Town of Brighton

Public Works Department
Commissioner of Public Works – Tim Keef, P.E.

Evert Garcia
Assistant Engineer

September 18, 2017

Honorable Town Board
Town of Brighton
2300 Elmwood Avenue
Brighton, NY 14618

Re: 2016 SOC Annual Report

Dear Supervisor Moehle and Town Board Members:

The Sustainability Oversight Committee (SOC) Policy states that "The Committee shall prepare and submit an annual written report to the Town Board for review during April of each year concerning the activities and work of the Committee. The following document constitutes this annual report which describes the activities undertaken by the committee and the actions that resulted from these activities. I recommend that your Honorable Body receive and file the attached 2016 Annual Report from the Sustainability Oversight Committee.

Respectfully,

Evert Garcia
Department of Public Works

Cc: Mike Guyon

Attachment

Town of Brighton

Sustainability Oversight Committee
Year-End Report

2016

BRIGHTON TOWN HALL
2300 Elmwood Avenue, Rochester, NY 14618
P: 585-784-5250 **F:** 585-784-5373

Sustainability Oversight Committee

Secretary – Mike Guyon

Town of Brighton

The Sustainability Oversight Committee (SOC) Policy states that "The Committee shall prepare and submit an annual written report to the Town Board for review during April of each year concerning the activities and work of the Committee. The following document constitutes this annual report which describes the activities undertaken by the committee and the actions that resulted from these activities.

1. Summary

The SOC met eleven (11) times in 2016 including a meeting on February 24th with Town Board members. The committee met monthly excluding the months of March and August. A copy of the minutes for each meeting is attached as part of this Year End Report.

The SOC met on February 3, 2016 to prepare for the workshop with the Town Board. The workshop discussed the Town Board's vision as it pertains to Climate Smart Communities, the Greenhouse Gas Inventory Report and coordination with the Comprehensive Plan. The Town Board indicated at the workshop that a liaison between the SOC and the Comprehensive Plan Committee would be designated to encourage collaboration between both committees. A recap of the meeting is included with the April 6, 2016 meeting minutes.

2. 2016 Goals

The SOC goals for 2016 primarily revolved around working towards having the Town of Brighton recognized as a Climate Smart Community. The Climate Smart Communities program is a network of New York communities engaged in reducing greenhouse gas emissions and improving climate resilience. The Town is currently following the Climate Smart Communities Guide to Local Action developed by New York State, which is an outline of steps and activities known as Pledge Elements that Local Governments can use to help implement the Climate Smart Communities program. The guide to local action includes the following Pledge Elements:

1. **Pledge to be a Climate Smart Community**. Adopt the pledge to reduce greenhouse gas (GHG) emissions and adapt to a changing climate. Designate a point person and a Climate Smart Communities task force. Join a regional or national climate campaign focused on reducing GHG emissions or enhancing sustainability.
2. **Set goals, inventory emissions, plan for climate action.** Gather data about local GHG emission sources. Develop baseline emissions inventories for government operations and the community. Establish quantifiable GHG emissions reduction targets. Propose an emission reduction schedule and financing strategy. Develop a local action plan for reducing emissions.
3. **Decrease community energy use**. Adopt specific energy-reduction goals. Take action to reduce energy demand in existing public facilities, infrastructure, and vehicle fleet, and to maximize energy efficiency. Implement policies and programs to reduce community energy demand through energy conservation and efficiency improvements. Reduce waste and increase recycling in government operations. Encourage and support action by local government employees to meet energy use reduction goals.

2300 Elmwood Avenue Rochester, New York 14618 www.townofbrighton.org
Mike.Guyon@townofbrighton.org 585-784-5225

4. **Increase community use of renewable energy**. Set a goal to maximize the use of renewable energy in municipal operations and the community. Implement renewable energy projects such as solar, wind, geothermal, or small hydro. Implement policies and programs to encourage community use of renewable energy sources.
5. **Realize benefits of recycling and other climate-smart solid waste management practices.** Encourage and support waste reduction, reuse, recycling and composting of materials communitywide. Offer recycling and composting programs, household hazardous waste collections, and waste diversion opportunities that focus on reducing and reusing materials.
6. **Reduce greenhouse gas emissions through use of climate-smart land-use tools.** Minimize the GHG impact of new development. Update or adopt community plans, land-use policies, building codes, and multi-modal transportation actions to limit sprawl, reduce vehicle miles traveled, and protect open lands, wetlands, and forests.
7. **Enhance community resilience and prepare for the effects of climate change**. Establish a climate resiliency vision and associated goals, identify vulnerabilities to climate change effects for both government operations and the community, and develop and implement strategies to address those vulnerabilities and increase overall community resilience.
8. **Support development of a green innovation economy**. Lead and support the transition to a green economy by incorporating climate action and sustainability into economic development plans. Create demand and offer incentives and support for local green industries and green jobs training.
9. **Inform and inspire the public.** Lead by example. Host events; organize campaigns, and support websites and social media outlets that publicize local government commitment to reducing energy use; saving tax dollars; reducing, reusing, and recycling materials; and adapting to a changing climate. Encourage citizens to follow suit.
10. **Commit to an evolving process of climate action**. Monitor and report on progress toward achieving goals. Be willing to consider new ideas and adjust existing approaches. Ensure strategies and plans are up to date. Compare successes and cooperate with neighboring communities. Maintain involvement of stakeholders.

3. Greenhouse Gas Inventory

Description: Greenhouse Gas Inventories (GHG) provide the basis for measuring emissions reduction. With an inventory, a community can set a target for reducing emissions, identify its options and craft an effective local climate action plan for improvements that can also save energy and taxpayer dollars. Inventory updates demonstrate the community's progress in reducing GHG emissions, and reveal any mid-course correction needed to stay on target. The GHG inventory satisfies Pledge Element number two in the Climate Smart Community program.

Action: With the help of RIT intern Cassidy Putney and University of Rochester interns Greg Shinaman and Mary Willis, the SOC completed the GHG inventory for Town Operations and Community in May of 2016. The GHG report written by Cassidy Putney summarizes the results of the inventory and is attached to this document. The overall profile of the Town of Brighton's GHG emissions included emissions from Electricity, Stationary (natural gas), Vehicles and Waste. The total 2014 emissions from both the Town Operations and the Community-wide inventory is 436,355 MT CO2e.

4. Electric Car Charging Station

Description: Over the years the Town has investigated the feasibility of installing an Electric Car charging station at the Town Hall. Electric vehicles can help increase energy security, improve fuel economy, lower fuel costs and reduce greenhouse gas emissions.

Action: In 2016 the Town of Brighton received grant funding for the installation of an EV charging station from the Genesee Region Clean Communities (GRCC) and Rotary of Brighton. Town staff drafted construction drawings for the electric car charging station and subsequently installed the station. The Charging Station was officially opened at a ribbon cutting event on Thursday, September 22nd.

5. Street Lighting

Description: The Town has previously explored options for modernizing the existing Harp Style light fixtures within the neighborhood lighting districts, which are owned and operated by RG&E, to LED lighting. The current system is often faulty, difficult to maintain and unreliable. The completed GHG inventory indicated that Street Lights account for the largest energy expenditure to the Town Operations energy profile.

Action: Recent studies and analysis performed by the SOC and Town staff have concluded that LED lighting fixtures would substantially reduce the Town's energy demand. However, RG&E's tariff precludes the use of LED lighting and Town ownership of the lighting system is necessary to facilitate a wholesale conversion to LED lighting. The costs currently associated with purchasing, maintaining and modernizing the existing lighting and electric distribution network would require an increase to the current rates paid by residents within the various neighborhood lighting districts. The Town will continue to work with RG&E to find a solution for modernizing the neighborhood lighting systems with LED fixtures.

6. Interior Lighting

Description: With the help of two graduate students from RIT, Rafael Carneiro and Brendan Ryan, the SOC performed a feasibility study which explored the possibility of replacing some of the interior fluorescent lighting at the Town Hall complex with LED bulbs.

Action: The findings of the study indicated that there was economic justification for upgrading some of the fluorescent bulbs throughout the Town Hall complex to LED. Town staff planned a pilot project to replace the fluorescent bulbs located within the Engineering/Code Review office with LED bulbs. The pilot project has been successfully implement and currently under review. If deemed successful, more office areas within the Town Hall complex will be upgraded to LED fixtures.

7. Solarize NY

Description: Solarize NY was a program developed by NYSERDA and locally managed by ROCSPOT which aimed to match local residents with solar panel installers that have been vetted, reviewed, and carefully selected.

Action: The SOC and the Town supported ROCSPOT throughout the Solarize Brighton campaign by providing a venue for the solar assemblies and promoting the campaign throughout various outlets. The monthly meetings in Brighton allowed residents learn more about solar power,

participate in Q&A, and sign up for free solar assessments. Solar installations resulting from the Solarize campaign counts towards the Town's clean energy communities goals.

8. Clean Energy Communities

Description: The Clean Energy Communities Program is a NYSERDA program which recognizes and rewards local governments for the completion of clean energy projects. By becoming a designated Clean Energy Community, local communities are eligible to apply for grants to fund additional clean energy projects. Additionally, designated clean energy communities are given access to clean energy coordinators who can help communities develop and prioritize clean energy goals, access guidance resources such as templates for legislation, procurement and contracts.

Action: The Town of Brighton is pursuing recognition as a clean energy community under the New York State Clean Energy Communities Program. In order to be designated a clean energy community, communities must complete at least four (4) of the ten (10) available High Impact Action Items. The Town is in the process of submitting documentation for High Impact Action Items which have been completed.

9. Comprehensive Plan Update

Description: Review the Comprehensive Plan Update as it progresses and assure that the update is consistent with the sustainability goals of the Town of Brighton.

Action: The Comprehensive Plan Update is currently underway and SOC member Erinn Ryen has been designated as the liaison between the Comprehensive Plan Committee and SOC. The committees have been working together to advance the completion of the comprehensive plan update.

Committee members:
Ron Wexler, Chair
Erinn Ryen, Vice Chair
Paul Tankel
Steve Kittelberger
Margy Peet
Shubhangi Gandhi
Mitch Nellis
Christopher Werner, Town Board Member
Michael Guyon, Town Engineer
Evert Garcia, Assistant Engineer

Town of Brighton
MONROE COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS
2300 ELMWOOD AVENUE ☆ ROCHESTER, NEW YORK 14618 ☆ PHONE (585)784-5250 ☆ FAX (585)784-5368

5/13/2016

Town of Brighton Greenhouse Gas Inventory Summary Report

Town of Brighton's Sustainability Oversight Committee, Baseline Year 2014

Report Prepared by Cassidy Putney,
DPW Intern

Revised 9/21/2016

Table of Contents

Introduction

Climate Smart Communities[4]

The Town of Brighton has pledged to be a part of Climate Smart Communities, a network of New York communities engaged in reducing GHG emissions and improving climate resilience. Two types of actions enable Climate Smart Communities to minimize the risks of climate change and reduce its long-term costs:

- Reducing GHG Emissions
- Adapting to a Changing Climate

Local governments can act directly to reduce fossil fuel consumption in municipal buildings and vehicles, to improve solid waste management practices and to adapt infrastructure and operations for resilience to anticipated changes as the climate warms. Flooding and changes in precipitation and snow pack that may affect water supplies are of special concern to localities.

Many municipalities begin by reducing emissions and increasing climate resilience in municipal operations alone, but action by the entire community is needed to make significant reductions in GHG emissions and to successfully adapt to unavoidable climate change.

The first step in becoming a Climate Smart Community is to adopt the Climate Smart Communities Pledge and send it to the New York Department of Environmental Conservation. This pledge is a public commitment to reduce GHG emissions and prepare for unavoidable climate change. Local legislative bodies must adopt a resolution that includes all ten pledge elements but can add their own legislative findings of pledge elements as desired. The elements included are:

1. Pledge to be a Climate Smart Community
2. Set Goals, Inventory Emissions, and Plan for Climate Action
3. Decrease Community Energy Use
4. Increase Community Use of Renewable Energy
5. Realize Benefits of Recycling and other Climate-Smart Waste Management Practices
6. Reduce GHG Emissions Through Use of Climate-Smart Land-Use Tools
7. Enhance Community Resilience and Prepare for Effects of Climate Change
8. Support Development of Green Innovation Economy
9. Inform and Inspire the Public
10. Commit to Evolving Process of Climate Action

[4]The Climate Smart Communities Program available at: http://www.dec.ny.gov/energy/50845.html

On April 9th, 2014, the Town of Brighton completed their pledge to become a Climate Smart Community. This report is a summary of the second pledge element after conducting and analyzing the data from the GHG inventory. The inventory was completed in collaboration with a University of Rochester student interns, Mary Willis Gregory Shinaman, the Town of Brighton Department of Public Works intern, Cassidy Putney, the Town of Brighton Assistant Town Engineer, Evert Garcia and members of the Sustainability Oversight Committee.

Glossary and Acronyms

I. **Scope**: a common means of categorizing direct and indirect emissions to improve transparency and for identifying different types of climate policies and goals
II. **Emissions Factors (EF)**: an emission factor is an amount of GHG emissions associated with a with a unit of activity data
III. **MT CO_2e (Metric Tons Carbon Dioxide Equivalent)**: Standard unit for measuring GHG emissions
IV. **Stationary**: For the purpose of this report, "stationary" refers to the combustion of natural gas
V. **Baseline**: a measurement, calculation, or time used as a basis for comparison
VI. **Community Inventory**: a collection of data that includes all GHG emissions that can be attributed to the residents and others within the Town boundaries
VII. **Town Operations Inventory**: a collection of data that includes only GHG emissions that are directly related to municipal operations
VIII. **EPA**: United States Environmental Protection Agency
IX. **LGOP**: Local Government Operations Protocol
X. **NYSERDA**: New York State Energy Research and Development Authority
XI. **CSC**: Climate Smart Communities Program
XII. **LFG**: Landfill Gas
XIII. **MMBtu**: million British Thermal Units, a measure of energy
XIV. **GHG**: Greenhouse Gas
XV. **STAPPA/ALAPCO:** The State and Territorial Air Pollution Program Administrators and the Association of Local Air Pollution Control Officials
XVI. **ICLEI:** International Council for Local Environmental Initiatives
XVII. **ICF:** ICF International, a company that provides professional services and technology solutions that deliver beneficial impact in areas critical to the world's future
XVIII. **NYS:** New York State
XIX. **GTC:** Genesee Transportation Council
XX. **RG&E:** Rochester Gas and Electric, local utility provider
XXI. **WM:** Waste Management
XXII. **MSW:** Municipal Solid Waste
XXIII. **WARM:** Waste Reduction Model

Historical Inventories

Multiple inventories have been conducted using 2001 and 2005 data in the past. These Town GHG inventories were conducted using STAPPA/ALAPCO and ICLEI's Clean Air and Climate Protection Software. These inventories were an initiative of the Green Brighton Task Force to engage the Town in GHG monitoring in 2008. The Task Force also completed a Community Wide GHG Inventory using 2007 data, using the STAPPA/ALAPCO and ICLEI's Clean Air and Climate Protection Software. This data, however, is inconsistent and due to lack of access to documents, will not be used in this inventory. The Town Operations data is used for historical comparisons later in the report to show the overall trend in GHG emissions over the past decade or so in the Town of Brighton.

Methodology

This inventory began in 2015 and was completed in 2016. The data was collected from a variety of sources including but not limited to Rochester Gas and Electric bills, conversations with representatives from Waste Management and the Brighton School District, previous Town of Brighton GHG inventories, data from the Brighton Police and Highway Department, and data from the Genesee Transportation Council. Sources of emissions included in this inventory were based on the Climate Smart Communities GHG Accounting Tool, which outlined Stationary (natural gas), Electricity, Vehicle, Solid Waste, Wastewater and Employee Commutes. Of these categories, based on data available, the Town Operations Inventory included Stationary, Electricity, Vehicles, and Solid Waste. These sources were then attributed to a specific department[5] for analysis. The Community Inventory included the same emissions sources, but based on the Local Greenhouse Gas Inventory Tool: Community Module, the emissions sources were split up into the following categories: Residential, Commercial, Industrial, Street and Area Lighting, Public Authority, Vehicles, and Solid Waste. Additionally, while school buses and school non-bus vehicles were included in the Community inventory, other Brighton Central School District electricity, stationary, and waste data was not included in the calculations[6].

The Town of Brighton 2014 GHG Inventory included the use of two different primary tools spreadsheets. The Climate Smart Communities Greenhouse Gas Accounting Tool was used primarily for the input and calculation of data regarding the Town Operations. For Community data, the Local Greenhouse Gas Inventory Tool: Community Module was used for the input of energy data and the calculation of emissions. Some data, however, was collected and analyzed outside of these tools due to available information, but the resulting emissions from these calculations were then linked back into the two spreadsheets for summary purposes.

[5] See Greenhouse Gas Inventory Results, Section: Town Operations Department Breakdown, pages 12-13
[6] As of May 2016

Climate Smart Communities Greenhouse Gas Accounting Tool

The Climate Smart Communities GHG Accounting Tool was developed by ICF International in consultation from VHB Engineering, Surveying and Landscape Architecture, P.C., independent contractors to NYSERDA. The Tool is designed to help local governments in New York State evaluate the GHG emissions associated with local government operations and model reductions associated with various strategies. This Tool can help local governments begin preliminary decision-making of GHG reduction strategies before undertaking more detailed feasibility studies. It also helps users to develop a baseline municipal GHG inventory of local government operations. The Tool consists of an Excel template that can be manipulated by the user to determine estimated GHG emissions. This template is titled *Brighton – CSC GHG Accounting Tool 2014 (Cassidy Copy).xlsm.*

Data in this Tool are categorized into the following Scopes 1-3:

I. Scope 1: all direct GHG emissions from municipal operations
II. Scope 2: indirect GHG emissions associated with the consumption of purchased or acquired electricity, steam, heating, or cooling for municipal operations
III. Scope 3: all other indirect emissions not covered in Scope 2, such as emissions from vehicles not owned or controlled by cities, waste disposal, or emissions from the production of purchased materials

Due to available data at the time of compilation, we had to use other tools outside of the CSC GHG Accounting Tool to calculate emissions related to Vehicles and Solid Waste with additional analysis. For Solid Waste, we used the Environmental Protection Agency Waste Reduction Model[7], to determine Scope 3 emissions derived from the Town's Landfill and the waste produced by Town Operations but hauled out of Brighton. This data was collected through invoices from Waste Management as well as specific data acquired from Waste Management[8]. This calculation was then added back into the CSC GHG Accounting Tool for summary purposes only. For Vehicles, the Town did not have the specific detailed data that the CSC GHG Accounting Tool required, so Cassidy Putney created a sub sheet within the Tool to calculate vehicle consumption data with the information that was available via the Police and Highway Department records. These calculations were then linked, through preexisting formulas in the Tool, for summary purposes.

All resulting emissions calculations from this inventory are estimations because calculation were performed with the standardized coefficients and could not account for all factors. The Tool is pre-programmed with default emissions factors and system assumptions needed to calculate emissions according to the LGOP. Default values that are specific to local governments

[7] See Appendix A, Section: Solid Waste (EPA WARM Model) Notes
[8] See Appendix A, Section: Solid Waste (EPA WARM Model) Notes

in NYS are used whenever possible. When state-level data is not available, national default values are used. The Tool provides users with the options to use default data or to override values with local government-specific information. It was decided, in the Sustainability Oversight Committee, to include a local government value in the calculation as the eGRID sub region chosen within the tool was the NYS Average for emissions factors[9].

When conducting the Inventory, it is noted that there is room for improvement in collection methods and data recording. For future inventories it is recommended that for:

- Vehicle Data Collection
    - For better methodology and more accurate calculations in the future, proper vehicle data could be available if previously recorded, including:
        - Department of Vehicle
        - Vehicle Year
        - Vehicle Type
        - Vehicle Model
        - Fuel Type
        - Fuel Consumed (gallons)
        - Vehicle Miles Traveled (VMT)
            - Or multiply fuel consumed by the MPG of the vehicle

This recommendation would streamline the process for future inventories if using the CSC GHG Accounting Tool. Better data recording within Town Operations could include this level of detail in normal reporting processes and would make for an easier inventory process in the future.

Local Greenhouse Gas Inventory Tool: Community Module

This Tool was developed by ICF International with the Local Climate and Energy Program. It was designed to help cities evaluate and estimate GHG emissions within their communities. The Tool helps cities understand their GHG emissions profile and break down the sectors that are driving emissions, provide information for emissions trends, and help to inform a climate action plan that will address and reduce emissions. From this Tool, users are able to develop a base year GHG inventory for their community, according to the Global Protocol for Community-Scale GHG Emissions (GPC). This module includes an excel template that is manipulated by the user and allows for the option of applying locality-specific data if the community would prefer that over the pre-loaded default data which was gathered by federal agencies and other sources covering the default emissions facts and system assumptions needed to calculate emissions according to the GPC.

[9] See Appendix A, Section: eGRID Emissions Factors

Similarly to the Town Inventory, due to information available at the time, Solid Waste and Vehicles related emissions were calculated outside the Tool. For Solid Waste, we also used the EPA WARM Model[10] in order to determine the Scope 3 emissions derived from the Community waste streams. This data was provided by Waste Management and then calculated back into the Tool for summary purposes[11]. For Vehicles, data from the Genesee Transportation Council[12] was manipulated in a sub sheet within the Tool to calculate the required data for the summary which was then linked through preexisting formulas within the sheet.

Protocol

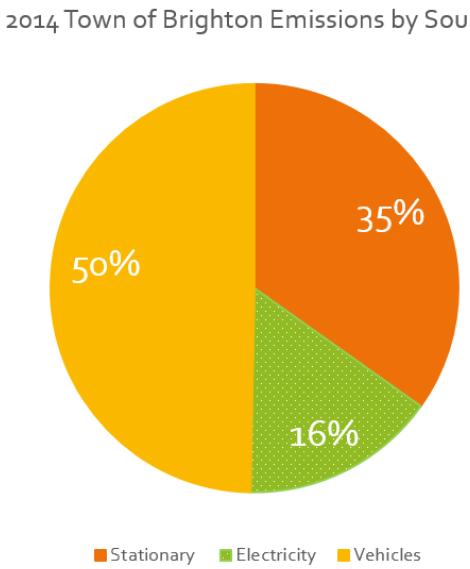
CLIMATE SMART COMMUNITIES

For its inventory, the Town of Brighton followed the methodology laid out in the CSC GHG Accounting Tool which was developed by ICF International in consultation from VHB Engineering, Surveying and Landscape Architecture, P.C., independent contractors to NYSERDA. An emissions source (for example a group of vehicles or a building, etcetera) was considered governmental if it was deemed as within the Town of Brighton's financial or operational control. In addition, the Town's Sustainability Oversight Committee assisted in making decisions on which emission potentials and other coefficients that could be localized, within the Tool, such as the eGRID emissions factors. All other coefficients and emission potentials were either used as given in the Tool, or obtained from the Environmental Protection Agency and other reputable organizations.

[10] See Appendix B, Section Solid Waste (EPA WARM Model) Notes
[11] See Appendix B, Section Solid Waste (EPA WARM Model) Notes
[12] See Appendix B, Section Vehicle Notes

Greenhouse Gas Inventory Results

Overall Greenhouse Gas Emissions Profile



GHG emissions were inventoried for the baseline year of 2014. The overall profile of the Town of Brighton's GHG emissions included emissions from Electricity, Stationary (natural gas), Vehicles and Waste. The total 2014 emissions from both the Town Operations and the Community-wide inventory is 436,355 MT CO_2e. As shown in *Figure 1*, Vehicles alone account for 50% of the overall emissions (Town Operations and Community GHG inventories combine). Stationary (natural gas) is the next largest emission source and contributes over a third of Brighton's emissions.

Figure 1. Emissions Profile for Town and Community Emissions by Source[13]

As you can see in *Table 1*, Community emissions account for 99.6% of total emissions for the Town of Brighton. Emissions in Brighton coming from activities that are within the Town Government's financial or operational control is a mere 0.4%. Nevertheless, all emissions are significant when looking for ways to improve on efficiency, technology, and programs that affect emissions. The Community and Town Operations emission profiles will be discussed in further depth in the following sections of this report.

[13] Waste emissions not included because they are emissions credits which decrease the Town's overall emissions

Sector	Description	MT CO_2e	Percentage
Community: Residential	Electricity and Stationary for residential dwellings	105,330	23.9%
Community: Commercial	Electricity and Stationary for commercial buildings	102,231	23.2%
Community: Industrial	Electricity and Stationary for industrial buildings	1,172	0.3%
Community: Street and Area Lighting	Electricity for street and area lighting not attributed to Town Operations	587	0.1%
Community: Public Authority[14]	Electricity and Stationary for "Public-related Entities"	11,426	2.6%
Community: Vehicles	Local Transportation	217,978	49.5%
Community: Waste	Residential Solid Waste	(4,105)	NA
Town Operations	Electricity and Stationary for municipal buildings and street lights, municipal vehicle fleet, and municipal waste stream	1,566	0.4%
	Total	**436,355**	

Table 1. 2014 Emissions Quantities Breakdown of Total Community and Town Operations[15]

The inventory reported that Brighton's total GHG emissions in 2014 were 436,184 tons of carbon dioxide equivalents. Based on population data[16] from the 2010 census, Brighton's 2014 emissions per capita were 12 tons of CO_2e. This number is significantly lower than the per capita emissions for the United States which is currently 17 tons of CO_2e[17], but very similar to larger cities such as Portland, OR, Boston, MA, and Chicago, IL based on data from 2011[18]. Speculation as to why we are similar to such large cities includes these cities' large public transportation systems and Portland's cultural lifestyle that includes the use of more bicycles for shorter distance transportation.

The inventory also provided the ability to compare energy usage by converting different measures of energy (kilowatts, therms, etcetera) into million British thermal units (MMBtu). This gave a standardized measurement with which to compare total energy consumption across different sectors for the Town. The resulting table (see *Table 2, 2014 Brighton Energy Usage: All Sectors)* looks very similar to the breakdown of GHG emissions by sector. Based on population data from the 2010 census, Brighton's 2014 per capita energy usage was 182 MMBtu.

[14] See Appendix B, Section Electricity and Stationary Notes for explanation on Public Authority
[15] First seven sectors are all broken down from Community emissions and last sector is all of Town Operations emissions summarized into one category
[16] 36,609 people in the Town of Brighton available at: http://www.city-data.com/city/Brighton-New-York.html
[17] GHG Emissions per Capita available at: http://data.worldbank.org/indicator/EN.ATM.CO2E.PC
[18] GHG Emissions per Capita by City available at: http://www.citymayors.com/environment/greenhouse_gas.html#Anchor-Per-49575

Sector	Description	MMBtu	Percentage
Community: Residential	Electricity and Stationary for residential dwellings	1,589,934	23.9%
Community: Commercial	Electricity and Stationary for commercial buildings	1,543,167	23.2%
Community: Industrial	Electricity and Stationary for industrial buildings	17,689	0.3%
Community: Street and Area Lighting	Electricity for street and area lighting not attributed to Town Operations	8,856	0.1%
Community: Public Authority[19]	Electricity and Stationary for "Public-related Entities"	172,468	2.6%
Community: Vehicles	Local Transportation	3,290,351	49.5%
Town Operations	Electricity and Stationary for municipal buildings and street lights, municipal vehicle fleet, and municipal waste stream	29,503	0.4%
	Total	**6,651,968**	

Table 2. 2014 Brighton Energy Usage: All Sectors

[19] See Appendix B, Section Electricity and Stationary Notes for explanation on Public Authority

Town Operations Emissions Profile[20]

While the local government's role in leading the fight against climate change is an extremely important one, the municipality's contribution to the Town of Brighton as a whole is a very small percentage of total energy consumption and emissions. The Town Operations sector in Brighton only accounts for 0.4% of the total MT CO_2e (1,566) for all of Brighton. The fraction of the Town's Government's contribution to total emissions is typical, for most municipalities have found they fall around a similar value. For comparison, the City of Binghamton, which has a similar population as Brighton, attributed only 1.9% of total CO_2e for all of Binghamton's emissions in 2006 to their municipal operations[21].

While the Town Operations emissions may seem small in comparison to the Community emissions, it is still important to make government operations more energy efficient to not only reduce emissions but to also reduce the Town budget, and thus taxes. Furthermore, it is extremely important for the Town government to lead by example in the Town of Brighton and promote more energy conscious practices and sustainable projects within the community.

Figure 2 shows the breakdown percentage of emissions by source for Town Operations. *Table 3* details a further breakdown of emissions by source.

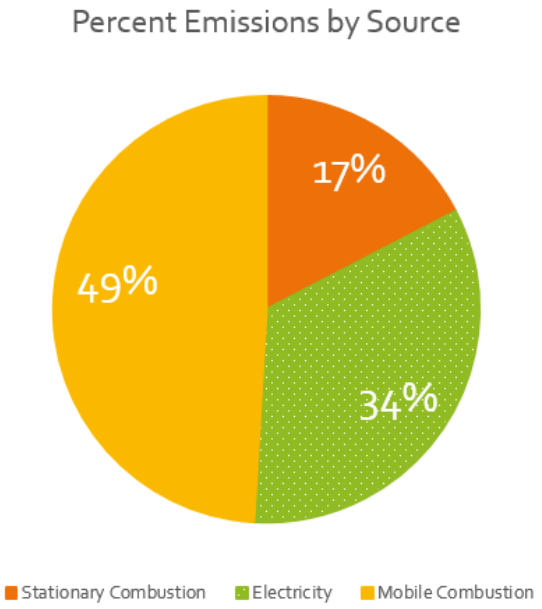


Figure 2. 2014 Town Operations Percent Emissions by Source

Source	Description	MT CO_2e	Percentage
Town Operations: Electricity	Electricity from municipal buildings and operations	682	34%
Town Operations: Stationary	Stationary from municipal buildings and operations	353	17%
Town Operations: Vehicles	Municipal vehicle fleet	994	49%
Town Operations: Waste[22]	Municipal operations waste stream	(463)	NA
	Total	**1,566**	

Table 3. 2014 Town Operations Emissions by Source

[20] Cassidy Putney, DPW Intern, conducted the Town Operations GHG Inventory
[21] GHG Inventory Report, Binghamton, New York available at: http://goo.gl/rY88yV
[22] Not included in Figure 2 because of its negative number, Brighton received emissions credits for waste

Town Operations Department Breakdown

With the help of Town Engineers, Mike Guyon and Evert Garcia, the following department breakdown was created for Town Operations. There are six departments including Operations, Town Hall, Public Safety, Parks, Recreation and Street Lights. All sectors are directly affiliated to the particular department except where noted; for example Public Safety and Town Hall are within the same building, so all of their electricity and stationary (natural gas) values are accounted for within the Town Hall department. As a note, Street Lights are considered their own department and are not included within any other department. Street Lights' emissions come from electricity use and are shown as such in graphs within this document.

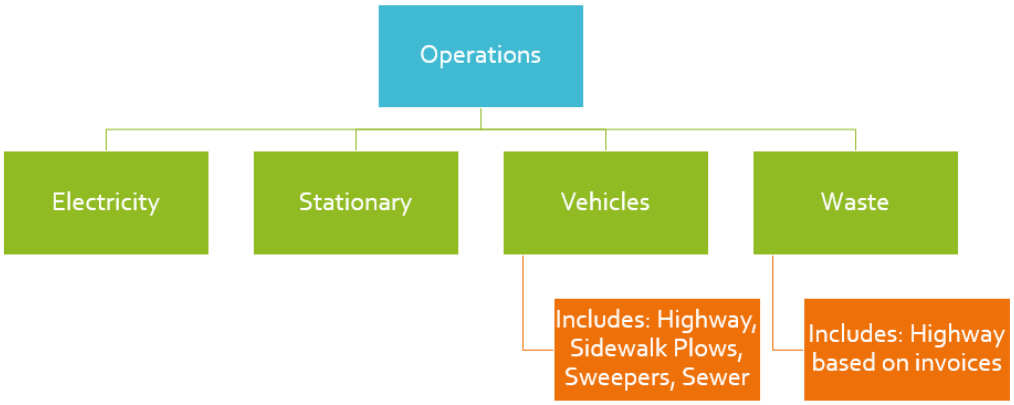


Figure 3. Operations Department Breakdown

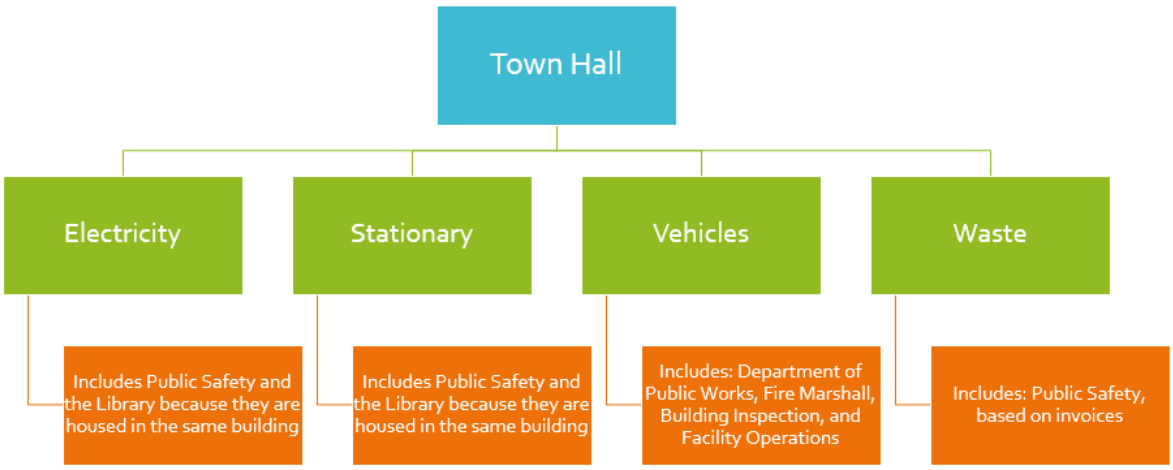


Figure 4. Town Hall Department Breakdown

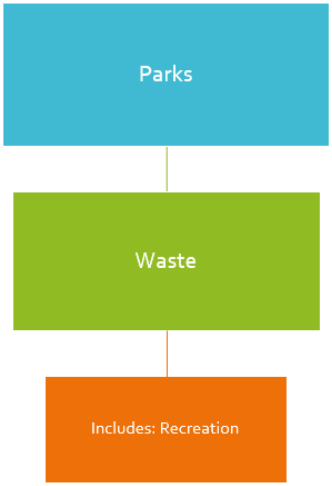


Figure 5. Public Safety Department Breakdown

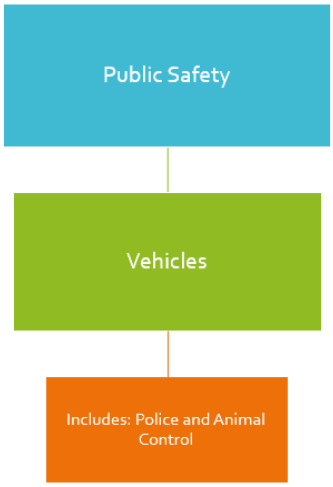


Figure 6. Parks Department Breakdown

Town Operations analysis contains many different sectors than the Community analysis with each sector relating to a department within the local government operations and the emission sources as Electricity, Stationary (natural gas), Vehicles and Waste. We are using these sectors to assist in preparation of a climate action plan so that as the Town is planning for future programs and projects, they will know exactly how many tons of CO_2e each sector is releasing into the atmosphere.

There are a variety of energy sources within Town Operations including electricity, gasoline, diesel and natural gas. The following breakdowns include all of these sources and are noted within the analyses.

Town Operations Information Breakdowns by Department and Source

The following figures *(Figures 7, 8, and 9)* show the breakdown of emissions, energy use, and costs by department and source. *Figure 7* shows us that an overwhelming majority of energy use in Town Operations is consumed by the Operations Department between all three sources, electricity, stationary (natural gas), and vehicles; Operations Department vehicles accounting for approximately 31% of all energy use in the Town Operations. In direct relation to *Figure 7*, *Figure 8* shows that the Operations Department accounts for 39% of total emissions from Town Operations. And finally, *Figure 9* shows the cost associated with emissions in these six departments. And while Street Lights do not consume the most amount of energy, they contribute the second greatest amount of emissions and are the most costly contributor in Town Operations.

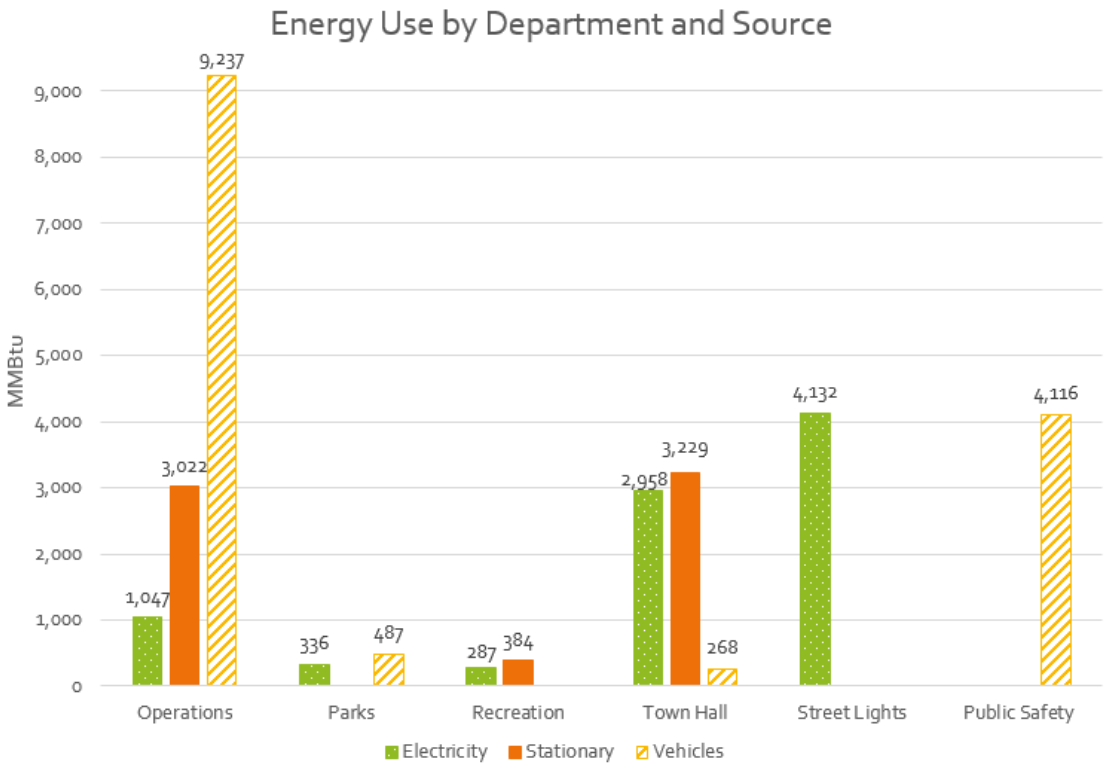


Figure 7. Town Operations Energy Use Breakdown by Department and Source

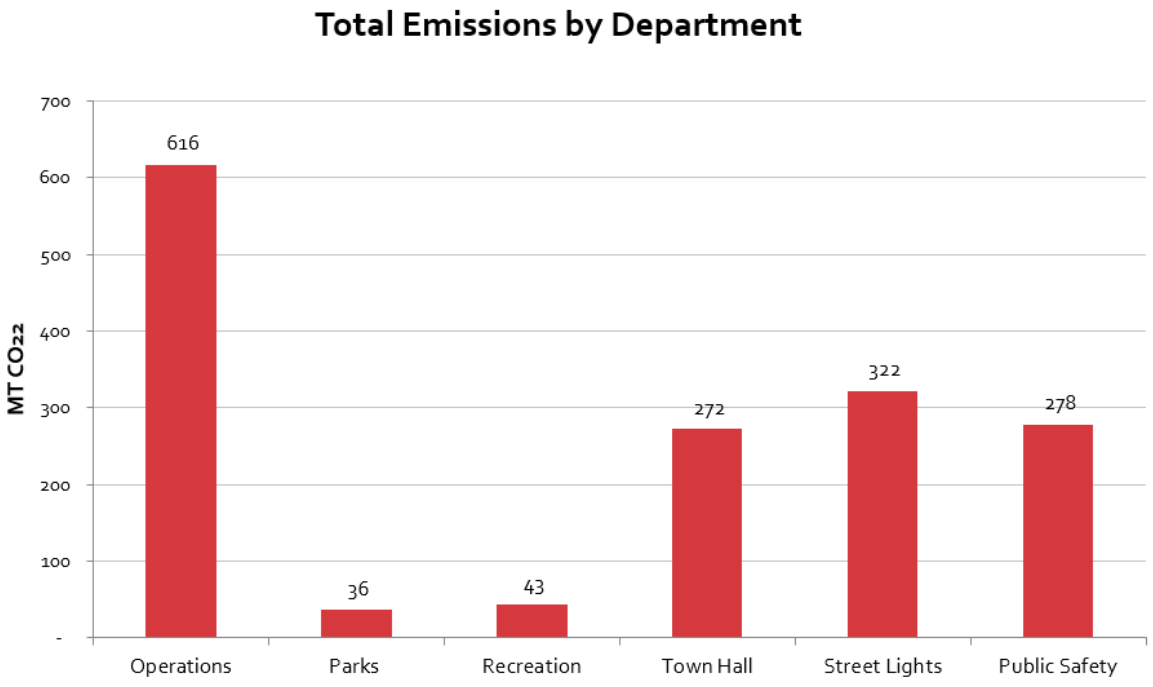


Figure 8. Town Operations Total Emissions by Department

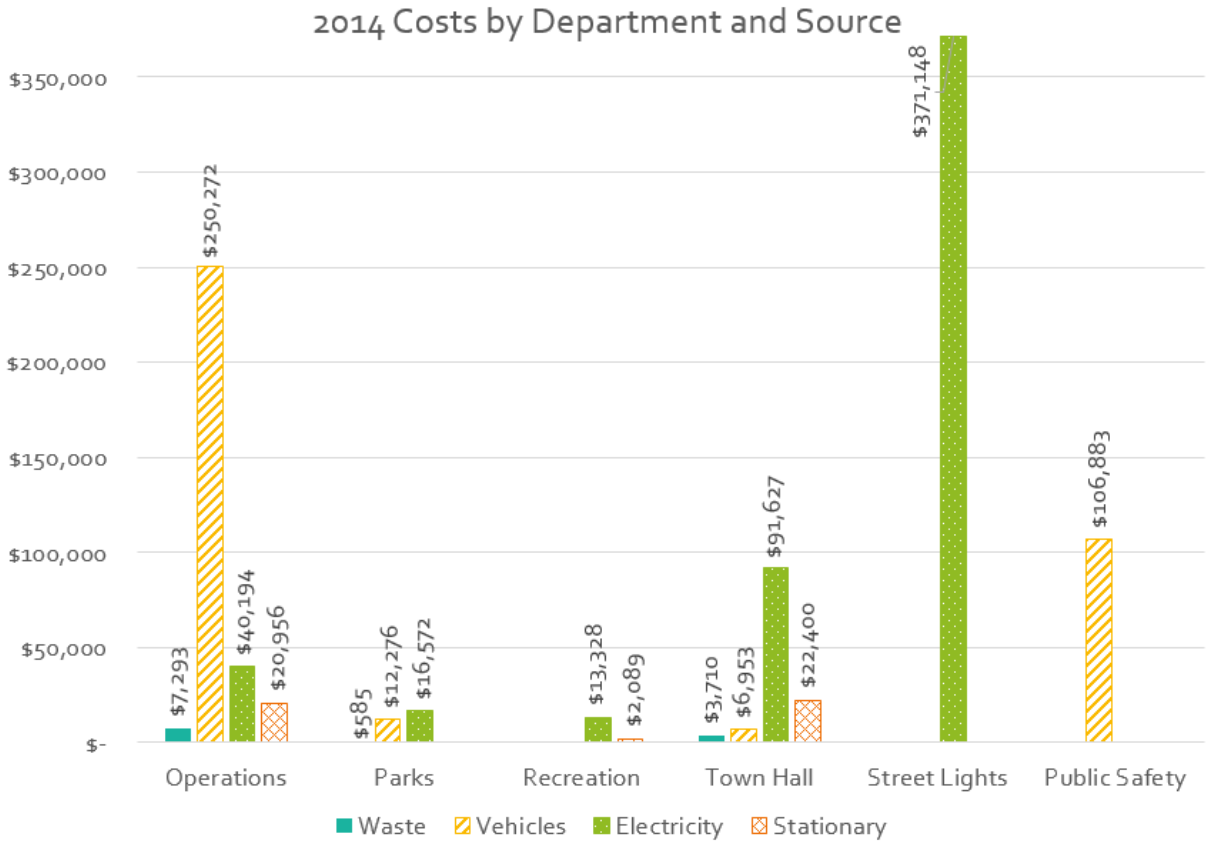


Figure 9. Town Operations Costs Breakdown by Department and Source

While the Operation Department is responsible for most of the energy and emissions, costs are another story. In *Figure 9*, approximately 38% of the emissions-related costs spent in Town Operations are attributed to the electricity costs of running Street Lights. Another 39% of the emissions-related costs spent in Town Operations can be attributed to fuel costs of Vehicles across all departments. The remaining 23% of costs come from various waste disposal fees, building electricity and natural gas costs. These costs were collected from invoices provided from the Town of Brighton and consolidated into the CSC GHG Accounting Tool. Looking at cost distribution is important for the municipality because it shows where the biggest cost reduction potential could be within its operations when formulating a climate action plan.

Town Operations: Electricity and Stationary

The majority of Electricity and Stationary (natural gas) energy consumption comes from Street Lights, Town Hall, and Operations. The Recreation Department contributed the least amount of emissions from Electricity and Stationary at a total of 42 MT CO_2e. The following figures show the breakdown of Electricity and Stationary emissions and energy use by department. *Figure 10* and *Figure 11* shows the direct positive relationship between energy consumption and emissions with the greatest contribution of emissions and energy use from Street Lights. The Town Hall, as noted above in the Department Breakdown section, due to how the meters are set up for the Town Hall building, it is impossible to separate how much of the energy came from the different departments housed within the Town Hall.

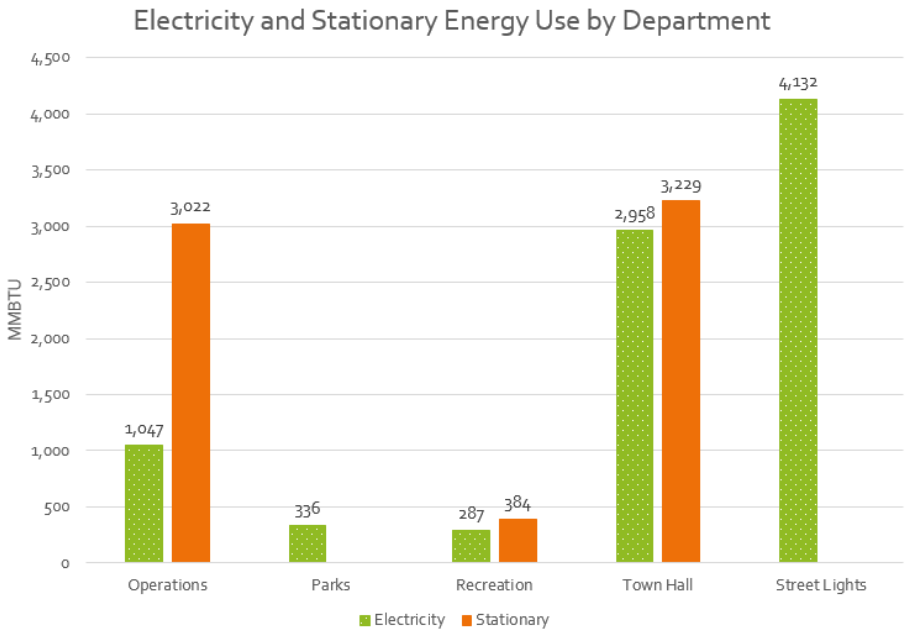


Figure 10. Town Operations Electricity and Stationary Energy Use by Department

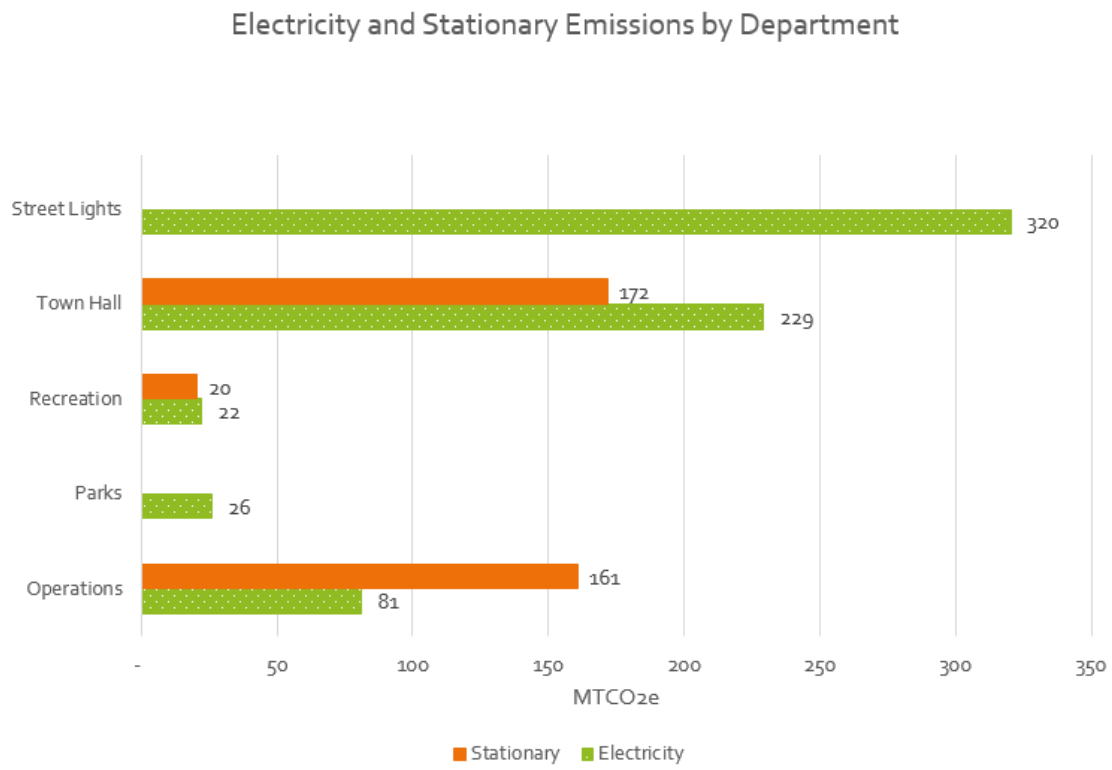


Figure 11. Town Operations Electricity and Stationary Emissions by Department

Also noted previously, the electric and natural gas for all of Town Operations is supplied by Rochester Gas and Electric (RG&E), a local utility company.

Town Operations: Vehicles

The majority of energy use and emissions related to Vehicles can be attributed to the Operations department. Total Vehicle emissions amount to approximately 994 MT CO_2e which comes from the combustion of both gasoline and diesel fuels within the Town Operations' fleet. As previously mentioned, this section of the GHG Inventory was created outside of the Accounting Tool and then added back in for summary purposes. This separate calculation[23] was based on information that was available at the time, which included department breakdowns of gallons of fuel consumed, both gasoline and diesel.

As noted earlier, the Accounting Tool requested data that was extremely specific including Vehicle Miles Traveled (VMT) per vehicle, make, model, and year of the individual vehicle,

[23] See Appendix A, Section Vehicle Notes

etcetera. However, at this time, there are no records kept now or in the past regarding this type of detailed information by Town owned vehicles.

Figure 12 illustrates this detailed percentage breakdown of gallons of fuel used, down to the sub-departments within the six official departments. While *Figure 12* is more difficult to read because of its detailed nature, it does properly represent the distribution of fuel consumption. Also note, that the figure uses the terms "Diesel" in reference to Diesel fuel and "Reg" in reference to Gasoline fuel. *Table 4* also shows the value breakdown of Vehicle emissions by Town Operations department

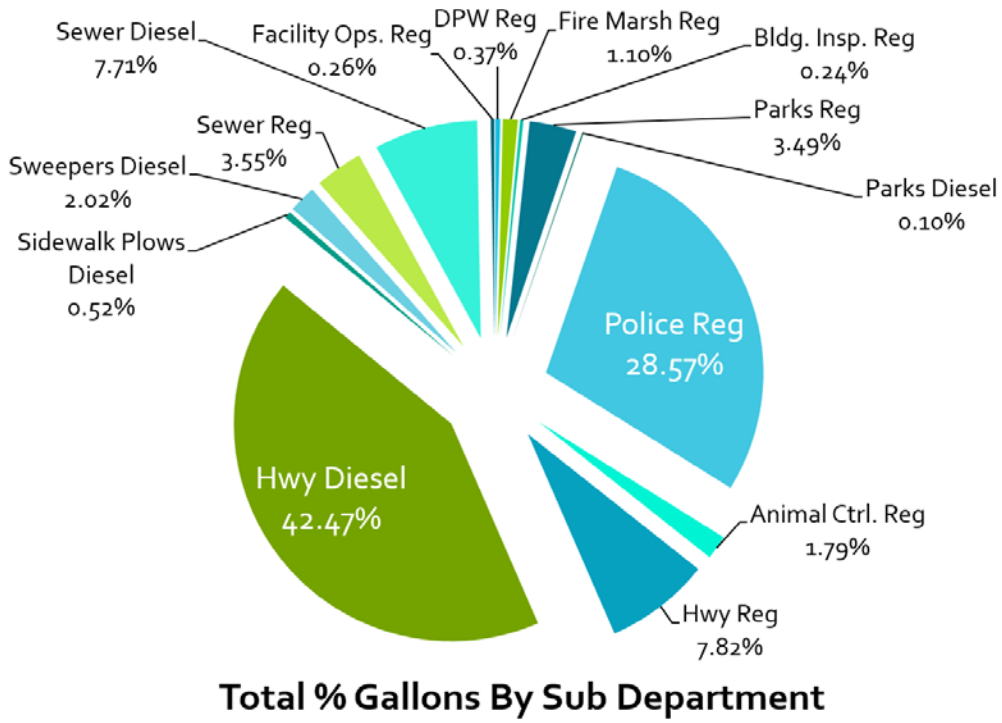


Figure 12. Percent Total Gallons Consumed by Town Operations Sub-Department

Department	MT CO_2e	MMBtu
Operations	665	9,237
Town Hall	18	268
Public Safety	278	4,116
Parks	33	487
Totals	**994**	**14,108**

Table 4. Town Operations Vehicle Emissions and Energy Use by Department

Town Operations: Solid Waste

Waste is another source category that was considered Scope 3 and emissions were calculated outside of the Accounting Tool. The Tool suggested the use of the EPA WARM Model and so the Town Operation's waste-related emissions were calculated through this model[24]. After inputting the data acquired from the Town Waste Management invoices into the Model, Waste actually gives the Town emissions credits[25] even though disposal contributes to 23% of total costs. The WARM Model calculates credits by assuming that all recycled or composted material avoids – or offsets – the GHG emissions associated with producing the same amount of secondary materials from virgin inputs.

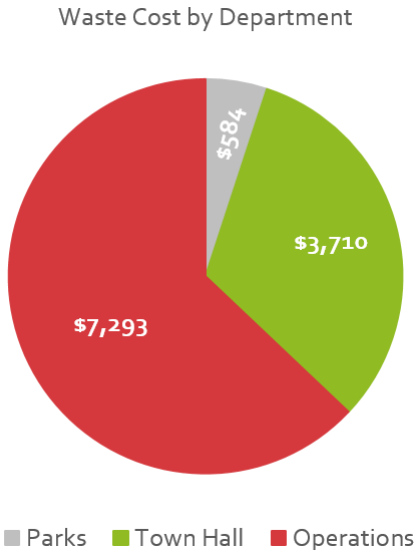


Figure 13. Town Operations Waste Costs Breakdown by Department

Based on invoices given from the Town, Waste can be attributed to three departments: Parks, Town Hall, and Operations. *Figure 13* illustrates this breakdown of cost. *Figure 14* shows how Town Categorical Waste data was transferred into the WARM Model Categories and the corresponding tonnage. It also explains that the Town receives MT CO_2e credits for Waste that is recycled or composted.

The data used in the Model was collected through the Department of Public Works and information given from Mike DeClerk from Waste Management[26].

WARM Model Categories	Town Categories	Tons Landfilled	Tons Recycled	Tons Composted	Total MT CO_2e
Corrugated Containers	Cardboard	-	103	-	(321)
Leaves	Leaves & Grass, Cell & Packer	-	-	1,329	(163)
Branches	Brush, Trees	-	-	3,420	(420)
Mixed Recyclables	Parks & Recreation, Town Hall, Operations	-	4	-	(11)
Mixed MSW	Trash: Parks & Recreation, Town Hall, Operations	414	-	-	200
Concrete	Rubble	5,174	-	-	201
Asphalt Concrete	Millings	1,322	-	-	51
Totals		**6,910**	**107**	**4,749**	**(463)**

Figure 14. Table of Town Operations WARM Model Data Inputs and Total MT CO_2e

[24] To learn more about the EPA WARM Model, visit https://www.epa.gov/warm
[25] See Appendix A, Section: Solid Waste (EPA WARM Model) Notes
[26] See Appendix A, Section: Solid Waste (EPA WARM Model) Notes

Community Emissions Profile[27]

While the Community's role in fighting against climate change is extremely important, interventions that affect Community emissions is much harder to control and execute than similar interventions within the local government operations. However, the Community's contribution to the Town of Brighton's total emissions and energy use is 99.6%. These emissions total 434,789 MT CO2e Therefore it is crucial to understand where the emissions are coming from within the Community and how the Town, as a whole can use this information to better adopt policies and programs that help combat climate change and reduce these emissions. This significant contribution on behalf of the Community is typical for other similarly-sized communities, such as Binghamton, which attributes 98.6% of their emissions to their own Community[28].

The Town of Brighton Community is fortunate in that its population is interested and willing to be involved in practices that will decrease emissions. This Community Inventory explains where the majority of emissions are coming from, and illustrates where there can be improvement.

This large amount of emissions from the Community seems overwhelming, but when the emissions are broken down into sectors and sources, the data is easier to digest. *Figure 15* and *Table 5* show Community emissions by source, with Vehicles accounting for about 50% of total emissions.

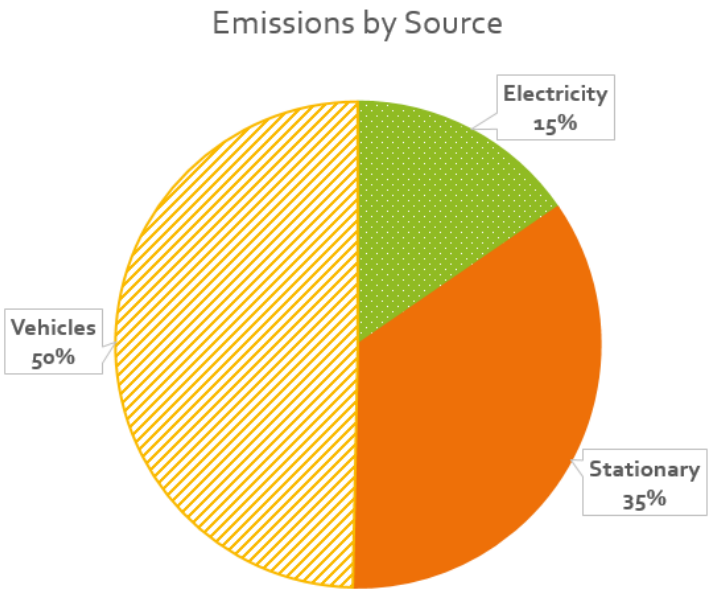


Figure 15. Community Percent Emissions by Source

Source	MT CO_2e	Percentage
Electricity	67,714	15%
Stationary	153,201	35%
Vehicles	217,978	50%
Waste[29]	(4,105)	NA
Total	**434,789**	

Table 5. Community Emissions by Source

[27] Gregory Shinaman, U of R Student, conducted the Community GHG Inventory
[28] GHG Inventory Report, Binghamton, New York available at: http://goo.gl/rY88yV
[29] Not included in Figure 15 because of its negative number, Brighton received emissions credits for waste

Community Sector Breakdown

The Community sector breakdown is fairly straightforward. These sectors were predetermined by Rochester Gas and Electric in the data that was provided. In total, there are five sectors including Residential, Commercial, Industrial, Street and Area Lighting, and Public Authority. Throughout the Inventory, there was great care taken to make sure that none of these Community datasets were overlapping with Town Operation. However, it was determined that part of the dataset for Public Authority double counted data that was already inventoried as part of the Municipal Inventory process and therefore was subtracted away from the Community data in the summary. Through conversation with representatives from Climate Action Associates, it was learned that Public Authority[27], is a revenue class specified by the Public Service Commission. What it includes, however, varies across utilities and communities. It sometimes includes municipal owned accounts, but may also include other public-related entities like public hospitals, universities and schools. At this point, the category does not appear to be consistent across utilities. Climate Action Associates noted that communities will typically include this data in the "Commercial" sector of a GHG inventory, since the nature of the public services relate to a commercial activity.

Additionally, it is important to note that the Street and Area Lighting data includes non-municipal operated lighting throughout the Town, and School Buses and School Non-Bus Vehicle data is for the Brighton Central School District only. The community greenhouse gas calculation does not reflect greenhouse gas emissions associated with other school districts that may also operate within Town of Brighton borders.

Furthermore, the Highway group of the Vehicles sector refers to all the emissions associated with all the vehicles that travelled through the Town of Brighton in 2014, including trips that originated in or outside of the Town. This data and definition of the data was provided by the Genesee Transportation Council. The following figures illustrate a more detailed sector information for emissions sources[28]

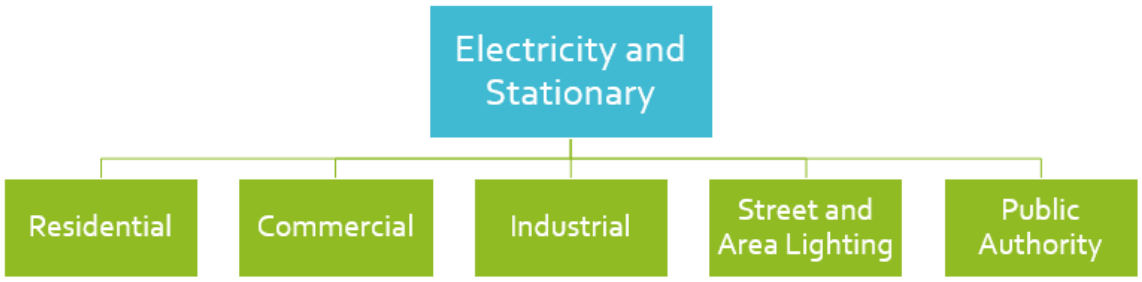


Figure 16. Community Electricity and Stationary Sector Breakdown

[27] See Appendix B, Section Electricity and Stationary Notes
[28] Waste not included because it doesn't require any further breakdown.

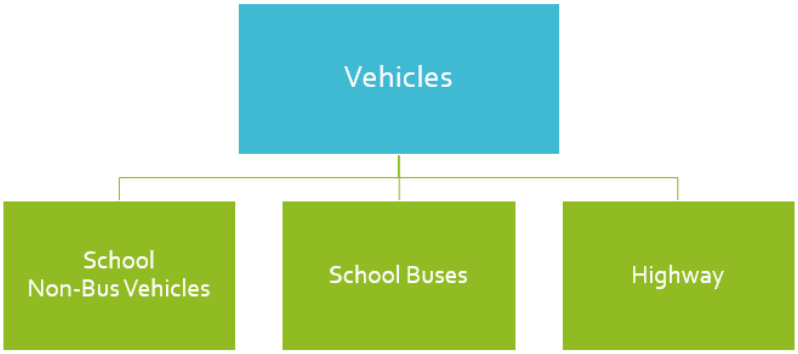


Figure 17. Community Vehicles Sector Breakdown

Community Information Breakdowns by Sector and Source

The figures below *(Figures 18 and 19)* illustrate energy consumption and emissions by source and sector. *Figure 18* shows how Community-wide energy use is overpowered by vehicle use and transportation in the Town of Brighton. Also, it is interesting to note that Stationary (natural gas) energy consumption is significantly more than Electricity energy use, possibly explaining efficiencies in the Electricity sector but not in the Stationary sector.

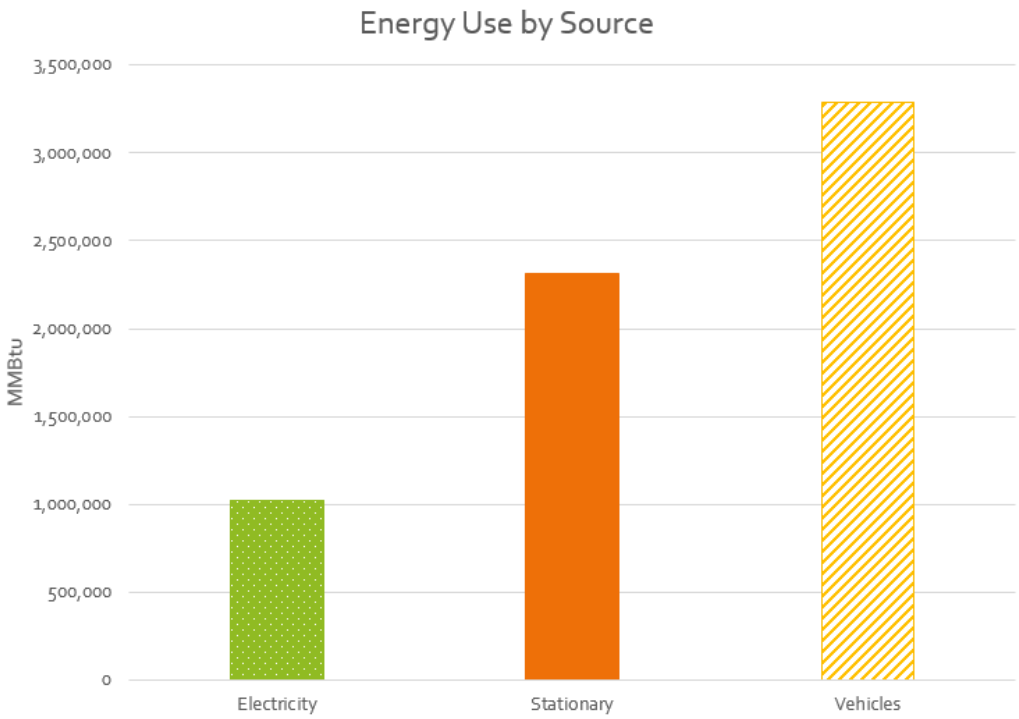


Figure 18. Community Energy Use By Source

In *Figure 19*, approximately 50% of total Community emissions come from Vehicles. Unlike Town Operations, the second largest contributor of emissions comes from Stationary combustion accounting for about 35% of total emissions. While cost and energy consumption data was not available for all sectors of the Community data, it is important to note that costs would be approximately proportional to energy consumption and emissions. Therefore, the majority of costs would come from the fueling of Community vehicles. Understanding how the emissions and energy consumption is distributed across the Community sectors is crucial to being able to incorporate Community initiatives into the Climate Action Plan moving forward for the Town of Brighton.

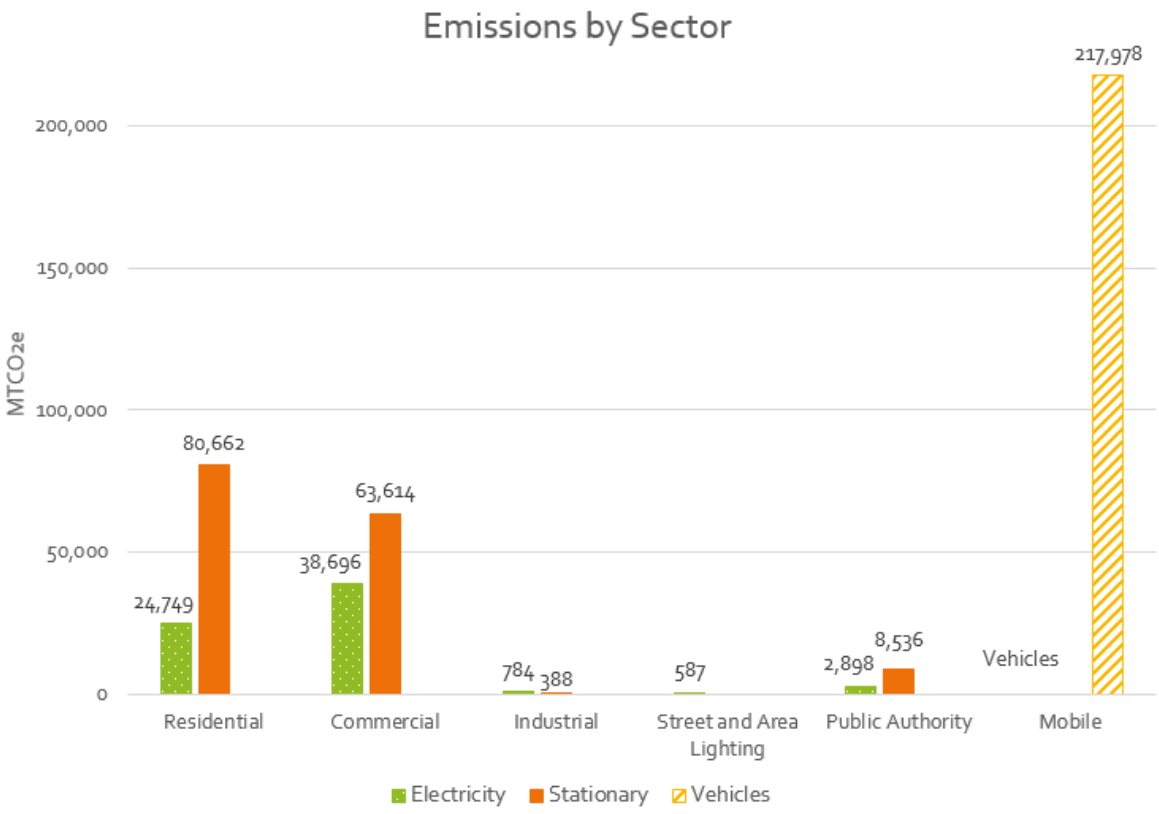


Figure 19. Community Emissions by Sector and Source

COMMUNITY: ELECTRICITY AND STATIONARY

The majority of Electricity and Stationary (natural gas) energy consumption comes from the Residential and Commercial sectors. This energy consumption can be attributed to general electric use in Community homes as well as heating and cooling within the homes. The Town of Brighton also has a developed Commercial sector including restaurants, shops and other retail stores which explains the large amount of energy consumption within the Commercial sector. Details of this data is shown in *Figure 20*. The electric and natural gas for all of the Town of Brighton Community is supplied by RG&E, the same utility provider as the Town Operations. The records required to input this data were produced by RG&E which allowed for more consistent data readings between sectors. As noted earlier in the report, at this point, the Public Authority sector is still not completely understood and this uncertainty is explained in detail in Appendix B, Section Electricity and Stationary Notes.

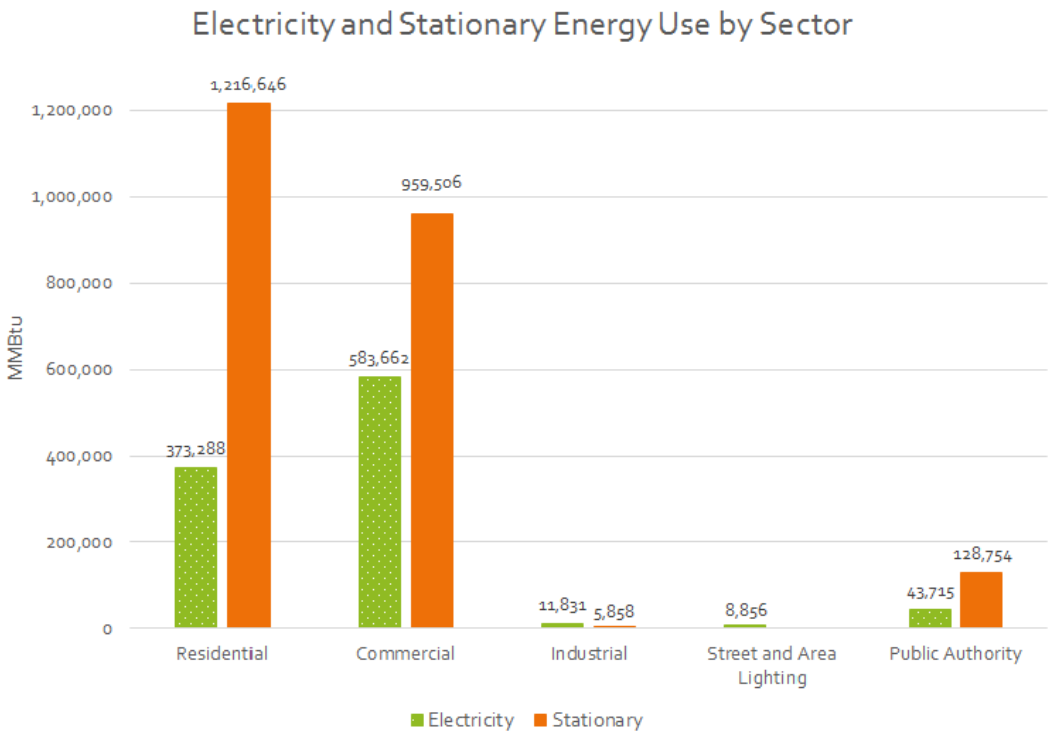


Figure 20. Community Electricity and Stationary Energy Use by Sector and Source

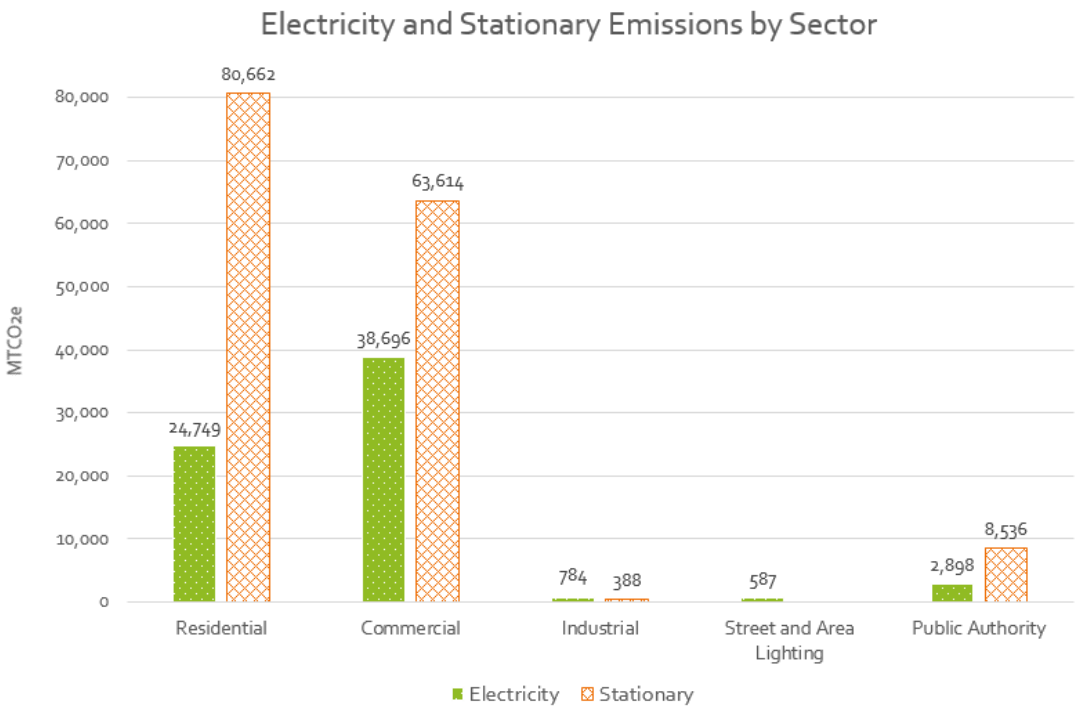


Figure 21. Community Electricity and Stationary Emissions by Sector and Source

As a note, the Town of Brighton Community does not have a significant Industrial area and that explains the low energy consumption of this sector. It is no surprise that together, Electricity and Stationary are responsible for the majority of energy use and emissions.

COMMUNITY: VEHICLES

Vehicles account for about half of the total Community emissions in the Town of Brighton. These emissions were calculated resulting in 217,978 MT CO_2e. As mentioned earlier, Vehicle emissions were calculated outside of the Community Module Tool due to lack of available data. Instead, data was collected from the Genesee Transportation Council[29] that was housed within a study the organization had performed for all of Monroe County. Other data regarding the School District Vehicles were acquired from the School District itself, not inclusive of other school districts operating withing the Town of Brighton boundaries,and is reflected in the Inventory as such. This data was then manipulated back into the Tool to account for Vehicle emissions in the summary sheets.

[29] See Appendix B, Section Vehicle Notes

Vehicle data included School Non-Bus Vehicles, School Buses, and Highway. Together, these three categories account for all of the traffic that can be considered Community transportation.

COMMUNITY: WASTE

In the Community Inventory, Waste emissions data was considered a Scope 3 category and, as suggested by the Community Tool, was calculated using the EPA WARM Model[30]. The Community produced 15,697 tons of solid waste that was collected and disposed of through recycling and landfill. This Model showed that the Town of Brighton's Community Waste actually gives emissions credits[31]. Based on data acquired from Waste Management's (WM) Mike DeClerk, the WARM Model was used to calculate estimated MT CO2e emissions related to the entire Community's Solid Waste output[32]. From the WM information, the following categories were used for the WARM Model: Aluminum Cans, Glass, Corrugated Containers, Newspaper, Mixed Plastics, and Mixed Municipal Solid Waste (MSW). *Figure 22* illustrates these categories in tonnage, showing that Newspaper recycling alone counteracts the emissions from the Community's MSW.

Material	Tons Recycled	Tons Landfilled	Total MT CO2e
Aluminum Cans	149	-	(1,357)
Glass	372	-	(103)
Corrugated Containers	819	-	(2,554)
Newspaper	2,085	-	(5,735)
Mixed Plastics	186	-	(192)
Mixed Municipal Solid Waste	-	12,086	5,836
Totals	3,611	12,086	(4,105)

Figure 22. Table of Community WARM Model Data Inputs and Total MT CO_2e Associated with Waste

[30] See Appendix B, Section Vehicle Notes
[31] See Appendix B, Section Solid Waste (EPA WARM Model) Notes
[32] This does not include wastewater or sewage.

Historical Inventory Comparisons

Multiple inventories have been conducted using 2001 and 2005 data in the past. These Town GHG inventories were conducted using STAPPA/ALAPCO and ICLEI's Clean Air and Climate Protection Software. These inventories were an initiative of the Green Brighton Task Force to engage the Town in GHG monitoring in 2008. The Task Force also completed a Community Wide GHG Inventory using 2007 data, using the STAPPA/ALAPCO and ICLEI's Clean Air and Climate Protection Software. This data, however, is inconsistent and due to lack of access to documents, will not be used in this inventory. This Town Operations data, as seen below, is used for historical comparisons to show the overall trend in GHG emissions over the past decade or so in the Town of Brighton.

Town Operations Historical Inventory Comparison[33]

This comparison includes data with and without Waste in the comparison. This was done to normalize the data a little because in previous inventories, that used different Inventory software, Waste was considered as an added CO2 emission or a very small credit in comparison to the EPA WARM Model credits that were given in the 2014 Inventory. Without Waste, the comparison makes more logical sense than before. See *Figure 23* for details. Also, please note that costs are in 2014 dollars to realize the costs over time and to account for other associated factors.

[33] See Appendix C

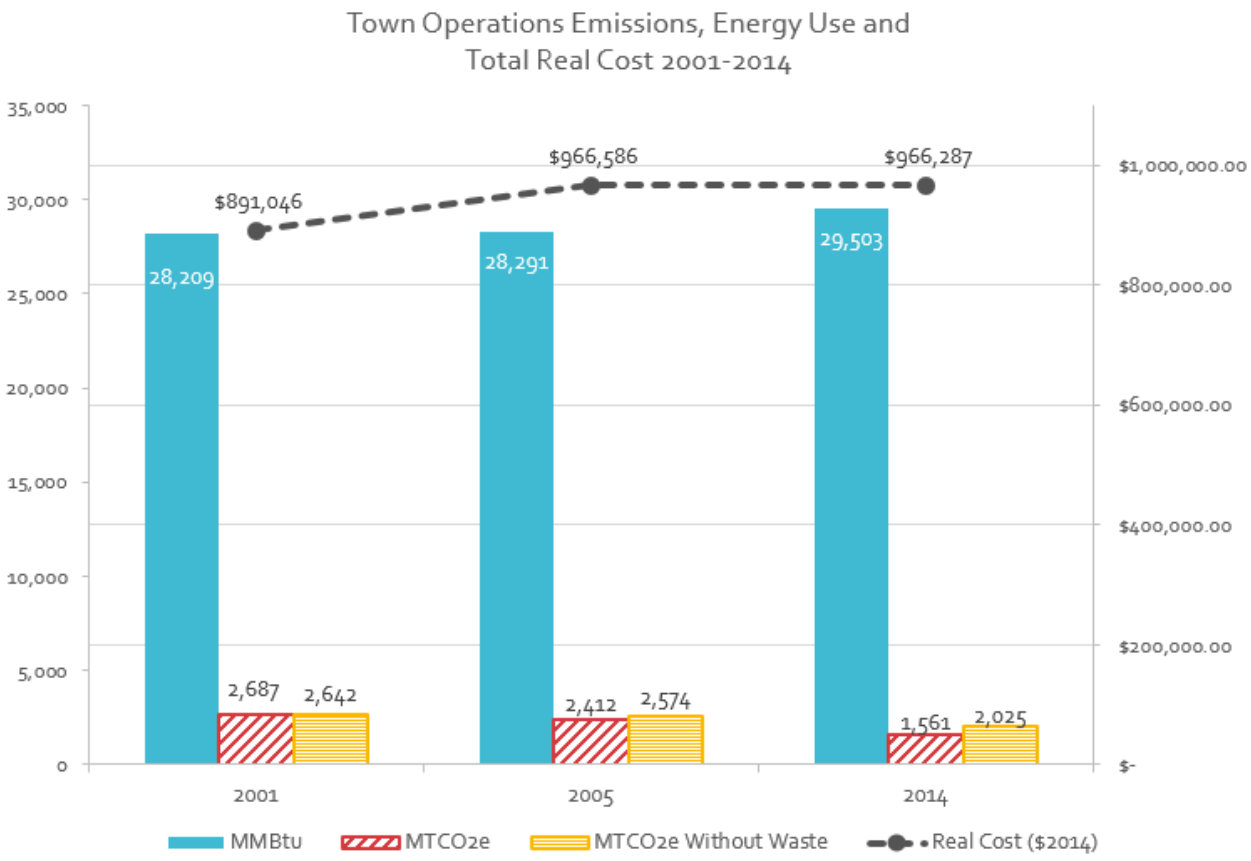


Figure 23. Town Operations Historical Inventory Comparison

This historical comparison illustrates that the Town Operations emissions over the past decade has stayed approximately the same with overall costs and energy consumption increasing slightly. At this point, it is uncertain as to what has caused this general decrease in emissions, but some thoughts include: purchases of more efficient vehicles, conversion of CFC light fixtures, installing more efficient HVAC units, difference in calculations due to varying software used, and a variety of behavior changes. In the next section, current and previous initiatives that have been implemented are explored. While these may not be able to conclusively explain the historical trends for Town Operations, they do offer a glimpse into the Town of Brighton's sustainability and climate-related initiatives prior to this report.

Summary of Prior Initiatives in the Town of Brighton

As previously mentioned, the Climate Smart Communities Program includes 12 Pledge Elements that the Town of Brighton has been working to complete. A few programs and initiatives that the Town has already completed or initiated fulfill some of the Pledge Element requirements and are listed below. The full list of Pledge Elements, Sections, and Points can be seen in Appendix D.

Section 1: Pledge to be a Climate Smart Community

- 1.1: Pass a resolution adopting the CSC Pledge
    - The Town of Brighton Town Board passed the CSC Pledge on April 9, 2014
- 1.2: Create a community task force focused on climate change mitigation and adaptation
    - The Sustainability Oversight Committee and Color Brighton Green to focus on climate change mitigation
- 1.3: Appoint a Climate Smart Community Coordinator
    - Town Board designated Michael Guyon as the CSC Coordinator
- 1.4: Create an internal green team focused on climate change mitigation and adaptation
    - Internal team includes Mike Guyon and Evert Garcia

Section 2: Set Goals, Inventory Emissions, Plan for Climate Action

- 2.1: Develop a government operations GHG emissions inventory
    - Completed in April 2016
- 2.2: Develop a community GHG emissions inventory
    - Completed in April 2016

Section 3: Decrease Community Energy Use

- 3.1: Conduct energy audits of local government buildings
    - Completed Energy Conservation Study in March 2010
- 3.2: Upgrade interior lighting
    - Town Hall fluorescent lighting was updated in 2009
- 3.3: Upgrade HVAC equipment
    - Installed new roof top unit in the Library, completed a study of the Town Hall boiler system and in design for HVAC upgrade in the Public Safety wing in 2009
- 3.5: Install a building energy management system (EMS)
    - 2009 Town Hall HVAC controls upgrade, building controls system now known as Smart Edge
- 3.9: Upgrade water or wastewater treatment facilities and infrastructure

    - The Town Sewer Department has developed an annual relining program for sanitary sewers to reduce the amount of inflow and infiltration entering our system.
- 3.13: Adopt an anti-idling policy for government vehicles
    - New York State Environmental Conservation Law (ECL) prohibits heavy duty vehicles, including diesel trucks and buses, from idling for more than five minutes at a time. The Town has adopted this NYS policy.
- 3.15: Convert streetlights to LED
    - Currently evaluating the purchase of street lighting system and conversion to LED fixtures

Section 4: Increase Community Use of Renewable Energy

- 4.3: Conduct feasibility studies for renewable energy installations
    - The Green Brighton Task Force evaluated the use of Geothermal and Solar at Town Hall

Section 5: Realize Benefits of Recycling and other Climate-Smart Waste Management Practices

- 5.7: Offer recycling to residents
    - Recycling program is offered to all residents and is part of the bidding requirement for waste hauler services for special districts

Section 6: Reduce GHG Emissions through Use of Climate-Smart Land Use Tools

- 6.1: Develop and adopt a comprehensive plan with sustainability efforts
    - Currently updating Comprehensive Plan using neighborhood LEEDs guidelines and CSC checklist
- 6.3: Adopt a renewable energy ordinance
    - Adopted a solar ordinance in the Town of Brighton
- 6.10: Implement strategies that support bicycling and walking
    - Completed bicycle pedestrian mast plan, *Bikewalk Brighton*
- 6.11: Install electric-vehicle infrastructure
    - Electrical vehicle charging station in design and scheduled for installation summer of 2016
- 6.14: Implement traffic calming measures
    - Speed humps have been utilized on South Landing Road to slow traffic
- 6.18: Develop a local forestry or tree planting project or program
    - As a Tree City USA, the Town of Brighton is required to manage Town trees

Section 7: Enhance Community Resilience and Prepare for Effects of Climate Change

- 7.10: Create or update a watershed assessment to identify flooding and water quality properties
    - The Town is a member of the Monroe County Stormwater Coalition who is in the process of completing a county wide evaluation of stormwater quality improvements
- 7.11: Adopt a floodplain management and protection ordinance to reduce vulnerability to flooding and erosion
    - The Town has adopted a floodplain policy, Watercourse EPOD and Floodplain Code
- 7.15: Promote community flood prevention strategies through the National Flood Insurance Program Community Rating System
    - The Town is presently considering a membership in the NFI program
- 7.16: Use green infrastructure to manage stormwater in developed areas
    - The NYSDEC Design manual requires the use of green infrastructure on new and redevelopment projects
- 7.17: Conserve wetlands and forests to manage stormwater, recharge groundwater and mitigate flooding
    - Federal and State wetland are regulated by the NYSDEC and USACOE

Section 8: Support Development of Green Innovation Economy

- 8.6: Create and promote local farmers' markets
    - The Town currently supports and funds the existing Brighton Farmers Market

Section 9: Inform and Inspire the Public

- 9.3: Host climate related educational seminars, workshops, conferences, or fairs
    - Energy Fair is hosted by Color Brighton Green
    - Curb Your Car weeks hosted Color Brighton Green
    - Winter Film/Speaker series hosted by Color Brighton Green

Appendix A: Town Operations Data Details

eGRID Emissions Factors

Prompted in the CSC GHG Accounting Tool, the Town of Brighton Sustainability Oversight Committee chose to use the New York State Average eGRID (emissions factors – lb/MWh) even though in our current region we have a cleaner electric grid due to our current but not forever access to Ginna Nuclear Power Plant. The Emissions factors are as follows for the NYS average emissions factors:

- CO_2: 582.85
- CH_4: 0.024
- N_2O: 0.00615
- Total EF lb CO_2e/MWh: 585.27

Electricity and Stationary Notes

This Rochester Gas and Electric data was collected by U of R intern, Mary Willis. This data was only considered Town Operations if the municipality itself was responsible for payment of the utility. This included buildings, pumps and other various operations under municipal control. This data was then entered into the CSC GHG Accounting Tool by Mary and then later fact checked by Cassidy Putney and Erinn Ryen by comparing inputs and the original documents provided to Mary.

Vehicles Notes

Due to the lack of detailed data required by the CSC GHG Accounting Tool, Cassidy Putney created a sheet within the spreadsheet titled *Vehicle Data Supplement Summary* to supplement the information. The data required in order to use the Tool included:

- Department of Vehicle
- Vehicle Year
- Vehicle Type
- Vehicle Model
- Fuel Type
- Fuel Consumed (gallons)
- Vehicle Miles Traveled (VMT)

The data that was available was provided by the Police Department via an excel spreadsheet that only had gallons (gasoline and diesel) consumed per year per department. The original data included the following departments: DPW, Fire Marshall, Building Inspector, Parks, Recreation, Police, Canine, Animal Control, Highway, Sidewalk Plows, Sweepers, Sewer, and Facility Operations. These departments were then condensed into Official Departments determined by Mike Guyon and Evert Garcia:

- **Operations** –
  - Highway
  - Sidewalk Plows
  - Sweepers
  - Sewer
- **Town Hall** –
  - DPW, Fire Marshall, Building Inspector, Facility Operations
- **Public Safety** –
  - Police, Animal Control
- **Parks** –
  - Parks
- **Recreation** –
  - Recreation

The following email correspondence from Evert Garcia explains the decisions made regarding these department choices.

On Oct 19, 2015, at 4:50 PM, Evert Garcia <evert.garcia@townofbrighton.org> wrote:
Cassidy/Erinn,
Consider the following as a follow up to my previous email:

- Police and Animal Control should go under a new category titled **"Public Safety."**
- Facility Operations and Fire Marshall will go under **Town Hall.**

I believe that should satisfy all outstanding questions for vehicle data.
Please let me know if you have any further questions regarding this matter.

Evert Garcia, EIT | **Town of Brighton**
On Oct 19, 2015, at 2:17 PM, Evert Garcia <evert.garcia@townofbrighton.org> wrote:

Hey Cassidy,
I offer the following responses:

- Police- I think that they should be on their own. I will confirm with Mike and get back to you.
- Highway- Yes. These should go under Operations.
- Animal Control- Let me discuss with Mike.
- Sewer- Yes. The should go under Operations.
- Facility Operations- Let me confirm, but this might have to go under Town Hall (I know that it is counter intuitive.)
- Sweepers- Yes. This should go under Operations.

- DPW- This should go under Town Hall.
- Fire Marshall- This one is tricky. Let me discuss and confirm for you. They operate out of the Town Hall.
- Building Inspection- This should go under Town Hall.
- Sidewalk Plows- This should go under Operations.
- Parks- Yup. This should go under Parks.
- Recreation. Yes. This should go under recreation.

Evert Garcia, EIT | **Town of Brighton**

Costs were then calculated using an average cost of gasoline and diesel in 2014 found on this website: https://www.eia.gov/dnav/pet/pet_pri_gnd_dcus_nus_a.htm

MT CO_2e was calculated by multiplying the total gallons by the conversion factor that was given in the CSC GHG Accounting Tool for both gasoline and diesel:

- Gasoline: 8.78 kg CO_2/gal
- Diesel: 10.21 kg CO_2/gal

These factors give the amount of CO_2 in kg. This number was then multiplied by 0.001 to convert to Metric Tons of CO_2e.

MMBtu was also calculated within this sheet, using the conversions that were given in the CSC GHG Accounting Tool for both gasoline and diesel:

- Gasoline: 0.13
- Diesel: 0.14

Gallons were multiplied by the respective conversion to calculate MMBtu.

After all of these calculations were completed, the calculated emissions data was then linked back into the original CSC GHG Accounting Tool through the Summary sheet through pre-existing formulas.

Below are screenshots of the additional sheet that was created to complete all these calculations.

Gallons is Unit	DPW Reg	Fire Marsh Reg	Bldg. Insp. Reg	Parks Reg	Rec	Parks Diesel	Police Reg	Canine	Animal Ctrl. Reg	Hwy Reg
	Reg	Reg	Regular	Reg	Reg	Diesel	Reg	reg	reg	Reg
January-14	25	127	22	306		0	2788	0	222	781
February-14	24	108	11	331		0	2286	0	193	847
March-14	51	94	21	300		0	2552	0	180	818
April-14	14	98	11	276		4	2394	0	154	582
May-14	46	83	20	285		19	2490	0	163	579
June-14	38	95	40	273		14	2582	0	149	745
July-14	14	132	27	393		14	2639	0	177	672
August-14	50	83	29	351		13	2396	0	167	611
September-14	29	99	30	298		10	2516	0	132	690
October-14	12	73	12	364		10	2486	0	161	564
November-14	29	67	19	222		19	2354	0	61	625
December-14	51	94	10	237		0	2310	0	106	637
2014 Totals in Gallons	382	1152	251	3636	0	102	29794	0	1866	8150
2014 Total Gallons	104280									
2014 Average Cost	$ 1,288.96	$ 3,889.83	$ 847.38	$ 12,276.49	$ -	$ 390.92	$ 100,583.19	$ -	$ 6,300.29	$ 27,514.74
2014 Average Total Cost	$ 376,776.52									
Department % of Total Gallons	0.3661%	1.1049%	0.2407%	3.4871%	0.0000%	0.0980%	28.5708%	0.0000%	1.7896%	7.8156%
Department % of Total Cost	0.3421%	1.0324%	0.2249%	3.2583%	0.0000%	0.1038%	26.6957%	0.0000%	1.6722%	7.3027%
CO2 kg Calc (gas: 8.78 kg CO2/gal)(diesel: 10.21 kg CO2/gal)	3352	10116	2204	31928		1043	261588		16385	71558
MMBTU (gas: 0.13 diesel: 0.14)	50	150	33	473		14	3873		243	1060
MT CO2e	3	10	2	32	0	1	262	0	16	72

Net GHG Emissions by Department (MT CO_2E)

Department	CO_2	CH_4	N_2O	TOTAL
Operations	665			665
Town Hall	18			18
Public Safety	278			278
Parks	33			33
Recreation	-			-
Total Mobile Emissions	994	-	-	994

Net GHG Emissions by Department (MT CO_2E)

Department	MT CO2e
Operations	665
Town Hall	18
Public Safety	278
Parks	33
Recreation	0

Energy Use by Department (MMBTU)

Department	MMBTU
Operations	9237
Town Hall	268
Public Safety	4116
Parks	487
Recreation	0

Costs by Department	
Operations	$ 250,272.42
Parks	$ 12,276.49
Recreation	$ -
Town Hall	$ 6,953.21
Street Lights	0
Public Safety	$ 106,883.48

Appendix A, Figure 1: Screenshot from Town Operations Vehicle Data Supplement Summary Sheet

Hwy Diesel	Sidewalk Plows Diesel	Sweepers Diesel	Sewer Reg	Sewer Diesel	Facility Ops. Reg
Diesel	Diesel	Diesel	reg	diesel	regular
5158	71	0	256	626	41
4439	252	0	318	697	19
3930	185	0	347	639	36
2541	0	177	295	574	15
3144	0	257	376	614	22
3448	0	245	263	584	20
3229	0	243	439	650	21
2649	0	155	306	429	16
2885	0	184	236	515	23
3824	0	285	307	788	22
4064	0	242	346	1056	16
4972	32	322	214	865	23
44284	539	2112	3702	8036	275
$ 169,384.39	$ 2,061.68	$ 8,076.49	$ 12,498.96	$ 30,736.17	$ 927.05
42.4660%	0.5169%	2.0248%	3.5503%	7.7058%	0.2633%
44.9562%	0.5472%	2.1436%	3.3173%	8.1577%	0.2460%
452135	5503	21558	32506	82043	2411
6200	75	296	481	1125	36
452	6	22	33	82	2

Departments	Sub-Departments
Operations	Hwy, Sidewalk Plows, Sweepers, Sewer
Town Hall	DPW, Fire Marshall, Bldg. Inspection, Facility Ops.
Public Safety	Police, Animal Ctrl.
Parks	Parks
Recreation	Recreation

	Average Costs/Gallon 2014
Gasoline (https://www.eia.g	$ 3.38
Diesel (https://www.eia.gov	$ 3.83

Appendix A, Figure 2: Screenshot from Town Operations Vehicle Data Supplement Summary Sheet

Solid Waste (EPA WARM Model) Notes

According to the CSC GHG Accounting Tool, municipal waste is considered a scope 3 source. This Tool suggests the use of the Environmental Protection Agency's Waste Reduction Model (available online at https://www3.epa.gov/warm/Warm_Form.html) to calculate MT CO_2e emissions for solid waste. The extracting, harvesting, processing, transporting and disposing of materials result in GHG emissions. The EPA WARM Model was designed to help managers and policy-makers understand and compare the life-cycle GHG and energy implications of materials management options for materials commonly found in the waste stream. The general formula for net GHG emissions modeled in WARM is as follows:

Net GHG emissions = Gross manufacturing GHG emissions – (Increase in carbon stocks + Avoided utility GHG emissions)

The reason the Town of Brighton receives GHG emissions credits is because of the amount of recycling and composting it performs within its waste stream. Through recycling, GHG emissions from making an equivalent amount of material from virgin inputs are avoided. Therefore, recycling reduces GHG emissions because manufacturing a product from recycled inputs requires less energy than making the product from virgin inputs. In addition, composting, with application of compost to soils results in carbon storage and small amounts of CH_4 and N_2O emissions from decomposition. Altogether, in the case of the Town Operations, the GHG emissions avoided by recycling and composting practices outweighs the amount of GHG emissions added through other management scenarios such as landfill. For more information on how the EPA WARM Model realized its calculations visit https://www3.epa.gov/warm/pdfs/WARM_Documentation.pdf

Available data included invoices from Waste Management and Landfill data obtained through spreadsheets from Chad Roscoe. These data sheets are titled *2014 Landfill Quantities.xlsx*.

2014 Landfill Quantities (TONS)	Brush	Cell&Packer	Leaves&Grass	Rubble	Dirt	Trees	Mulch	Compost	Millings
Town of Brighton IN	2,108	311	961	4,941	316	64	90	0	1,322
Contractor IN	225	4	26	233	16	1,023	11	0	0
Totals	2,333	315	987	5,174	332	1,087	101	0	1,322

Appendix A, Table 1: Summary of data provided in 2014 Landfill Quantities.xlsx

The Waste Management invoices were physical paper copies provided by the Town's Department of Public Works. However, the invoices received did not include any quantities, therefore Waste Management was contacted to obtain Town Operations waste data. Below is a summary of the conversation with Mike DeClerk, a representative from Waste Management via email from Greg Shinaman.

On Jan 12, 2016, at 11:17 AM, Gregory Shinaman gshinama@u.rochester.edu wrote:

Hey Cassidy,

I just met with Mike, and I think he gave us everything we needed. He couldn't give out costs though, he said it was a privacy issue or something like that. He did say, however, that we can get information from the town, they should have the invoices for everything.

Outside of that, he gave us a bunch of good stuff. The trash generation per year for the police department, town hall, and parks is 378 tons. The cardboard generation per year for the same buildings is 103 tons. Other recyclables make up four tons per year. There is also another town operations center that has a rolloff, which is just a big dumpster that produces 36 tons of trash per year. So total trash from town operations (including the parks, police, fire, etc.) is 414 tons per year. He said that he couldn't give a very good breakdown of recyclables for parks and other town related buildings, but he did give me a breakdown for residential that you could use if you want. He said it won't be perfect though. Here it is:

75% newspaper

13% glass

4% tin cans

1% aluminum cans

7% plastics

That percentage breakdown is for the four tons of other recyclables only. The 103 tons of cardboard is pure cardboard.

The WARM Model provides specific categories for calculations. The data provided through the Town and Waste Management had very different categories and in order to properly attribute them to a WARM category, Chad Roscoe and Cassidy Putney made the following decisions:

WARM Model Categories	Town of Brighton Categories included in the WARM Model Categories
Leaves:	Leaves & Grass, Cell & Packer
Concrete:	Rubble
Branches:	Brush, Trees
Asphalt Concrete:	Millings
Mixed Recyclables:	Recyclables
Municipal Solid Waste:	Trash
Corrugated:	Cardboard

Appendix A, Table 2: WARM Model and Town of Brighton Categories

Appendix B: Community Data Details

eGRID Emissions Factors

Prompted in the Local GHG Inventory Tool: Community Module, the Town of Brighton Sustainability Oversight Committee chose to use the New York State Average eGRID (emissions factors – lb/MWh) even though in our current region we have a cleaner electric grid due to our current but not forever access to Ginna Nuclear Power Plant. In this particular tool, this average is referred to as "NYUP eGRID subregion". The Emissions factors are as follows for the NYS average emissions factors:

- CO_2: 545.79
- CH_4: 0.016
- N_2O: 0.007
- Total EF lb CO_2e/MWh: 548.35

Electricity and Stationary Notes

This data was collected by U of R intern, Greg Shinaman with the assistance of Erinn Ryen. This data is from Rochester Gas and Electric and is a part of their developed data for all communities that it serves in the Climate Smart Communities program in an effort called the "Utility Energy Registry". The data collected includes sectors of Residential, Commercial, Industrial, Area and Street Lighting, and Public Authority.

Most of these sectors are straightforward, however Public Authority is more of a confusing sector. Through a conversation with representatives from Climate Action Associates it was learned that "Public Authorities" is a revenue class specified by the Public Service Commission. What it includes, however, varies across utilities and communities. It sometimes includes municipal owned accounts, but may also include other public-related entities like public hospitals, universities and schools. At this point it does not appear to be consistent across utilities so it has not been too valuable for comparison. Typically, they noted that communities will include this in the "Commercial" sector of a GHG inventory, since the nature of the public services relate to a commercial activity. For more detail, please refer to the email chain below.

On May 9, 2016, at 1:37 PM, Evert Garcia evert.garcia@townofbrighton.org wrote:

For your records:

From: Jim Yienger [mailto:mr_jjy@climatetools.com]
Sent: Monday, May 09, 2016 11:20 AM
To: 'Evert Garcia' <evert.garcia@townofbrighton.org>; 'Ekblad, Dazzle L (DEC)' <Dazzle.Ekblad@dec.ny.gov>; veronica_Dasher@rge.com; 'Robyn Reynolds' <robyn.reynolds@climatetools.com>
Cc: 'Mike Guyon' <mike.guyon@townofbrighton.org>
Subject: RE: Brighton energy data info request to RGE

Hi Evert- what you are referring to is called the "rate class" and veronica is correct that all accounts use the same rate class structure whether public or private. The utility data we have is tracked to "Revenue class" and that is a separate high-level classification used by utilities to report sales to the PSC. This includes residential, commercial, industrial, public authorities, and street lighting. Utilities assign these codes independent of rate class and they are not visible on your bills. While rate classes typically line up well to revenue classes, there is inconsistency in the public authorities line. For example, a customer service person setting up a new account for a public hospital using a commercial SC2 rate class may code its revenue class as a "public authority", whereas another person may code it as "commercial". I have not come across detailed rules from PSC on what entities should be coded as public authorities, and so it might be that PSC simply is not concerned about some inconsistency on the public authorities line if they are only using the data for high level reporting objectives.

For Town of Brighton and any community, it's always best to rely on ground up accounting of town owned accounts for any sort of corporate reporting or planning.

Hope that helps. Wish it was more clear

Jim

From: Evert Garcia [mailto:evert.garcia@townofbrighton.org]
Sent: Monday, May 9, 2016 10:40 AM
To: Jim Yienger <mr_jjy@climatetools.com>; Ekblad, Dazzle L (DEC) <Dazzle.Ekblad@dec.ny.gov>; veronica_Dasher@rge.com; Robyn Reynolds <robyn.reynolds@climatetools.com>
Cc: Mike Guyon <mike.guyon@townofbrighton.org>
Subject: RE: Brighton energy data info request to RGE

Thanks for this info Jim.

Looking though the rate classes for all of our existing RG&E accounts, I do not seem to be able to locate one account under Public Authority. All of our Town accounts all fall under one of the following: SC1 Streetlighting, SC2: Streetlighting, SC2: Commercial, SC3:Traffic Signal, SC3: Nonresidential: 100 kW Min and SC7: Nonres: 12 kW Min.

I am thinking that for Brighton, Public Authority may be the school districts and a couple of the colleges. Any thoughts on this Veronica?

Thank you all for your time regarding this matter. You have all been most helpful.

Evert Garcia, EIT | **Town of Brighton**

2300 Elmwood Avenue | Rochester, NY 14618

From: Jim Yienger [mailto:mr_jjy@climatetools.com]
Sent: Friday, May 06, 2016 5:10 PM
To: 'Ekblad, Dazzle L (DEC)' <Dazzle.Ekblad@dec.ny.gov>; veronica_Dasher@rge.com; 'Evert Garcia' <evert.garcia@townofbrighton.org>; 'Robyn Reynolds' <robyn.reynolds@climatetools.com>
Subject: RE: Brighton energy data info request to RGE

Hi All,

RG&E developed this data for all communities it serves for the Climate Smart Communities program, and continues to do so under an effort called the "Utility Energy Registry".

The "Public Authorities" line is a revenue class specified by the PSC. What it includes however, we've found, varies across utilities and communities. It includes municipal owned accounts, but *may* also include other public-related entities like public hospitals, universities, and sometimes schools. It does not appear to be consistent across utility so it has not been too valuable for comparison.

Typically, communities will include this in the "commercial" sector of a GHG inventory, since the nature of the public services relate to a commercial activity.

Hope this helps.

Jim

From: Ekblad, Dazzle L (DEC) [mailto:Dazzle.Ekblad@dec.ny.gov]
Sent: Friday, May 6, 2016 4:42 PM
To: veronica_Dasher@rge.com; Evert Garcia <evert.garcia@townofbrighton.org>; mr_jjy@climatetools.com; Robyn Reynolds (robyn.reynolds@climatetools.com) <robyn.reynolds@climatetools.com>
Subject: Brighton energy data info request to RGE

Hello Veronica - Thanks for your call about the Climate Smart Communities program and the request you received from Brighton's Evert Garcia – I've copied him here, along with Jim and Robyn from Climate Action Associates, in hopes that connecting everyone will result in getting Evert's question answered.

Hello Evert – From what Veronica described it sounds like your question is about the community energy use report that Jim generated for Brighton using utility data from RG&E. Could you re-iterate your question to this group via email? Between clarification from Jim and Veronica, I'm hoping you can get your question answered.

Ms. Dazzle Ekblad

Climate Policy Analyst, Office of Climate Change

New York State Department of Environmental Conservation

After this email conversation and discussion with the Sustainability Oversight Committee, it was decided that for the purpose of our GHG Inventory, we would subtract Town Operations' Electricity and Stationary kWh consumption out of this Public Authority sector in the Community Inventory. We wanted to make sure that municipal operations were not double counted anywhere in the inventory and decided to just note that this is what we chose to do because of the uncertainty of what this sector truly included.

After this was all sorted out, this data was then entered into the Local GHG Inventory Tool: Community Module to calculate emissions.

Vehicles Notes

Similar to the Town Operations Inventory, there was a lack of detailed data available that was required by the Local GHG Inventory Tool: Community Module. Due to this lack of information, Greg Shinaman created a sheet in addition to the tool titled *FINAL Mobile Data 2_Greg_4.06.2016.xlsx* to supplement the information. The data required to use the original Tool included:

- Sector of Vehicle
- Vehicle Year
- Vehicle Type
- Vehicle Model
- Fuel Type
- Fuel Consumed (gallons)
- Vehicle Miles Traveled (VMT)

Fortunately, we were able to obtain community transportation data from a variety of sources including the Brighton School District and the Genesee Transportation Council. The School District provided a list of non-bus vehicles as well as buses and their corresponding fuel type, mileage and fuel use in gallons. School Bus data was obtained via a phone call with Dan Morotini at First Student and the non-bus data was obtained from staff at the Brighton School District.

Besides the School District, Community Vehicle emissions were attributed to local residential and commercial transportation within the Town of Brighton. As suggested by many on the Sustainability Oversight Committee, we reached out to the Genesee Transportation Council (GTC) to access data that they had previously collected and analyzed for all of Monroe County. The following emails and phone conversation notes provide insight on how the Vehicle data was collected.

Email for transportation emissions in Brighton
Rich Perrin and Chris Tortora
ctortora@gtcmpo.org
Genesee Transportation Council

On December 28, 2015, at 1:37 PM, Chris Tortora ctortora@gtcmpo.org wrote:

Greg,

Please find the attached spreadsheet showing Vehicle Type VMT for Monroe County as provided to GTC through NYSERDA's Cleaner, Greener Communities Program. This information is not available at the "sub-county" level (however Brighton's VMT Shares by Vehicle Type would be VERY similar).

Regards,
Chris Tortora
Assistant Program Manager
Genesee Transportation Council

From: Rich Perrin
Sent: Monday, December 28, 2015 12:25 PM
To: Chris Tortora <ctortora@gtcmpo.org>; Gregory Shinaman <gshinama@u.rochester.edu>
Cc: Jim Stack <JStack@gtcmpo.org>
Subject: FW: GHG Transportation Emissions for the town of Brighton

Chris,

Please see below regarding info being requested for the Brighton GHG analysis.

Greg,

Chris has a number of items on his plate at this time that require his attention. Your patience is appreciated.

Regards,

Rich

Richard Perrin, AICP
Executive Director
Genesee Transportation Council

From: Gregory Shinaman [mailto:gshinama@u.rochester.edu]
Sent: Monday, December 28, 2015 12:12 PM
To: Rich Perrin <RPerrin@gtcmpo.org>
Subject: Re: GHG Transportation Emissions for the town of Brighton

Hi Rich,

As we were looking through this information, we realized that having some information with regards to vehicle type would be very helpful. I looked up national averages and found some information that we could use, but having more specific local information would be more useful. Do you have anything categorizing the vehicle types for the town of Brighton? We're not looking for anything super specific, just busses, motorcycles, heavy duty vehicles, and maybe light duty vehicles as well.

This is the information that I found, which might help show you what we're looking for.

https://www.fhwa.dot.gov/policyinformation/statistics/2010/vm1.cfm

I hope you had a great holiday and have a happy new year!

Greg Shinaman

On Fri, Nov 13, 2015 at 2:24 PM, Rich Perrin <RPerrin@gtcmpo.org> wrote:

Greg,

Per your request, attached please find the vehicle miles traveled by Functional Classification data for the Town of Brighton that were derived from the Genesee Transportation Council Travel Demand Model.

Regards,

Rich

Email for School BCSD School emissions (non-bus)

Doug Ackert: Doug_Ackert@bcsd.org

BCSD Director of Buildings and Grounds

Hi Greg,

I am including the information you requested but have nothing to do with the bus information you are requesting. I am including our Transportation Directors email address for your follow up.

Dan Morotini @ dan_morotini@bcsd.org

Thanks!

Douglas G. Ackert
Director of Buildings and Grounds
Brighton Central Schools

From: Gregory Shinaman [mailto:gshinama@u.rochester.edu]
Sent: Wednesday, November 11, 2015 10:54 AM
To: Doug Ackert
Subject: Re: Brighton Sustainability Oversight Committee

Hi Mr. Ackert,

I hope all is going well. I just wanted to give you some updated information that might make it easier for you to compile the information we're looking for. I've attached a spreadsheet of data that we've received from the school district in the past, as well as a section for the same 2014 data. I figured this information might be more readily available since you've given it to us in the past. With that being said, the information we discussed earlier will, of course, be useful as well.
In addition to the information on the spreadsheet, we're also looking for information on any other non-commuter, school related vehicles. This includes other first student vehicles.

Thanks again!

Greg

On Mon, Nov 2, 2015 at 8:47 AM, Doug Ackert <Doug_Ackert@bcsd.org> wrote:

Hi Greg,

Give me a call as you have time @ 739-7438.

Thanks!

Douglas G. Ackert
Director of Buildings and Grounds
Brighton Central Schools

From: Gregory Shinaman [mailto:gshinama@u.rochester.edu]
Sent: Sunday, November 01, 2015 9:25 PM
To: Doug Ackert
Cc: Erinn Ryen
Subject: Brighton Sustainability Oversight Committee

Hi Mr. Ackert,

My name is Greg Shinaman and I'm an intern with the Brighton sustainability oversight committee. I'm currently trying to compile the community greenhouse gas emissions from the year 2014. To do that, I'm working on obtaining the emissions from school-related transport. Specifically, buses and other district owned vehicles (no commuting information).

Would it be possible to meet and discuss some of this information? It might be easier than discussing over email. We could also discuss over the phone if that would work for you.
Essentially, what I'll be looking for is the mpg of the different vehicles as well as the vehicle miles traveled if you have that information.
I appreciate any help you can provide. I'll be available to discuss at your convenience.
Thanks!

Greg

Phone call for obtaining school bus vehicle data

Dan Morotini

BCSD Transportation Director

dan_morotini@bcsd.org

Greg was given yearly fuel consumption by buses in gallons. He had to go through a few people, and they weren't able to release more specific data. Just call the BCSD transportation director to obtain the info in the future.

Through conversations it was realized that the GTC was able to give us a fairly local yearly VMT number for 6 different categories of vehicles: Motorcycles, Light Duty Vehicles Short Wheel Base, Light Duty Vehicles Long Wheel Base, Buses, Single-Unit Trucks, and Combination Trucks. After collected and sorted, both the GTC data and the BCSD data were combined into one sheet and MT CO_2e was calculated by multiplying the total gallons by the conversion factor that was given in the CSC GHG Accounting Tool for both gasoline and diesel:

- Gasoline: 8.78 kg CO_2/gal
- Diesel: 10.21 kg CO_2/gal

These factors were used for the purpose of consistency of emissions calculations between Community and Town Operations Vehicles.

These factors give the amount of CO_2 in kg. This number was then multiplied by 0.001 to convert to Metric Tons of CO_2e.

MMBtu was also calculated within this sheet, using the conversions that were given in the CSC GHG Accounting Tool for both gasoline and diesel:

- Gasoline: 0.13
- Diesel: 0.14

Gallons were multiplied by the respective conversion to calculate MMBtu.

After all of these calculations were completed, the calculated emissions data was then used in a summary excel sheet titled *Total Summaries Community_Cassidyedit.xlsx* with all the other sector emissions for summary purposes later in the inventory process.

Below are screenshots of the additional sheet titled *FINAL Mobile Data 2_Greg_4.06.2016.xlsx* that was created to complete all these calculations.

Sector Breakdown	Year	Vehicle Type	MPG	Fuel Type	Daily Mileage	Yearly Mileage	Yearly Fuel Use (Gallons)	Yearly CO2 Emissions (kg)	tons CO2 Emissions	Yearly Cost	MMBtu
Brighton School District											
Miscellaneous Vehicles	1986	Mack Dump Truck	12.96	Diesel	5	1843	142	1452	1	425	20
	1995	Utilimaster Van	15	Gas	3	1078	72	631	1	201	9
	1997	Ford Dump Truck	10	Gas	6	2008	201	1763	2	560	26
	1998	Chevy Pick-Up	13	Gas	5	1925	148	1300	1	413	19
	1999	Dodge Pick-Up	12	Gas	4	1553	129	1136	1	361	17
	2001	Dodge Pick-Up	13	Gas	2	889	68	600	1	191	9
	2001	Chevy Venture Mini Van	20	Gas	5	1721	86	756	1	240	11
	2003	Dodge Dakota Pick-Up	14	Gas	1	400	29	251	0	80	4
	2003	Ford Windstar Van (Blue)	18	Gas	7	2434	135	1187	1	377	18
	2004	Dodge Pickup (Blue)	14	Gas	3	1084	77	680	1	216	10
	2005	Dodge Pickup (White)	13	Gas	7	2443	188	1650	2	524	24
	2006	Dodge Pickup (White)	14	Gas	4	1375	98	862	1	274	13
	2007	Dodge Caravan (Gray)	19	Gas	5	1876	99	867	1	275	13
	2008	Ford F250 Pick-Up (Dk Blue)	14	Gas	3	950	68	596	1	189	9
	2012	Dodge Grand Caravan (Red)	20	Gas	3	1024	51	450	0	143	7
	2013	Ford Transit Connect XLT	23	Gas	31	11440	497	4367	4	1388	65
Genessee Transportation council		Motorcycles	43.54	Gas	80137	29249843	51587	452933	453	143928	6706
		Light Duty Vehicles Short WB	21.64	Gas	14145528	5163117755	16523952	145080301	145080	46101827	2148114
		Light Duty Vehicles Long WB	21.64	Gas	2561427	934920702	3769670	33097702	33098	10517379	490057
		Busses	3.26	DIESEL	122390	44672207	964581	9848369	9848	2884096	135041
		Single-Unit Trucks	5.29	DIESEL	595827	217476959	2300218	23485224	23485	6877651	322030
		Combination Trucks	5.29	DIESEL	266319	97206586	1273778	13005272	13005	3808596	178329
		School Buses	?	Diesel	?	?	70000	714700	715	209300	9800
		School Vehicles (not buses)	Not available	Not available	Not available	Not available	Not available				

BCSD Buses (7000 gallons per month)

Fuel Type	Yearly Mileage	Yearly Fuel Use (Gallons)	Yearly CO2 emissions (kg)	Tons CO2 Emissions	Yearly Cost	Total MMBtu
Total Diesel:	359357594	4608719	47055017	47055	13780069	645221
Total Gas:	6127320500	20347156	178648033	178648	56768566	2645130
SUM of totals			225703050	225703	70548635	3290351

Notes:
8.78 kg/gallon gas, 10.21kg/gallon diesel from emissions tool
conversion to metric tons *.001
School bus data obtained via phone call with Dan Morotini at First Student

Appendix B, Figure 1: Screenshot from Community Mobile Data 2 Supplement Sheet

Solid Waste (EPA WARM Model) Notes

According to the Local GHG Inventory Tool: Community Module, solid waste is considered a scope 3 source. This Tool suggests the use of the Environmental Protection Agency's Waste Reduction Model (available online at https://www3.epa.gov/warm/Warm_Form.html) to calculate MT CO_2e emissions for solid waste. The extracting, harvesting, processing, transporting and disposing of materials result in GHG emissions. The EPA WARM Model was designed to help managers and policy-makers understand and compare the life-cycle GHG and energy implications of materials management options for materials commonly found in the waste stream. The general formula for net GHG emissions modeled in WARM is as follows:

Net GHG emissions = Gross manufacturing GHG emissions – (Increase in carbon stocks + Avoided utility GHG emissions)

The reason the Community receives GHG emissions credits is because of the amount of recycling and composting it performs within its waste stream. Through recycling, GHG emissions from making an equivalent amount of material from virgin inputs are avoided. Therefore, recycling reduces GHG emissions because manufacturing a product from recycled

inputs requires less energy than making the product from virgin inputs. In addition, composting, with application of compost to soils results in carbon storage and small amounts of CH_4 and N_2O emissions from decomposition. Altogether, in the case of the Town Operations, the GHG emissions avoided by recycling and composting practices outweighs the amount of GHG emissions added through other management scenarios such as landfill. For more information on how the EPA WARM Model realized its calculations visit https://www3.epa.gov/warm/pdfs/WARM_Documentation.pdf

Quantitative data was received from a conversation with Waste Management's representative, Mike DeClerk. Below is a summary of the conversation with Mike DeClerk via email from Greg Shinaman.

On Jan 12, 2016, at 11:17 AM, Gregory Shinaman gshinama@u.rochester.edu wrote:

Hey Cassidy,

I just met with Mike, and I think he gave us everything we needed. He couldn't give out costs though, he said it was a privacy issue or something like that. He did say, however, that we can get information from the town, they should have the invoices for everything.

He gave me a breakdown for residential that you could use if you want. He said it won't be perfect though. Here it is:

75% newspaper
13% glass
4% tin cans
1% aluminum cans
7% plastics

For residential MSW per year, he estimated 12,085 tons and for residential recycling per year, he estimated 13,723 tons. In addition, he told me than an estimated 103,673 gallons of fuel per year for residential collection is used via all garbage trucks not just Waste Management.

I calculated the recyclable breakdown above from a breakdown that he gave me for residential recycling. I just took out cardboard and trash contaminants. Here is the residential breakdown that he gave me just in case you want to use it at all.

56% newspaper
22% cardboard
10% glass
4% trash contaminants
3% tin cans
1% aluminum cans
5% plastics

The residential recycling rate is estimated at about 23.6%, whereas the average Western NY recycling rate is about 15%.

In *Appendix B, Figure 2*, you can see how the total Community Waste data was categorized into the WARM Model for emissions calculations.

	Baseline Scenario				
Material	**Tons Recycled**	**Tons Landfilled**	**Tons Combusted**	**Tons Composted**	**Total MTCO2E**
Aluminum Cans	149	0	0	N/A	-1,357
Glass	372	0	0	N/A	-103
Corrugated Containers	819	0	0	N/A	-2,554
Newspaper	2,085	0	0	N/A	-5,735
Mixed Plastics	186	0	0	N/A	-192
Mixed MSW	N/A	12,086	0	N/A	5,836

Appendix B, Figure 2: Categorical Breakdown of Community Waste in WARM Model

Appendix C: Historical Inventory Comparison Data Details

Data was collected from previous Town Operations inventories in 2001 and 2005. These were used for a side by side comparison with 2014 data. After reviewing the data, the outlier between the three sets of data was waste credits, or lack thereof. Previous inventories did not use the EPA WARM Model as we did for the 2014 Inventory and it is this difference in data collection that we are attributing to the significant differences between inventories. Because of this, the data was edited to include an extra line that calculated and compared the three sets of data without including the waste information. This more or less evened the playing field for the three sets of data when looking over the 13 year period.

In addition, due to lack of documentation from these inventories, we made a lot of assumptions in regards to validity and source of the data. Some of the data was clearer, such as the Electricity and Stationary (natural gas) data included RG&E account numbers which made it easy to decipher where the information came from. Others, such as Waste, was completely undocumented besides a total emissions count and cost values.

2001 GHG Inventory

This screenshot of the excel spreadsheet titled *Historical Comparison GHG Inventory.xlsx* shows the data from the 2001 Town Operations GHG Inventory that was conducted as part of a Color Brighton Green Task Force initiative.

2001 Town Operations

Electricity	MMBtu	MTCO2e	Cost ($)
4314557	5	1	$ 187.00
4404691	161	20	$ 739.00
4574514	5	1	$ 2,128.00
Brighton School District	51439	4306	$ -
1179834/464721	48	6	$ 1,921.00
945/4404692	406	50	$ 13,892.00
1103505/4478649	158	20	$ 665.00
977/5178042/4478647	163	20	$ 3,201.00
1190244/4478647	150	19	$ 417.00
1104504/4478648	200	25	$ 3,147.00
1190268/4479194	468	58	$ 9,663.00
978/4479195	2608	324	$ 74,503.00
755360/5191265	2	0	$ 60.00
Streetlights	3811	474	$ 371,221.00
Water/Sewage	1260	157	$ 13,039.00
Totals	9445	1175	$ 494,783.00

Stationary	MMBtu	MTCO2e	Cost ($)
4314557	105	7	$ 1,085.00
Brighton School District	33401	2064	$ -
1179834/464721	4	0	$ 42.00
209900002707120	121	10	$ 844.00
945/4404692	3080	190	$ 30,266.00
1046463/5181341	1153	71	$ 11,595.00
978/4479195	1661	103	$ 16,565.00
Totals	6124	381	$ 60,397.00

Waste	-	MTCO2e	Cost ($)
Recreation		18	$ 1,164.00
Town Hall Dumpster		27	$ 2,100.00
Totals		45	$ 3,264.00

2001 Town Operations GHG Emissions Inventory			
Totals	MMBtu	MTCO2e	Cost ($)
	28209	2687	$ 666,583.00

**Discluding Brighton School District for purpose of comparison

Vehicles (Gasoline and Diesel)	MMBtu	MTCO2e	Cost ($)
Animal Control	49	4	
DPW	98	8	
Diesel Cost			$ 61,359.00
Fire Marshal	86	7	
Highway	7713	667	
K-9	353	30	
Police	4074	348	
Recreation	202	17	
Sewer	17	1	
Sidewalk Sweepers	48	4	
Unleaded Cost			$ 46,780.00
Totals	12640	1086	$ 108,139.00

Appendix C, Figure 1: Screenshot of 2001 Town Operations GHG Inventory Data

2005 GHG Inventory

This screenshot of the excel spreadsheet titled *Historical Comparison GHG Inventory.xlsx* shows the data from the 2005 Town Operations GHG Inventory that was conducted as part of a Color Brighton Green Task Force initiative.

2005 Town Operations

Electricity	MMBtu	MTCO2e	Cost ($)
1190237/5138045	35	4	$ 1,006.00
Brighton School District	20074	2306	$ -
975/5177887/5718933	825	95	$ 26,903.00
11035055178043	21	2	$ 791.00
977/5178042	63	7	$ 2,937.00
5442964	118	14	$ 3,342.00
5450234	37	4	$ 1,043.00
1190244/5182229	5	1	$ 360.00
1103504/5178041	40	5	$ 3,651.00
1190268/5182228	25	3	$ 835.00
978/5178078/5178934	3325	382	$ 92,785.00
755360/5191265	7	1	$ 397.00
Streetlights	4221	485	$ 351,319.00
Water/Sewage	333	38	$ 11,170.00
Totals	9055	1041	$ 496,539.00

Stationary	MMBtu	MTCO2e	Cost ($)
Brighton School District	32868	2031	$ -
1179834/5182059	51	3	$ 783.00
975/5177887/5718933	2639	163	$ 30,160.00
1046463/5181341	822	51	$ 9,775.00
977/5178042	25	2	$ 460.00
978/5178078/5178934	1427	88	$ 16,687.00
20990002707120	160	13	$ 1,944.00
Totals	5124	320	$ 59,809.00

Waste	-	MTCO2e	Cost ($)
Compost		-260	$ -
Highway		38	$ 3,592.00
Recreation		23	$ 1,887.00
Town Hall Dumpster		37	$ 1,910.00
Totals		-162	$ 7,389.00

2005 Town Operations GHG Emissions Inventory			
Totals	MMBtu	MTCO2e	Cost ($)
	28291	2412	$ 797,404.00

**Discluding Brighton School District for purpose of comparison

Vehicles (Gasoline and Diesel)	MMBtu	MTCO2e	Cost ($)
Animal Control	310	26	
DPW	125	11	
Diesel Cost			$ 138,152.00
Fire Marshall	79	7	
Highway	7402	640	
K-9	365	31	
Police	4007	342	
Recreation	308	26	
Sewer	1453	125	
Sidewalk Sweepers	63	5	
Unleaded Costs			$ 95,515.00
Totals	14112	1213	$ 233,667.00

Appendix C, Figure 2: Screenshot of 2005 Town Operations GHG Inventory Data

Appendix D: Prior Initiatives Details

The following four figures are the detailed list of CSC Pledge Elements provided by the program and the current status for each in the Town of Brighton as of May 2016.

Section	Possible Points	Pledge Elements	Status
1		**Pledge to be a Climate Smart Community**	Done
1.1	**4**	Pass a resolution adopting the CSC Pledge	The Town of Brighton Town Board passed the CSC Pledge on April 9, 2014
1.2	**8**	Create a community task force focused on climate change mitigation and adaptation	The Sustainability Oversight Committee and Color Brighton Green focus on climate change mitigation
1.3	**8**	Appoint a Climate Smart Community Coordinator	Town Board designated Michael Guiyon as the Climate Smart Community
1.4	**8**	Create an internal green team focused on climate change mitigation and adaptation	Internal Team includes Mike Guyon and Evert Garcia
1.5	**3**	Join a national or regional climate campaign or program	
	31		
2		**Set goals, inventory emissions, plan for climate action**	
2.1	**8**	Develop a government operations GHG emissions inventory	Finish 2015
2.2	**8**	Develop a community GHG emissions inventory	Finish 2015
2.3	**4**	Establish a government operations emissions reduction target	Finish 2015
2.4	**4**	Establish a community emissions reduction target	Finish 2016
2.5	**8**	Develop a government operations climate action plan	Finish 2015
2.6	**8**	Develop a community climate action plan	Finish 2016
	40		
3		**Decrease community energy use**	
3.1	**8**	Conduct energy audits of local government buildings	Completed Energy Conservation Study 3/30/2010
3.2	**5**	Upgrade interior lighting	Flourescent lighting was updated 2009
3.3	**5**	Upgrade HVAC equipment	Installed new roof top unit in the Library, Completed a study of the Town Hall boiler system and in design for HVAC upgrade in Public Safety Wing
3.4	**4**	Install water-efficient fixtures	
3.5	**5**	Install a building energy management system (EMS) Im	2009 Town Hall HVAC Controls Upgrade, Building Control Systems now known as Smart Edge
3.6	**7**	Upgrade building envelopeIncrease fuel efficiency	
3.7	**4**	Adopt a green building standard for local government buildings and facilities	
3.8	**10**	Build a new green building	
3.9	**7**	Upgrade water or wastewater treatment facilities and infrastructure	The Town Sewer Department has developed an annual relining program for sanitary sewers to reduce the amount of Inflow and Infiltration entering our system.
3.10	**3**	Adopt a vehicle fleet efficiency policy	
3.11	**3**	Right-size the local government fleet	
3.12	**5**	Replace traditional vehicles with advanced vehicles	
3.13	**3**	Adopt an anti-idling policy for government vehicles	Conservation Law (ECL) prohibits heavy duty vehicles, including diesel trucks and buses, from idling for more than five minutes at a time.
3.14	**4**	Implement a car-sharing program for local government staff	
3.15	**5**	Convert streetlights to LED	Evaluating purchase of street lighting system and conversion to LED fixtures
3.16	**4**	Convert traffic signals to LED	
3.17	**4**	Reduce number of outdoor lighting fixtures	
3.18	**4**	Upgrade outdoor lighting (other than streetlights and traffic signals) to more efficient and/or solar technology	
3.19	**2**	Adopt a waste management strategy for government hosted and permitted	
3.20	**3**	Provide recycling bins next to all trash receptacles in local government buildings	Trash recycling bins are provided but I would need to confirm that their implementation is consistent with the CSC requirement
3.21	**3**	Provide organic waste collection and composting in local government buildings	

Appendix D, Figure 1: CSC Pledge Elements Spreadsheet

3.22	**3**	Provide e-waste collection in local government buildings	
3.23	**2**	Conduct a local government waste audit and track diversion rate over time	
3.24	**4**	Adopt an environmentally preferable purchasing policy	
3.25	**5**	Establish a financing mechanism for energy efficiency and renewable energy projects in government-owned buildings	
3.26	**3**	Incorporate energy efficiency and waste handling provisions in standard specifications and government contracts	
3.27	**6**	Utilize a green or sustainability rating system for infrastructure improvement projects	
3.28	**3**	Subsidize and incentivize employee alternative commuting	
3.29	**2**	Engage employees through a green pledge or competition	
3.30	**3**	Incorporate green principles, commitments or requirements into staff training	
3.31	**5**	Implement an energy or GHG management system	
3.32	**4**	Adopt an energy benchmarking requirement for government-owned buildings	
	138		
4		**Increase community use of renewable energy**	
4.1	**4**	Adopt a green power purchase policy to ensure increasing local government energy supplies come from renewables	
4.2	**4**	Require that new construction of local government buildings is "PV-Ready" (under development)	
4.3	**5**	Conduct feasibility studies for renewable energy installations	Evaluated the use of Geothermal and Solar at Town Hall
4.4	**7**	Purchase renewable energy credits	
4.5	**9**	Install a geothermal heat pump or other geothermal technology at a new or existing public facility	Evaluated the use of Geothermal Town Hall. The project was not econmically viable
4.6	**9**	Install solar hot water and/or solar photovoltaic technology on public property	
4.7	**9**	Serve as a host site for a renewable energy installation and enter into a long-term service contract or power purchase agreement (PPA)	
4.8	**9**	Install a wind system on public property	
4.9	**6**	Install a wood pellet heating system on public property	
	62		
5		**Reailize benefits of recycling and other climate-smart waste management practices**	
5.1	**3**	Adopt a zero waste initiative policy	
5.2	**3**	Discourage the use of disposable bags (under development) A	
5.3	**2**	Participate in the EPA WasteWise program	
5.4	**6**	Implement a pay-as-you-throw or similar unit pricing program	
5.5	**3**	Adopt a construction and demolition waste reduction program or policy	
5.6	**3**	Set up and manage a resource recovery center to encourage reuse of gently used or new materials that have been discarded	
5.7	**8**	Offer recycling to residents	Recycling program is offered to all residents and is part of the bidding requirement for waste hauler services for special districts
5.8	**8**	Offer recycling to commercial entities (or require that they recycle)	
5.9	**3**	Provide recycling bins in public places and events	
5.10	**2**	Provide compost bins to residents (for sale or free)	
5.11	**6**	Create an organics or yard waste collection program	
5.12	**2**	Host household hazardous waste collection days	
5.13	**2**	Create an educational campaign to encourage recycling, composting and waste reduction	
	51		
6		**Reduce greenhouse gas emissions through use of climate-smart land-use tools**	
6.1	**9**	Develop and adopt a comprehensive plan with sustainability elements	Currently updating Comprehensive Plan using neighborhood LEEDs guidelines and CSC checklist.
6.2	**8**	Incorporate smart growth principles into land-use policies and regulations	
6.3	**4**	Adopt a renewable energy ordinance	Adopted a solar ordinance
6.4	**6**	Establish green building codes	
6.5	**4**	Create resource-efficient site design guidelines	
6.6	**5**	Incentivize renewable energy and energy efficiency projects	
6.7	**4**	Adopt land-use policies that support or incentivize farmers' markets, community gardens and urban and rural agriculture	

Appendix D, Figure 2: CSC Pledge Elements Spreadsheet

6.8	**4**	Adopt green parking lot standards	
6.9	**4**	Adopt a complete streets policy	
6.10	**10**	Implement strategies that support bicycling and walking	Completed bicycle pedestrian master
6.11	**8**	Install electric-vehicle infrastructure	Electrical Vehical Charging station in design and scheduled for installation summer of 2016
6.12	**10**	Implement strategies that increase public transit ridership and alternative transport modes	
6.13	**3**	Implement a Safe Routes to School program	
6.14	**5**	Implement traffic calming measures	Speed humps have been utilized on South Landing Road to slow traffic
6.15	**3**	Adopt and enforce an anti-idling ordinance	
6.16	**5**	Implement transportation technology solutions	
6.17	**5**	Develop a natural resource inventory	The Town GIS map include Wetlands, Steep Slopes, Woodlots, Floodplains and Floodways
6.18	**6**	Develop a local forestry or tree planting project or program	As a Tree City USA the Town is required to manage town trees.
6.19	**6**	Preserve natural areas through zoning or other regulations	The Town has an extensive park system
	109		
7		**Enhance community resilience and prepare for effects of climate change**	
7.1	**8**	Conduct a vulnerability assessment	
7.2	**2**	Develop a climate resilience vision and associated goals	
7.3	**4**	Review existing community plans, policies and projects to identify climate adaptation strategies and policies or projects that may decrease vulnerability	
7.4	**5**	Develop climate adaptation strategies	
7.5	**3**	Incorporate climate resiliency vision, goals, and strategies into local plans and projects	
7.6	**3**	Update the multi-hazard mitigation plan to address changing conditions and identify specific actions to reduce vulnerability to natural hazards	
7.7	**4**	Develop and implement a heat emergency plan	
7.8	**4**	Require shade structures and features in public spaces	
7.9	**2**	Open new or expand existing cooling centers	
7.10	**4**	Create or update a watershed assessment to identify flooding and water quality priorities	The Town is a member of the Monroe County Stormwater Coalition who is in the process of completing a county wide evaluation of stormwater Quality improvements
7.11	**3**	Adopt a floodplain management and protection ordinance to reduce vulnerability to flooding and erosion	The Town has adopted a floodplain policy
7.12	**7**	Conserve, revegetate and reconnect floodplains and buffers in riparian areas	
7.13	**7**	Conserve natural areas for species migration and ecosystem resilience	
7.14	**5**	Facilitate a strategic relocation of uses that are not water dependent from flood prone areas	
7.15	**3**	Promote community flood prevention strategies through the National Flood Insurance Program Community Rating System	The Town is presently considering membership in the NFI program
7.16	**7**	Use green infrastructure to manage stormwater in developed areas	The NYSDEC Design manaual requires the use of green infrastructure on new and redevelopment projects
7.17	**6**	Conserve wetlands and forests to manage stormwater, recharge groundwater and mitigate flooding	Federal and state wetlands are regulated by the NYSDEC and USACOE
7.18	**8**	Use natural, nature-based or ecologically enhanced shoreline protection	
7.19	**3**	Extend areas in which the two foot freeboard requirement applies	
7.20	**3**	Require consideration of sea-level rise in planning coastal development	
7.21	**8**	Right-size bridges and culverts and remove unnecessary and hazardous dams	
7.22	**4**	Develop or enhance early warning systems and community evacuation plans	
7.23	**6**	Implement a water conservation and reuse program	
7.24	**2**	Encourage xeriscaping	
7.25	**6**	Implement a source water protection program	
	117		
8		**Support development of green innovation economy**	
8.1	**3**	Create a green jobs training program	
8.2	**2**	Hold green vendor fairs	
8.3	**4**	Include green industries in economic development plans	

Appendix D, Figure 3: CSC Pledge Elements Spreadsheet

8.4	5	Incorporate sustainability requirements in local government-funded programs or projects(under development)	
8.5	4	Adopt a green procurement policy that emphasizes local sourcing	
8.6	3	Create and promote local farmers' markets	Town currently supports and funds the existing farmers market
8.7	2	Create a "buy local/buy green" campaign	
8.8	10	Redevelop a brownfield site	
8.9	4	Establish incentives for green industry or businesses to locate in community	
8.10	7	Support alternative transportation fuel supply infrastructure I	
8.11	5	Adopt energy benchmarking requirements for privately owned buildings	
8.12	7	Establish a residential energy efficiency financing program	
	56		
9		**Inform and inspire the public**	
9.1	4	Create a climate change education, outreach, and engagement program, focusing on mitigation and adaptation	
9.2	5	Create and support an energy reduction campaign or challenge I	
9.3	3	Host climate related educational seminars, workshops, conferences, or fairs	Energy Fair is hosted by Color Brighton Green
9.4	3	Maintain a website on local climate action efforts	
9.5	3	Use social media to inform the community about the progress of local government's efforts	
	18		
10		**Commit to evolving process of climate action**	
10.1	4	Report on progress annually	
10.2	4	Update strategies and plan(s)	
10.3	3	Cooperate with neighboring communities and partner agencies	
	11		
11		Innovation Bonus	
11.1	10	Implement a new innovative action	
11.2	5	Implement an action using an innovative approach	
	15		
12		Performance Bonus	
12.1	40	Reduce GHG imisions from government owned facilities	
12.2	15	Reduce GHG emissions from government owned vehicles	
12.3	40	Increase use of renewables for local gonvernment operations	
12.4	15	Reduce waste volume from local government operations	
12.5	20	Reduce community-wide waste volume	
12.6	50	Reduce community-wide GHG emissions from transportation	
12.7	50	Reduce community-wide GHG emissions from buildings	

Appendix D, Figure 4: CSC Pledge Elements Spreadsheet

Contact Information

Mike Guyon
Town of Brighton Engineer
mike.guyon@townofbrighton.org

Evert Garcia
Town of Brighton Engineering Assistant
evert.garcia@townofbrighton.org

Cassidy Putney
Town of Brighton Department of Public Works Intern
cassidy.rayne.putney@gmail.com

Erinn Ryen
Town of Brighton Sustainability Oversight Committee Member and Intern Advisor
erinn.ryen@gmail.com

Gregory Shinaman
Town of Brighton Sustainability Oversight Committee Intern
gshinama@u.rochester.edu

Town of Brighton Sustainability Oversight Committee website
http://www.townofbrighton.org/476/Sustainability-Oversight-Committee

Color Brighton Green website
https://colorbrightongreen.org/

Town of Brighton Comprehensive Plan website
http://envisionbrighton.org/

Town of Brighton
MONROE COUNTY, NEW YORK
SUSTAINABILITY OVERSIGHT COMMITTEE, SOC
2300 ELMWOOD AVE. * ROCHESTER, NEW YORK 14618 * PHONE (585) 784-5250 *FAX (585) 784-5368

Sustainability Oversight Committee
January 6, 2015

Meeting Minutes

Attendance: Ron Wexler, Chris Werner, Steve Kittelberger, Erinn Ryen, Paul Tankel, Shubhangi Gandhi, Margy Peet, Mike Guyon, Evert Garcia

Minutes: The November 4, 2015 meeting minutes were approved without revision. The December 2, 2015 meeting minutes were approved without revision.

Open Forum:

Announcements:

Old Business

- Green House Gas Inventory
  - Updates- Government Operations and Community Wide GHG
    - Erinn provided an update on the current status of both the Town Operations and Community Level Greenhouse Gas Inventories as Cassidy and Greg are tied up with end of semester projects.
    - Cassidy has completed the vehicle inventory portion of the Town Operations GHG. Cassidy has also created an informational survey for Town Employees to fill out with regards to their commuting habits to work. Town Staff will need to obtain various approvals before distributing the survey to employees. Mike will provide a copy of Cassidy's survey to SOC members for reference. Additionally, Cassidy is working on creating a matrix that compares the pros and cons of various Climate Action Plans.
    - Cassidy is scheduled to start as a Town of Brighton co-op student towards the end of January. As a Town co-op, Cassidy will continue to assist the Town in completing Climate Smart Community actions items along with various other Department of Public Work related tasks.
    - Greg is in the midst of collecting data for the Community Level greenhouse gas inventory. Greg is in contact with various local agencies including the Genesee Transportation Council, Brighton School District and the Brighton Fire Department to obtain this data.

- Mike will provide Greg with a contact for determining fuel consumption in the School Bus Fleet. Evert will provide Greg with a contact at Brighton Volunteer Ambulance.

- Interior Lighting Update, Eric

  - Eric's email to Mike regarding the replacement of interior fluorescent lighting at the Town Hall with LED fixtures was discussed. In his email, Eric provided a scenario which seems to indicate that the energy savings resulting from the installation of LED fixtures at the Town Hall could equal the anticipated costs associated with the upgrades. This item will be discussed in more detail at the next meeting.

o Climate Smart Communities

  - Focus Subgroup Reports

    - The SOC discussed the role of focus subgroups with regards to the Climate Action Plan. Reports and deliverables generated from CSC focus subgroups will be sent to Cassidy so that they may be included in the Town's Climate Action Plan.

    - The SOC indicated that it would be beneficial to have information on stormwater mitigation efforts and other items relating to enhancing community resiliency and preparing for the effects of climate change prior to the meeting with the Town Board. Mike will setup a meeting with Shubhangi and Paul to discuss these items.

    - The SOC discussed having Todd Stevenson from the Monroe County Stormwater Coalition come in and present on the Coalition's efforts and progress on stormwater quality improvements.

o Comprehensive Plan Update (Priorities to Consider)

  - The next Public Informational meeting for the Comprehensive Plan Update was postponed and will be re-scheduled for late January or early February. Mike will update the SOC once a firm date has been established.

  - Mike announced that Rochelle Bell has resigned from her position on the Sustainability Oversight Committee and liaison to the Comprehensive Plan Update Committee. The SOC will need to establish a new liaison between the SOC and the Comprehensive Plan Update Committee. Mike will provide the SOC with minutes from the last Comprehensive Plan Update Committee meeting.

  - The consultants have asked the SOC to identify the most important Sustainability related issues that the SOC would like to see addressed as part

of the Comprehensive Plan Update. The SOC will provide the consultants with the requested feedback at the next Comprehensive Plan Update meeting.

- SOC and Town Board Meeting
  - The SOC and Town Board meeting has been scheduled for February 24 and will be held from 6:00 PM to 7:00 PM. Margy indicated that she will not be in Town for the aforementioned meeting.
  - The SOC discussed the current status of the compiled focus subgroup PowerPoint presentation and what items need to included and/or changed in the presentation:
    - The SOC would like to approach the first slide of the presentation as a status update on Climate Smart Community and an overview of what it means to be a Climate Smart Community.
    - Steve indicated that he would like to see references to see CSC Pledge Item Numbers in the status update.
    - Erinn indicated that she will work on providing graphics for the PowerPoint slides that have already been created.
    - Margy and Steve will update their slide to indicate that the recommendations provided on their slide are reflective and derive from the CSC manual.
- Educational Program
  - The SOC indicated that they would like to defer on making a decision as to whether or not they can assist the Town in developing an educational/informational program until they obtain more details on the nature of the request. If the nature of the request includes developing an educational program for the community, the SOC would prefer to have Color Brighton Green take the lead in that scenario. More information regarding this matter will be available at subsequent meetings.
- Development Updates
  - Updates for development projects throughout the Town were briefly discussed.
- 2016 SOC Schedule
  - Changing the meeting start time to 6:30 PM for SOC meetings in 2016 was briefly discussed. The SOC decided to keep the current 7:00 PM start time for meetings in 2016.

New Business

- Rochester's People Climate Coalition
  - The Rochester's People Climate Coalition (RPCC) was briefly discussed. The RPCC is a coalition that aims to address the urgent need to reduce greenhouse gas emissions and prepare for the impacts of global warming. The SOC will look into the RPCC and determine if they are a suitable campaign to join that will satisfy the CSC requirement of joining a National or Regional campaign as part of the certification process.

Adjournment

Next Meeting

The next meeting will be February 3, 2016 at 7:00 PM.

Town of Brighton
MONROE COUNTY, NEW YORK
SUSTAINABILITY OVERSIGHT COMMITTEE, SOC
2300 ELMWOOD AVE. * ROCHESTER, NEW YORK 14618 * PHONE (585) 784-5250 *FAX (585) 784-5368

Sustainability Oversight Committee
February 3, 2016

Meeting Minutes

Attendance: Ron Wexler, Eric Williams, Steve Kittelberger, Chris Werner, Erinn Ryen, Paul Tankel, Shubhangi Gandhi, Margy Peet, Cassidy Putney, Mike Guyon, Evert Garcia

Minutes: The approval of the January 6, 2016 minutes was deferred pending corrections. The revised January 6, 2016 minutes will be reviewed at the next SOC meeting for approval.

Open Forum:

Announcements:

Old Business

- Green House Gas Inventory
  - Cassidy presented an update on the status of the GHG for Town Operations. In addition, Cassidy presented a matrix of CSC Climate Action Plans that provides a comparison of plans developed by similar communities in the area.
  - The GHG inventory for Town Operations indicated that the total greenhouse gas emissions for Town Operations in 2014 was 1,467 MT CO_{2e}. The largest source of emissions for Town Operations was Mobile Combustion, with 68% of Town Operations emissions, followed by Electricity, with 40% of Town Operations emissions.
  - In the Electricity category, Street Lights accounted for 47% of consumption and 70% of total energy costs.
  - A few takeaways from the review of CSC climate action plans from neighboring communities include the following:
    - None of the CSC plans that were reviewed included a clear funding strategy for the proposed improvements. Funding appears to be a concern in implementing proposed goals. Some communities are searching for Empire State Development grants.
    - Many of the CSC plans discussed and the CSC goals were developed before New York State's REV initiative. Should the Town consider REV when developing the Climate Action Plan?

- Many of the plans reviewed lacked transparency and follow-up. It was difficult to determine how many of the proposed initiatives have been implemented.

- Further discussion is warranted on the selection of an eGRID emission factor which is used to calculate local government emissions throughout the CSC tool. The Upstate New York emission factor, currently selected in the CSC tool, takes into account energy generated by nuclear and hydro sources in the Upstate New York region and therefore results in smaller emissions numbers than if a New York State Average emissions factor is used in the calculations.

- Cassidy suggested that the SOC review Binghamton's Climate Action Plan by the next SOC meeting as she would like to model the Town of Brighton's CAP after Binghamton's outline. Cassidy indicated that she would like to have an outline for the Town's CAP by May. Evert will send out Binghamton's GHG Report and Climate Action Plan to the SOC for review.

- Greg is working on finishing up the data collection for the Community Level greenhouse gas inventory.

  - A brief discussion occurred on the availability of community vehicle miles traveled and travel zone models that can be included with the Community GHG inventory. Mike will look into this matter and distribute information to Eric and Erinn.

  - Eric indicated that Schools should be a part of the Community level GHG inventory. Additionally, Eric indicated that there are funding opportunities for schools to implements CSC projects through a BOCES Energy Development grant.

o Interior Lighting Follow Up, Eric

  - Eric is investigating the feasibility of replacing interior fluorescent lighting at the Town Hall complex with LED lighting. Eric has provided a scenario which seems to indicate that the energy savings resulting from the installation of LED fixtures at the Town Hall could equal the anticipated costs associated with the upgrades, making the proposed project budget neutral. Mike and Eric will review this proposal and this topic will be discussed in greater detail at the next SOC meeting.

o Climate Smart Communities

  - Focus Subgroup Reports

    - The SOC continued to discuss the role of focus subgroups with regards to the Climate Action Plan. Reports and deliverables

generated from CSC focus subgroups will be sent to Cassidy so that they may be included in the Town's Climate Action Plan.

- Comprehensive Plan Update
  - The next Public Informational meeting for the Comprehensive Plan Update is scheduled for Thursday, February 11 at 5:30 PM. The SOC is highly encouraged to attend and provide feedback to the consultants on the material to be presented.
- SOC Member and Comprehensive Plan Liaison
  - A new liaison will need to be established between the SOC and the Comprehensive Plan Update Committee due to Rochelle's resignation from the SOC. Members of the SOC will brainstorm on possible replacement candidates for Rochelle and forward their contact information to Ron for review and consideration.
- SOC and Town Board Meeting
  - The SOC and Town Board meeting has been scheduled for February 24 and will be held from 6:00 PM to 7:00 PM.
  - The SOC discussed the draft PowerPoint presentation for the meeting with the Town Board.
    - The SOC will approach the first slide of the presentation as an overview of what it means to be a Climate Smart Community and a status update on CSC items that have been completed and/or are in progress.
    - Members of the SOC felt that some of the slides provide too much detail on certain pledge items, while others not enough. The message throughout the presentation should be consistent.
    - Ron will re-format the presentation to include one slide that will list one example for every pledge item and will also include a few slides which will provide more detailed examples of selected pledge items.
    - Mike will re-format the stormwater slides and consolidate the information to one slide.
- Educational Program
  - The SOC indicated that they would like to defer on making a decision as to whether or not they can assist the Town in developing an educational/informational program until they obtain more details on the nature of the request.

- Development Updates
    - Updates for development projects throughout the Town were briefly discussed.

Adjournment

Next Meeting

The next meeting will be April 6, 2016 at 7:00 PM.

Town of Brighton
MONROE COUNTY, NEW YORK
SUSTAINABILITY OVERSIGHT COMMITTEE, SOC
2300 ELMWOOD AVE. * ROCHESTER, NEW YORK 14618 * PHONE (585) 784-5250 *FAX (585) 784-5368

Sustainability Oversight Committee
April 6, 2016

Meeting Minutes

Attendance: Ron Wexler, Eric Williams, Steve Kittelberger, Chris Werner, Erinn Ryen, Paul Tankel, Shubhangi Gandhi, Margy Peet, Cassidy Putney, Greg Shinaman, Mike Guyon, Evert Garcia

Minutes: The January 6, 2016 meeting minutes were approved without revisions. The February 3, 2016 meeting minutes were approved without revisions.

Open Forum:

Announcements:

Old Business

- SOC and Town Board Meeting Recap
  - One of the items discussed in the SOC and Town Board meeting was that Supervisor Moehle indicated that he wants Brighton to become a certified climate smart community. The SOC and Town staff will start tallying points and putting documents together for the certification process.
  - Another takeaway from the meeting was that future sustainability related improvements need to consider the economics of implementing the project.
  - During the meeting, both the SOC and the Town Board agreed that a better relationship was needed between the Comprehensive Plan committee and the SOC. A new liaison between the Comprehensive Plan committee and the SOC has been established and will be discussed later in the meeting.
  - Overall, the SOC felt that the meeting went well and was productive.
- Comprehensive Plan Public Meeting Recap
  - The SOC briefly discussed the Public Information Meeting #2 for the Comprehensive Plan Update. The minutes and notes from the aforementioned meeting are available on the Comprehensive Plan Update website, which can be found at the following link: http://www.envisionbrighton.org/. The SOC should review the meeting minutes and provide comments back to Mike regarding any questions or concerns.
- Green House Gas Inventory

- Greg presented an update on the status of the 2014 GHG for Community Emissions in Brighton.

- The GHG inventory for community emissions indicated that the total greenhouse gas emissions for Town Operations in 2014 was 434,600 MT CO_{2e}. The largest source of emissions for the community was Mobile Combustion, with about 50% of the total emissions.

- Within the mobile emissions category, Light Duty vehicles and trucks account for the majority of the emissions. The vehicle traffic data for this inventory was provided by the Genesee Transportation Council. The SOC inquired as to whether the data provided accounted for all traffic passing the Town of Brighton, or just traffic that was generated in Brighton. Town staff will look into this matter and follow up with the SOC.

- Next, Cassidy presented an update on the Town Operations Greenhouse Gas Inventory.

- A brief discussion occurred on the selection of an eGRID emissions factor. The SOC decided that the NYS average value should be used in our GHG inventory, in lieu of using the Upstate New York emissions factor. Currently, the Upstate NY emissions factor takes into account energy generated by nuclear and hydro sources in the Upstate New York region and therefore would result in slightly smaller emissions numbers. However, the Ginna Nuclear power plant is slated to be decommissioned in the near future and consequently, will negatively affect the Upstate NY emissions factor. Selecting to use the NYS average emissions factor in the Town's GHG inventory now, avoids having to adjust the numbers at a later date.

- Cassidy presented a historical comparison chart of the various GHG inventories performed over the years for Town of Brighton Operations. The chart indicated that from 2001, the percent change in MT CO_{2e} for Town Operations has been reduced by 45.5%. The SOC briefly discussed what the possible reason could be for such a drastic reduction in emissions. The SOC and Town staff will review the data to confirm that the reduction in emissions is accurate.

- Next, Cassidy discussed and provided and outline for the Greenhouse Gas Inventory summary report that she is working on, which will be similar in format to the City of Binghamton's GHG summary report. The report is intended to make the data replicable for future comparisons.

- Cassidy indicated that she would like feedback from the SOC on the proposed GHG inventory summary report outline. The report outline has been emailed out to all members of the SOC.

- Cassidy indicated that her internship with the Town of Brighton will conclude at the end of May. By the end of her internship, Cassidy will like to

have the GHG Inventory Summary Report finalized and a draft for the Climate Action Plan started.

- Interior Lighting Follow Up, Eric
    - Eric indicated that Rafael and Brendan will be performing the feasibility study that will look into replacing interior fluorescent lighting at the Town Hall complex with LED lighting. Town staff will assist Rafael and Brendan throughout this process.
- SOC Comprehensive Plan Liaison
    - The new liaison between the SOC and the Comprehensive Plan Update Committee has been selected. The new liaison is Erinn Ryen.
- New SOC Member
    - Various candidates have been interviewed to fill the position on the SOC left vacant by Rochelle Bell. An announcement regarding this matter will be made shortly.
- Educational Program
    - Margy indicated Color Brighton Green is interested in assisting the Town with developing an educational/informational program, however, they are awaiting more information regarding the nature of the request.
- Development Updates
    - Updates for development projects throughout the Town were briefly discussed.

New Business

- Solarize NY
    - Solarize NY is a program run by ROCSPOT and supported by NYSERDA that aims to match local residents with solar panel installers that have been vetted, reviewed, and carefully selected. They will hold monthly solar assemblies designed to provide interested parties an opportunity to learn more about solar power, participate in Q&A, and sign up for free solar assessments to find out exactly how solar can work for your home or business.
    - Steve presented a scenario in which he indicated that the installation of solar panels on the roof of the Town Hall complex may be feasible. Steve would like to invite professionals to come in and speak to the SOC about options

that may be available for solar panel installations on the roofs of local public buildings. Town staff will work on inviting a guest for this purpose.

- Geothermal Ordinance
  - The Town is working on creating a geothermal ordinance that will regulate the installation process of geothermal well installations, including the drilling component.
- Capital Improvement Plan, CIP
  - Mike indicated that he would to get the CIP review by the SOC process started earlier this year. Mike will send out the CIP chart to all of the members of the SOC for review and comment.

Adjournment

Next Meeting

The next meeting will be May 4, 2016 at 7:00 PM.

Town of Brighton
MONROE COUNTY, NEW YORK
SUSTAINABILITY OVERSIGHT COMMITTEE, SOC
2300 ELMWOOD AVE. * ROCHESTER, NEW YORK 14618 * PHONE (585) 784-5250 *FAX (585) 784-5368

Sustainability Oversight Committee
May 4, 2016

Meeting Minutes

Attendance: Ron Wexler, Eric Williams, Chris Werner, Erinn Ryen, Paul Tankel, Shubhangi Gandhi, Mohamed Razak, Margy Peet, Cassidy Putney, Mike Guyon, Evert Garcia, Mitch Nellies (Public)

Minutes: The April 6, 2016 meeting minutes were approved pending minor corrections.

Open Forum:

Announcements:

- SOC New Member
  - It was announced that Margy Peet has been selected as the newest member of the SOC. Congratulations Margy.

Old Business

- Comprehensive Plan Update
  - Mike informed the SOC that the comprehensive plan update is currently in the data gathering stage.
  - The SOC will review the GHG report prepared by Cassidy and determine when the report can be released for use and consideration in the comprehensive plan update.
- Guest Speaker, Mohamed Razak
  - Mohamed Razak, member of the Comprehensive Plan Update committee, attended the meeting to provide the SOC with a brief overview of the current state of the comprehensive plan.
  - Mohamed stated that he is interested in having the opportunity to review the GHG Report as it may provide insight and guidance that could be included with the overall comprehensive plan update.
  - Mohamed indicated that a large portion of the comprehensive plan update is sustainability focused and that the ultimately, the comprehensive plan must be consistent with the requirements of the NYSERDA provided grant.

- Mohamed provided some insight on his personal ideas and what he would like to see recommended by the comprehensive plan. Mohamed indicated that he would like to see a redevelopment of a Town Center and that he thinks that private-public partnerships will be necessary to implement the Town Center vision. Mohamed also indicated that the existing Town Code will need to be reviewed in order to be consistent with the goals and objectives of the comprehensive plan update.

o Green House Gas Inventory, Cassidy

- Cassidy reviewed the Draft Greenhouse Gas Inventory Report. A brief discussion on the contents of the report followed. Below is a compilation of comments from the discussion:

  - The GHG summary should clearly identify what the reported emissions represent. Additionally, the report should make a distinction between energy use per capita versus GHG emissions per capita and compare the aforementioned values to other communities nationwide.

  - There is some question as to what entities are included under the "Public Authority" category as noted in the data provided to the Town by RG&E. Town staff will investigate this matter further.

  - The library's energy consumption data is included with the Town Hall's data and therefore they should be mentioned in the report.

  - An explanation should be provided as to why the Town is receiving emissions credit in the EPA WARM model for calculating emissions from solid waste operations.

  - Mohamed indicated that he would like to see actionable items and recommendations resulting from the GHG Inventory. The SOC indicated that actionable items will be provided in subsequent steps, such as in the Climate Action Plan.

- Cassidy indicated that her last day of internship with the Town will be on Friday, May 13th. She would like for the SOC to read through the Draft GHG Report and provide comments on the report by Wednesday, May 11.

- Town staff will upload the Draft GHG Report to a cloud service that will allow collaboration and commenting from all members of the SOC on the same document.

o Interior Lighting Project

- Eric has a meeting scheduled on May 5th to discuss the results of Rafael's Town Hall interior lighting upgrade study. Rafael will be invited to next month's SOC meeting to present his findings.

- Climate Smart Communities

  - Much of the work on Climate Smart Communities was dependent on the completion of the Greenhouse Gas Inventories. Progress on the CSC program can now continue.

- Capital Improvement Plan, CIP

  - Mike sent out the Town's CIP program to the SOC for review and comment. The Town will be starting the CIP review process in a week or two. Mike would like the SOC to review the CIP and provide comments so that he may compile them into a singular document. This matter will be discussed further at the June meeting.

- Solarize NY

  - Solarize NY is a program run by ROCSPOT and supported by NYSERDA that aims to match local residents with solar panel installers that have been vetted, reviewed, and carefully selected. They will hold monthly solar assemblies designed to provide interested parties an opportunity to learn more about solar power, participate in Q&A, and sign up for free solar assessments to find out exactly how solar can work for your home or business.

  - No solar assemblies are scheduled in Brighton for May. However, Margy indicated that there will be a Solar Drinks event on May 9th at Joey B's.

- Geothermal Ordinance

  - The Town is working on creating a geothermal ordinance that will regulate the installation process of geothermal well installations, including the drilling component.

  - Town staff is aiming to have a Draft Ordinance available for review by the June or July SOC meeting.

- Leaf Blowers

  - Paul brought up the topic of emissions generated by leaf blowers and other two cycle internal combustion engines. Paul indicated that these types of leaf blowers can emit approximately 300 times more greenhouse gases than a pickup truck.

- Paul stated that Los Angeles County has banned the use of gas powered leaf blowers.
- Paul indicated that there may be grants available to further research the impacts of greenhouse gas emissions from leaf blowers and other two cycle gas powered engines commonly found in landscaping equipment. One such source of grants may be the NYS Pollution Prevention Institute, headquartered at RIT.
- Eric, Erin and Paul will investigate possible grant funding at the P2 institute at RIT. The grant funding cycle starts in September.

o Development Updates

- Updates for development projects throughout the Town were briefly discussed.

New Business

Adjournment

Next Meeting

The next meeting will be June 1, 2016 at 7:00 PM.

Town of Brighton
MONROE COUNTY, NEW YORK
SUSTAINABILITY OVERSIGHT COMMITTEE, SOC
2300 ELMWOOD AVE. * ROCHESTER, NEW YORK 14618 * PHONE (585) 784-5250 *FAX (585) 784-5368

Sustainability Oversight Committee
June 1, 2016

Meeting Minutes

Attendance: Ron Wexler, Eric Williams, Chris Werner, Erinn Ryen, Paul Tankel, Shubhangi Gandhi, Margy Peet, Mike Guyon, Evert Garcia, Brendan Ryan, Rafael Carneiro, Mitch Nellies (Public)

Minutes: The May 4, 2016 meeting minutes were approved without revisions.

Open Forum:

Announcements:

Old Business

- Comprehensive Plan Update
  - Mike outlined the next steps for making progress on the Comprehensive Plan Update. A copy of the outline document will be emailed to the SOC. A few key items to note are as follows:
    - The comprehensive plan update committee recently met with the SOC subgroup, which is comprised of Ron Wexler and Erinn Ryen, to update Erin on the status of the plan, as Erin is the new liaison between the SOC and the Comprehensive Plan Committee.
    - The consultant for the comprehensive plan has drafted a Key Issue Identification Report. The Key Issue Identification Draft Report will be reviewed by the comprehensive plan committee. The Key Issue Identification Report will then be modified per comments received and subsequently be submitted to NYSERDA as part of the final comprehensive plan.
    - The comprehensive plan vision statement has been developed.
    - The Sustainability Goals and Recommendations report will be developed throughout the summer and could go into the fall.
    - The Park Plan is currently being developed. Public Meeting number 3, on June 13, 2016, is intended to provide background on Town-owned parcels adjacent to Buckland Park along Westfall Road and receive public input. The Park Plan will be modified based on public comments and submitted to NYSERDA as part of the final comprehensive plan.

- Public Meeting #4 will be held following the development of a Draft Comprehensive Plan and State Environmental Quality Review.
- The Final Comprehensive Plan will be submitted subsequent to all of the aforementioned items.

- The SOC discussed different options that may be available in order to share draft documents related to the comprehensive plan update securely. Mike indicated that Town Staff will investigate ways that would allow the document to be reviewed by the SOC.

o Green House Gas Inventory

- The SOC indicated that they would like to see recommendations be developed from the greenhouse gas inventory report.
- The SOC would like to provide formal recognition to the all of the interns that have worked on the CSC Greenhouse Inventory. Mike suggested having the Town Board pass a resolution to thank the interns and having Cassidy present the results of the GHG to the Town Board.

o Interior Lighting Project

- Rafael and Brendan presented their findings on the Town Hall Campus Interior Lighting Study.
  - The study indicates that there is an economic justification for a particular amount of bulbs in the Town Hall facility that can be upgraded to LEDs while maintaining a payback period of one year.
  - Brendan provided more details on the various categories of electrical rates that the Town pays per kWh. He indicated that the cost of electricity varies based on how much electricity is used during the peak demand time's vs the off-peak demand time's. Taking the variability of usage rates into account, the number of fluorescent bulbs that can be justifiable upgraded to LEDs can increase by about 10%.
  - Eric will share Rafael's presentation with the SOC.

o Climate Smart Communities-Focus Subgroup Reports:

- Ron requested that each focus subgroup should generate two lists. One list for CSC projects that can be easily completed and the other for projects that could be accomplished with no financial constraints, further organized by priorities. The aforementioned lists should be based on the results of the recently completed GHG inventory.

- Ron indicated that he would like for the SOC to start thinking about and discussing the Climate Action Plan in subsequent meetings. Additionally, Ron suggested that the SOC starts thinking about bringing on another intern to assist with work that may be required for the CAP in the fall.

- Margy suggested that the SOC should determine what level of Climate Smart Community the Town would like to achieve, as that can affect the focus subgroup priorities lists. Mike will email the current CSC list with scores.

o Capital Improvement Plan, CIP

- Mike sent out the Town's CIP program to the SOC for review and comment. Mike would like the SOC to review the CIP and provide comments back to him by the July SOC meeting.

o Solarize NY

- Solarize NY is a program run by ROCSPOT and supported by NYSERDA that aims to match local residents with solar panel installers that have been vetted, reviewed, and carefully selected. They will hold monthly solar assemblies designed to provide interested parties an opportunity to learn more about solar power, participate in Q&A, and sign up for free solar assessments to find out exactly how solar can work for your home or business.

- Mike will email the dates of the solar assemblies scheduled in Brighton to the SOC. More information on Solarize NY can be found on the web at http://www.rocspot.org/solarize-about/

o Geothermal Ordinance

- The Town is working on creating a geothermal ordinance that will regulate the installation process of geothermal wells, including the drilling component.

- Town staff is aiming to have a Draft Ordinance available for review at a future SOC meeting.

o Leaf Blowers

- The SOC would like to investigate whether grants are available to study the impacts of greenhouse gas emissions from leaf blowers and other two cycle gas powered engines commonly found in landscaping equipment. One such source of grants may be the NYS Pollution Prevention Institute, headquartered at RIT.

- Eric, Erin and Paul will investigate possible grant funding at the P2 institute at RIT. The grant funding cycle starts in September.

- Potential Guest Speakers
    - The SOC discussed possible guest speakers to invite and present on an SOC related topic. A list of potential guest speakers and topics include:
        - Frank Sciremammano- to discuss the Comprehensive Plan.
        - Ram Shrivastava- from Larsen Engineers to discuss solar installations.
        - Mike DeClerck- from Waste Management to discuss Climate Smart Communities and progress on recycling.
        - Brendan Ryan- to discuss building energy envelopes and auditing.
        - The Monroe County Stormwater Coalition- to discuss the Monroe County Stormwater Master Plan and stormwater retrofit projects.
- Development Updates-Whole Foods
    - Updates for development projects throughout the Town were briefly discussed.
    - Mike announced that the revised Draft Environmental Impact Statement for the Whole Foods Plaza development is available for download and review from the town website.

New Business

Adjournment

Next Meeting

The next meeting will be July 13, 2016 at 7:00 PM.

Town of Brighton
MONROE COUNTY, NEW YORK
SUSTAINABILITY OVERSIGHT COMMITTEE, SOC
2300 ELMWOOD AVE. * ROCHESTER, NEW YORK 14618 * PHONE (585) 784-5250 *FAX (585) 784-5368

Sustainability Oversight Committee
July 13, 2016

Meeting Minutes

Attendance: Ron Wexler, Eric Williams, Chris Werner, Erinn Ryen, Paul Tankel, Shubhangi Gandhi, Margy Peet, Mike Guyon, Evert Garcia, Brendan Ryan, Rafael Carneiro, Mitch Nellies (Public)

Minutes: The June 1, 2016 meeting minutes were approved without revisions.

Open Forum:

Announcements:

Old Business

- Comprehensive Plan Update
  - Mike outlined the next steps for making progress on the Comprehensive Plan Update. A copy of the outline document will be emailed to the SOC. A few key items to note are as follows:
    - The comprehensive plan update committee recently met with the SOC subgroup, which is comprised of Ron Wexler and Erinn Ryen, to update Erin on the status of the plan, as Erin is the new liaison between the SOC and the Comprehensive Plan Committee.
    - The consultant for the comprehensive plan has drafted a Key Issue Identification Report. The Key Issue Identification Draft Report will be reviewed by the comprehensive plan committee. The Key Issue Identification Report will then be modified per comments received and subsequently be submitted to NYSERDA as part of the final comprehensive plan.
    - The comprehensive plan vision statement has been developed.
    - The Sustainability Goals and Recommendations report will be developed throughout the summer and could go into the fall.
    - The Park Plan is currently being developed. Public Meeting number 3, on June 13, 2016, is intended to provide background on Town-owned parcels adjacent to Buckland Park along Westfall Road and receive public input. The Park Plan will be modified based on public comments and submitted to NYSERDA as part of the final comprehensive plan.

- Public Meeting #4 will be held following the development of a Draft Comprehensive Plan and State Environmental Quality Review.

- The Final Comprehensive Plan will be submitted subsequent to all of the aforementioned items.

- The SOC discussed different options that may be available in order to share draft documents related to the comprehensive plan update securely. Mike indicated that Town Staff will investigate ways that would allow the document to be reviewed by the SOC.

o Green House Gas Inventory

- The SOC indicated that they would like to see recommendations be developed from the greenhouse gas inventory report.

- The SOC would like to provide formal recognition to the all of the interns that have worked on the CSC Greenhouse Inventory. Mike suggested having the Town Board pass a resolution to thank the interns and having Cassidy present the results of the GHG to the Town Board.

o Interior Lighting Project

- Rafael and Brendan presented their findings on the Town Hall Campus Interior Lighting Study.

  - The study indicates that there is an economic justification for a particular amount of bulbs in the Town Hall facility that can be upgraded to LEDs while maintaining a payback period of one year.

  - Brendan provided more details on the various categories of electrical rates that the Town pays per kWh. He indicated that the cost of electricity varies based on how much electricity is used during the peak demand time's vs the off-peak demand time's. Taking the variability of usage rates into account, the number of fluorescent bulbs that can be justifiable upgraded to LEDs can increase by about 10%.

  - Eric will share Rafael's presentation with the SOC.

o Climate Smart Communities-Focus Subgroup Reports:

- Ron requested that each focus subgroup should generate two lists. One list for CSC projects that can be easily completed and the other for projects that could be accomplished with no financial constraints, further organized by priorities. The aforementioned lists should be based on the results of the recently completed GHG inventory.

- Ron indicated that he would like for the SOC to start thinking about and discussing the Climate Action Plan in subsequent meetings. Additionally, Ron suggested that the SOC starts thinking about bringing on another intern to assist with work that may be required for the CAP in the fall.

- Margy suggested that the SOC should determine what level of Climate Smart Community the Town would like to achieve, as that can affect the focus subgroup priorities lists. Mike will email the current CSC list with scores.

o Capital Improvement Plan, CIP

- Mike sent out the Town's CIP program to the SOC for review and comment. Mike would like the SOC to review the CIP and provide comments back to him by the July SOC meeting.

o Solarize NY

- Solarize NY is a program run by ROCSPOT and supported by NYSERDA that aims to match local residents with solar panel installers that have been vetted, reviewed, and carefully selected. They will hold monthly solar assemblies designed to provide interested parties an opportunity to learn more about solar power, participate in Q&A, and sign up for free solar assessments to find out exactly how solar can work for your home or business.

- Mike will email the dates of the solar assemblies scheduled in Brighton to the SOC. More information on Solarize NY can be found on the web at http://www.rocspot.org/solarize-about/

o Geothermal Ordinance

- The Town is working on creating a geothermal ordinance that will regulate the installation process of geothermal wells, including the drilling component.

- Town staff is aiming to have a Draft Ordinance available for review at a future SOC meeting.

o Leaf Blowers

- The SOC would like to investigate whether grants are available to study the impacts of greenhouse gas emissions from leaf blowers and other two cycle gas powered engines commonly found in landscaping equipment. One such source of grants may be the NYS Pollution Prevention Institute, headquartered at RIT.

- Eric, Erin and Paul will investigate possible grant funding at the P2 institute at RIT. The grant funding cycle starts in September.

- Potential Guest Speakers
    - The SOC discussed possible guest speakers to invite and present on an SOC related topic. A list of potential guest speakers and topics include:
        - Frank Sciremammano- to discuss the Comprehensive Plan.
        - Ram Shrivastava- from Larsen Engineers to discuss solar installations.
        - Mike DeClerck- from Waste Management to discuss Climate Smart Communities and progress on recycling.
        - Brendan Ryan- to discuss building energy envelopes and auditing.
        - The Monroe County Stormwater Coalition- to discuss the Monroe County Stormwater Master Plan and stormwater retrofit projects.
- Development Updates-Whole Foods
    - Updates for development projects throughout the Town were briefly discussed.
    - Mike announced that the revised Draft Environmental Impact Statement for the Whole Foods Plaza development is available for download and review from the town website.

New Business

Adjournment

Next Meeting

The next meeting will be July 13, 2016 at 7:00 PM.

Town of Brighton
MONROE COUNTY, NEW YORK
SUSTAINABILITY OVERSIGHT COMMITTEE, SOC
2300 ELMWOOD AVE. * ROCHESTER, NEW YORK 14618 * PHONE (585) 784-5250 *FAX (585) 784-5368

Sustainability Oversight Committee
September 7, 2016

Meeting Minutes

Attendance: Ron Wexler, Erinn Ryen, Shubhangi Gandhi, Margy Peet, Mike Guyon, Evert Garcia

Minutes: The July 13, 2016 meeting minutes were approved without revisions.

Open Forum:

Announcements:

Old Business

- Town Board Meeting, GHG Presentation
  - The SOC discussed the upcoming GHG Presentation to the Town Board and SOC meeting following the presentation on September 28th at 7:00 PM.
    - SOC interns who have worked on the Town's greenhouse gas inventory will be formally recognized and thanked for their efforts.
    - The SOC intends on giving a high-level presentation outlining the results of the GHG inventory to the Town Board. Ron indicated that he would be willing to give the presentation but he couldn't guarantee that he would be in attendance due to personal matters. Therefore, he suggested that another member of the SOC might be a better choice to present to the Town Board.
    - Mike suggested having Cassidy do the presentation as she is most familiar with the GHG Inventory report and an excellent public speaker. Town staff will get in contact with Cassidy to check on her availability. Erinn indicated that she is willing to help Cassidy put the presentation together.
    - It was decided that the presentation should be a brief, 3-4 slides summary on the current status of the Town's greenhouse gas profile. The presentation should mention Climate Smart Community and the intent of the greenhouse gas inventory.
- GHG Inventory Completeness
  - Town staff will update the GHG Inventory Report based on suggestions made by members of the SOC and submit to the Town Board on September 28th.

- Comprehensive Plan Update, *Sustainability Report Process*
    - Mike presented a flow chart which outlined the next steps in the Comprehensive Plan Update process. Mike will share the flow chart with the rest of the SOC subsequent to the meeting. The SOC suggested adding anticipated completion dates for each step in the flow chart. Additionally, the first diagram in the flow chart should be changed to a sheet title in order to avoid confusion with the remaining steps.
    - The SOC should be ready for an internal discussion/review of the Sustainability Report Goals report in November. Ron stressed that SOC focus subgroups should have priority items outlined by early October.
    - The comprehensive plan steering committee will meet next on September 27th. Frank Sciremammano and Ramsey Boehner will be invited to a future SOC meeting to provide the SOC with more details on the plan's progress and the committee's process.
- Climate Smart Communities
    - Focus Sub-Group priorities
        - The SOC talked about meeting after the Town Board presentation on September 28th to discuss in detail the sub-group priorities.
        - Additionally, the SOC suggested re-scheduling the October meeting to mid-October. Mike will send out a doodle poll to determine what alternate date works the best. Options that are available for the alternate meeting are as follows:
            - October 13 (AM or PM), October 14 (AM or PM), October 18 (evening only), October 19 (AM or PM).
    - CSC spreadsheet with supporting documentation
        - The SOC indicated that they would like to see items that are required for certification prominently displayed within the CSC sub-group spreadsheet as that would assist in determining priorities.
        - Evert will upload the CSC spreadsheet to the SOC's shared Google drive folder.
        - The SOC discussed the possibility of bringing on an intern once items required for certification are identified.
        - Erinn indicated that the she may have a few public policy students next semester that could assist the SOC with Climate Smart

Communities and the Climate Action Plan, however, a course outline should be ready for the students to follow.

- Interior Lighting Project
    - Town Staff will conduct a pilot test by retrofitting one office space with LED lights and getting feedback from the employees within that space. If successful, Town Staff will look into expanding the project into other areas of the Town Hall.
    - Town staff hopes to have the pilot project completed within two months.
- Solarize NY, September 11th Meeting
    - September 11th is the last informational meeting for the Solarize NY project in Brighton.
- Renewable Energy Update
    - Geothermal Ordinance
        - Town staff is still working on creating a geothermal ordinance that will regulate the installation process of geothermal wells. Town staff is aiming to have a Draft Ordinance available for review at a future SOC meeting.
    - Community Shared Solar Program, *Ram's Presentation*
        - The SOC discussed Ram's presentation on the Community Distributed Solar Program. The Community Distributed Generation program allows customers who cannot site solar, small wind, or other sustainable generation to participate directly in off-site projects through net metering. The SOC would like to learn a little more about this opportunity to determine if this is something that the Town should be pursuing.
        - Town Staff will do some research on what grants may be available for Community clean energy projects such as this.
        - This program appears to coincide with the Community Choice Aggregation program.
        - Margy has reviewed information on Community Choice Aggregation. She indicated that in a CCA, the Town would essentially act as an ESCO. This matter will likely require regular updates. The SOC will await for more information on CCA's from Margy.

- Meeting with Waste Management, Mike DeClerk
    - Erinn and Steve are in the process of scheduling a meeting with Mike DeClerk from Waste Management to discuss the status of recycling efforts within the Town of Brighton.
- Development Updates
    - Updates for development projects throughout the Town were briefly discussed.
    - A ribbon cutting event for the grand opening of the Town's Electric Vehicle Charging station has been set for September 22nd. All SOC members are invited to attend.
    - The status of the Whole Foods development is that the developer has been asked to prepare a Supplemental EIS based on the review of the previously submitted DEIS.

New Business

Adjournment

Next Meeting

The next meeting will be September 28, 2016 at 7:30 PM to discuss Focus Sub-Groups in detail.

The October regularly scheduled meeting is TBD subsequent to the results of the Doodle Poll.

Town of Brighton
MONROE COUNTY, NEW YORK
SUSTAINABILITY OVERSIGHT COMMITTEE, SOC
2300 ELMWOOD AVE. * ROCHESTER, NEW YORK 14618 * PHONE (585) 784-5250 *FAX (585) 784-5368

Sustainability Oversight Committee
September 28, 2016

Meeting Minutes

Attendance: Ron Wexler, Erinn Ryen, Shubhangi Gandhi, Cassidy Putney, Ramsey Boehner, Frank Sciremammano, Mike Guyon, Evert Garcia

Minutes: N/A

Open Forum:

- Comprehensive Plan Update, Frank Sciremammano & Ramsey Boehner
  - Frank provided the SOC with a handout outlining the Comprehensive Plan Committee's next steps. Frank indicated that the committee anticipates having a draft of Sustainability objectives for the SOC to review by November.
  - The SOC would then have about 30 days to review and provide feedback to the Comprehensive Plan steering committee.
  - Ron indicated that he would like to see the SOC's priority items finalized prior to draft report from the consultant in November.
  - Erinn spoke briefly on her meeting with the comprehensive plan steering committee. Additionally, Erinn indicated that she will be meeting with Waste Management to review waste management priorities within the Town of Brighton.

Announcements:

Old Business

- Climate Smart Communities
  - Focus Sub-Group
    - Ron spoke about the importance of concentrating on finalizing a priorities list so that the SOC can provide meaningful feedback to the Comprehensive Plan steering committee when they request it in November.
    - The priorities should be developed within the CSC checklist.
    - The SOC engaged in a lengthy discussion on what criteria should be used to evaluate priorities. Ron requested that each sub-group draw upon their expertise to select the most important issues then rate the

most important based on criteria established by the SOC. Potential criteria that could be used for evaluation of priorities are as follows:

- Emissions
- Reduction of GHG
- Ease of Implementation
- Available Funding
- Dollar Savings
- Total Carbon reduction in 10 years if implemented today

- SOC members will submit other criteria that they deem important to Mike and he will compile and modify the CSC spreadsheet as necessary. Mike will then share the CSC spreadsheet to the SOC members by Friday, September 30th.

- Town staff will start compiling the table of contents from Climate Action Plans of other communities and put together a draft outline for the Town's CAP by December.

- The SOC discussed establishing a goal year for the Climate Action Plan. The year 2030 was suggested.

New Business

Adjournment

Next Meeting

The next meeting will be October 18, 2016 at 7:20 PM.

Town of Brighton
MONROE COUNTY, NEW YORK
SUSTAINABILITY OVERSIGHT COMMITTEE, SOC
2300 ELMWOOD AVE. * ROCHESTER, NEW YORK 14618 * PHONE (585) 784-5250 *FAX (585) 784-5368

Sustainability Oversight Committee
October 18 2016

Meeting Minutes

Attendance: Ron Wexler, Eric Williams, Chris Werner, Erinn Ryen, Paul Tankel, Shubhangi Gandhi, Margy Peet, Mike Guyon, Evert Garcia

Minutes: The September 7, 2016 and September 28, 2016 meeting minutes were approved without revisions.

Open Forum:

Announcements:

Old Business

- Meeting with Waste Management, Mike DeClerk
    - Erinn gave a summary of the meeting she attended with Steve and Mike DeClerk from Waste Management to discuss recycling efforts within the Town of Brighton.
    - Erinn indicated that they discussed possible dumpster locations across Town properties. They also discussed the possibility of using smaller, more recognizable containers with a consistent vision.
    - The labeling system for the recycling dumpsters has not been established and can be decided by the Town. Eric indicated that an RIT master student is currently studying the effects of various labeling systems on recycling. The Town and the SOC should review the results of the study and apply the findings to the Town's program if applicable.
    - Mike also indicated that Waste Management is not currently offering composting services as a local company, Community Composting is offering composting services in the area.
    - A key takeaway from the meeting is that educating the Public on the Town's recycling efforts will be key to the success of the program.
- Climate Smart Communities, Comprehensive Plan
    - Ron provided a summary of the meeting with Frank and Ramsey, in which the community vision policy framework was discussed.

- Ron asked that the SOC be ready to discuss sustainability priorities and provide feedback to the comprehensive plan committee when objectives for the comprehensive plan start to be determined.

- Paul indicated that he would like to make sure that CSC components are captured in the policy aspect of the comprehensive plan, otherwise, objectives for the comp plan may not align with Climate Smart Communities. Erinn indicated that she has been providing input regarding the development of the policies to reinforce climate smart communities' components with the consultant.

- Eric stated that he would like more feedback on how the SOC's wish list will compare with the implementation of said items. Paul added that he would like a better understanding of the Town Board's thought process as it relates to the comprehensive plan update.

- Ron asked the SOC to indicate what items they still need in order to make an informed decision about priorities.

- The SOC discussed adding additional criteria in new columns to provide a more efficient rating of the priorities. It was decided that Town staff will add a new column to the collaborative CSC spreadsheet which will indicate if a Policy change will be required in order to implement the CSC item in question. This will later help comprare policy items to other policy items. Additionally, Town staff will add up the ratings for each priority item and provide a summary sheet in the CSC document. The matrix is currently set up so that items with the highest scores are the most desirable. Blank or N/A scores should not be included in items that are being rated.

- The SOC inquired about the process for internal policy development, implementation and enforcement. Mike and Chris will look further into this matter and provide feedback at a subsequent SOC meeting.

- In the future, new columns identifying whether a CSC item belongs in the Comp plan and the Climate Action Plan should be provided.

- Once the summary sheet has been prepared, the SOC will discuss the top items as a group and prioritize further.

- Margy and Ron indicated that they will also work on rating items in Section 9 of the CSC, Inform and Inspire the Public.

- Erinn and Shubhangi indicated that they will work on rating items in Section 8 of the CSC, Support development of Green Innovation Economy.

New Business

Adjournment

Next Meeting

The next meeting will be November 2, 2016 at 7:00 PM.

Town of Brighton
MONROE COUNTY, NEW YORK
SUSTAINABILITY OVERSIGHT COMMITTEE, SOC
2300 ELMWOOD AVE. * ROCHESTER, NEW YORK 14618 * PHONE (585) 784-5250 *FAX (585) 784-5368

Sustainability Oversight Committee
November 2, 2016

Meeting Minutes

Attendance: Ron Wexler, Erinn Ryen, Shubhangi Gandhi, Mike Guyon, Evert Garcia

Minutes: The October 18, 2016 meeting minutes were not reviewed.

Open Forum:

Announcements:

Old Business

- Climate Smart Communities, CSC Element Spreadsheet
  - The SOC discussed and determined priority items within various Pledge Elements. Priorities actions for Pledge Elements 3, 5, 6, 7, 8 and 9 were established after totaling the scores for each activity. The results of the discussion can be viewed in Attachment A.
  - Town staff will investigate as to whether activities performed in conjunction with the Monroe County Stormwater Coalition counts towards Climate Smart Communities certification requirements.
- Comprehensive Plan Update
  - The next comprehensive plan committee meeting is scheduled for November 15th. Mike will send out the draft vision and policy framework to the SOC once it becomes available.
  - It is anticipated that Frank Sciremammano will be in attendance at the December meeting to discuss the draft vision and policy framework.

New Business

Adjournment

Next Meeting

The next meeting will be December 7th, 2016 at 7:00 PM.

Town of Brighton
MONROE COUNTY, NEW YORK
SUSTAINABILITY OVERSIGHT COMMITTEE, SOC
2300 ELMWOOD AVE. * ROCHESTER, NEW YORK 14618 * PHONE (585) 784-5250 *FAX (585) 784-5368

Sustainability Oversight Committee
December 7, 2016

Meeting Minutes

Attendance: Ron Wexler, Erinn Ryen, Shubhangi Gandhi, Margy Peet, Frank Sciremammano, Ramsey Boehner, Chris Werner, Sherry Kraus, Mike Guyon, Evert Garcia

Minutes: The October 18, 2016 and November 2, 2016 meeting minutes were not reviewed.

Open Forum:

Frank Sciremammano- Comprehensive Plan Update

- Frank updated the SOC on the current state of the comprehensive plan. A draft of the vision and policy framework has been developed and provided to SOC for review and comment.

- Various members of the SOC have developed preliminary comments to the draft vision and policy framework and will forward them to Mike Guyon for compiling. Comments from the SOC on the vision and policy framework should be submitted by the end of December so that they may be discussed internally at the January 4, 2017 SOC meeting. Subsequent to the review of the comments on January 4th, the SOC will forward them to the comprehensive plan update committee.

Sherry Kraus- Solar Ordinance

- Sherry attended the SOC meeting to discuss the potential conflict between solar panel owners and adjoining land owners whose trees may shade the solar panels. Sherry's concerns are based on the Tree Ordinance of Chapter 175 of the Town of Brighton Town Code and the recently passed Renewable Energy Systems Ordinance of Chapter 207 of the Town of Brighton Town Code.

- Sherry has indicated that she would like clarification from the Town on how the two laws should be interpreted in case of conflict. Sherry is concerned as to how local and state courts may interpret Brighton's renewable energy system ordinance during a potential litigation scenario between home owners. Sherry explained that the aforementioned scenario is not unlikely, as such a conflict has already occurred in Sunnyvale, California. In that instance, a home owner was forced to cut down their tree to prevent blocking sunlight to a neighbor's solar panel. Additionally, Sherry indicated that New York State has previously presented a couple of bills before the legislature that mimic California laws which tend to favor solar energy rights over trees.

- To conclude, Sherry indicated that she is requesting a recommendation from the SOC to the Brighton Town Board for the following actions:

- An amendment of the policy statement of the renewable energy systems ordinance to indicate the recognition of potential conflict with the Tree Ordinance (Chapter 175) and that the Town directs the implementation of the solar panel law in a way that will not conflict with the Tree Ordinance.

- Ask the Town Board to register opposition to the NYS Senate and Assembly bills that favor solar energy rights over trees.

- The SOC indicated that they would take Sherry's comments and concerns into consideration and follow up on this matter at a subsequent SOC meeting.

Announcements:

Old Business

- Interns
  - Town staff announced that Matthew McCumber, a new coop student, will start working with the Town in January. Matthew will assist Town staff with Public Work duties as well as being able to assist with SOC matters.

- Climate Smart Communities
  - CSC Element Priority Discussion
    - The SOC discussed and determined priority items for Pledge Element 4. Priority actions for pledge element 4 were determined to be 4.1, 4.3 and 4.4. Evert will compile all of the established Pledge Element priority items and distribute to the SOC.
  - Climate Action Plan Outline
    - Mike has put together a draft climate action plan outline for review and comment by the SOC. The draft CAP outline has been uploaded to Google Drive and should be accessible to all SOC members.
  - Development Update
    - Updates for various projects throughout Town were briefly discussed.
    - The developer for the Whole Foods project has submitted a Supplemental EIS to address comments and concerns of the previously submitted DEIS.

New Business

- Clean Energy Community Program
  - The Town of Brighton is pursuing recognition as a clean energy community under the New York State Clean Energy Communities Program. By becoming a

designated Clean Energy Community, local communities are eligible to apply for grants to fund additional clean energy projects. Additionally, designated clean energy communities are given access to clean energy coordinators who can help communities develop and prioritize clean energy goals, access guidance resources such as templates for legislation, procurement and contracts.

- In order to be designated a clean energy community, communities must complete at least four (4) of the ten (10) available High Impact Action Items. Information on how to complete each High Impact Action Item is available on NYSERDA's website.

Adjournment

Next Meeting

The next meeting will be January 4th, 2016 at 7:00 PM.