 3.3 Library – Buckhorn Branch..... 8
  - 3.4 Municipal Office and Council Chambers ..... 8
  - 3.5 Public Works Depots..... 9
  - 3.6 Operational Strategies ..... 9
- 4.0 Results and Analysis ..... 10
  - 4.1 Total Gross Greenhouse Gas Emissions ..... 10
  - 4.2 Community Centres ..... 12
  - 4.3 Firehalls ..... 13
  - 4.4 Library – Buckhorn Branch..... 15
  - 4.5 Municipal Office and Council Chambers ..... 17
  - 4.6 Public Works Depots..... 18
- 5.0 Planned and Proposed Future Actions..... 20
  - 5.1 Strategic Facilities Master Plan ..... 20
  - 5.2 Asset Management ..... 20
  - 5.3 Additional Strategies ..... 20
    - Strategy 1: Institutionalize energy efficiency and low carbon thinking into the organization ..... 21
    - Strategy 2: Enhance operational efficiency of existing buildings ..... 21
    - Strategy 3: Build municipal facilities to ensure high environmental performance ... 22
    - Strategy 4: Improve environmental performance of existing municipal facilities ..... 22
    - Strategy 5: Utilize renewable energy sources..... 23
- 6.0 Conclusion ..... 24
- Appendix A: Energy Consumption and Greenhouse Gas Emissions Templates for 2011 to 2017 ..... 25

## List of Tables

Table 1: Annual Compliance Reporting Requirements.....	2
Table 2: Facilities Included on Energy Consumption and GHG Emissions Report .....	4
Table 3: Energy Conservation and Demand Management Goals and Objectives.....	6
Table 4: Facility Total Floor Area Comparison .....	11

**List of Figures**

Figure 1: Total Gross GHG Emissions ..... 11  
Figure 2: Community Centres Energy Intensity ..... 12  
Figure 3: Community Centres GHG Intensity ..... 13  
Figure 4: Firehalls Energy Intensity ..... 14  
Figure 5: Firehalls GHG Intensity ..... 15  
Figure 6: Buckhorn Library Energy Intensity ..... 16  
Figure 7: Buckhorn Library GHG Intensity ..... 16  
Figure 8: Municipal Office/Council Chambers Energy Intensity ..... 17  
Figure 9: Municipal Office/Council Chambers GHG Intensity ..... 17  
Figure 10: Public Works Depots Energy Intensity ..... 18  
Figure 11: Public Works Depots GHG Intensity ..... 19

## **1.0 Introduction**

### **1.1 Background**

On January 1, 2012, Ontario Regulation 397/11 – *Energy Conservation and Demand Management Plans* (O. Reg. 397/11) came in to force. The regulation required municipalities, municipal service boards and other public sector groups (e.g. schools, hospitals, etc.) to report annually on energy use and greenhouse gas (GHG) emissions for buildings and facilities in which the agency conducts its operations, that are heated or cooled or are related to the treatment or pumping of water or sewage. In addition, public agencies were required to develop five-year energy conservation and demand management plans and publish them online by July 1, 2014.

In 2013, the Municipality of Trent Lakes (Municipality) reported its energy usage for the year 2011 and has continued this reporting annually in compliance with O. Reg. 397/11. The Municipality also adopted an Energy Conservation and Demand Management Plan (Energy Plan) on June 11, 2014.

A five-year reporting update to the Municipality's Energy Plan is required to be published by July 1, 2019 in accordance with Ontario Regulation 507/18 – *Broader Public Sector: Energy Reporting and Conservation and Demand Management Plans* (O. Reg. 507/18) which replaced O. Reg. 397/11 on January 1, 2019.

Table 1 outlines these annual compliance reporting requirements.

<b>Compliance Item</b>	<b>Due Date</b>	<b>Status</b>
Energy Consumption and GHG Emissions Template for Year 2011	July 1, 2013	Complete
Energy Consumption and GHG Emissions Template for Year 2012	July 1, 2014	Complete
Energy Conservation and Demand Management Plan (Initial)	July 1, 2014	Complete
Energy Consumption and GHG Emissions Template for Year 2013	July 1, 2015	Complete
Energy Consumption and GHG Emissions Template for Year 2014	July 1, 2016	Complete
Energy Consumption and GHG Emissions Template for Year 2015	July 1, 2017	Complete
Energy Consumption and GHG Emissions Template for Year 2016	July 1, 2018	Complete
Energy Consumption and GHG Emissions Template for Year 2017	July 1, 2019	Complete
Energy Conservation and Demand Management Plan (Five-Year Update)	July 1, 2019 and by every fifth anniversary thereafter	Ongoing

## 1.2 Purpose and Scope

The requirements for the five-year update to the Energy Conservation and Demand Management Plan are generally consistent with those of the original. However, there is an additional five-year review element. The Energy Plan includes:

- Energy-related information relevant to the Municipality, including other energy-related plans, strategies, goals and objectives for managing its energy needs and associated targets.
- Information about any/all renewable energy generating facilities owned by the Municipality, and energy generation summaries for each facility and the Municipality overall.
- Information about the Municipality’s consideration of utilizing ground source energy, solar energy, or heat pump technologies (thermal, air, water, etc.) in current and future measures to conserve energy associated with designated facilities.

More specifically, the updated Energy Plan is to include the following components:

- A summary of annual energy consumption and associated GHG emissions for relevant buildings and facilities.



- A summary of past, current and proposed measures to which the Municipality has committed to conserve and reduce energy consumption.
- An updated assessment and forecast of energy demand reductions related to current and future conservation measures.
- Details of any proposed changes to be made to assist the municipality in reaching its energy conservation targets.

### **1.3 Data Assessment and Compliance Reporting Methodology**

The Municipality currently reports the energy consumption and GHG emissions annually for the 13 facilities listed in Table 2. The Municipality utilizes the Energy Planning Tool (EPT) provided by Local Authority Services (LAS) to track the consumption of electricity, propane and heating oil for each of these facilities. As required by the regulation, the propane and heating oil consumption is converted into equivalent kiloWatt hours (ekWh). The regulation also requires the following data:

- GHG emission in kg CO<sub>2</sub>e/yr – GHG emission in kilograms of equivalent carbon dioxide per year.
- Energy Intensity in ekWh/gsf – Equivalent kiloWatt hours per gross square footage of building.

This data is entered into the “Energy Consumption and Greenhouse Gas Emissions Template” as prescribed by the Ministry of the Environment, Northern Development and Mines. These reports are included in Appendix A for the years 2011 to 2017.

<b>Table 2: Facilities Included on Energy Consumption and GHG Emissions Report</b>		
<b>Type of Facility</b>	<b>Facility</b>	<b>Additional Notes</b>
Community Centre	Cavendish Hall/Library	
Community Centre	Deer Bay Hall	Assumed responsibility for payment of utility bills. Began tracking March 9, 2017.
Community Centre	Galway Hall	
Community Centre	Lakehurst Hall	
Firehall	Buckhorn Firehall 1	
Firehall	Cavendish Firehall 2	
Firehall	Galway Firehall 3	
Firehall	Oak Shores Firehall 4	Facility decommissioned. Stopped tracking May 6, 2016.
Firehall	Nogies Creek Firehall 4	New facility. Began tracking December 9, 2015.
Library	Buckhorn Library	
Municipal Centre	Municipal Office and Council Chambers	
Public Works Depot	49 Depot	
Public Works Depot	Buckhorn Depot	
Public Works Depot	Galway Depot	

## **2.0 Commitment**

The Municipality of Trent Lakes is committed to energy management as a key component of its operations. It understands the social, environmental and financial implications of energy management and is striving to deliver improvements in a responsible way. Through proactive monitoring of energy usage and forward-thinking facility renovations and building service equipment upgrades, the Municipality is committed to managing and reducing energy consumption across its facilities and operations.

As part of this commitment, the Municipality joined with the rest of the Greater Peterborough Area's member communities in 2014 to develop a Climate Change Action Plan (CCAP) aimed at reducing GHG emissions. A specific chapter is dedicated to each community that outlines their individual action plan and emissions reduction targets and overarching goal to:

- Reduce greenhouse gas emissions;
- Reduce the use of fossil fuels;
- Lower energy consumption; and,
- Adapt to changing climate.

The Municipality adopted the Greater Peterborough Area Climate Change Action Plan on October 18, 2016.

On June 20, 2017, Council approved an update to the Municipality's Asset Management Plan (AMP). The update includes several items related to energy consumption, further integrating the Municipality's commitment to energy management as a key component of its operations.

### **2.1 Goals and Objectives**

The Municipality's 2014 Energy Conservation and Demand Management Plan identified six goals and six objectives for the Municipality. Progress has been made on five of these six goals and objectives. Integrating alternative and renewable energy sources in the Municipality's facilities has not yet been feasible. This goal remains an opportunity for future energy conservation measures.

These goals and objectives are presented in Table 3.

**Table 3: Energy Conservation and Demand Management Goals and Objectives**

	<b>Goals</b>	<b>Objectives</b>	<b>Status</b>
1	Reduce energy consumption and GHG emissions in the Municipality owned and operated facilities.	Set up an energy baseline, using the average energy consumption over a three-year period, with the aim of reducing energy consumption.	Ongoing
2	Promote employee and community energy conservation when using the Municipality owned and operated facilities.	Provide training and guidance to Municipal staff and facility end users to conserve energy, explaining the benefits both financially and environmentally to the community.	Ongoing
3	Monitor, measure and manage consumption in the Municipality owned and operated facilities.	You need to measure to manage. Appoint a staff member to monitor and report on a monthly basis the energy usage across the Municipality, compared with the baseline and previous year.	Ongoing
4	Explore the usage of alternative and renewable energy.	Carry out studies on the feasibility of installing alternative and renewable energy in the Municipality owned and operated facilities and rolling out pilot schemes on the outcome of the studies.	
5	Promote energy efficiency in Municipality owned and operated facilities.	Municipality Senior Management lead by example in their approach to energy conservation and management and purchasing.	Ongoing
6	Secure funding to implement energy efficiency savings.	Prior to budgeting an implementing an energy conservation measure, check and secure funding available for a Municipality on local, provincial and federal levels.	Ongoing

## 3.0 Energy Conservation Actions

The following section details actions that the Municipality has completed to conserve energy and reduce GHG emissions.

### 3.1 Community Centres

#### Cavendish Hall/Library

- 2013 – new propane high-efficiency furnace with new plenum adaptations and ductwork changes
- 2014 – replaced leaking pressure tank with new tank and new brass fittings
- 2017 – installed new electrical system
- 2018 – installed occupancy-sensor light switches in washrooms, hall and kitchen
  - installed new windows
  - completed HVAC project which included:
    - new high-efficiency furnace
    - new energy recovery ventilation (ERV), balancing and refrigeration systems
    - new smart, remote-access thermostats

#### Deer Bay Hall

- 2018 – installed new furnace motor

#### Galway Hall

- 2011 – completed work that included:
  - new washroom with new plumbing and electrical wiring
  - new vinyl siding, soffit and fascia
  - re-insulated ceiling and installed new steel roof
  - new LED lights outside the facility
- 2016 – replaced failing electric water heater with propane on-demand water heater
- 2017 – replaced exterior lighting with LED fixtures
- 2018 – installed new windows
  - completed HVAC project which included:
    - new high-efficiency furnace
    - new energy recovery ventilation (ERV), balancing and refrigeration systems
    - new smart, remote-access thermostats

#### Lakehurst Hall

- 2011 – completed work that included:
  - new foundation work, exterior walls, insulation, siding, soffits, eavestroughs, roof and doors
  - new electrical and mechanical systems
  - new washrooms and kitchen with all new energy-saving appliances

- 2014 – replaced leaking pressure tank with new tank and new brass fittings
- 2017 – replaced failing electric water heater with propane on-demand water heater

### **3.2 Firehalls**

#### **Buckhorn Firehall 1**

- 2011 – installed a new digital heat only thermostat
  - changed the grill on the warm air plenum to better distribute air flow
- 2015 – replaced weather stripping on all exterior doors

#### **Cavendish Firehall 2**

- 2012 – completed work that included strapping, insulation, vinyl siding, new eaves, roof, soffit and fascia.
- 2015 – replaced weather stripping on all exterior doors

#### **Galway Firehall 3**

- 2011 – completed work that included strapping, insulation, vinyl siding replacement, new eaves, soffit and fascia.
- 2014 – new high-efficiency furnace
- 2015 – replaced weather stripping on all exterior doors
- 2018 – installed new pressure tank and pump and removed old supply

#### **Oak Shores Firehall 4**

- 2015 – replaced weather stripping on all exterior doors
- 2016 – facility decommissioned and replaced

#### **Nogies Creek Firehall 4**

- 2016 – completed construction of new facility built to Leadership in Energy and Environmental Design (LEED) standards.

### **3.3 Library – Buckhorn Branch**

- 2014 – installed new high-efficiency furnace
  - installed new sink faucet
  - installed new digitally metered water softener
- 2017 – replaced fluorescents (T8 and pot lights) with LED equivalents. All T8 bulbs are now LED.
- 2018 – installed new windows
  - installed new, smart, remote-access thermostat

### **3.4 Municipal Office and Council Chambers**

- 2013 – installed three low-flow toilets

- 2015 – removed old high-energy refrigerator that was rarely used
- 2016 – installed new LED lighting in entrance and converted pot lights in Council Chambers to LED
  - replaced exterior lighting with LED fixtures
  - installed new programmable thermostats
  - re-caulked windows
  - replaced air conditioning unit with a more efficient unit
- 2017 – installed new metal roof and updated insulation
  - replaced all fluorescents (T8 and pot lights) with LED equivalents. All bulbs are now LED.
- 2018 – installed occupancy-sensor light switches in washrooms, equipment room, kitchen and furnace room
  - installed new, smart, remote-access thermostats

### **3.5 Public Works Depots**

#### **49 Depot**

- 2014 – replaced metal siding on north and east walls to eliminate drafts
- 2016 – removed old lighting and replaced with LED lights

#### **Buckhorn Depot**

- 2014 – removed all plumbing and water heater from old dog kennel as building no longer in use
- 2016 – removed old lighting and replaced with LED lights

#### **Galway Depot**

- 2014 – installed new high-efficiency furnace
- 2016 – removed old lighting and replaced with LED lights
- 2018 – installed new pressure tank and pump and removed old supply

### **3.6 Operational Strategies**

In addition to the completed actions outlined above, the Municipality has established several operational strategies to conserve energy which include:

- Transferring all unspent budget funds for electricity and fuel to reserves to be used for future energy conservation initiatives
- Setting a regular service schedule for all municipal furnaces and air conditioning units to ensure maximum efficiency
- Providing training to all employees and facility end users on energy-saving practices and fostering a staff culture of conservation
- Monitoring grant and funding opportunities for energy conservation projects

## **4.0 Results and Analysis**

The following section includes an analysis of the Municipality's total gross GHG emissions for all the facilities on which the Municipality reports.

Energy consumption and GHG emissions data is also presented for each facility. To allow for comparison between facilities of varying sizes, energy usage and GHG emissions are presented as "Energy Intensity" and "GHG Intensity" by dividing the gross values by the total floor area for each facility.

Complete data can be found on the Energy Consumption and Greenhouse Gas Emissions Templates for 2011 through 2017 in Appendix A.

### **4.1 Total Gross Greenhouse Gas Emissions**

The Municipality of Trent Lakes' total gross GHG emissions have remained at a consistent level between 2011 and 2017, despite a growth in the Municipality's building inventory.

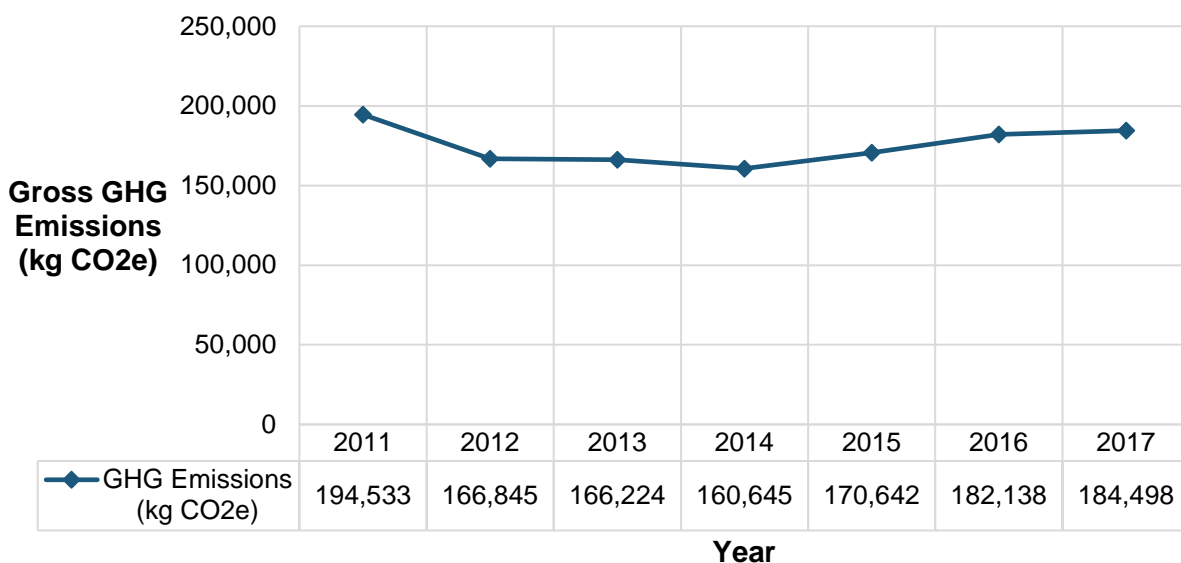
Table 4 illustrates the change in total floor area of the Municipality's building inventory from 2011 (base year) to 2017. Figure 1 illustrates the total gross GHG emissions per year for all facilities on which the Municipality reports.



**Table 4: Facility Total Floor Area Comparison**

Type of Facility	Facility	Floor Area (2011)	Floor Area (2017)
Community Centre	Cavendish Hall/Library	260 m <sup>2</sup> (2,799 ft <sup>2</sup> )	260 m <sup>2</sup> (2,799 ft <sup>2</sup> )
<b>Community Centre</b>	<b>Deer Bay Hall</b>	<b>Began tracking in 2017</b>	<b>100 m<sup>2</sup> (1,076 ft<sup>2</sup>)</b>
Community Centre	Galway Hall	502 m <sup>2</sup> (5,403 ft <sup>2</sup> )	502 m <sup>2</sup> (5,403 ft <sup>2</sup> )
Community Centre	Lakehurst Hall	330 m <sup>2</sup> (3,552 ft <sup>2</sup> )	330 m <sup>2</sup> (3,552 ft <sup>2</sup> )
Firehall	Buckhorn Firehall 1	267 m <sup>2</sup> (2,874 ft <sup>2</sup> )	267 m <sup>2</sup> (2,874 ft <sup>2</sup> )
Firehall	Cavendish Firehall 2	301 m <sup>2</sup> (3,240 ft <sup>2</sup> )	301 m <sup>2</sup> (3,240 ft <sup>2</sup> )
Firehall	Galway Firehall 3	502 m <sup>2</sup> (5,403 ft <sup>2</sup> )	502 m <sup>2</sup> (5,403 ft <sup>2</sup> )
<b>Firehall</b>	<b>Oak Shores Firehall 4</b>	<b>98 m<sup>2</sup> (1,055 ft<sup>2</sup>)</b>	<b>Decommissioned in 2016</b>
<b>Firehall</b>	<b>Nogies Creek Firehall 4</b>	<b>Constructed in 2015</b>	<b>1,100 m<sup>2</sup> (11,840 ft<sup>2</sup>)</b>
Library	Buckhorn Library	257 m <sup>2</sup> (2,766 ft <sup>2</sup> )	257 m <sup>2</sup> (2,766 ft <sup>2</sup> )
Municipal Centre	Municipal Office and Council Chambers	454 m <sup>2</sup> (4,887 ft <sup>2</sup> )	454 m <sup>2</sup> (4,887 ft <sup>2</sup> )
Public Works Depot	49 Depot	427 m <sup>2</sup> (4,596 ft <sup>2</sup> )	427 m <sup>2</sup> (4,596 ft <sup>2</sup> )
Public Works Depot	Buckhorn Depot	635 m <sup>2</sup> (6,835 ft <sup>2</sup> )	635 m <sup>2</sup> (6,835 ft <sup>2</sup> )
Public Works Depot	Galway Depot	314 m <sup>2</sup> (3,380 ft <sup>2</sup> )	314 m <sup>2</sup> (3,380 ft <sup>2</sup> )
<b>Total</b>		<b>4,347 m<sup>2</sup> (46,790 ft<sup>2</sup>)</b>	<b>5,449 m<sup>2</sup> (58,651 ft<sup>2</sup>)</b>

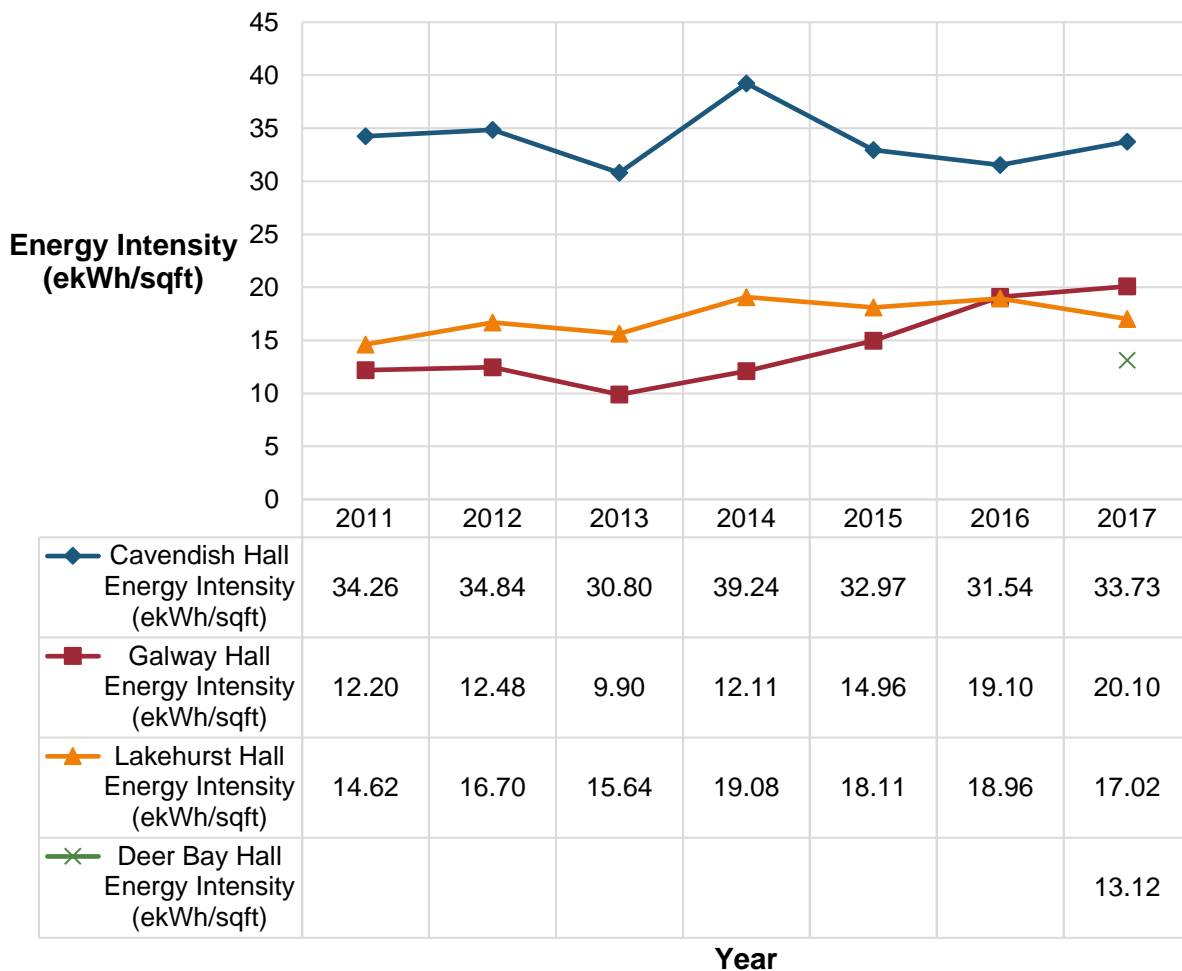
**Figure 1: Total Gross GHG Emissions**



## 4.2 Community Centres

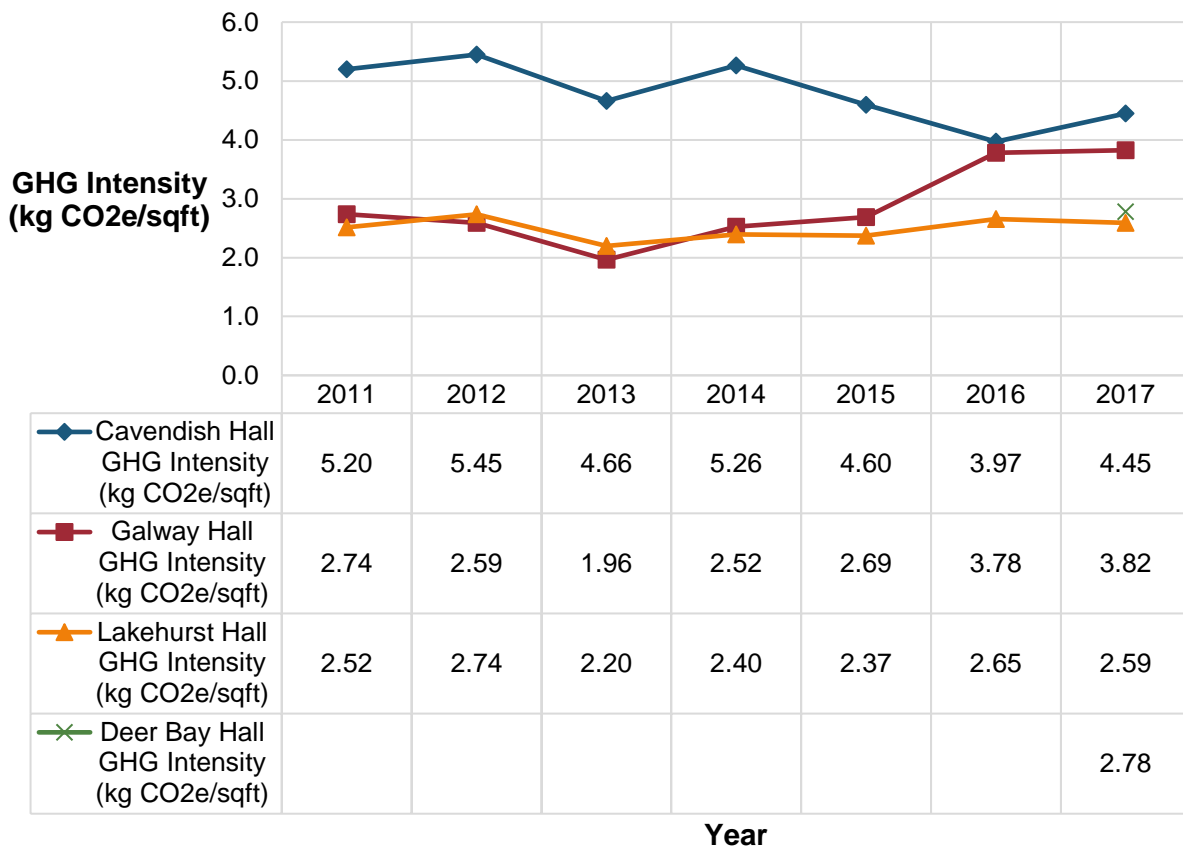
Figure 2 summarizes the energy intensity for each of the Municipality’s community centres. In 2017, the Municipality assumed responsibility for all utility bills for Deer Bay Hall and began tracking and reporting its energy usage and GHG emissions. No data prior to 2017 is available for that facility.

**Figure 2: Community Centres Energy Intensity**



The 2014 Energy Plan identified Cavendish Hall as a priority for energy conservation measures because of its high energy intensity. It remains the least efficient of the Municipality’s community centres. However, significant work was completed in 2018 in both the Cavendish and Galway Halls which included a major HVAC project and new windows. Because 2018 data is not yet available, these projects are not reflected in the presented data. While there have not been any significant results in terms of energy usage yet, Cavendish Hall has experienced a reduction in GHG emissions. Figure 3 presents GHG emissions intensity for the Community Centres.

**Figure 3: Community Centres GHG Intensity**



### 4.3 Firehalls

Energy consumption data for the Municipality’s firehalls are presented in Figure 4. In 2015-2016, the Municipality decommissioned Oak Shores Firehall 4 and replaced it with Nogies Creek Firehall 4. The new firehall functions as a headquarters for the Fire Department with full-time staff working in the facility. In contrast, the Oak Shores Firehall was only used during fire and rescue incidents and had considerably fewer hours of operation. The new facility is also more than ten times the size of the original firehall. Despite this increase in size and utilization, the Municipality’s commitment to energy conservation in the construction of the Nogies Creek Firehall has resulted in a lower energy intensity than the original structure.

**Figure 4: Firehalls Energy Intensity**

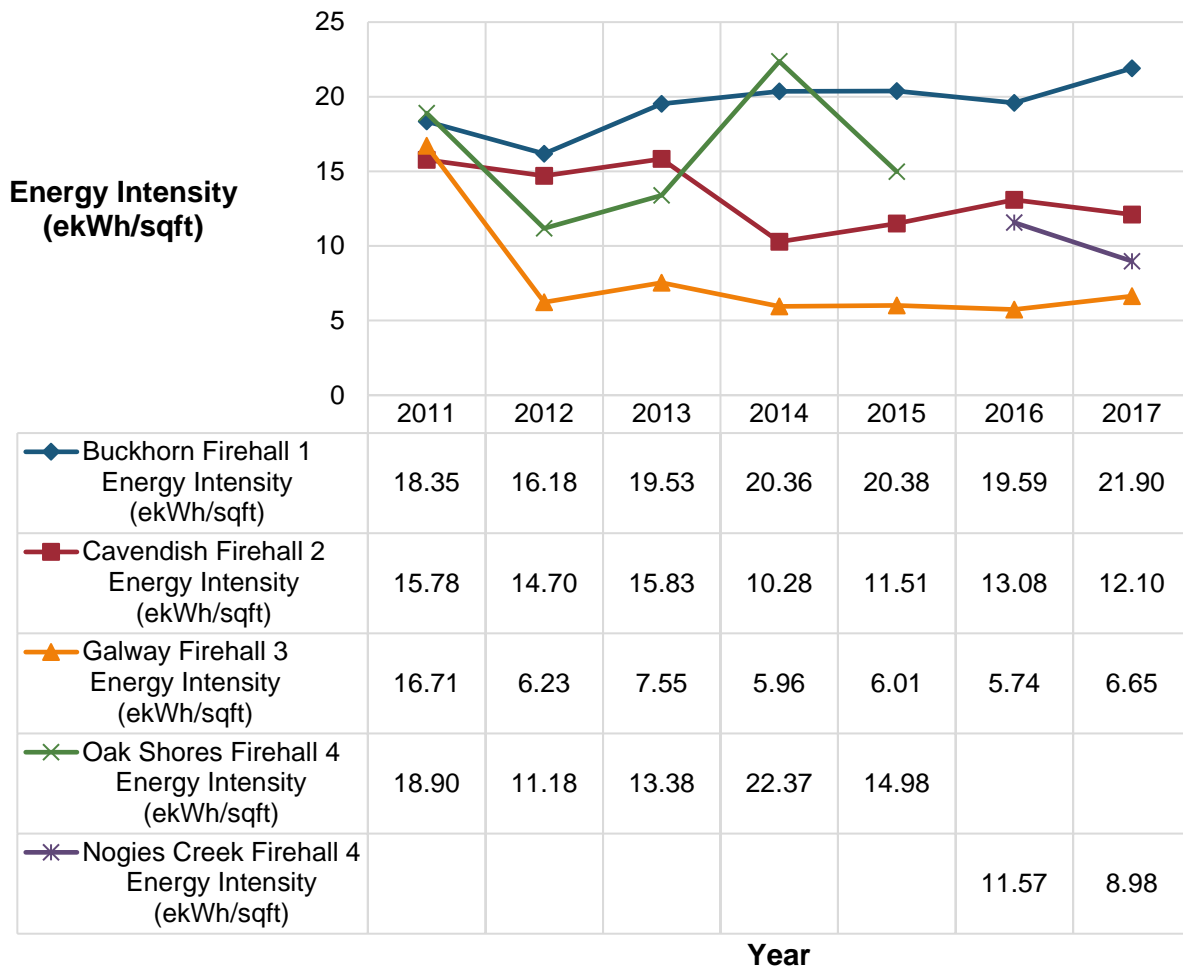
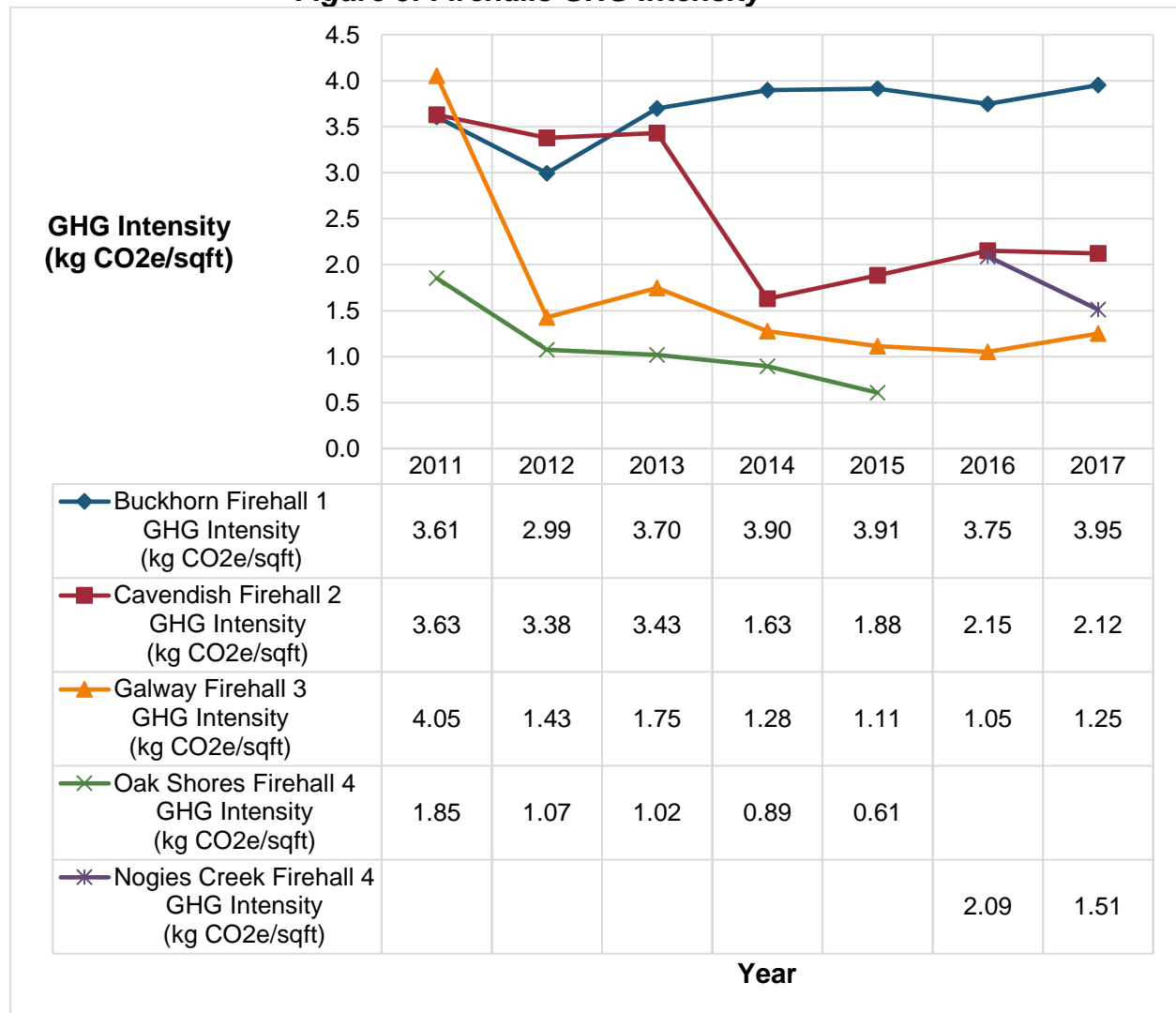


Figure 5 details the intensity of GHG emissions for each firehall. There have been significant reductions in GHG emissions at both the Cavendish and Galway Firehalls. Both facilities had previously used fuel oil (1) and (2) but were converted to propane in 2013 and 2015.

**Figure 5: Firehalls GHG Intensity**

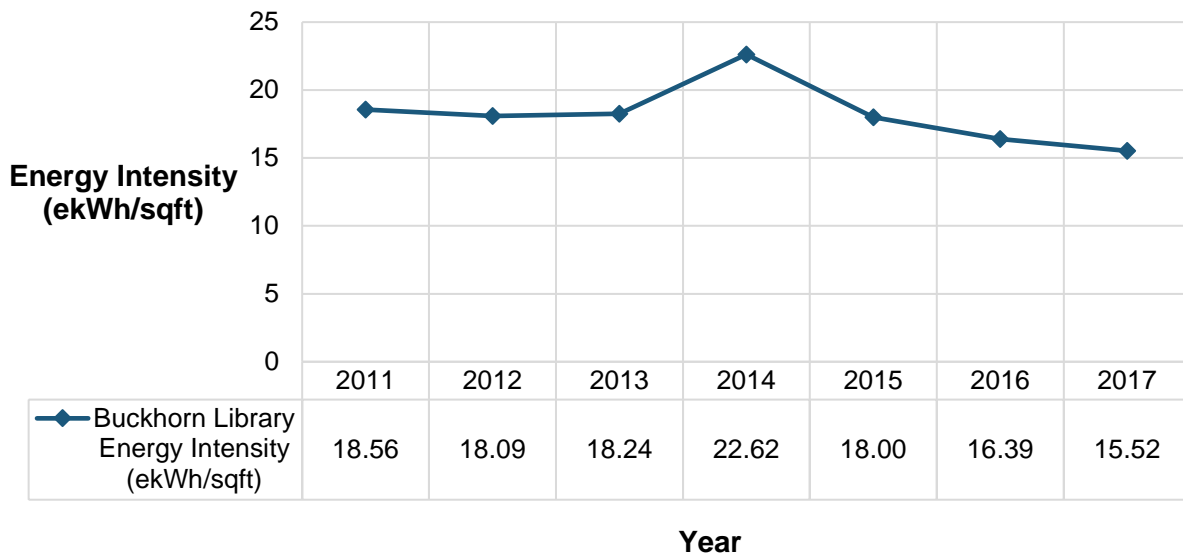


#### 4.4 Library – Buckhorn Branch

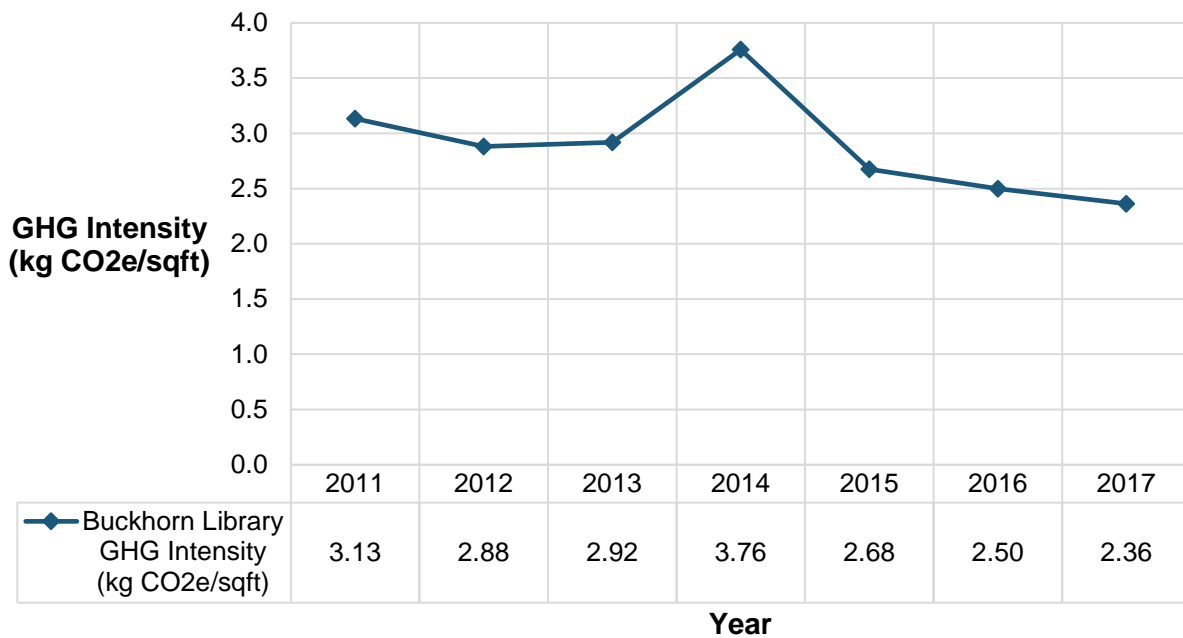
Figures 6 and 7 present energy consumption and GHG emissions data for the Trent Lakes Public Library Main Branch in Buckhorn. The Helen Bowen Branch is housed in the Cavendish Community Centre and its data is included with Cavendish Hall.

The Buckhorn Branch has had reduced energy consumption and GHG emissions since its furnace was replaced with a high-efficiency model in 2014.

**Figure 6: Buckhorn Library Energy Intensity**



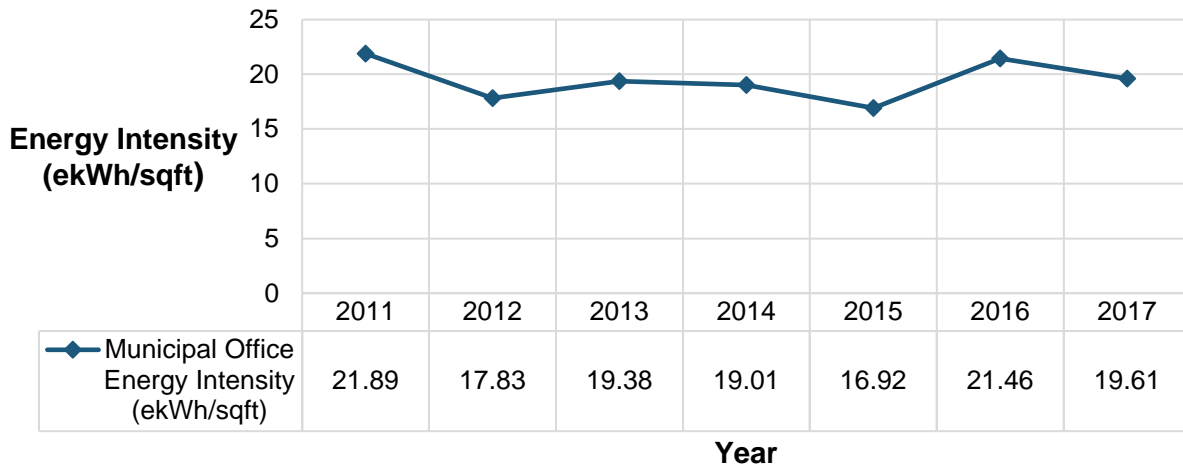
**Figure 7: Buckhorn Library GHG Intensity**



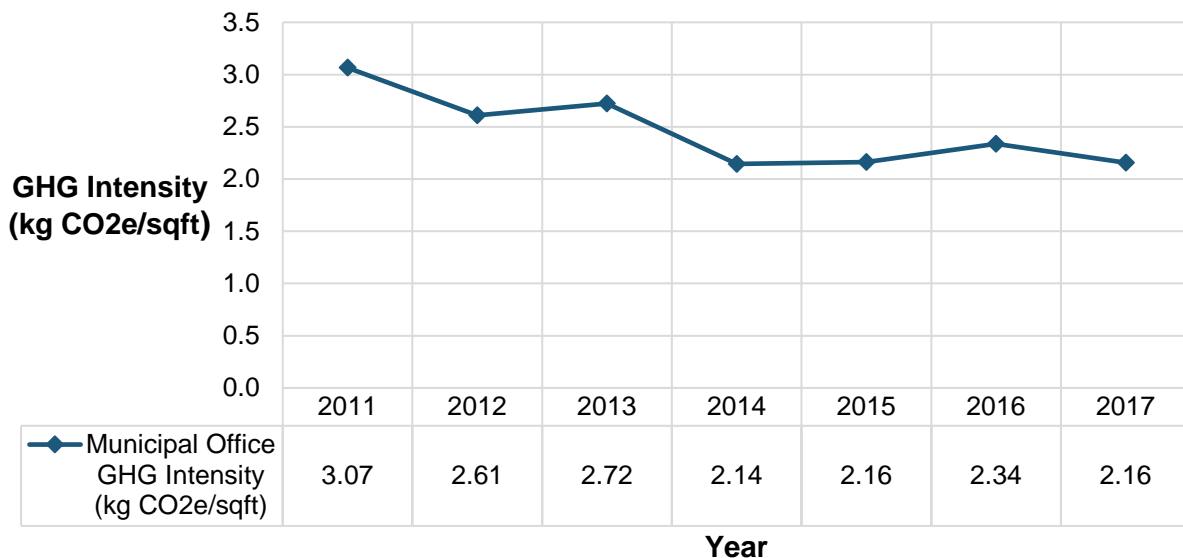
### 4.5 Municipal Office and Council Chambers

Energy consumption and GHG emissions data for the Municipal Office and Council Chambers are presented in Figures 8 and 9. While the energy consumption levels have fluctuated, the Municipal Office’s GHG emissions have steadily declined since the 2011 and 2012 base years.

**Figure 8: Municipal Office/Council Chambers Energy Intensity**



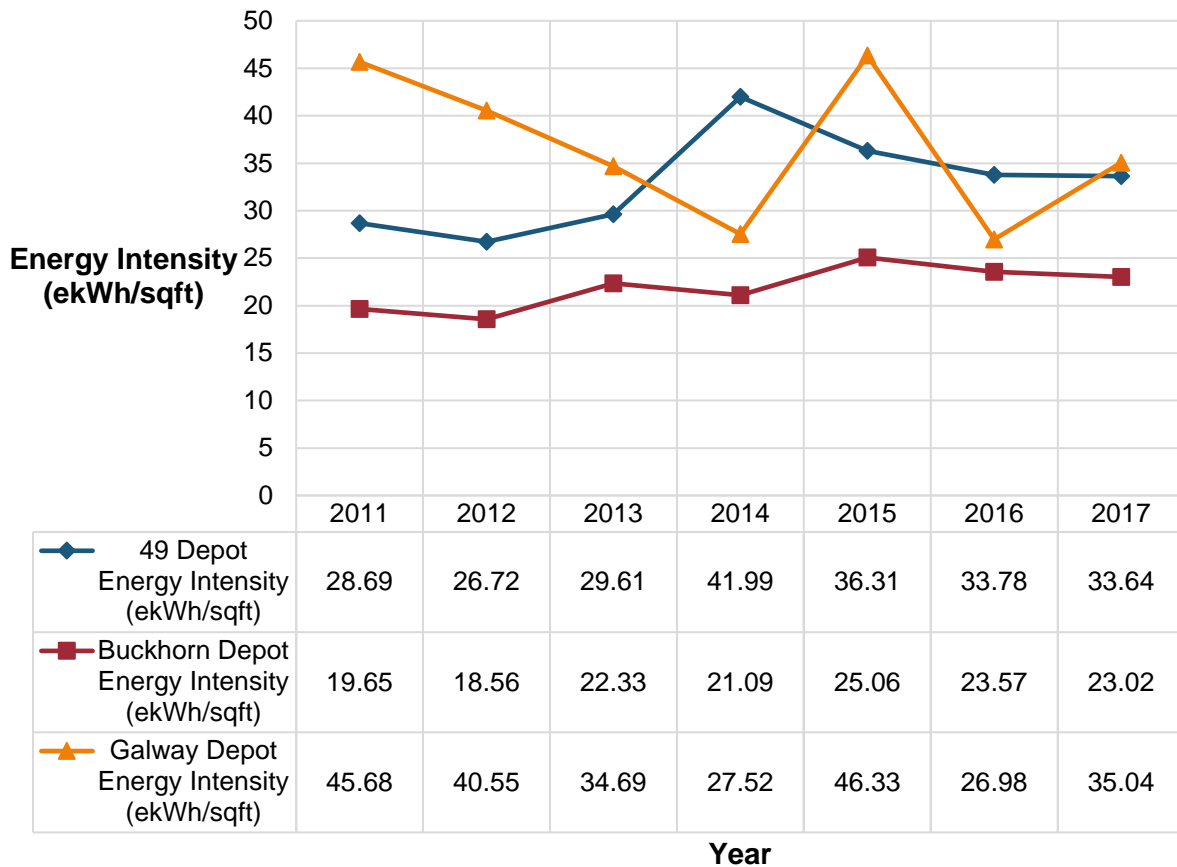
**Figure 9: Municipal Office/Council Chambers GHG Intensity**



### 4.6 Public Works Depots

Figures 10 and 11 summarize energy consumption and GHG emissions data for the Municipality’s public works depots.

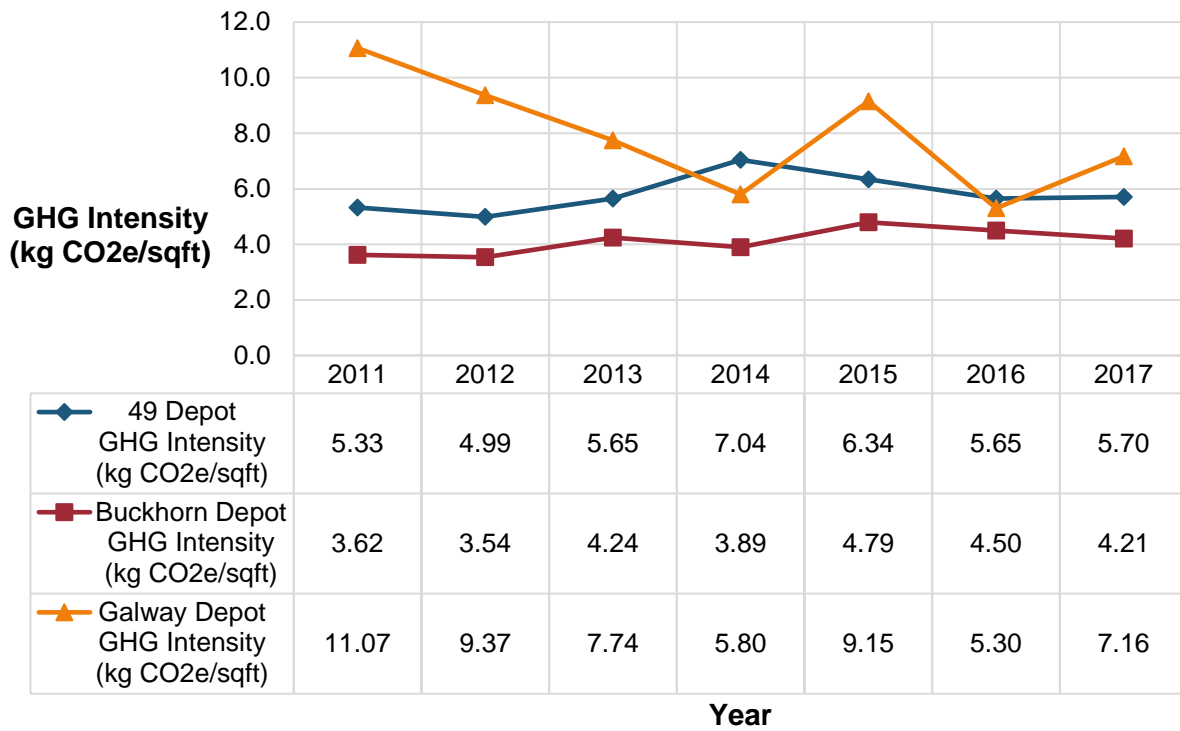
**Figure 10: Public Works Depots Energy Intensity**



The 2014 Energy Plan identified the Galway Depot as a priority for energy conservation measures. While it remains one of the Municipality’s least efficient facilities, its conversion from fuel oil (1) and (2) to propane has resulted in a reduction in GHG emissions.



**Figure 11: Public Works Depots GHG Intensity**



## **5.0 Planned and Proposed Future Actions**

### **5.1 Strategic Facilities Master Plan**

As part of the 2019 budget process, Council approved the development of a Strategic Facilities Master Plan to assess the suitability of the Municipality's current buildings and to plan for its long-term needs. The study will be used to guide future investment in municipal facilities.

Along with factors such as forecasted population trends and building location, space and accessibility needs, the Facilities Plan will include assessments of each facility's condition and lifespan. It will also develop a maintenance and capital plan for all municipal facilities. The Facilities Plan may also identify opportunities to consolidate existing facilities.

### **5.2 Asset Management**

In 2017, the Province passed Ontario Regulation 588/17, requiring municipalities to develop and adopt a Strategic Asset Management Plan by July 1, 2019. To clarify the new requirements, staff presented Council with an update to the Municipality's Asset Management Plan (AMP) on June 20, 2017. The update included mitigation approaches to reduce GHG emissions. It also incorporated energy costs as a performance measure relevant to service delivery and asset operation. The inclusion of energy-related factors in the AMP promotes energy conservation as a priority in the Municipal budget and Long-Term Financial Plan. The Strategic Asset Management Plan must be reviewed every five years.

### **5.3 Additional Strategies**

The following are additional strategies and actions that the Municipality will use to achieve its energy conservation and GHG emissions reduction objectives.

The potential GHG reduction estimates provided in this section include the Municipality's entire facility inventory, including buildings on which the Municipality does not currently report.

<b>Strategy 1: Institutionalize energy efficiency and low carbon thinking into the organization</b>				
<b>Timeframe</b>	<b>Underway or Complete</b>	<b>Short (1-4 Years)</b>	<b>Medium (5-9 Years)</b>	<b>Long (10+ Years)</b>
Continue to implement employee training for energy efficiency	✓	✓	✓	✓
Continue to reinforce staff culture of conservation and behaviour change programs to reduce usage of electricity and heating in day-to-day activities	✓	✓	✓	✓
Continue to implement policy to consider highest energy efficiency as part of procurement requirements and evaluation	✓	✓	✓	✓
Monitor incentive programs and grant opportunities to be leveraged for implementing energy efficiency improvements	✓	✓	✓	✓
<b>GHG Emission Reduction Potential: indirect GHG reductions</b>				

<b>Strategy 2: Enhance operational efficiency of existing buildings</b>				
<b>Timeframe</b>	<b>Underway or Complete</b>	<b>Short (1-4 Years)</b>	<b>Medium (5-9 Years)</b>	<b>Long (10+ Years)</b>
Formalize and continue to deliver an equipment preventative maintenance program on an ongoing basis	✓	✓	✓	✓
Conduct regular energy audits of Township facilities on a rotational basis to identify opportunities for improved efficiency and produce annual energy report cards		✓	✓	✓
Explore installation of building automation systems to optimize building operations where feasible			✓	✓
Conduct building re-commissioning to optimize building operations where applicable			✓	✓
Continue to implement the utility bill validation process to identify and correct any billing issues and variations in energy usage	✓	✓	✓	✓
<b>GHG Emission Reduction Potential: 7,000 kg CO2e per year</b>				

<b>Strategy 3: Build municipal facilities to ensure high environmental performance</b>				
<b>Timeframe</b>	<b>Underway or Complete</b>	<b>Short (1-4 Years)</b>	<b>Medium (5-9 Years)</b>	<b>Long (10+ Years)</b>
Establish a Green New Building Policy to require new municipal buildings and major renovations be built to high environmental standards		✓		
<b>GHG Emission Reduction Potential: 26,000 kg CO2e per year</b>				

<b>Strategy 4: Improve environmental performance of existing municipal facilities</b>				
<b>Timeframe</b>	<b>Underway or Complete</b>	<b>Short (1-4 Years)</b>	<b>Medium (5-9 Years)</b>	<b>Long (10+ Years)</b>
Conduct audits/assessments of each facility to identify opportunities to improve energy efficiency	✓			
Implement an interior and exterior LED lighting retrofit program in remaining all facilities where feasible	✓	✓	✓	✓
Replace appliances with Energy STAR rated appliances as needed	✓	✓	✓	✓
Continue to upgrade insulation/building envelopes according to building assessments		✓	✓	✓
Continue to replace windows and doors with high efficiency according to building assessments		✓	✓	✓
Continue to replace mechanical equipment (boilers, chillers, air conditioning units) in remaining facilities with high efficiency according to building assessments	✓	✓	✓	✓
Continue to upgrade fans and blowing equipment in remaining facilities according to building assessments	✓	✓	✓	
<b>GHG Emission Reduction Potential: 97,000 kg CO2e per year</b>				

<b>Strategy 5: Utilize renewable energy sources</b>				
<b>Timeframe</b>	<b>Underway or Complete</b>	<b>Short (1-4 Years)</b>	<b>Medium (5-9 Years)</b>	<b>Long (10+ Years)</b>
Explore renewable energy options when feasible including: <ul style="list-style-type: none"> <li>• Ground source technology</li> <li>• Solar thermal technology</li> <li>• Heat pump technology</li> </ul>		✓	✓	✓
Explore converting electric hot water heaters to solar		✓		
<b>GHG Emission Reduction Potential: 5,000 kg CO2e per year</b>				

## **6.0 Conclusion**

The Municipality is committed to energy conservation and reducing GHG emissions as a key component of its operations. This commitment has allowed the Municipality to hold its total gross GHG emissions at a consistent level, despite a growth in the Municipality's building inventory. However, many opportunities for further energy conservation remain. Through proactive monitoring of energy consumption and forward-thinking facility renovations and building service equipment upgrades, the Municipality is striving to manage its energy usage in a responsible way.

**Appendix A:**  
**Energy Consumption and Greenhouse Gas Emissions**  
**Templates for 2011 to 2017**

**Energy Consumption and Greenhouse Gas Emissions Reporting - for 2011**

<b>Confirm consecutive 12-month period (month-year to month-year)</b>	01-2011 to 12-2011															
<b>Type of Public Agency (Sector):</b>	<b>Municipal</b>	<b>Please fill in the mandatory fields indicated in red, in addition to submitting data on your energy usage.</b>														
<b>Agency Sub-sector</b>	<b>Municipality</b>															
<b>Organization Name</b>	Municipality of Trent Lakes															
<b>Operation Name and/or Unique Identifier</b>	<b>Operation Type</b>	<b>Address</b>	<b>City</b>	<b>Postal Code</b>	<b>Total Floor Area of the Indoor Space in which Operation is Conducted</b>		<b>Average # Hours Per Week</b>	<b>Energy Type and Amount Purchased and Consumed in Natural Units</b>						<b>Total</b>		
								<b>Electricity</b>		<b>Fuel Oil 1 &amp; 2</b>		<b>Propane</b>		<b>GHG Emissions (Kg)</b>	<b>Energy Intensity (ekWh/sqft)</b>	<b>Energy Intensity (GJ/m2)</b>
Township Office	Administrative offices and related facilities, including municipal council chambers	701 County Rd. 36	Bobcaygeon	KOM 1A0	454.00	Square meters	40	78,025.00000	kWh	2,687.00000	Litre			14,978.11092	21.89185	0.848338321
Buckhorn Medical Centre	Administrative offices and related facilities, including municipal council chambers	865 William Street	Buckhorn	KOL 1J0	164.00	Square meters	28	38,179.00000	kWh			7,035.00000	Litre	14,604.99660	49.64427	1.923782005
Kinmount Medical Centre	Administrative offices and related facilities, including municipal council chambers	31 County Rd. 503	Kinmount	KOM 1A0	398.00	Square meters	28				5,252.00000	Litre	8,109.00397	8.61881	0.333990251	
Buckhorn Transfer Station	Administrative offices and related facilities, including municipal council chambers	980 Dump Road	Buckhorn	KOL 1J0	13.00	Square meters	32	6,117.00000	kWh					599.71068	43.71303	1.693938448
Bobcaygeon Transfer Station	Administrative offices and related facilities, including municipal council chambers	69 County Rd. 36	Bobcaygeon	KOM 1A0	13.00	Square meters	40	4,238.00000	kWh					415.49352	30.28541	1.173599991
Cavendish Transfer Station	Administrative offices and related facilities, including municipal council chambers	3405 County Rd. 507	Buckhorn	KOL 1J0	17.00	Square meters	25	4,673.00000	kWh					458.14092	25.53658	0.989576463
Crystal Lake Transfer Station	Administrative offices and related facilities, including municipal council chambers	1018 Crystal Lake Road	Kinmount	KOM 2A0	18.00	Square meters	27	3,393.00000	kWh					332.64972	17.51165	0.678599995
Buckhorn Roads Depot	Administrative offices and related facilities, including municipal council chambers	884 Melody Bay	Buckhorn	KOL 1J0	635.00	Square meters	35	39,270.00000	kWh			13,516.00000	Litre	24,718.51854	19.64725	0.761357416
Galway Roads Depot	Administrative offices and related facilities, including municipal council chambers	581 Galway Road	Kinmount	KOM 2A0	314.00	Square meters	35	10,778.00000	kWh	13,327.00000	Litre			37,404.81488	45.68475	1.770345222
49 Roads Depot	Administrative offices and related facilities, including municipal council chambers	110 County Rd 49	Bobcaygeon	KOM 1A0	427.00	Square meters	35	36,836.00000	kWh			13,516.00000	Litre	24,479.88918	28.68826	1.111708569
Buckhorn Firehall	Fire stations and associated offices and facilities	884 Melody Bay Road	Buckhorn	KOL 2H0	267.00	Square meters	5	9,940.00000	kWh			6,087.00000	Litre	10,372.74821	18.34862	0.711033594
Oak Shores Fire Hall	Fire stations and associated offices and facilities	1300 Northern Ave	Bobcaygeon	KOM 1A0	98.00	Square meters	5	19,942.00000	kWh					1,955.11368	18.90421	0.732563259
Galway Fire Hall	Fire stations and associated offices and facilities	579 Galway Road	Kinmount	KOM 2A0	502.00	Square meters	5	6,077.00000	kWh	7,814.00000	Litre			21,907.73956	16.70989	0.647530677
Cavendish Fire Hall	Fire stations and associated offices and facilities	8 Community Comp. Drive	Buckhorn	KOL 1J0	301.00	Square meters	5	7,601.00000	kWh	4,039.00000	Litre			11,761.19487	15.78141	0.61155083
Buckhorn Library	Public libraries	5 George St.	Buckhorn	KOL 1J0	257.00	Square meters	35	21,449.00000	kWh			4,252.00000	Litre	8,667.87993	18.55937	0.719200465
Lakehurst Hall	Community centres	979 Lakehurst Rd	Lakehurst	KOL 1J0	330.00	Square meters	7	20,276.00000	kWh			4,502.00000	Litre	8,938.87501	14.61840	0.566482483
Galway Hall	Community centres	579 Galway Rd	Kinmount	KOM 2A0	502.00	Square meters	7	12,232.00000	kWh	4,983.00000	Litre			14,789.88938	12.20241	0.47285976
Cavendish Hall	Community centres	18 Community Complex Dr	Buckhorn	KOL 1J0	260.00	Square meters	7	53,477.00000	kWh			6,033.00000	Litre	14,557.74055	34.26308	1.327740109
Buckhorn Tourist Booth	Administrative offices and related facilities, including municipal council chambers	1993 Lakehurst Road	Buckhorn	KOL 1J0	95.00	Square meters	37	33.00000	kWh					3.23532	0.03227	0.001250526
Buckhorn Outdoor Rink	Cultural facilities	1801 Lakehurst Road	Buckhorn	KOL 1J0	50.00	Square meters	21					1,367.00000	Litre	2,110.62613	17.85681	0.6919754



Energy Consumption and Greenhouse Gas Emissions Reporting - for 2012															
Confirm consecutive 12-mth period (mth-yr to mth-yr)	2012														
Sector	Municipal														
Agency Sub-sector	City & Municipality														
Organization Name	Municipality of Trent Lakes														
Please fill in the mandatory fields indicated in red, in addition to submitting data on your energy usage.															
Operation Name	Operation Type	Address	City	Postal Code	Total Floor Area	Unit	Avg hrs/wk	Energy Type and Amount Purchased and Consumed in Natural Units						Total (calculated in webform)	
								Electricity		Fuel Oil 1 & 2		Propane		GHG Emissions (Kg)	Energy Intensity (ekWh/sqft)
								Quantity	Unit	Quantity	Unit	Quantity	Unit		
<i>Stephenson Building</i>	<i>Administrative offices and related facilities, including municipal council chambers</i>	<i>2160 Yonge Street</i>	<i>Toronto</i>	<i>M7A 2G5</i>	<i>135,034.00</i>	<i>Square meters</i>	<i>70</i>	<i>2,181,065.00000</i>	<i>kWh</i>	<i>Litre</i>	<i>Litre</i>				
49 Roads Depot	Administrative offices and related facilities, including municipal council chambers	110 County Rd 49	Bobcaygeon	K0M 1A0	427	Square meters	34.98	32444.00000	kWh	0.00000	Litre	12855.00000	Litre	22925.27108	26.72251
Buckhorn Firehall	Fire stations and associated offices and facilities	884 Melody Bay Road	Buckhorn	K0L 2H0	267	Square meters	4.99	12891.00000	kWh	0.00000	Litre	4782.00000	Litre	8607.03713	16.18360
Buckhorn Library	Public libraries	5 George St.	Buckhorn	K0L 1J0	257	Square meters	34.98	24332.00000	kWh	0.00000	Litre	3656.00000	Litre	7970.68278	18.08742
Buckhorn Roads Depot	Administrative offices and related facilities, including municipal council chambers	884 Melody Bay	Buckhorn	K0L 1J0	635	Square meters	34.98	29511.00000	kWh	0.00000	Litre	13845.00000	Litre	24169.15992	18.55851
Cavendish Fire Hall	Fire stations and associated offices and facilities	8 Community Comp. Drive	Buckhorn	K0L 1J0	301	Square meters	4.99	7212.00000	kWh	3750.00000	Litre	0.00000	Litre	10949.47548	14.70048
Cavendish Hall	Community centres	18 Community Complex Dr	Buckhorn	K0L 1J0	260	Square meters	6.98	49720.00000	kWh	0.00000	Litre	6797.00000	Litre	15249.17705	34.84101
Galway Fire Hall	Fire stations and associated offices and facilities	579 Galway Road	Kinmount	K0M 2A0	502	Square meters	4.99	5244.00000	kWh	2635.00000	Litre	0.00000	Litre	7710.76982	6.22625
Galway Hall	Community centres	579 Galway Rd	Kinmount	K0M 2A0	502	Square meters	6.98	18122.00000	kWh	3907.00000	Litre	1021.00000	Litre	14000.03604	12.47509
Galway Roads Depot	Administrative offices and related facilities, including municipal council chambers	581 Galway Road	Kinmount	K0M 2A0	314	Square meters	34.98	19775.00000	kWh	10882.00000	Litre	0.00000	Litre	31663.15859	40.55150
Lakehurst Hall	Community centres	979 Lakehurst Rd	Lakehurst	K0L 1J0	330	Square meters	6.98	26692.00000	kWh	0.00000	Litre	4641.00000	Litre	9715.20642	16.70024
Oak Shores Fire Hall	Fire stations and associated offices and facilities	1300 Northern Ave	Bobcaygeon	K0M 1A0	98	Square meters	4.99	11792.00000	kWh	0.00000	Litre	0.00000	Litre	1132.50368	11.17870
Township Office	Administrative offices and related facilities, including municipal council chambers	701 County Rd. 36	Bobcaygeon	K0M 1A0	454	Square meters	39.99	59368.00000	kWh	2578.00000	Litre	0.00000	Litre	12752.93489	17.83433

Energy Consumption and Greenhouse Gas Emissions Reporting - for 2013															
Confirm consecutive 12-mth period (mth-yr to mth-yr)	Jan/2013 - Dec/2013														
Sector	Municipal														
Agency Sub-sector	City & Municipality														
Organization Name	Municipality of Trent Lakes														
<b>Please fill in the mandatory fields indicated in red, in addition to submitting data on your energy usage.</b>															
Operation Name	Operation Type	Address	City	Postal Code	Total Floor Area	Unit	Avg hrs/wk	Energy Type and Amount Purchased and Consumed in Natural Units						Total (calculated in webform)	
								Electricity		Fuel Oil 1 & 2		Propane		GHG Emissions (Kg)	Energy Intensity (ekWh/sqft)
								Quantity	Unit	Quantity	Unit	Quantity	Unit		
<i>Stephenson Building</i>	<i>Administrative offices and related facilities, including municipal council chambers</i>	<i>2160 Yonge Street</i>	<i>Toronto</i>	<i>M7A 2G5</i>	<i>135,034.00</i>	<i>Square meters</i>	<i>70</i>	<i>2,181,065.00000</i>	<i>kWh</i>	<i>Litre</i>	<i>Litre</i>				
Township Office	Administrative offices and related facilities, including municipal council chambers	701 County Rd. 36	Bobcaygeon	K0M 1A0	454.00	Square meters	39.99	60,373.00000	kWh	3,187.00000	Litre	0.00000		13,306.01465 19.38312	
Buckhorn Roads Depot	Administrative offices and related facilities, including municipal council chambers	884 Melody Bay	Buckhorn	K0L 1J0	635.00	Square meters	34.98	31,215.00000	kWh	0.00000		17,274.00000	Litre	28,991.67220 22.33488	
Buckhorn Firehall	Fire stations and associated offices and facilities	884 Melody Bay Road	Buckhorn	K0L 2H0	267.00	Square meters	4.99	11,701.00000	kWh	0.00000		6,321.00000	Litre	10,629.97628 19.53438	
Oak Shores Fire Hall	Fire stations and associated offices and facilities	1300 Northern Ave	Bobcaygeon	K0M 1A0	98.00	Square meters	4.99	14,119.00000	kWh	0.00000		0.00000		1,073.21343 13.38467	
Galway Roads Depot	Administrative offices and related facilities, including municipal council chambers	581 Galway Road	Kinmount	K0M 2A0	314.00	Square meters	34.98	20,157.00000	kWh	9,009.00000	Litre	0.00000		26,173.19429 34.69187	
49 Roads Depot	Administrative offices and related facilities, including municipal council chambers	110 County Rd 49	Bobcaygeon	K0M 1A0	427.00	Square meters	34.98	27,098.00000	kWh	0.00000		15,504.00000	Litre	25,951.18911 29.61141	
Galway Fire Hall	Fire stations and associated offices and facilities	579 Galway Road	Kinmount	K0M 2A0	502.00	Square meters	4.99	5,064.00000	kWh	3,313.00000	Litre	0.00000		9,446.49660 7.54527	
Cavendish Fire Hall	Fire stations and associated offices and facilities	8 Community Comp. Drive	Buckhorn	K0L 1J0	301.00	Square meters	4.99	8,096.00000	kWh	2,766.00000	Litre	1,904.00000	Litre	11,114.86818 15.83163	
Cavendish Hall	Community centres	18 Community Complex Dr	Buckhorn	K0L 1J0	260.00	Square meters	6.98	40,841.00000	kWh	0.00000		6,452.00000	Litre	13,046.83486 30.80168	
Buckhorn Library	Public libraries	5 George St.	Buckhorn	K0L 1J0	257.00	Square meters	34.98	20,850.00000	kWh	0.00000		4,213.00000	Litre	8,077.01579 18.24432	
Lakehurst Hall	Community centres	979 Lakehurst Rd	Lakehurst	K0L 1J0	330.00	Square meters	6.98	30,527.00000	kWh	0.00000		3,560.00000	Litre	7,806.32136 15.64030	
Galway Hall	Community centres	579 Galway Rd	Kinmount	K0M 2A0	502.00	Square meters	6.98	15,251.00000	kWh	2,870.00000	Litre	1,037.00000	Litre	10,607.15714 9.89619	

Energy Consumption and Greenhouse Gas Emissions Reporting - for 2014															
Confirm consecutive 12-mth period (mth-yr to mth-yr)	Jan/2014 - Dec/2014														
Sector	Municipal														
Agency Sub-sector	City & Municipality														
Organization Name	Municipality of Trent Lakes														
<b>Please fill in the mandatory fields indicated in red, in addition to submitting data on your energy usage.</b>															
Operation Name	Operation Type	Address	City	Postal Code	Total Floor Area	Unit	Avg hrs/wk	Energy Type and Amount Purchased and Consumed in Natural Units						Total (calculated in webform)	
								Electricity		Fuel Oil 1 & 2		Propane		GHG Emissions (Kg)	Energy Intensity (ekWh/sqft)
								Quantity	Unit	Quantity	Unit	Quantity	Unit		
<i>Stephenson Building</i>	<i>Administrative offices and related facilities, including municipal council chambers</i>	<i>2160 Yonge Street</i>	<i>Toronto</i>	<i>M7A 2G5</i>	<i>135,034.00</i>	<i>Square meters</i>	<i>70</i>	<i>2,181,065.00000</i>	<i>kWh</i>	<i>Litre</i>	<i>Litre</i>				
Township Office	Administrative offices and related facilities, including municipal council chambers	701 County Rd. 36	Bobcaygeon	K0M 1A0	454.00	Square meters	39.99	61,240.00000	kWh	2,936.00000	Litre	0.00000		10,480.69166	19.00696
Buckhorn Roads Depot	Administrative offices and related facilities, including municipal council chambers	884 Melody Bay	Buckhorn	K0L 1J0	635.00	Square meters	34.98	27,876.00000	kWh	0.00000		16,543.00000	Litre	26,607.84495	21.09446
Galway Roads Depot	Administrative offices and related facilities, including municipal council chambers	581 Galway Road	Kinmount	K0M 2A0	314.00	Square meters	34.98	18,726.00000	kWh	6,893.00000	Litre	0.00000		19,602.67629	27.52095
49 Roads Depot	Administrative offices and related facilities, including municipal council chambers	110 County Rd 49	Bobcaygeon	K0M 1A0	427.00	Square meters	34.98	55,480.00000	kWh	0.00000		19,562.00000	Litre	32,364.53929	41.99383
Cavendish Hall	Community centres	18 Community Complex Dr	Buckhorn	K0L 1J0	260.00	Square meters	6.98	52,162.00000	kWh	0.00000		8,202.00000	Litre	14,726.20455	39.24316
Buckhorn Library	Public libraries	5 George St.	Buckhorn	K0L 1J0	257.00	Square meters	34.98	18,541.00000	kWh	0.00000		6,264.00000	Litre	10,394.56773	22.62220
Lakehurst Hall	Community centres	979 Lakehurst Rd	Lakehurst	K0L 1J0	330.00	Square meters	6.98	35,419.00000	kWh	0.00000		4,604.00000	Litre	8,511.83995	19.08387
Buckhorn Firehall	Fire stations and associated offices and facilities	884 Melody Bay Road	Buckhorn	K0L 2H0	267.00	Square meters	4.99	9,047.00000	kWh	0.00000		7,036.00000	Litre	11,204.34294	20.36002
Oak Shores Fire Hall	Fire stations and associated offices and facilities	1300 Northern Ave	Bobcaygeon	K0M 1A0	98.00	Square meters	4.99	23,596.00000	kWh	0.00000		0.00000		944.09956	22.36877
Galway Fire Hall	Fire stations and associated offices and facilities	579 Galway Road	Kinmount	K0M 2A0	502.00	Square meters	4.99	6,006.00000	kWh	2,431.00000	Litre	0.00000		6,889.47030	5.96037
Cavendish Fire Hall	Fire stations and associated offices and facilities	8 Community Comp. Drive	Buckhorn	K0L 1J0	301.00	Square meters	4.99	11,296.00000	kWh	0.00000		3,132.00000	Litre	5,278.32614	10.28282
Galway Hall	Community centres	579 Galway Rd	Kinmount	K0M 2A0	502.00	Square meters	6.98	12,830.00000	kWh	4,280.00000	Litre	922.00000	Litre	13,640.59606	12.11090

Energy Consumption and Greenhouse Gas Emissions Reporting - for 2015															
Confirm consecutive 12-mth period (mth-yr to mth-yr)	Jan/2015 - Dec/2015														
Sector	Municipal														
Agency Sub-sector	City & Municipality														
Organization Name	Municipality of Trent Lakes														
Please fill in the mandatory fields indicated in red, in addition to submitting data on your energy usage.															
Operation Name	Operation Type	Address	City	Postal Code	Total Floor Area	Unit	Avg hrs/wk	Energy Type and Amount Purchased and Consumed in Natural Units						Total (calculated in webform)	
								Electricity		Fuel Oil 1 & 2		Propane		GHG Emissions (Kg)	Energy Intensity (ekWh/sqft)
								Quantity	Unit	Quantity	Unit	Quantity	Unit		
Stephenson Building	Administrative offices and related facilities, including municipal council chambers	2160 Yonge Street	Toronto	M7A 2G5	135,034.00	Square meters	70	2,181,065.00000	kWh		Litre				
Galway Roads Depot	Administrative offices and related facilities, including municipal council chambers	581 Galway Road	Kinmount	K0M 2A0	314.00	Square meters	34.98	18,995.00000	kWh	0.00000		19,572.00000	Litre	30,930.34811	46.33227
49 Roads Depot	Administrative offices and related facilities, including municipal council chambers	110 County Rd 49	Bobcaygeon	K0M 1A0	427.00	Square meters	34.98	41,701.00000	kWh	0.00000		17,805.00000	Litre	29,128.11227	36.30833
Buckhorn Firehall	Fire stations and associated offices and facilities	884 Melody Bay Road	Buckhorn	K0L 2H0	267.00	Square meters	4.99	8,926.00000	kWh	0.00000		7,063.00000	Litre	11,245.90144	20.38397
Oak Shores Fire Hall	Fire stations and associated offices and facilities	1300 Northern Ave	Bobcaygeon	K0M 1A0	98.00	Square meters	4.99	15,805.00000	kWh	0.00000		0.00000		640.86114	14.98298
Galway Hall	Community centres	579 Galway Rd	Kinmount	K0M 2A0	502.00	Square meters	6.98	26,442.00000	kWh	4,151.00000	Litre	1,370.00000	Litre	14,536.95085	14.95561
Township Office	Administrative offices and related facilities, including municipal council chambers	701 County Rd. 36	Bobcaygeon	K0M 1A0	454.00	Square meters	39.99	48,845.00000	kWh	3,138.00000	Litre	0.00000		10,563.48659	16.91605
Buckhorn Roads Depot	Administrative offices and related facilities, including municipal council chambers	884 Melody Bay	Buckhorn	K0L 1J0	635.00	Square meters	34.98	26,780.00000	kWh	0.00000		20,558.00000	Litre	32,765.42451	25.06393
Cavendish Hall	Community centres	18 Community Complex Dr	Buckhorn	K0L 1J0	260.00	Square meters	6.98	41,211.00000	kWh	0.00000		7,262.00000	Litre	12,861.64944	32.96873
Buckhorn Library	Public libraries	5 George St.	Buckhorn	K0L 1J0	257.00	Square meters	34.98	19,660.00000	kWh	0.00000		4,288.00000	Litre	7,404.91307	18.00475
Lakehurst Hall	Community centres	979 Lakehurst Rd	Lakehurst	K0L 1J0	330.00	Square meters	6.98	31,705.00000	kWh	0.00000		4,639.00000	Litre	8,434.19912	18.10757
Galway Fire Hall	Fire stations and associated offices and facilities	579 Galway Road	Kinmount	K0M 2A0	502.00	Square meters	4.99	6,109.00000	kWh	0.00000		3,749.00000	Litre	6,024.85675	6.00845
Cavendish Fire Hall	Fire stations and associated offices and facilities	8 Community Comp. Drive	Buckhorn	K0L 1J0	301.00	Square meters	4.99	11,579.00000	kWh	0.00000		3,657.00000	Litre	6,104.88378	11.50940

**Energy Consumption and Greenhouse Gas Emissions Reporting - for 2016**

Confirm consecutive 12-mth period (mth-yr to mth-yr)	Jan/2016 - Dec/2016
Sector	Municipal
Agency Sub-sector	City & Municipality
Organization Name	Municipality of Trent Lakes

Operation Name	Operation Type	Address	City	Postal Code	Total Floor Area	Unit	Avg hrs/wk	Electricity Quantity	Electricity Unit	Fuel Oil 1 & 2 Quantity	Fuel Oil 1 & 2 Unit	Propane Quantity	Propane Unit	GHG Emissions (Kg)	Energy Intensity (ekWh/sqft)	Comments
<i>Stephenson Building</i>	<i>Administrative offices and related facilities, including municipal council chambers</i>	<i>2160 Yonge Street</i>	<i>Toronto</i>	<i>M7A 2G5</i>	<i>135,034.00</i>	<i>Square feet</i>	<i>70</i>	<i>2,181,065.00000</i>	<i>kWh</i>							<i>max. 255 characters</i>
Galway Roads Depot	Administrative offices and related facilities, including municipal council chambers	581 Galway Road	Kinmount	K0M 2A0	314.00	Square meters	34.98	11,248.00000	kWh	0.00000		11,370.00000	Litre	17,920.83198	26.97898	
49 Roads Depot	Administrative offices and related facilities, including municipal council chambers	110 County Rd 49	Bobcaygeon	K0M 1A0	427.00	Square meters	34.98	43,863.00000	kWh	0.00000		15,846.00000	Litre	25,977.67439	33.78214	
Township Office	Administrative offices and related facilities, including municipal council chambers	760 County Road 36	Trent Lakes	K0M 1A0	454.00	Square meters	39.99	69,637.00000	kWh	3,268.00000	Litre	0.00000		11,413.94588	21.45748	There has been a 911 number change only as above. Thanks.
Buckhorn Roads Depot	Administrative offices and related facilities, including municipal council chambers	884 Melody Bay	Buckhorn	K0L 1J0	635.00	Square meters	34.98	24,727.00000	kWh	0.00000		19,397.00000	Litre	30,769.46204	23.56937	
Cavendish Hall	Community centres	18 Community Complex Dr	Buckhorn	K0L 1J0	260.00	Square meters	6.98	44,850.00000	kWh	0.00000		6,174.00000	Litre	11,108.36302	31.53580	
Buckhorn Library	Public libraries	5 George St.	Buckhorn	K0L 1J0	257.00	Square meters	34.98	16,470.00000	kWh	0.00000		4,108.00000	Litre	6,915.83783	16.39413	
Lakehurst Hall	Community centres	979 Lakehurst Rd	Lakehurst	K0L 1J0	330.00	Square meters	6.98	29,050.00000	kWh	0.00000		5,446.00000	Litre	9,424.86826	18.95739	
Buckhorn Firehall	Fire stations and associated offices and facilities	884 Melody Bay Road	Buckhorn	K0L 2H0	267.00	Square meters	4.99	8,514.00000	kWh	0.00000		6,796.00000	Litre	10,775.18294	19.58745	
Nogies Creek Firehall	Fire stations and associated offices and facilities	760 County Road 36	Trent Lakes	K0M 1A0	8,072.00	Square meters	35	28,720.00000	kWh	0.00000		15,396.00000	Litre	24,745.92822	1.57634	We built a new firehall on the same property as our municipal office and the hall was completed March 2016. We sold the Oak Shores Hall.
Galway Fire Hall	Fire stations and associated offices and facilities	579 Galway Road	Kinmount	K0M 2A0	502.00	Square meters	4.99	6,091.00000	kWh	0.00000		3,547.00000	Litre	5,682.39312	5.74229	
Cavendish Fire Hall	Fire stations and associated offices and facilities	8 Community Comp. Drive	Buckhorn	K0L 1J0	301.00	Square meters	4.99	12,608.00000	kWh	0.00000		4,235.00000	Litre	6,974.25642	13.08124	
Galway Hall	Community centres	579 Galway Rd	Kinmount	K0M 2A0	502.00	Square meters	6.98	18,138.00000	kWh	3,049.00000	Litre	7,427.00000	Litre	20,429.14844	19.10163	

**Energy Consumption and Greenhouse Gas Emissions Reporting - for 2017**

Confirm consecutive 12-mth period (mth-yr to mth-yr)	Jan/2017 - Dec/2017
Sector	Municipal
Agency Sub-sector	City & Municipality
Organization Name	Municipality of Trent Lakes

Operation Name	Operation Type	Address	City	Postal Code	Total Floor Area	Unit	Avg hrs/wk	Electricity Quantity	Electricity Unit	Fuel Oil 1 & 2 Quantity	Fuel Oil 1 & 2 Unit	Propane Quantity	Propane Unit	GHG Emissions (Kg)	Energy Intensity (ekWh/sqft)	Comments
<i>Stephenson Building</i>	<i>Administrative offices and related facilities, including municipal council chambers</i>	<i>2160 Yonge Street</i>	<i>Toronto</i>	<i>M7A 2G5</i>	<i>135,034.00</i>	<i>Square feet</i>	<i>70</i>	<i>2,181,065.00000</i>	<i>kWh</i>			<i>Litre</i>	<i>Litre</i>			<i>max. 255 characters</i>
Galway Roads Depot	Administrative offices and related facilities, including municipal council chambers	581 Galway Road	Kinmount	K0M 2A0	314.00	Square meters	34.98	9,503.00	kWh	0.00000		15,493.00	Litre	24,212.28	35.03909	
49 Roads Depot	Administrative offices and related facilities, including municipal council chambers	110 County Rd 49	Bobcaygeon	K0M 1A0	427.00	Square meters	34.98	41,841.00	kWh	0.00000		16,043.00	Litre	26,209.37	33.64360	
Township Office	Administrative offices and related facilities, including municipal council chambers	760 County Road 36	Trent Lakes	K0M 1A0	454.00	Square meters	39.99	63,128.00	kWh	3,032.00	Litre	0.00000		10,537.06	19.60506	
Buckhorn Roads Depot	Administrative offices and related facilities, including municipal council chambers	884 Melody Bay	Buckhorn	K0L 1J0	635.00	Square meters	34.98	30,969.00	kWh	0.00000		17,973.00	Litre	28,797.00	23.01790	
Cavendish Hall	Community centres	18 Community Complex Dr	Buckhorn	K0L 1J0	260.00	Square meters	6.98	44,895.00	kWh	0.00000		7,043.00	Litre	12,449.08	33.73498	
Buckhorn Library	Public libraries	5 George St.	Buckhorn	K0L 1J0	257.00	Square meters	34.98	15,662.00	kWh	0.00000		3,880.00	Litre	6,535.77	15.52261	
Lakehurst Hall	Community centres	979 Lakehurst Rd	Lakehurst	K0L 1J0	330.00	Square meters	6.98	44,895.00	kWh	0.00000		7,043.00	Litre	12,449.08	33.73498	
Buckhorn Firehall	Fire stations and associated offices and facilities	884 Melody Bay Road	Buckhorn	K0L 2H0	267.00	Square meters	4.99	13,275.00	kWh	0.00000		7,066.00	Litre	11,360.49	21.90458	
Nogies Creek Firehall	Fire stations and associated offices and facilities	760 County Road 36	Trent Lakes	K0M 1A0	1,100.00	Square meters	35	29,473.00	kWh	0.00000		10,936.00	Litre	17,899.91	8.98282	
Galway Fire Hall	Fire stations and associated offices and facilities	579 Galway Road	Kinmount	K0M 2A0	502.00	Square meters	4.99	6,036.00	kWh	0.00000		4,251.00	Litre	6,765.29	6.64811	
Cavendish Fire Hall	Fire stations and associated offices and facilities	8 Community Comp. Drive	Buckhorn	K0L 1J0	301.00	Square meters	4.99	9,393.00	kWh	0.00000		4,242.00	Litre	6,870.75	12.10414	
Galway Hall	Community centres	579 Galway Rd	Kinmount	K0M 2A0	502.00	Square meters	6.98	17,080.00	kWh		Litre	13,016.00	Litre	20,664.61	20.09626	
Deer Bay Hall	Community centres	22 Deer Bay School Rd	Buckhorn	K0L 1J0	100.00	Square meters	6.98	2708.00	kWh	1059.00	Litre	0.00		2,992.79	13.11947	Assumed responsibility for payment of utility bills and began tracking March 9, 2017