

Collegeville Borough

MUNICIPAL SUSTAINABILITY PLAN

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Collegeville Borough

MUNICIPAL SUSTAINABILITY PLAN

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Introduction

Collegeville Borough sits close to the geographic center of Montgomery County, Pennsylvania and is one of the most historic of Philadelphia's suburbs.

The area's earliest settlers arrived in the late 17th century and many of their buildings are still standing, including the Perkiomen Bridge Hotel which has existed in that spot since 1689. The historic bridge, an iconic entrance to the Borough located right next to the Hotel, was completed in 1799, allowing the town to flourish. With the addition of the railroad and a small liberal arts college that would one day become Ursinus College, Collegeville Borough began to take shape as the small college town it is today. Over the decades the railroad disappeared but development in and around the Borough continued and accelerated. Today the Borough has a population of just over 5,000 residents and supports 2,246 jobs located within the municipality. Collegeville has emerged as a dense, walkable community built around a traditional main street and bolstered by Ursinus College, its largest employer.

Despite this sustainable land use pattern, the Borough is experiencing challenges common to many developed suburban areas. Businesses on Main Street and in the shopping centers in the Borough have struggled in the face of competition from larger nearby shopping centers, encouraging residents to drive rather than reach these services on foot. The Borough is also at the crossroads of some very busy roads as Gravel Pike and Ridge Pike meet just east of downtown. Although this brings a great deal of potential shoppers into the Borough it is also a quality of life issue, as the large volume of traffic makes it difficult to walk or bike through town and reduces air quality.

Flooding is also a major concern. As the Borough and upstream communities become built out, flooding has increased

in severity and frequency, especially along the Perkiomen Creek. Stormwater control is an issue in terms of volume, which causes localized flooding and road closures. The historic Perkiomen Bridge Hotel, located alongside the Perkiomen Creek, has been vacant for some time, largely because of periodic flooding. Other properties along the Perkiomen Creek face similar challenges, as well as the Perkiomen Trail, which becomes unusable during and immediately after floods.

In addition to increased risk from flooding, improperly managed stormwater runoff from new development can harm the health of creeks and streams. The Borough also relies on groundwater for its public water supply, which is replenished by rain and stormwater. The quality of the water running through the Borough has a direct link to the health and safety of its residents.

Beyond the local issues facing Collegeville, there are larger concerns that will test the community's ability to continue to prosper into the future. Climate change, energy and food security, human health, natural resource preservation, and economic trends are national, if not global, issues that will affect Collegeville in the coming years. These challenges, whether local, regional, national, or global, will make it difficult to maintain a high quality of life for the Borough unless it engages in sustainability initiatives that address the social, economic, and environmental needs of its residents.

In recent years Collegeville has begun to make a concerted effort to address sustainability issues. The non-profit Collegeville Economic Development Corporation (CEDC) was formed

and hired a Main Street Manager to coordinate grants and other opportunities for the business district, helping to retain the Borough's walkable core. Although it is no longer part of the Main Street Program, the manager has remained as the staff expert for the CEDC, coordinating their efforts and marketing Collegeville. The Borough has completed

Potential Partner Collegeville Economic Development Corporation.

Although it is no longer part of the state's Main Street Program, the manager has remained as the staff expert to the CEDC, coordinating their efforts to market the Collegeville to potential employers and development. CEDC organized events like the Farmers' Market and other community-based festivals and programs are perfect opportunities to make sustainability part of Collegeville events. In addition, economic prosperity is an essential part of sustainability. Supporting CEDC's efforts to expand Collegeville's commercial sector should be a major component of the Borough's sustainability efforts.

The following is a list of events, services, and programs run or supported by the CEDC:

- *Concerts in Collegeville Park*
- *Movies in the Park*
- *Collegeville Farmers' Market*
- *Collegeville's Farmer and the Chef*
- *Community Yard Sale*
- *Bookmobile in Collegeville*
- *Duct Tape Fun*
- *Fall Fashion Show*
- *Dog's Night Out at the Park*
- *Rubber Ducky Regatta*
- *Inside Out*
- *Main Street Nutrition*

streetscaping efforts along Main Street that include brick pavers, stamped asphalt crosswalks, and street trees. In addition, a mid-block crosswalk with bulb-outs was installed on Main Street for pedestrian safety. A farmers' market, founded in 2010, brings fresh, local produce to residents at a central location, making it easy for residents to walk or bike to the market. Further, although the commuter rail line was discontinued it was turned into a multi-use trail that follows the Perkiomen Creek, running right through Collegeville. This project was initiated by Montgomery County, but the Borough has been persistent in obtaining funding to construct improvements to access points along the trail, including information kiosks, parking areas, and landscaping.

Potential Partner Ursinus College.

Ursinus College is the largest employer in the Borough and is a cultural resource that draws visitors from throughout the Philadelphia region thanks to amenities like the Berman Museum of Art, sporting events, and live theater. The college also has a history of promoting and practicing sustainability. Besides providing technical and expert assistance, students may be able to assist the Borough with sustainability projects for class credit. Students could maintain a sustainability website for the Borough and assist in projects like tree surveys and plantings or educational campaigns.

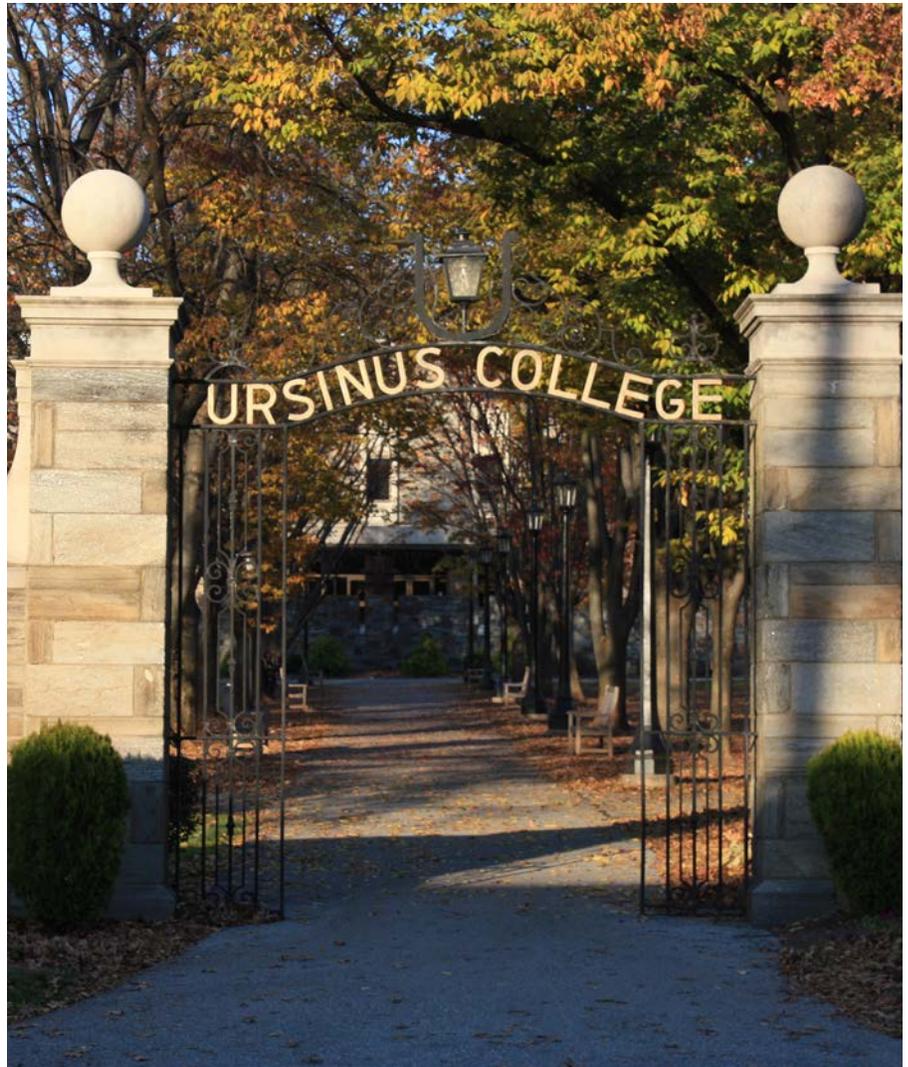
Collegeville's location also affords it the opportunity to build on natural features and recreation areas throughout the region. In addition to the Perkiomen Trail, which connects communities throughout the Perkiomen Valley, the Borough has direct access to the Perkiomen Creek itself. Green Lane Park, Evansburg State Park, and Valley Forge National Historic Park are all a few short minutes away. Collegeville can capitalize on these amenities by providing easy, car-free access to them from any point in the Borough – Green Lane Park Reservoir and Valley Forge are already easily accessible by bike from the Perkiomen Trail. Although there is no farmland in the town itself, there are several farms throughout the region that have easy access to Collegeville, making fresh, local

foods easy to obtain – as mentioned above, the Collegeville Farmers' Market facilitates this need and has become a major asset to residents and visitors.

In addition Collegeville has a long history of planning and regional cooperation. Some of the Borough's previous planning efforts include the Central Perkiomen Valley Regional Comprehensive Plan, the Collegeville Borough Revitalization Plan, Collegeville Business District Vision and Action Strategy, and Enhancing Local Mobility in Collegeville. The Collegeville Sustainability plan must take these previous planning efforts and their conclusions into consideration. These efforts have helped the municipality make headway, but sustainability has never been the stated goal of the Borough. This plan intends to help direct these efforts and make the Borough a leader by developing clear, coherent goals, objectives, and action items.

SCOPE OF THE PLAN

It is important to note that the Collegeville Sustainability Plan will not be a community-wide plan; it will be specifically focused on making Borough Government operations and procedures to be more energy efficient and sustainable, reducing the Borough's carbon footprint, and cutting energy costs. Collegeville can serve as an example to residents and businesses that they can achieve similar results. Examining how the Borough spends its money on things like energy for municipally owned buildings, streetlights, and traffic lights, gas for municipal vehicle fleets, even the type of cleaning products used in Borough offices will help to make Collegeville cleaner, safer, and more efficient. In short, Collegeville will be more sustainable. Further, an audit of the Borough's Zoning and Subdivision and Land Development



Ordinances will reveal opportunities to promote sustainable development and remove obstacles from renewable energy use, green building techniques, and best management practices for stormwater.

Public outreach will also be a major component of the plan. Developing new partnerships and building on existing ones with citizens' groups and local institutions to assist in that outreach will be essential. Educational programs that inform residents about recycling, energy efficiency, access to fresh, local food, and open space and recreation amenities will be one of the main goals of the plan. This effort will rely on involvement from local institutions and volunteer groups to maintain a website that provides access to information about sustainability and promote the community's efforts. Collegetown already has a first-rate farmers' market but there are opportunities to expand public celebrations to extoll the Borough's historic and environmental heritage. All of these endeavors will be combined to help foster an engaged and active community that is working together towards a sustainable Collegetown.

WHAT IS SUSTAINABILITY?

Sustainability has become a buzzword that many throw around without adequately defining it or setting its scope. There are several definitions, some tightly focused and others less so. One of the broader, but also very useful comes from the United Nations' World Commission on Environment and Development: **"development that meets the needs of the present without compromising the ability of future generations to meet their needs."** This definition is helpful because it demonstrates awareness that the benefits of sustainability can be felt immediately, not just in the future.

Because this is a plan that will focus on municipal action, that definition can be taken in a slightly different direction, one that focuses on the role of a municipality: **actions and policies that ensure the environmental, economic, and social needs of current residents while enhancing the ability of future generations to meet their needs.** Sustainability originally grew out of environmental concerns, but it can address more than environmental issues as officials consider the long range consequences for their decisions. While recognizing that the benefits

of sustainability are in some ways immediate, this is a new way of thinking for many municipal officials and staff members. As municipalities struggle with day to day issues, it can be difficult to see the bigger picture and long term implications of decisions made today. With this definition of sustainability as a guiding principle, the larger context of any decision has to take future generations into account. Officials will have to consider how a decision affects the community in the short run and the long run. In other words, how will a decision negatively or positively impact the ability of future generations to meet their environmental, economic, and social needs?

Although saving the Borough money in the short term is important, it is also important to recognize that reducing greenhouse gases is also essential to long-term savings and future vitality. Climate change is one of the defining issues of the twenty-first century and the communities that deal with its effects and causes head-on are the ones most likely to adapt to the changes and challenges it will bring. These changes will include more violent storms that drop greater rainfall totals, greater frequency and severity of snow emergencies in winter, and even higher instances of drought. The region can expect more extreme weather events attributable to climate change as these patterns continue.



QUICK COMPARISON:

The combustion of fossil fuels for energy like natural gas, coal, and petroleum lead to the emission of greenhouse gasses. While the use of renewable resources is on the rise, imported fossil fuels remain the primary source of global energy production. Figure 1 shows how greenhouse gas (GHG) emissions in Collegeville Borough compare to its neighbors and similar municipalities in the region. Although it would appear that Collegeville is emitting far fewer greenhouse gases than Perkiomen and Lansdale, when adjusted for population in Figure 2 it becomes clear that Collegeville and neighboring Trappe Boroughs are greater emitters of greenhouse gases per person than some of their larger neighbors (Lansdale has 16,269 residents to Collegeville’s 5,089 residents).

Figure 3 demonstrates that Collegeville emits more greenhouse gases for residential and transportation uses than the DVRPC region and the nation on average. Besides the environmental, economic, and health consequences of climate change, there is a clear local economic implication. Higher emissions mean more energy is being used, which means Borough residents are spending more money. Since the averages are lower for the DVRPC region and the nation as a whole, perhaps residents are paying more than they need to. Working towards energy efficiency and the use of renewable energy sources, while occasionally more expensive in the short term, lead to greater savings in the long term.

COLLEGEVILLE BOROUGH SUSTAINABILITY PLAN

As we examine the challenges and opportunities facing Collegeville, it becomes clear how important a sustainability plan can be. The following sections will explore the Borough’s current state of energy use and land use policy in greater detail. Using this information as a baseline, the plan will outline goals and objectives that will describe what the Borough hopes to achieve with this plan. Finally, a list of recommended action items, based on the baseline data and goals established in this plan, will be Collegeville’s blueprint for sustainable operations. In addition to cost-saving measures and efficiency, sustainability planning may open up new grant opportunities from both government and private sources.

Figure 1. GHG Comparison by Sector

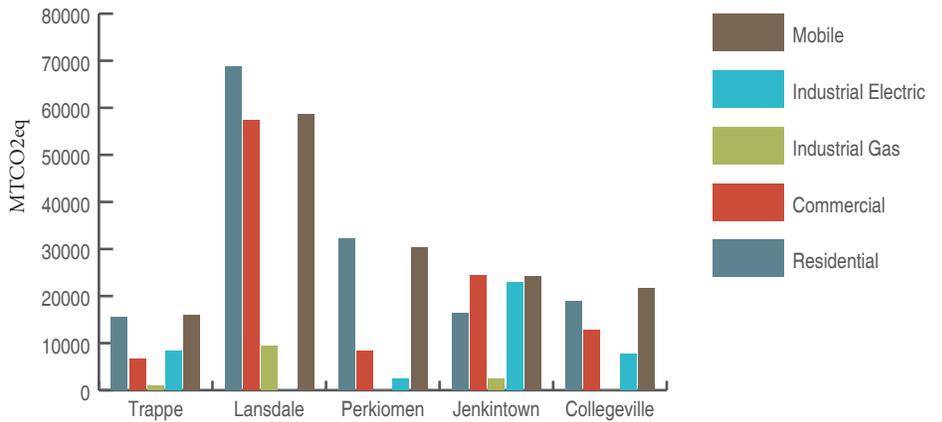


Figure 2. GHG Comparison Total per Capita

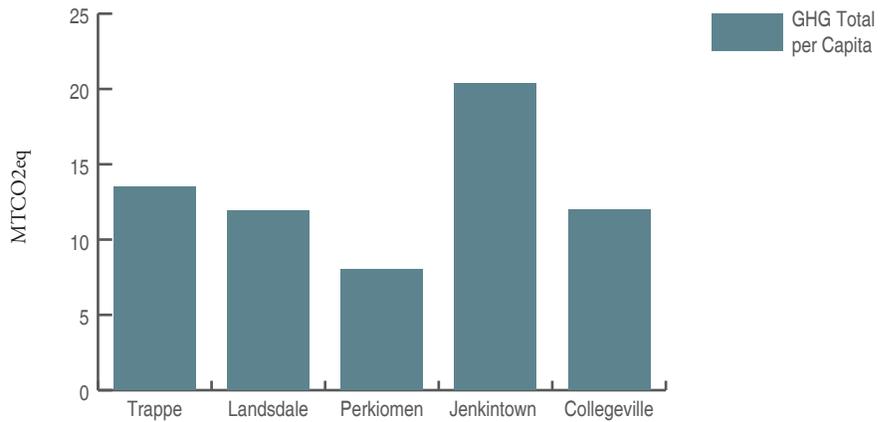
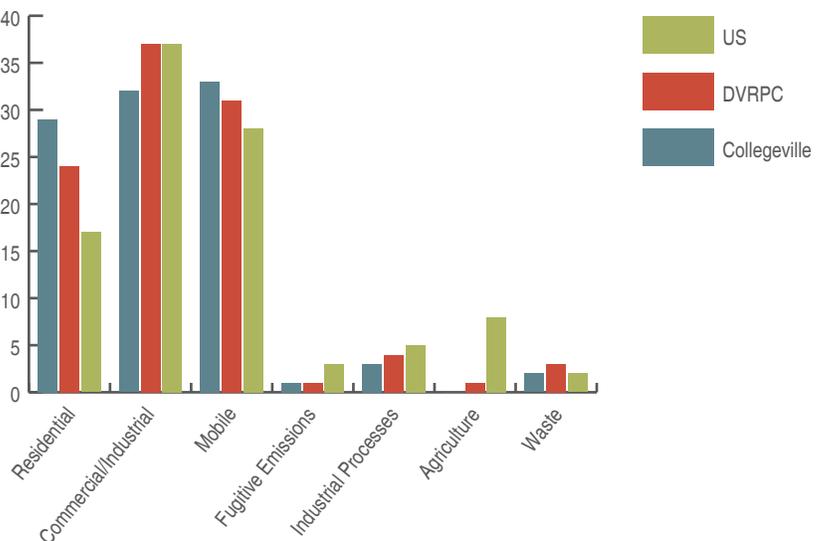


Figure 3. GHG Comparison by Land Use Type



Getting Borough Government to adjust its policies and practices is just a small step, but it is an important one. Much of the Borough is already on its way, thanks to its traditional Main Street and small-town heritage, but with this plan Borough Government will be a leader to neighboring communities and residents who may be confused as to how they can make a difference. It is hoped that this plan will be a valuable tool for Collegeville to help it to meet the challenges of climate change and continue to prosper into the 21st Century.

Goals and Objectives

1. **Energy:** *Strive to reduce costs and energy consumption throughout Borough operations and make Borough government a leader in energy conservation, the use of renewable energy sources, and smart management of resources.*
 - a. Reduce costs of Borough Municipal operations with energy efficiency, conservation, and other sustainable techniques.
 - b. Reduce greenhouse gas emissions from all Borough municipal operations.
 - c. Perform outreach to educate residents and other stakeholders about the Borough's sustainable energy practices and how these practices can be implemented in their activities.
2. **Transportation:** *Reduce fossil fuel dependency in all Borough operations and promote existing multi-modal connections throughout the Borough that enhance pedestrian and bike access to local businesses, institutions, and destinations.*
 - a. Improve transit connections with Philadelphia and other regional destinations.
 - b. Provide safe and convenient pedestrian and bike-friendly access to local businesses and health-care services.
 - c. Ensure that all Borough residents have safe and convenient car-free access to cultural, open space, and recreation amenities.
 - d. Perform outreach to educate residents and other stakeholders about the Borough's sustainable transportation practices and how these practices can be implemented by individuals.
3. **Waste Reduction:** *Aggressively work to reduce municipal and hazardous waste and promote recycling and reuse to the greatest possible extent.*
 - a. Make recycling a priority and a habit throughout all Borough operations.
 - b. Make green procurement a priority and a habit in all Borough activities.
 - c. Increase recycling rates throughout the Borough with education programs.
 - d. Expand collection of yard waste and improve awareness of and access to yard waste composting facility.
 - e. Perform outreach to educate residents and other stakeholders about the Borough's waste reduction practices and how these practices can be implemented to help them reduce their waste.
4. **Environmental Protection:** *Protect the overall health of the Borough's waterways, soils, habitats, and other natural resources.*
 - a. Improve overall quality of life for all Borough residents through the protection of natural resources.
 - b. Improve protection and restoration of riparian corridors.
 - c. Improve air and water quality throughout the Borough.
 - d. Enhanced protection and restoration of open space, natural areas, and habitats
 - e. Engage residents and visitors in the protection of natural resources.

- f. Preserve and restore natural hydrologic conditions on Borough facilities to the greatest extent practicable,
- g. Promote water conservation and rainwater reuse throughout the Borough.
- h. Increase the number of naturalized basins throughout the Borough.
- i. Increase tree cover in all communities in Collegeville.
- j. Perform education and outreach about the Borough's environmental protection policies and practices that individuals can perform to improve environmental protection.

5. Sustainable Development: *Ensure that all land use, zoning, and development policies and regulations support the community's sustainability goals.*

- a. Encourage the reduction of costs and greenhouse gases by removing obstacles to the installation of renewable energy facilities and green building techniques.
- b. Remove obstacles to best management practices for innovative stormwater management techniques.
- c. Support ordinances and policies that encourage natural feature preservation and protection, such as tree existing protection and replacement and riparian corridor protection.
- d. Ensure that all Borough operations actively work to support sustainability goal.
- e. Perform outreach to educate residents and other stakeholders about the Borough's sustainable development policies and regulations so that they can help shape a more sustainable built environment.

6. Community Engagement: *Educate Borough residents about sustainability and build on partnerships with local and regional institutions, businesses, and stakeholders.*

- a. Increase communication and cooperation between the Borough, local institutions, and community groups.
- b. Promote community and individual gardening programs and the Collegeville Farmers' Market.
- c. Strengthen connections to, and markets for, local goods and services
- d. Promote and support regional business, artisans, agriculture, industry, and institutions.
- e. Continue to support the Collegeville farmers market and other initiatives that introduce fresh local foods to Borough residents.
- f. Build partnerships between local businesses, institutions, and groups to increase cooperation and cross-promote community events.

7. Track Progress: *Monitor progress and regularly reevaluate sustainability goals and objectives to reflect changing times and conditions.*

- a. Investigate objectives and action items as new data becomes available and new opportunities arise.
- b. Track progress of objectives, actions, and initiatives over and assess short-term and long-term success.

Collegeville Baseline Analysis and Resources

The first step in establishing priorities for a sustainability plan is to understand where Collegeville is now.

A baseline analysis will show the community how much money it spends, what its greenhouse gas emissions are, and where actions can be directed that will have the greatest impact. For this baseline the Sustainability Plan will rely primarily on two products provided by the Delaware Valley Regional Planning Commission (DVRPC), the Local Energy and Greenhouse Gas Baseline Analysis Toolkit and the Regional Greenhouse Gas Emissions Inventory, as well as data from the 2010 U.S. Census. Some data and recommendations on mobility and transportation will come from Enhancing Local Mobility in Collegeville a report prepared by DVRPC to study pedestrian and bike access in Collegeville.

ENERGY USE BASELINE

Collegeville enlisted the aid of DVRPC, the metropolitan area planning body, to assist with its baseline analysis. DVRPC’s Local Energy and Greenhouse Gas Baseline Analysis Toolkit provides information on energy use, energy cost and GHG emissions resulting from all energy-consuming activity within Borough operations, allowing local governments to generate an energy use, cost, and GHG emissions baseline of local government operations. This activity includes the energy used to power the Borough’s buildings, vehicles and outdoor lighting in 2013. Data from 2013 was used because at the time of the completion of this analysis that was the most recent complete year of data

available. The following data, graphs, analysis, and recommendations were provided by DVRPC as part of their report.

Energy Use Summary

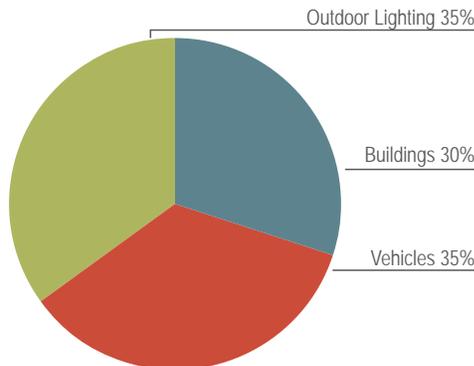
For Borough operations in 2013, Collegeville used a total of 1,924 MMBTUs of energy. This energy cost the Borough \$68,550 and generated 195 MTCO_{2e}¹

Energy consumption is relatively evenly distributed amongst the three major operational sectors. 30% of all energy was used in the Borough’s two buildings – Borough Hall, which serves as the municipal offices, and the Scout Cabin. 35% of total energy use powered the Borough’s vehicle fleet, which consists of two passenger vehicles and four SUVs

Figure 4. Total Energy Use (2013)

	MILLION BTUS	ENERGY COST	MTCO _{2e}
Buildings	582	\$11,876	45
Vehicles	668	\$16,373	48
Outdoor Lighting	674	\$40,301	103
TOTAL	1,924	\$68,550	195

Figure 5. Energy Consumption by Sector (2013)



1 Carbon Dioxide Equivalent, here measured in Metric Tons (MTCO_{2e}), expresses the global warming potency of greenhouse gases as a multiple of the potency of carbon dioxide, whose CO_{2e} is 1. Methane, for instance, has a CO_{2e} of 21, which means each methane molecule holds as much heat in the atmosphere as 21 molecules of CO₂. The CO_{2e} values of the other GHGs, nitrous oxide and halocarbon gases, are even higher than that of methane.

used by the Borough's police department. 35% of all of energy was consumed by the Borough's streetlights and traffic signals.

Collegeville spent a total of \$68,550 on energy to power its buildings, vehicles and outdoor lighting in 2013. Looking at energy use by sector shows that energy costs, unlike energy consumption, are not evenly distributed across operational sectors. 59% of all energy expenditures in the Borough are spent on outdoor lighting, with the remaining costs relatively evenly distributed between buildings (17% of total) and vehicles (24%). The reason for the disproportionately high cost in the lighting sector is due to a service fee levied by PECO, the Borough's electric distribution company.

The energy used to power Collegeville's operations in 2013 generated a total of 195 metric tons of greenhouse gases. This is the equivalent of the greenhouse gases emitted from the energy consumed at 66 homes, or that sequestered by 18,427 seedling trees grown over ten years². Again the majority of greenhouse gases are emitted by the energy consumed to provide outdoor lighting, including streetlights and traffic signals.

Buildings

The first step in conducting a baseline energy analysis of buildings was to collect and organize energy data for the year of 2013. Energy data for electric, natural gas, and other delivered fuels is typically included in this process, and can be found in energy bills. Collegeville Borough collected twelve months of energy bills for each building, including natural gas and electricity. Information on the bulk purchase of fuel oil no 2 for the Scout Cabin was also collected. The energy data collected from the bills includes information such as total cost for each type of energy used, cost per unit, and amount of energy used (kWh of electricity and therms of natural gas.)

Collegeville entered this data into Portfolio Manager (PM), a free on-line benchmarking tool that generates information on a building's energy performance, and allows users to evaluate energy use in its buildings, assess energy management goals over time, and identify strategic opportunities for savings and

Figure 6. Energy Cost by Sector (2013)

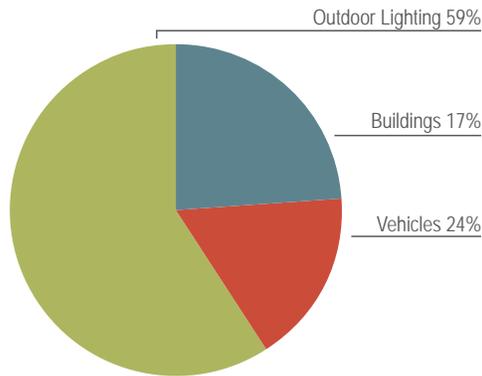
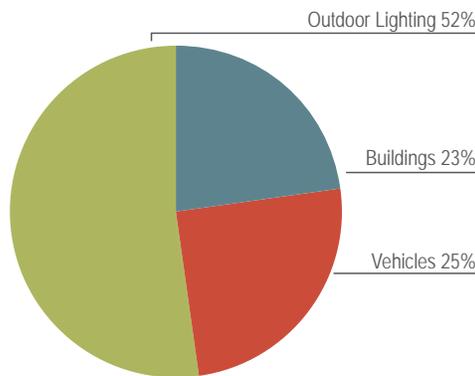


Figure 7. GHG Emissions by Sector (2013)



recognition opportunities. Portfolio Manager normalizes the energy use data by building indicator data, such as sq. footage, number of occupants, hours of operations, number of computers in the facility, and number of employees that work at the facility. This normalization enables PM to generate each building's energy use intensity (EUI) –or energy demand per square foot, which is a very useful metric for determining whether a building is using energy efficiently.

Data outputs from Portfolio Manager were then entered into DVRPC's Baseline Analysis tools. The outputs from these tools were used to generate the analysis on the following pages, including a simple utility bill analysis (UBA) that looks at monthly energy use by facility. A UBA can help to determine what types of improvements may be needed at a facility, and can further refine energy management tracking over time.

Collegeville spent a total of \$11,876 on energy to power Borough Hall and the Scout Cabin in 2013. Approximately 89% of these costs were spent to power Borough Hall and the remaining 11% of costs were spent to power the Scout Cabin. These two buildings used a total of 582 million BTUs of energy, with 53% of this energy in the form of electricity (308 MMBTU), 41% natural gas (240 MMBTU), while 5% of total energy was the fuel oil (34 MMBTU) used at the Scout Cabin.

Figure 8. Annual Energy Cost

	EANNUAL ENERGY COST
Borough Hall	10,619.56
Scout Cabin	1,256.77
Total	\$11,876.33

Borough Hall is a 2,640 square foot office-type building built in 1995 that is used as the Borough’s municipal offices. Collegetown spends a total of \$10,619.56 annually on electric and natural gas usage at Borough Hall. The majority of these costs (75%) are for electric, and the remaining (25%) are for natural gas.

Borough Hall has a source energy use intensity of 363.3 kBtu per square foot and a site energy use intensity of 162.5 kBtus per square foot. The site EUI is considerably higher than the national average of 77 kBtu per square foot for a similar building type, while the source EUI is more than twice as high as the national average of 182 kBtu per square foot for a similar building type.

Site Energy Intensity is amount of energy expended per square foot on site to heat, cool, and electrify the area. This measure relates to how much is being used on site and fluctuates directly with how much lighting is being used, how thermostats are kept, etc.

Source Energy Intensity is the amount of energy consumed on site in addition to the energy consumed during generation and transmission in supplying the energy to your site. EPA’s national energy performance rating is calculated using source energy.

The Borough may want to identify opportunities to lower the overall energy use intensity of this building. Site and source energy intensity can be reduced through operational, behavioral and energy conservation measures in the building. These measures include operational/behavioral changes, such as keeping lights and computers turned off when not in use and installing programmable thermostats.

Looking at a monthly breakdown of electric consumption and costs at the facility, the usage and costs are relatively stable throughout the year (Borough Hall Monthly Electric (2013)). Energy use peaks in the summer, which is typical of mid-Atlantic buildings that need to be cooled during these months. Energy use is relatively stable throughout the winter months; however there is a spike in energy costs in January that is disproportionate with total energy use. This may be a result of a high peak demand during the month of January,

Figure 9. Collegetown Buildings Energy Use by Fuel

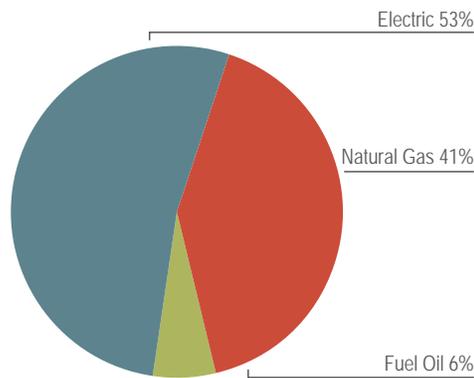


Figure 10. Borough Hall Energy Use

	ENERGY USE	COST
Electric	89,587 kWh	\$ 7,942.90
Natural Gas	2,398 ccf	\$ 2,676.66
Total		\$10,619.56

Figure 11. Borough Hall Energy Cost by Fuel (2013)

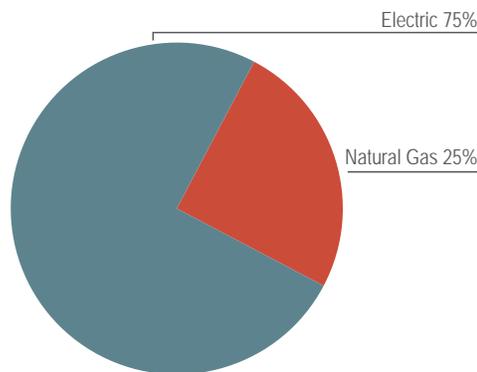
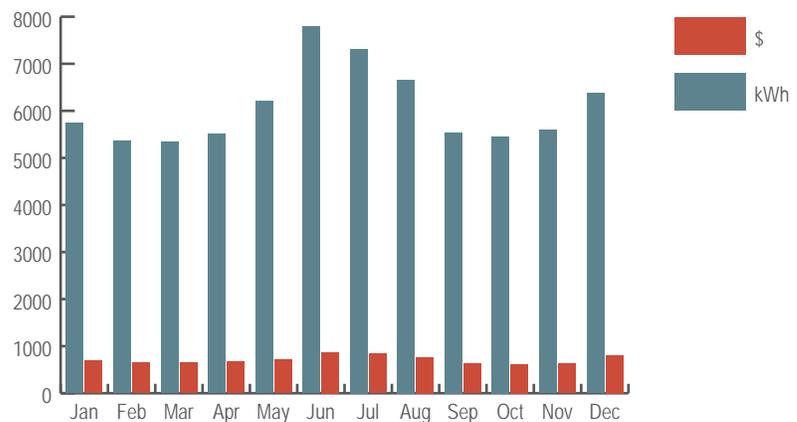


Figure 12. Borough Hall Monthly Electric (2013)



which can inflate the cost of electricity for that month. Collegeville may evaluate monthly energy use over time to determine whether monthly peak spikes are common, and if so, identify ways to reduce peak demand.

Looking at each individual meter at Borough Hall reveals that Meter 1 experiences a peak in energy use in the summer months. This meter may be tied to the buildings cooling units, in which case there may be little opportunity to mitigate this spike. The Borough could evaluate what is tied to this meter further. The spike in energy costs in January appears to be tied to Meter 2. Since there is no increase in consumption during that month relative to other winter months, it can be assumed that the excess energy used during that month was used during peak hours.

The Borough spends a total of \$1,256.77 annually on energy at the Scout Cabin. The majority of this energy is spent on fuel oil (\$943.98), while the remaining is spent on electricity at the facility (\$312.79).

At the Scout Cabin, electric use peaks in the winter. Overall energy costs at this facility are low, so this use may simply be for lighting in the facility. Reducing energy costs related to lighting can easily be achieved by swapping to energy efficient bulbs such as CFLs, if they are not already installed.

Figure 13. Borough Hall Electric Meter 1

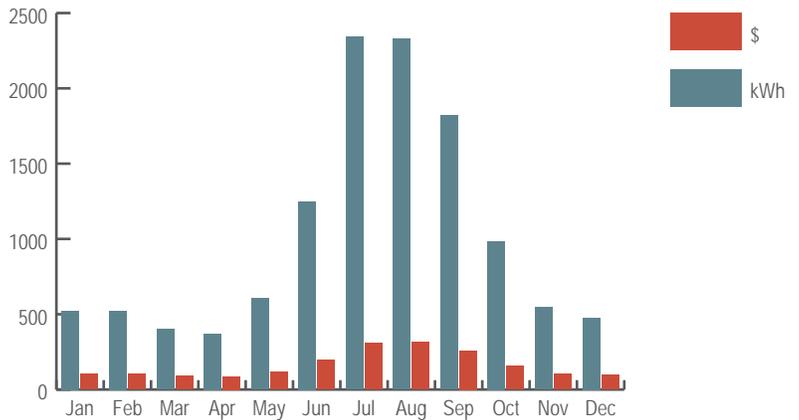


Figure 14. Borough Hall Electric Meter 2

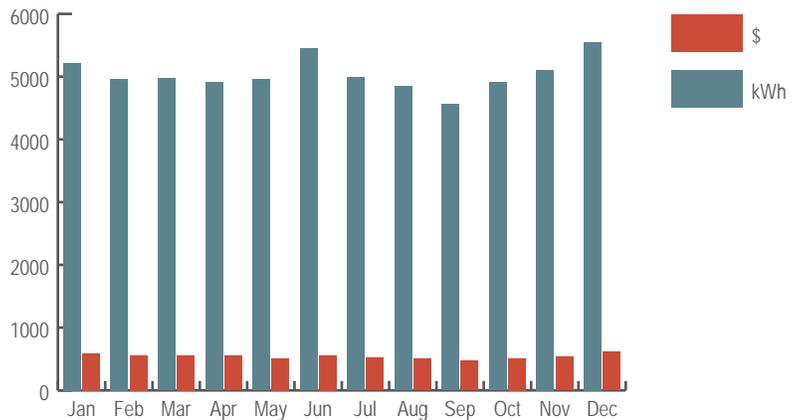


Figure 15. Scout Cabin Energy Cost by Fuel (2013)

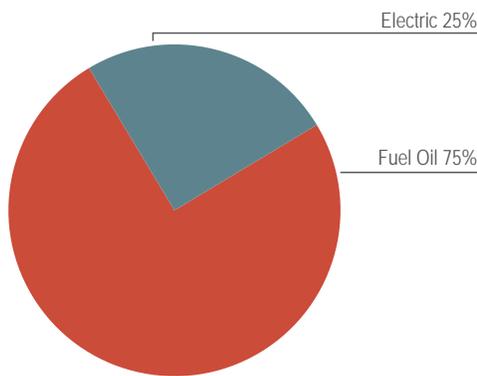
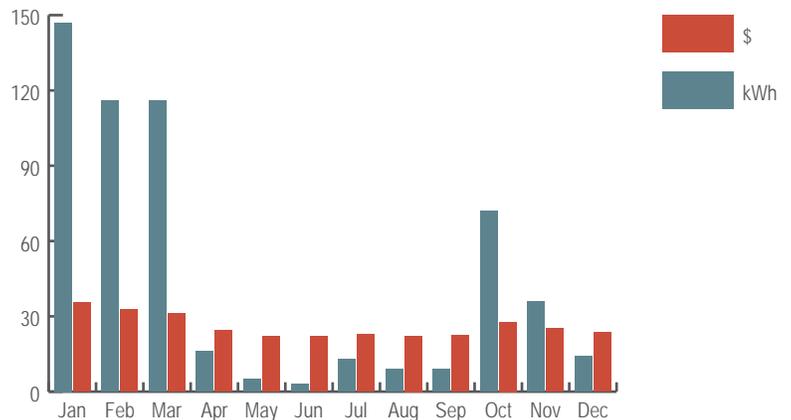


Figure 16. Scout Cabin Electric Use (2013)



Vehicles

Collegetown Borough used a total of 5,371.33 gallons of gasoline and spent a total of \$16,373.27 on fuel to power its fleet of six police vehicles in 2013. The fleet consists of two Crown Victoria passenger vehicles, three Ford Explorer SUVs and a 2003 Ford Expedition SUV.

The average mpg of this fleet, as calculated by the fuel provider, is 7.2 mpg, ranging from 2 mpg to 11 mpg. This fleet average is considerably lower than the national fleet average of 24.1 MPG for passenger vehicles or 18.5 for SUVs of a similar vehicle year.⁴ The lower fuel economy of Collegetown's fleet may be due to the heavy cargo load requirements of police vehicles (equipment), and also as a result of the idling of the vehicles. The Borough could investigate the number of hours each vehicle spends idling to see whether there are opportunities to reduce this. A gasoline vehicle wastes one gallon of fuel and emits 22 lbs of CO₂ for every hour of idling. For most automobiles, idling for more than ten seconds wastes more fuel than simply turning off and restarting.⁵ Also, many studies have shown that frequent restarting has little effect on the mechanics of an automobile - while excessive idling can result in incomplete combustion, which can damage engine and exhaust components.⁶

Outdoor Lighting

Collegetown owns and operates its streetlight and traffic signal system. The Borough spent a total of \$40,301 to power its outdoor lighting in 2013. 95% of these costs - \$ 38,274 - were spent to power the streetlights, while the remaining \$2,027 was spent to power the traffic signals.

The borough's street lighting system is comprised of 251 mercury vapor (MV) lamps, 57 high pressure sodium (HPS) lamp, and 3 metal halide lamps. The borough spends \$7,993.28 on energy to operate the 251 MV lamps, \$3,716.62 to power its 57 high pressure sodium HPS lamps, and \$103.77 to run the 3 metal halide lamps for a total energy cost of \$11,813.68.

Figure 17. Total Borough Vehicle Fuel Costs

VEHICLE	GASOLINE (GALLONS)	FUEL COST
2007 Ford Explorer	933.4	\$2,806.09
2000 Crown Victoria	835.29	\$2,534.77
2003 Ford Explorer	568.57	\$1,713.05
1995 Crown Victoria	811.21	\$2,443.10
2001 Ford ³	642.5	\$1,821.49
2003 Ford Expedition	1,580.36	\$5,054.77
Total	5,371.33	\$16,373.27

Figure 18. Average Borough Vehicle MPG

VEHICLE	MPG
2007 Ford Explorer	9
2000 Crown Victoria	7
2003 Ford Explorer	11
1995 Crown Victoria	6
2001 FORD	8
2003 Ford Expedition	2
Average	7.2

Figure 19. Energy Cost by Outdoor Lighting Type

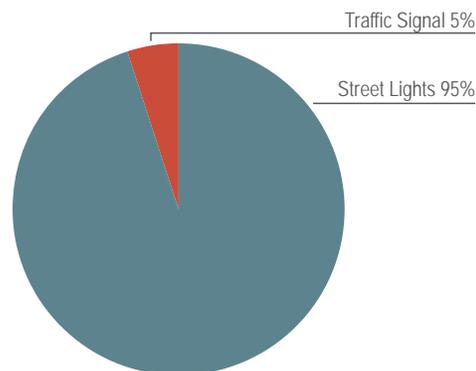


Figure 20. Total Energy Cost by Outdoor Lighting Type

	ENERGY (KWH)	COST	GHGS (MTCO ₂ E)
Traffic Signals	16,296	\$2,027	8.4
Street Lighting	183,442	\$38,274	94.7
Total	199,738	\$40,301	103.1

³ Note: Not sure what the 2001 "Ford" vehicle is

⁴ Note: Every year since 1994, the national fleet average mpg for a passenger vehicle is approximately 24.1 mpg and the national fleet average for an SUV is approximately 18.5 mpg. (MOBILE6.3 Fuel economy estimates (miles per gallon) by model year and vehicle class.)

⁵ California Energy Commission: <http://www.consumerenergycenter.org/myths/idling.html>

⁶ Center for Clean Air Policy Transportation Guidebook Part One: Land Use, Transit & Travel Demand Management. <http://www.ccap.org/safe/guidebook.php>

In total, the Borough spends \$38,273.56 to operate its street lighting system. Approximately 69% of these costs, \$26,459.88, are spent on annual service connection charges, also known as the “tap fee”. These charges are levied by PECO for the costs associated with connection to “tap” into the electric grid at the pole.

The service location charges are not associated with the amount of electricity used at the pole, so the only way to reduce this portion of the cost is to reduce the number of connections to the grid. Currently, the Borough has the 311 service locations and 311 lamps/poles, meaning that there is a connection to the grid for every lamp/pole operated by the Borough. Some municipalities are investigating ways to reduce the number of service locations, thereby reducing the tap fee.

To lower energy costs for the street lighting system, the Borough could investigate technologies to replace the installed MV lamps. MV lamps are less energy efficient than newer street lighting technology and further, installing or replacing lamps with MV streetlights has been banned in the U.S. MV lamps require more energy to achieve the same amount of lighting quality more energy efficient technologies, such as HPS or LED. The typical net efficacy (measured in lumens per watt (l/w), or the amount of light generated by the fixture per amount of energy powering the lamp) of MV lamps is low at 10-17 l/W, compared to HPS at 32-68 l/w, or 30-90 l/W for LEDs.

The majority of the MV lamps installed in the Borough are low wattage, at 100 Watts per lamp. It is likely that a lower wattage HPS lamp could be used in replacement of the MV lamps. For example, the currently installed MV lamps at 100 watts each could potentially be replaced by a 70 watt HPS lamp, resulting in reduced energy consumption and improved lighting quality. The Borough could investigate retrofitting lamps with other technologies, such as LEDs and induction lighting as well. For more information on these technologies, please visit DVRPC’s Energy Efficient Traffic Signals and Streetlights Web page at: <http://www.dvrpc.org/energyclimate/eetrafficstreetlighting/>

Figure 21. Borough Street Lighting Energy Cost Per Lamp

LAMP TYPE	NO OF LAMPS INSTALLED	PER LAMP ANNUAL ENERGY USE (KWH)	PER LAMP ANNUAL ENERGY COST
100 W Mercury Vapor	238	472	\$30.36
175 W Mercury Vapor	8	738	\$50.43
250 W Mercury Vapor	5	1,128	\$72.61
70 W HPS	4	385	\$24.82
100 W HPS	10	537	\$34.59
150 W HPS	4	787	\$50.70
250 W HPS	38	45,805	\$77.63
400 W HPS	1	1,845	\$118.82
100 W Metal Halide	3	1,611	\$103.77

Figure 22. Total Borough Street Lighting Energy Cost

Street Lighting Energy Cost	\$11,813.68
Annual Service Connection Charge	\$26,459.88
TOTAL COST	\$38,273.56

Figure 23. Borough Lamp Type Net Efficacy

LAMP TYPE	NET EFFICACY (L/W)
Mercury Vapor	10-17
HPS	32-68
LED	30-90
Metal Halide	61-85



The Borough operates 277 LED traffic signal lamps and arrows, 36 LED pedestrian signals and 25 incandescent traffic signals and arrows. A number of other energy-consuming devices are also powered to support Collegeville’s traffic signal system, including preemption devices, loops, timers and other traffic monitoring devices. If it has not already done so, the Borough may want to consider replacing the remaining 25 yellow incandescent traffic signals with LEDs. Yellow TS lamps typically have the lowest total energy cost of all the traffic signal lamps, making the simple payback for these lamps longer than other lamp types. With the availability of a PECO rebate, the payback on replacing these lamps would be a little more than eight and a half years. However, additional cost savings would accrue due to lowered operation and maintenance costs resulting from the longer lifespan of these lamps. If the borough does not wish to make this investment right away, the yellow incandescents could be replaced at the next cycle of traffic signal replacements.

Recommendations and Next Steps
Buildings

Energy costs in buildings can often be managed with simple, low-cost energy efficiency measures and operational improvements.

- To more accurately analyze energy patterns in the Collegeville operations, the Borough could continue to track energy use over time. Evaluating usage over a number of years helps identify usage patterns, and can more accurately show how building improvements and operational changes are affecting energy consumption.
- The Borough may wish to identify ways to lower the overall energy use intensity at Borough Hall. Common low-cost measures include installing CFLs and programmable thermostats
- The Borough could consider evaluating opportunities to reduce peak energy costs at Borough Hall. Track monthly energy use over time to identify anomalies in electric rates, which may indicate excessive peak demand. Further, check Borough Hall meter 2 for spikes in the summer time and determine whether this can be mitigated.

Figure 24. Borough Traffic Signal Lamp Energy Cost Per Lamp

LAMP TYPE	NO OF LAMPS INSTALLED	TOTAL ANNUAL ENERGY USE (KWH)	TOTAL ANNUAL ENERGY COST
8" Incandescent Yellow	8	95	\$10.72
12" Incandescent Yellow	14	363	\$40.79
12" Incandescent Traffic Arrow Yellow	3	311	\$34.96
8" LED Red	11	575	\$64.63
8" LED Yellow	3	7	\$00.76
8" LED Green	11	450	\$50.53
12" LED Red	81	2,694	\$302.85
12" LED Yellow	64	111	\$12.43
12" LED Green	78	2,318	\$260.58
8" LED Traffic Arrow Green	18	100	\$11.19
8" LED Traffic Arrow Yellow	11	53	\$5.98
LED Hand/Man	36	2,488	\$279.68
Flashing Lights	5	n/a	n/a
Other ⁸	83	4,621	\$519.56
TOTAL	426	14,187	\$1,790.25

Figure 25. Yellow Light Replacement Savings

LAMP TYPE	NO OF LAMPS INSTALLED	TOTAL ENERGY COST SAVINGS	TOTAL LAMP COST	SIMPLE PAYBACK
8" Incandescent Yellow	8	\$8.64	\$208.00	24.07
12" Incandescent Yellow	14	\$35.56	\$420.00	11.81
12" Incandescent Arrow Yellow	3	\$32.37	\$36.00	1.11
TOTAL	25	\$76.57	\$664.00	8.67



7 PECO charges a flat rate for flashing lights, therefore there is no estimate for kWh or energy cost.
 8 Preemption devices, loops, traffic monitoring devices and motor controllers.

Vehicles

The demands of police vehicles and their cargo may limit the types of improvements possible in the fleet. However, shy of purchasing more efficient vehicles, there may be operational changes improvements, in particular:

- The mpg estimates supplied by the fuel provider are very low for the fleet, with an average mpg of 7.2. This low mileage could indicate excessive idling. It may be advisable for the Borough to investigate the number of hours each vehicle spends idling to see whether there are opportunities to reduce this.

Outdoor Lighting

To reduce operating and maintenance costs for its outdoor lighting system, the Borough may wish to consider replacing inefficient lamps with more efficient technologies as they fail. In short, these recommendations include:

Street lighting:

- Investigate replacing the Borough’s 251 mercury vapor streetlights with more energy efficient technology such as HPS, LED or induction lighting. HPS lamps are inexpensive to install and provide improved lighting for lower wattage. Other emerging technologies, such as light-emitting diodes are even more efficient than HPS with better lighting quality, though their upfront cost is high.
- For more information on emerging street lighting technology, please visit DVRPC’s Energy Efficient Traffic Signals and Streetlights Web page at: <http://www.dvrpc.org/energyclimate/ettraffictstreetlighting/>

Traffic Signals:

- Replace the remaining 25 incandescent lamps with LEDs. With PECO rebates available, the payback for LED lamps is almost immediate.
- Be sure to budget in the replacement costs for existing LED TS system.
- Consider streetlamps equipped with solar panels for future replacements if the price is balanced by cost savings from reduced energy demand.

Collegeville Greenhouse Gas Emissions

The following information was provided by DVRPC as part of the Regional Greenhouse Gas Inventory. Total greenhouse gas (GHG) emissions were calculated as metric tons of carbon dioxide equivalent (MTC02 eq.)

Figure 26. GHG Emissions by Land Use

SECTOR	TOTAL ENERGY USE BILLION BTU (BBTU)	TOTAL GHG EMISSIONS (MTC02EQ.)
Residential	206	18,898
Commercial	146	12,761
Industrial	48	7,831
Mobile-Highway	295	21,642
Mobile Transit	1	62
Non-Energy GHG	NA	4,252
TOTAL	695	65,445

Figure 27. Collegeville GHG Emissions 2005

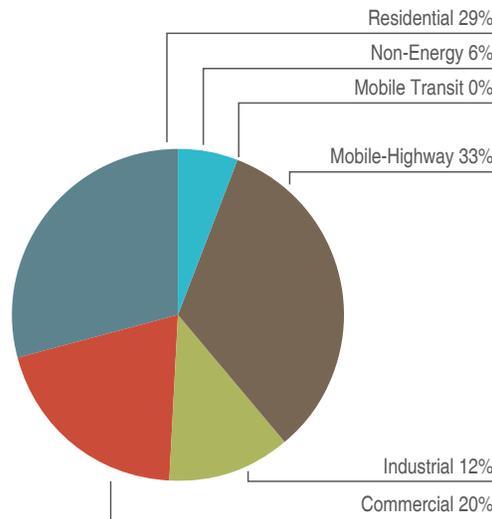
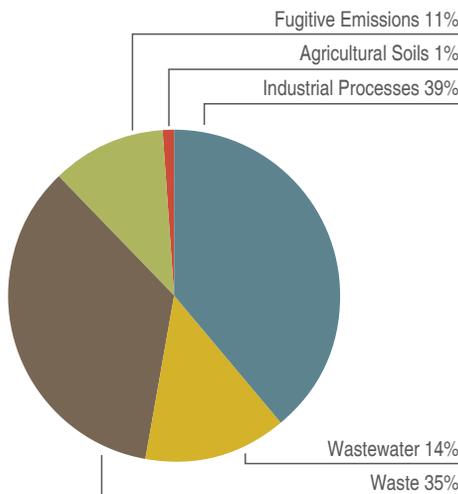


Figure 28. Non-Energy GHG Sources

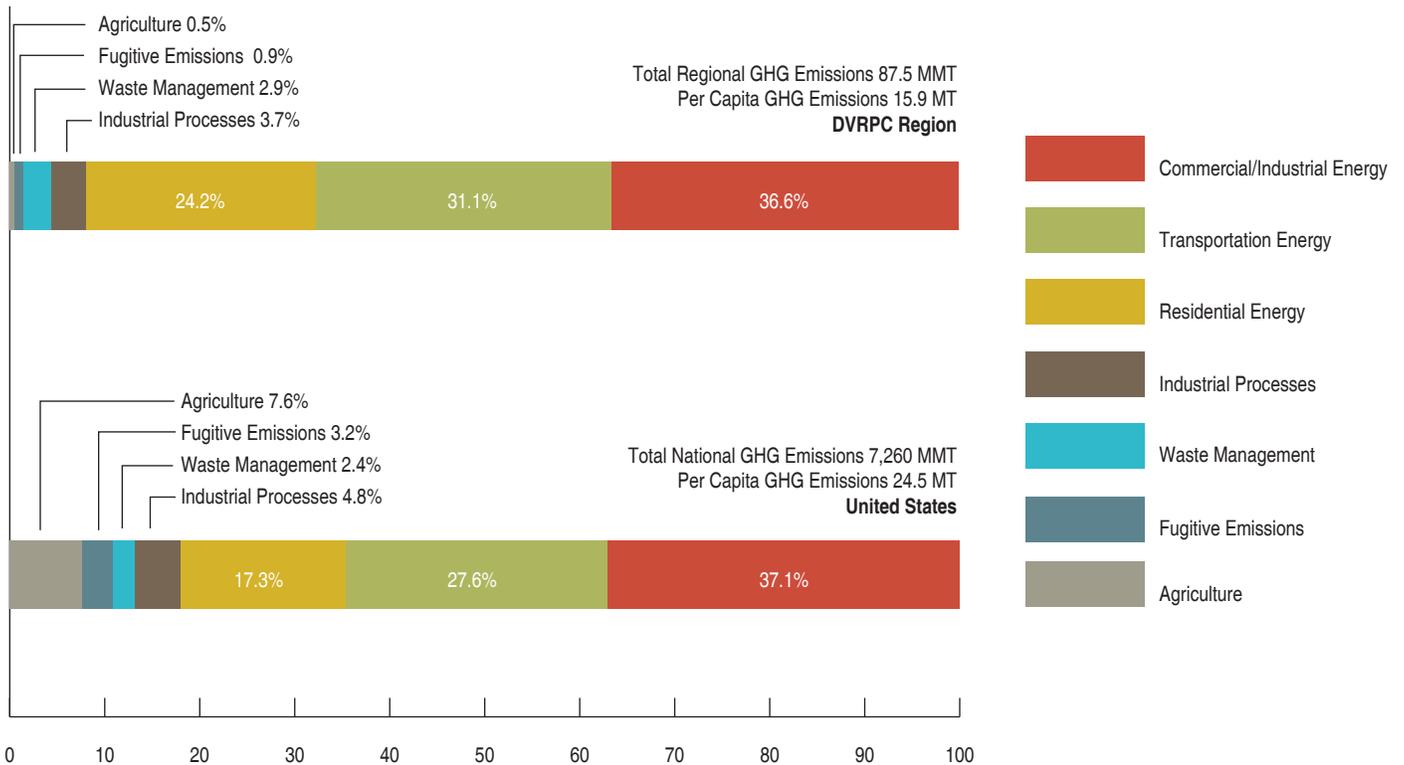




Regional Greenhouse Gas Emissions

The following data and images were produced by DVRPC as part of the Regional Greenhouse Gas Inventory. This information helps to place Collegeville’s emissions data into perspective as part of a larger region.

Figure 29. Relative Contribution of Emission Sources to Total DVRPC and National GHG Emissions by Source Category, 2005



Source DVRPC 2010

Figure 30.
Population and Employment per Acre by Municipality (2005) Map

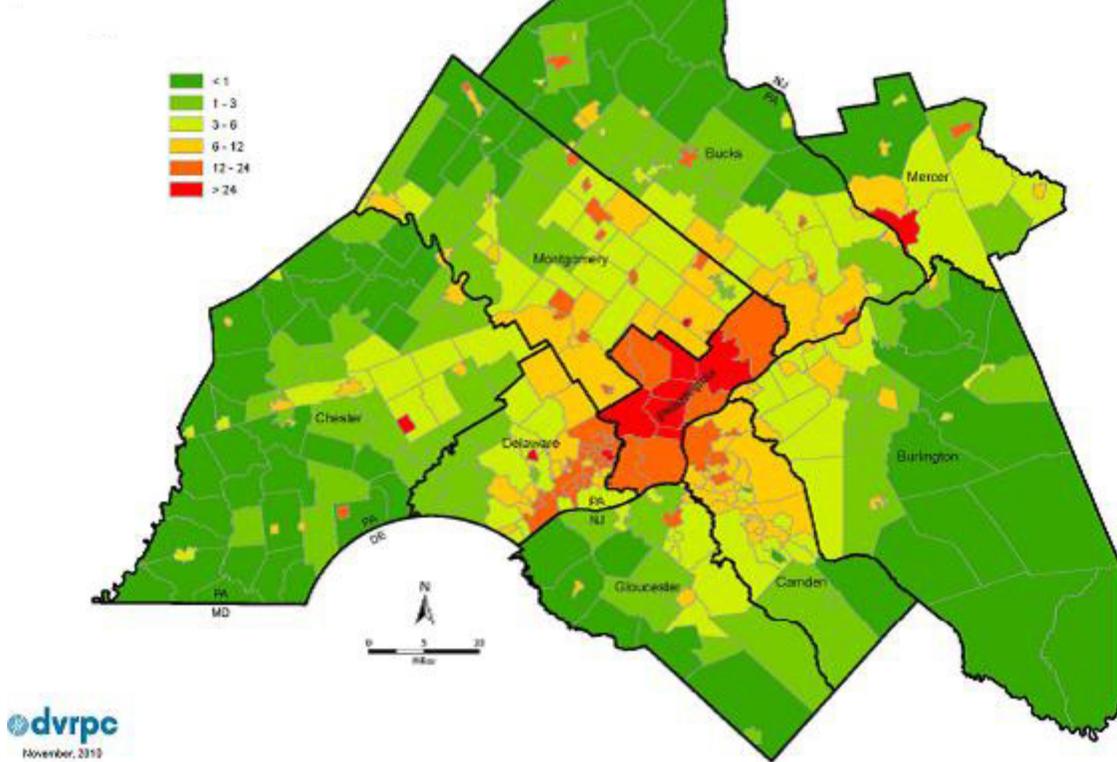


Figure 31.
Greenhouse Gas Emissions per Acre by Municipality (2005) Map

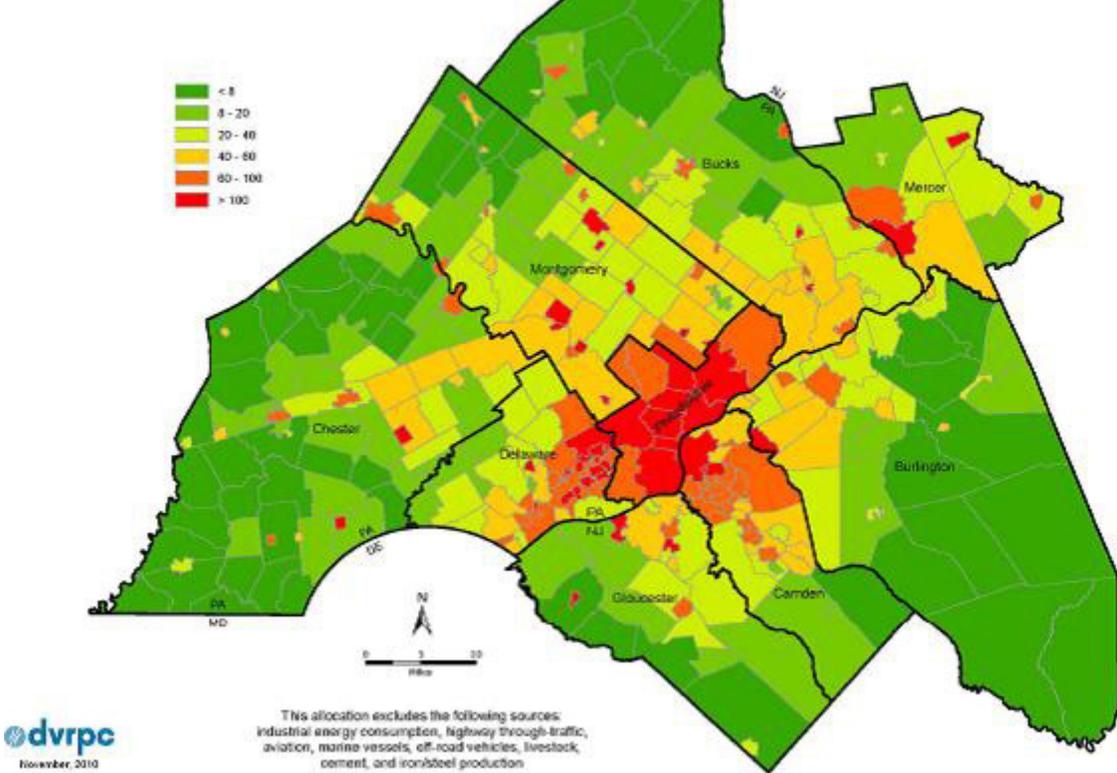


Figure 32.

Greenhouse Gas Emissions per Population + Employment by Municipality (2005) Map

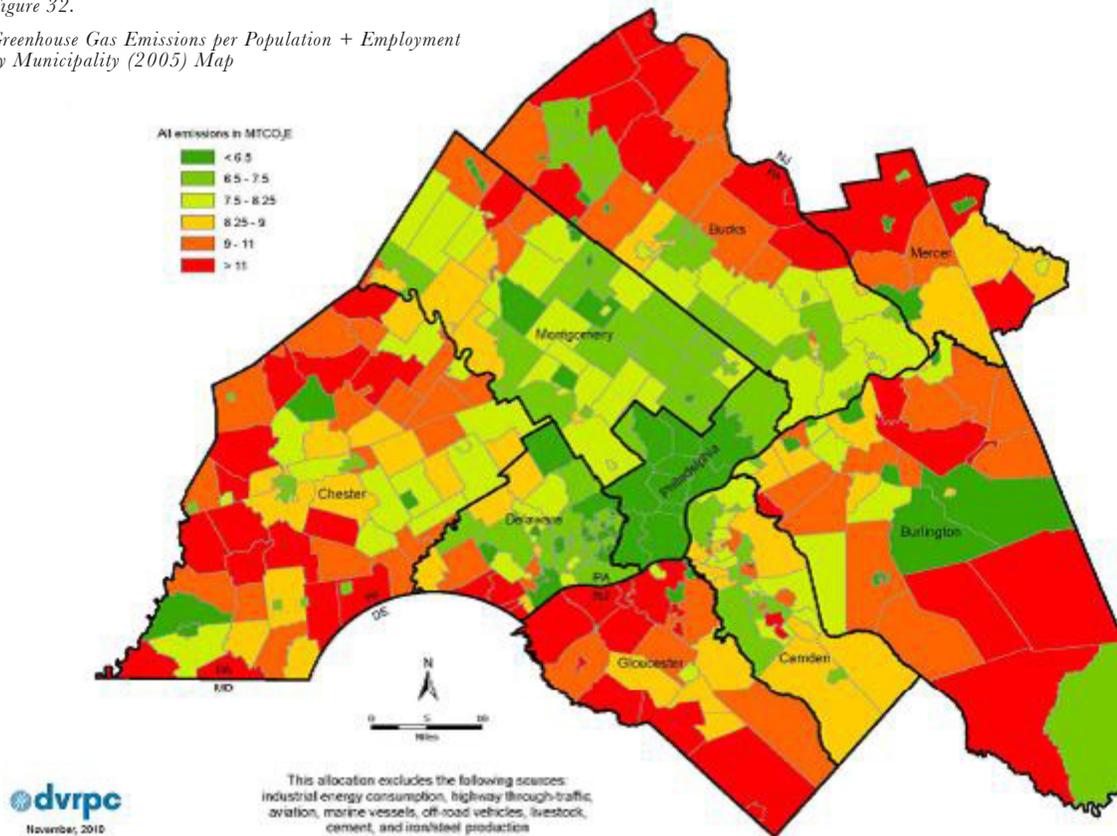


Figure 30 shows how the municipalities in the region differ from each other in density of population and employment. Figure 31 and Figure 32 illustrate the results of the municipality level greenhouse gas emissions allocation and their relationship to density in two different views.²⁵

Figure 31 shows greenhouse gas emissions per acre by municipality for the DVRPC region.²⁶ As might be expected, the denser areas of the region produce more of the emissions, as these are the areas where people live and where businesses are located.

Figure 32 shows the allocated greenhouse gas emissions at the municipality level normalized by the sum of population and employment, which together serve to indicate the level of human activity. This view indicates a clear correlation between municipalities with higher density of population and employment, and lower per capita greenhouse

emissions. In general, these municipalities have amenities closer together than municipalities with less dense population and employment. This allows shorter trips, and the ability to walk for some trips that might require driving in less dense municipalities. In addition, these municipalities may provide sufficient density to make mass transit feasible for some residents and employees. In addition, residential and commercial buildings may be smaller per capita or employee, and may be directly connected to adjacent housing or businesses (e.g., rowhouses or businesses with apartments above them), providing the energy efficiency benefits of shared walls. Further analysis of the data would be required to develop a better understanding of these relationships.

HELPFUL LINKS:

American Solar Energy Society

<http://www.ases.org/>

Energy Star Home Program

http://www.energystar.gov/index.cfm?c=home_improvement.hm_improvement_index

Energy Star Buildings and Plants

http://www.energystar.gov/index.cfm?c=business.bus_index

Green Power Partnership

<http://www.epa.gov/greenpower/>

Environmental Impacts of Electricity Generation

<http://www.epa.gov/cleanenergy/energy-and-you/affect/index.html>

Green Power Locator

<http://www.epa.gov/greenpower/pubs/glocator.htm>

Power Profiler

<http://www.epa.gov/cleanenergy/energy-and-you/how-clean.html>

Greenhouse Gas Equivalencies Calculator

<http://www.epa.gov/cleanenergy/energyresources/calculator.html>

Emissions & Generation Resource Integrated Database,

<http://cfpub.epa.gov/egridweb/>

Green Power Benefits

<http://www.epa.gov/greenpower/buygp/index.html>

Energy Saver

<http://energy.gov/energysaver/energy-saver>

Top 5 Reasons To Be Energy Efficient

<http://ase.org/resources/top-5-reasons-beenergy-efficient>

Home Energy Audit

<http://ase.org/resources/home-energy-audit>

Home Energy Checklist

<http://www.aceee.org/consumer/home-energy-checklist>

American Council for Energy Efficiency Economy: Consumer Resources

<http://www.aceee.org/consumer>

Local Government and Municipal Energy Assistance

http://www.portal.state.pa.us/portal/server.pt/community/local_government/10404

Pennsylvania Public Utility Commission Consumer Info

http://www.puc.state.pa.us/consumer_info.aspx

Pennsylvania Public Utility Commission Approved Green Energy Suppliers

<http://www.papowerswitch.com/ways-to-save-energy/renewable-energy-resources/>

Household Carbon Footprint Calculator

<http://www.epa.gov/climatechange/ghgemissions/ind-calculator.html>

Home Weatherization

<http://energy.gov/public-services/homes/home-weatherization>

MOBILITY

Transportation choices are a key factor in any attempt to make a community more sustainable. Reducing vehicle miles travelled can greatly cut the amount of greenhouse gases emitted in the Borough. Additionally, promoting walking or biking as a safe, viable option for Collegeville residents not only reduced GHG emissions, it is also a major component in a healthy lifestyle.

The charts below uses data from the 2010 U.S. Census and demonstrates that mobility choices in Collegeville remain limited with almost three quarters of the population driving alone or carpooling to work every day. Public transportation is not widely used and biking seems almost nonexistent. However it is heartening to see that a significant percentage of residents walk to work, far more compared to the DVRPC region and

national averages. Working from home continues to grow throughout the nation and Collegeville is no exception, around 5% of its working residents do so from home.

Figure 33.

Means of Transportation to Work Collegeville, PA (2010)

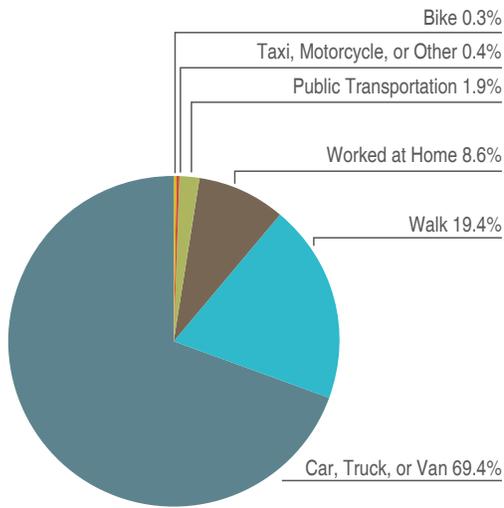


Figure 34.

Means of Transportation to Work Montgomery County, PA (2010)

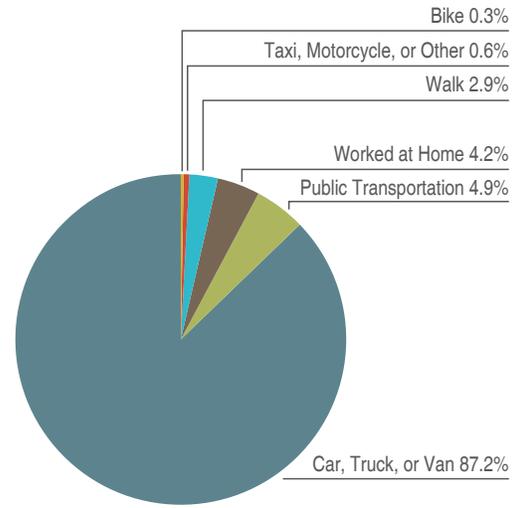


Figure 35.

Means of Transportation to Work Philadelphia MSA (2010)

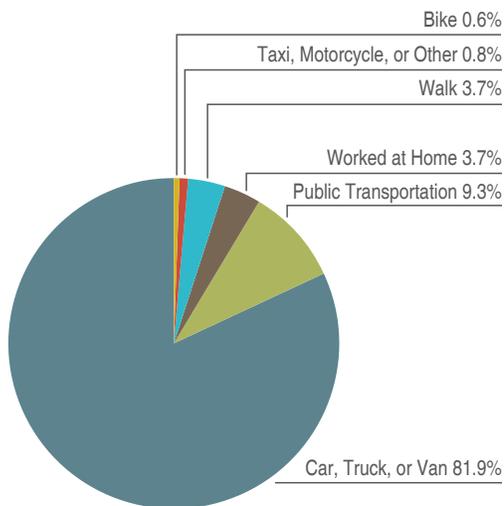
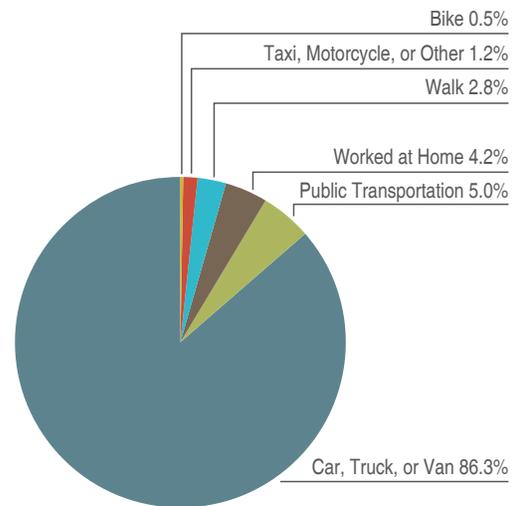


Figure 36.

Means of Transportation to Work US (2010)



Public Transit

Public transit in and around Collegeville is limited but we have put together some data and a map to show the options that do exist. A SEPTA bus route runs through Collegeville, providing service to Norristown and from there, Philadelphia and other destinations. There has been a long discussion throughout the region about expanding regional rail service along the Route 422 corridor, similar to how it existed in the past. Such rail service would make commuting into the city and other destinations much easier and would likely improve the Borough's carbon footprint. Unfortunately, technical and cost issues remain a barrier to the construction of a new regional rail line. Nevertheless, the Borough may want to be prepared to support greater service from SEPTA if it becomes an option once again.

Enhancing Local Mobility in Collegeville

Enhancing Local Mobility in Collegeville is a report prepared by DVRPC in 2011 to study bike and pedestrian issues in Collegeville. It should be noted that most of the counts of trail and bike users in Collegeville were conducted during the late fall and winter and therefore may not represent the peak usage of the trail. The report had two main goals:

- Enhance bicycle and pedestrian access to parks, multi-use trails, Ursinus College, and the town's Main Street shopping district.
- Improve bicycle and pedestrian access to and through Collegeville and throughout the greater Collegeville area.

The report generated data on the bicycle volumes in specific areas, crash incidents involving bicycles or pedestrians, and an analysis of levels of service for bike and pedestrian facilities.

Figure 39 lists the total volume of cyclists counted over week-long time periods in November and December, 2010. The number of cyclists on the Perkiomen Trail (70, both directions) exceeds users on the Borough's streets. The low numbers of bicyclists on Borough streets may be explained by weather conditions during the study period.

Figure 40 lists the locations and volumes of the pedestrian counts conducted for this project. The west sidewalk of Main Street saw the highest volumes of pedestrians, 1,930 for the week

Figure 37. SEPTA Area Bus Routes Map

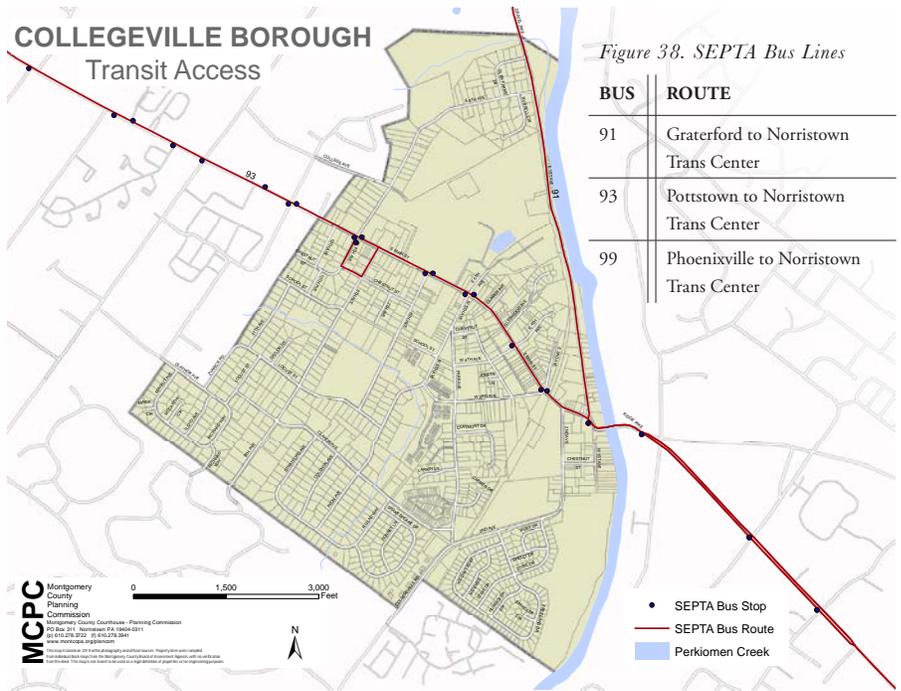


Figure 38. SEPTA Bus Lines

BUS	ROUTE
91	Graterford to Norristown Trans Center
93	Pottstown to Norristown Trans Center
99	Phoenixville to Norristown Trans Center

Figure 39. Total Volume of Cyclists

LOCATION	FROM	TO	COUNT DATES	BICYCLE COUNT (BOTH DIRECTIONS)
Perkiomen Trail	<i>Route 29</i>	<i>Main Street</i>	<i>11/30 - 12/7</i>	<i>70</i>
Main Street	<i>3rd Avenue</i>	<i>4th Avenue</i>	<i>11/7 - 11/23</i>	<i>40</i>
Main Street	<i>4th Avenue</i>	<i>5th Avenue</i>	<i>11/17 - 11/23</i>	<i>30</i>
8th Avenue	<i>Claybor Street</i>	<i>Main Street</i>	<i>11/30 - 12/7</i>	<i>8</i>

Figure 40. Locations and Volumes of Pedestrian Counts

LOCATION	SIDE (IF APPLICABLE)	FROM	TO	COUNT DATES	PEDESTRIAN COUNT
Main Street	<i>West Sidewalk</i>	<i>3rd Avenue</i>	<i>4th Avenue</i>	<i>11/15 - 11/22</i>	<i>1,930</i>
Main Street	<i>West Sidewalk</i>	<i>4th Avenue</i>	<i>5th Avenue</i>	<i>11/15 - 11/22</i>	<i>1,849</i>
Main Street	<i>East Sidewalk</i>	<i>3rd Avenue</i>	<i>4th Avenue</i>	<i>11/15 - 11/22</i>	<i>1,697</i>
Main Street	<i>East Sidewalk</i>	<i>4th Avenue</i>	<i>5th Avenue</i>	<i>11/22 - 11/22</i>	<i>1,497</i>
Perkiomen Trail	<i>N/A</i>	<i>Main Street</i>	<i>1st Avenue</i>	<i>11/30 - 12/7</i>	<i>604</i>
Perkiomen Trail	<i>N/A</i>	<i>2nd Avenue</i>	<i>Main Street</i>	<i>11/30 - 12/7</i>	<i>519</i>
5th Avenue	<i>West Sidewalk</i>	<i>Claybor Street</i>	<i>Main Street</i>	<i>11/30 - 12/7</i>	<i>176</i>

(approximately 275 per day), while the east sidewalk of Main Street saw slightly less pedestrian activity (240 pedestrians per day). The Perkiomen Trail saw around 85 pedestrians daily (both directions,

north of Main Street) and 75 daily pedestrians in both directions south of Main Street. Fifth Avenue saw the lowest volume, with only 25 pedestrians per day for the week.

Unlike automobile level-of-service, which evaluates the efficiency of throughput on roads, Bicycle Level of Service (BLOS) and Pedestrian Level of Service (PLOS) use factors such as roadway geometry, speed, and traffic volume to score roads on how comfortable they are for bicyclists or pedestrians. BLOS and PLOS use similar inputs, but these inputs can be weighed differently. For example, on-street parking is considered beneficial for pedestrians because it provides an added buffer from moving traffic. For bicyclists, however, the presence of on-street parking presents a potentially dangerous condition, with cars pulling out of parking spots and “dooring” (when a cyclist is hit by a stopped car opening a door) as potential hazards for bicyclists.

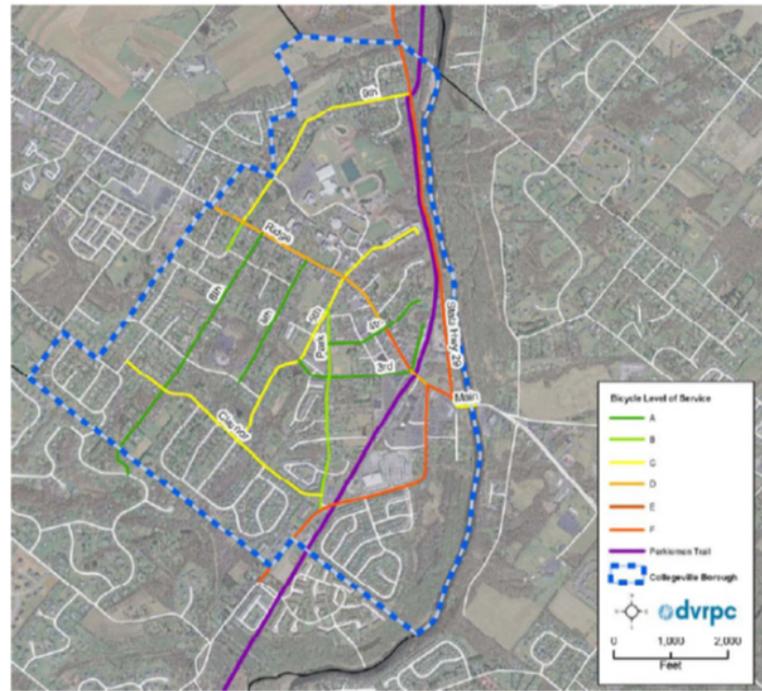
Figures 41 and 43 on the following pages depict streets in Collegeville Borough where BLOS and PLOS scores were developed. Scores were only generated for roadways in Collegeville, not for neighboring municipalities.

Figure 43 depicts PLOS grades on major streets in Collegeville. Several Borough streets received a B grade, including Clayhor Street and 3rd and 6th Avenues. Most streets in the Borough received a grade of C, including most of Main Street, 8th Avenue, and parts of Route 29. A small segment of Route 29 received a D. Route 29 north of Main Street was not graded because it lacks sidewalks, a requirement for pedestrian level of service grades.

There were five bicycle or pedestrian related crashes reported in Collegeville Borough between 2005 and 2009, three pedestrian and two bicycle incidents, all of which took place on Main Street or on Route 29. In the expanded study area there were 21 reported bicycle and pedestrian related crashes, with significantly fewer bicycle crashes.

In the study area, the majority of bicycle- and pedestrian-related crashes took place along Ridge Pike/ Main Street in both Collegeville and surrounding municipalities. Figure 42 lists the locations of all the bicycle- and pedestrian-related crashes and the number of incidents that took place there.

Figure 41. Bicycle Level of Service on Select Roads Map

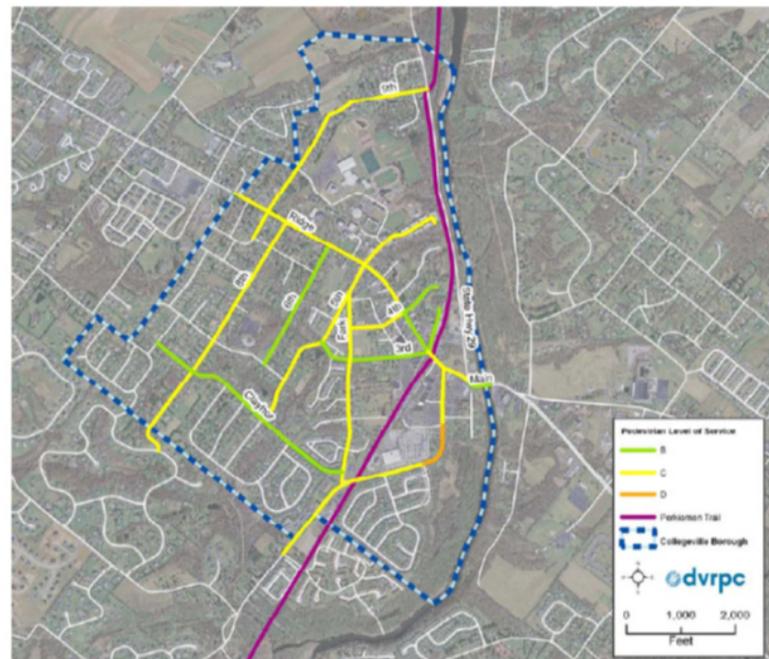


Source: DVRPC, 2011

Figure 42. Total Bike and Pedestrian Crashes

	PEDESTRIAN-RELATED	BICYCLE-RELATED	TOTAL
Collegeville Borough	3	2	5
Expanded Study Area	17	4	21
TOTAL	20	6	26

Figure 43. Pedestrian Level of Service on Select Roads Map



Source: DVRPC, 2011

Of the 26 total bicycle and pedestrian crashes, almost half took place along Main Street/Ridge Pike. One crash occurred at the intersection of Main Street and Route 29. Four crashes took place along Route 29. There were several other locations that had more than one bike or pedestrian crash. These included PA 113, where two incidents

occurred adjacent to the intersection with Borough Line Road (between Trappe and Upper Providence). The Pottstown Bypass in Upper Providence saw two bicycle crashes, and Wartman Street in Perkiomen Township saw one bicycle- and one pedestrian-related crash between 2005 and 2009.

Collegeville has a relatively complete sidewalk network, which is typical for developed suburbs and smaller boroughs. However, Figure 46 below shows, there are a number of gaps in the network, including some that are in crucial areas connecting attractions and amenities, such as Community Park, Ursinus College, and the Perkiomen Trail.

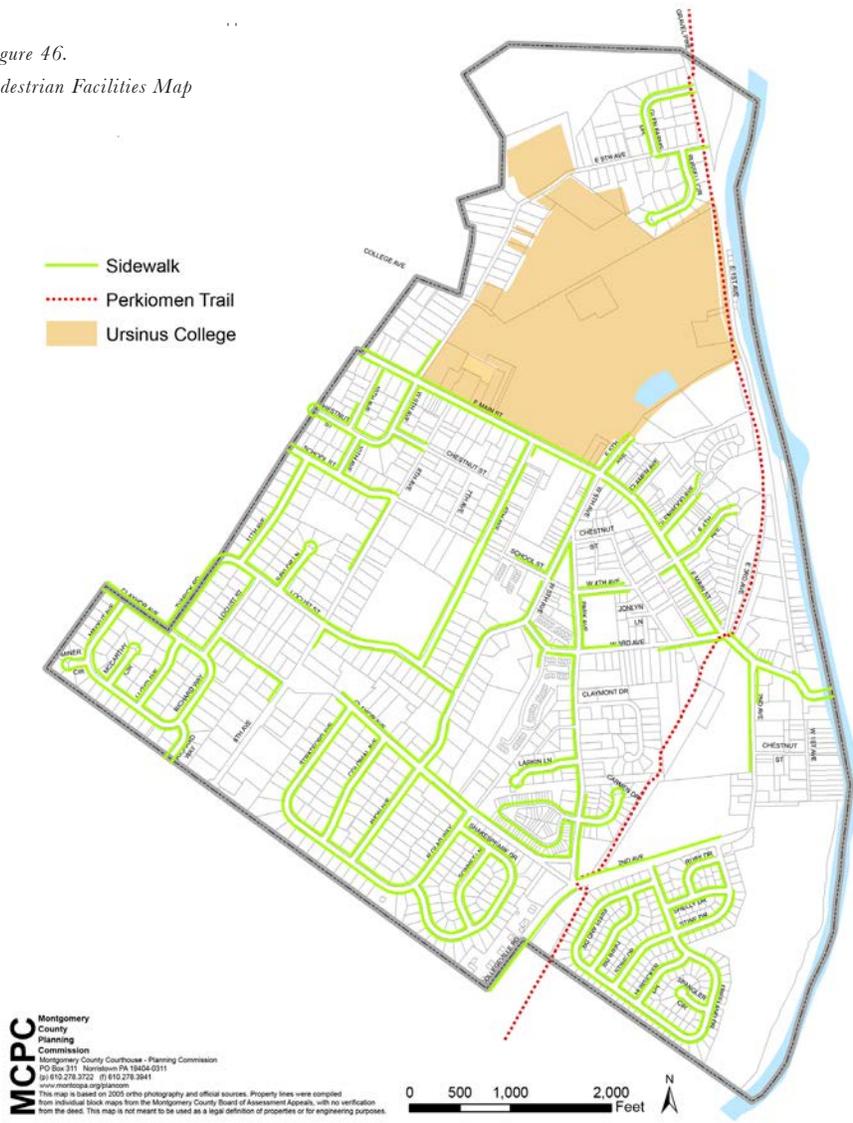
Figure 44. Pedestrian Crashes

PEDESTRIAN CRASHES	NUMBER
Main Street/Ridge Pike	10
Pottstown Bypass	2
Wartman Road	2
Gravel Pike/Route 29	2
Route 113	2
Lewis Road	1
Linfield Trappe Road	1

Figure 45. Bicycle Crashes

BICYCLES CRASHES	NUMBER
Main Street/Ridge Pike	3
Route 29	2
Daniel Drive	1
TOTAL	6

Figure 46. Pedestrian Facilities Map



MCPC Montgomery County Planning Commission
 Montgomery County Courthouse - Planning Commission
 PO Box 311 Norristown PA 19304-0311
 (610) 278-3722 (F) 610 278-2941
 www.montco.org/planning
 This map is based on 2005 ortho photography and official sources. Property lines were compiled from individual block maps from the Montgomery County Board of Assessment Appeals, with no verification from the deed. This map is not meant to be used as a legal definition of properties or for engineering purposes.

The following five figures show Delaware Valley Regional Planning Commission's (DVRPC) projections of areas in the Philadelphia region with the highest potential of electric vehicle ownership and workplace charging stations. According

to these projections Collegeville is not likely to be a hotbed of electric vehicle activity, but it may be one of the more active areas in western Montgomery County for electric vehicles. There is enormous potential for the Borough to

capitalize on its location if the owners of the shopping centers and a few other private partners supply charging stations.

Figure 47. Areas with the Highest Potential for EV Ownership in Southeastern Pennsylvania Map

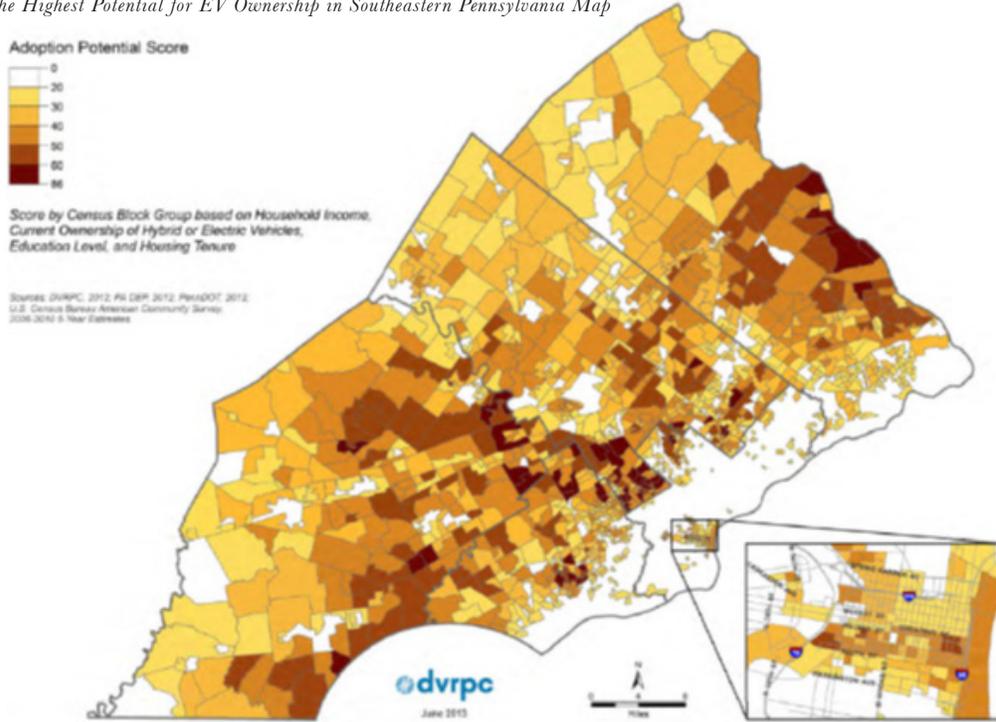


Figure 48. Projected EV Distribution in Southeastern Pennsylvania, 2020 Map

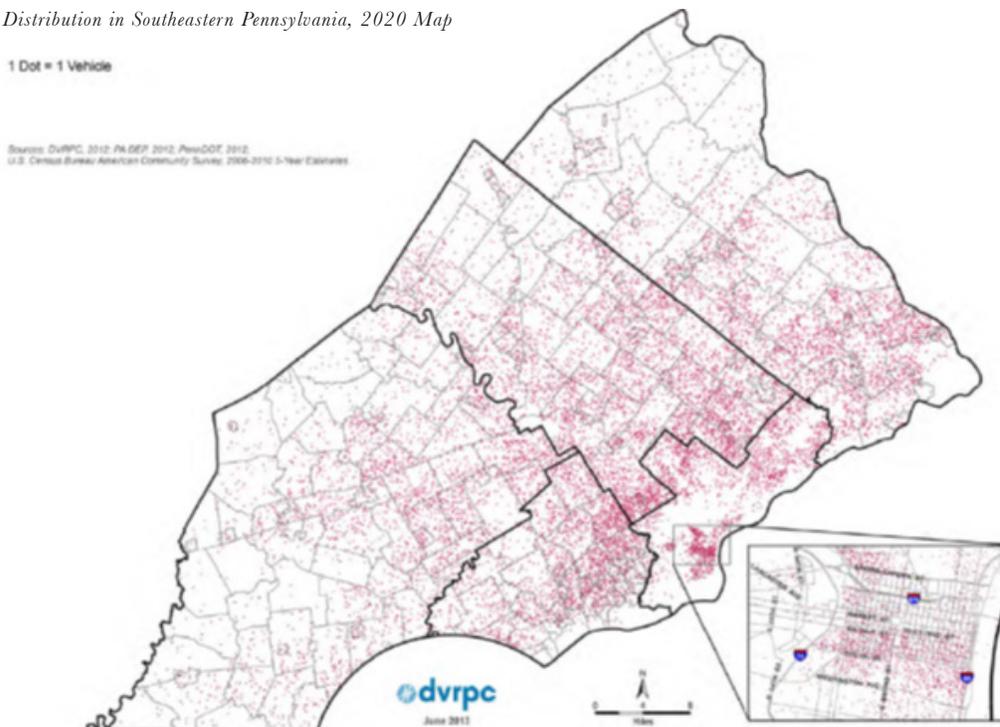


Figure 49.

Projected Percentage of Vehicles that are EVs, 2040 Map

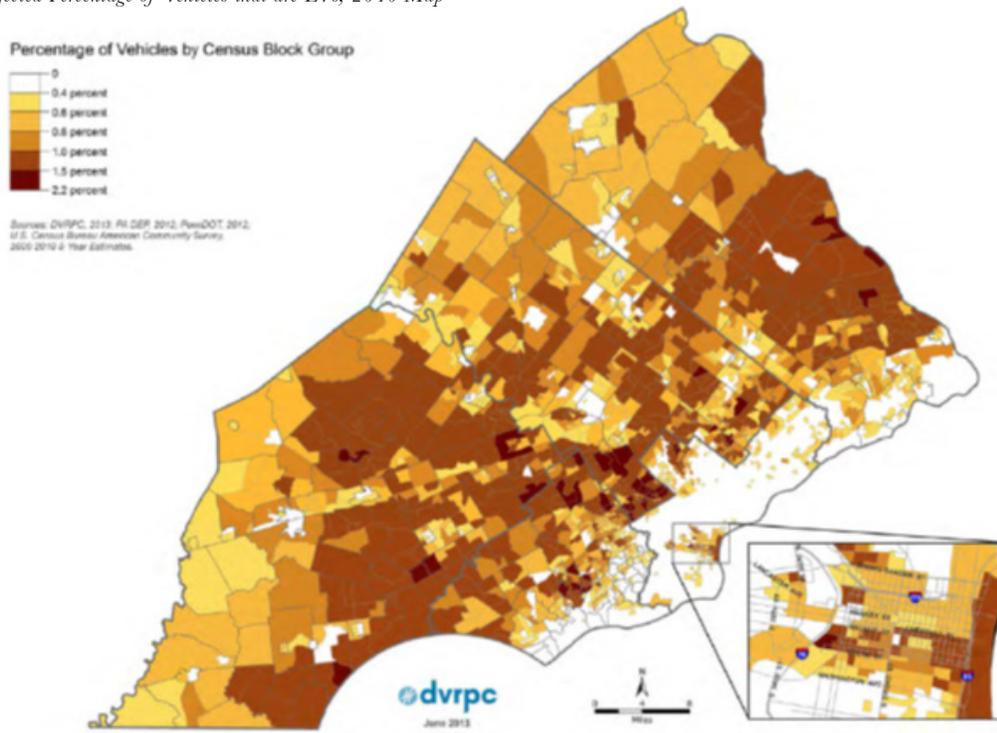


Figure 50.

Areas with Highest Potential for Public and Workplace Charging Map

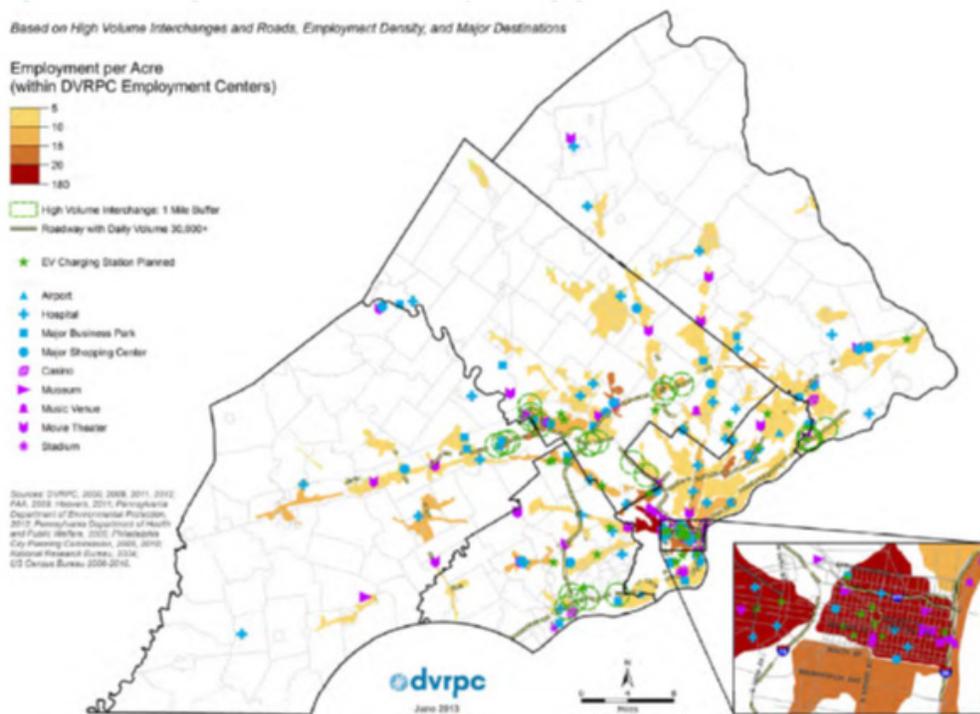
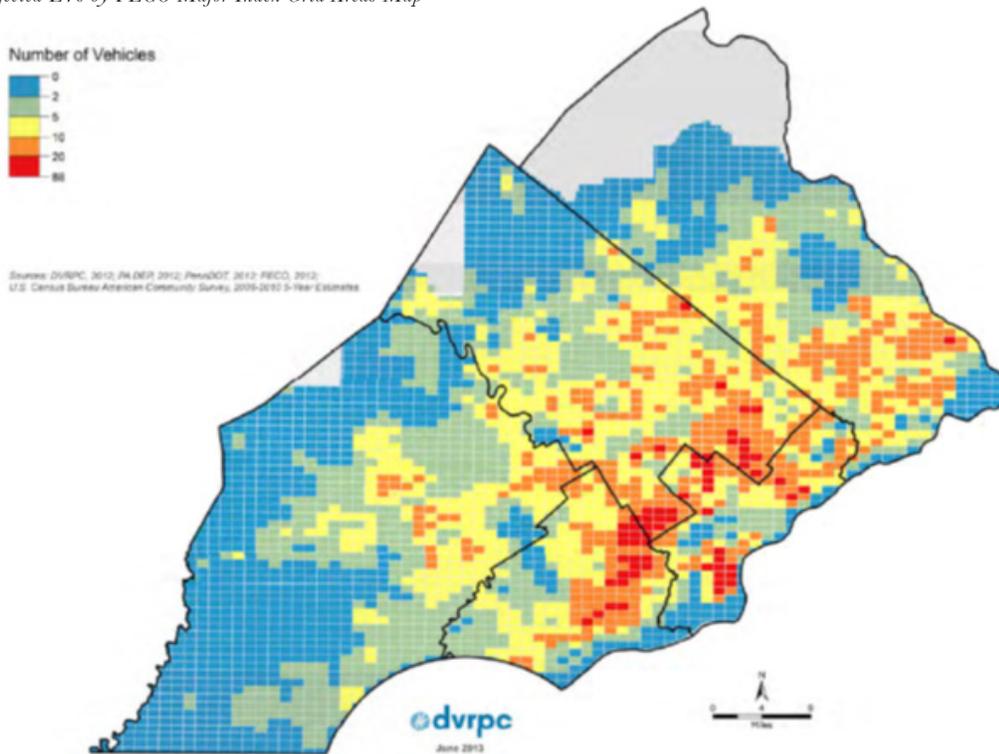


Figure 51.

Projected EVs by PECO Major Index Grid Areas Map



HELPFUL LINKS:

International Walk to School in the USA
<http://www.walktoschool.org/>

National Center for Bicycling and Walking
<http://www.bikewalk.org/saferoutestoschool.php>

National Center for Safe Routes to School
<http://www.saferoutesinfo.org/>

Safe Routes to School National Partnership
<http://saferoutespartnership.org/>

Smart Ways
<http://www.epa.gov/smartway/>

Greener Driving Tips
<http://www.greencars.org/drivingtips.htm>

6 ways to Save Gas
<http://www.greendrivingusa.com/sixtips.html>

Fuel Economy Resources
<http://www.fueleconomy.gov/>

ACEEE's Green Book
<http://www.greencars.org/greenbook.htm>

Bicycle Coalition of Greater Philadelphia
<http://www.bicyclecoalition.org/>

Greater Philadelphia's Regional trail Network
<http://connectthecircuit.org/>

Trail Link by Rails to Trails Conservancy
<http://www.trailink.com/>

Rideshare Community
<http://www.ridester.com/>

eRideShare
<http://www.erideshare.com/>

iCarpool
<http://www.icarpool.com/>

PickUp Pal
<http://www.pickupal.com/pup/intro.html>

SEPTA Trip Planner
<http://airs1.septa.org/bin/query.exe/en?s=From?&SALL=1&z=To?&ZALL=1&getstop=1&date=9/19/12&time=10:25%20AM&>

Public Transit in Your Community
<http://www.publictransportation.org/tools/local/Pages/Pennsylvania.aspx#a51>

Fuel Savings Calculator
<http://www.publictransportation.org/tools/fuelsavings/Pages/default.aspx>

Carbon Savings Calculator
<http://www.publictransportation.org/tools/carbonsavings/Pages/default.aspx>

Google Maps Transit
<http://www.google.com/intl/en/landing/transit/#mdy>

Public Transit Facts at a Glance
<http://www.publictransportation.org/news/facts/Pages/default.aspx>

Transportation, Climate Change and Public Health
<http://www.apha.org/NR/rdonlyres/C09561E4-CAF2-4917-A231-9207A4C1DB4E/0/ClimateChangeTranspFactSheet.pdf>

The Hidden Health Costs of Transportation
<http://www.apha.org/NR/rdonlyres/B96B32A2-FA00-4D79-99ABF0446C63B254/0/TheHiddenHealthCostsofTransportationBackgrounder.pdf>

WASTE MANAGEMENT

Collegeville Borough maintains a trash and recycling pick-up program that collects trash and recyclables from all Borough residents every Tuesday. Figure 52 shows the raw monthly collection rates. As Figure 55 on next page shows, recycling makes up less than one quarter of Collegeville’s waste stream. The rest, seventy seven percent, is made up of traditional trash and refuse. Nationally, the average recycling rate is 34.7 %, meaning Collegeville has some catching up to do to become a leader in sustainability.

In addition to recycling and trash pick-up programs, the Borough also maintains a yard waste composting facility in partnership with neighboring Trappe Borough. This facility takes residents’ yard waste and turns it into valuable mulch, a great natural fertilizer for local gardens and landscaping. Increasing awareness and use of these services are vital to a sustainable Collegeville.⁹

⁹ The numbers for refuse collection look a little low. When apportioned out to individual residents, the average is 1.2 pounds per person, well under the national average of 4-5 pounds per person. Future studies may need to investigate this discrepancy.

Figure 52. Monthly Collection Rates

	RECYCLING		REFUSE	
	TONS PER MONTH	POUNDS PER HOUSEHOLD	TONS PER MONTH	POUNDS PER HOUSEHOLD
January	27.46	43.94	86.48	138.37
February	24.60	39.36	72.97	116.75
March	32.16	51.46	106.03	169.65
April	25.27	40.43	90.56	104.46
May	26.99	43.18	94.54	151.26
June	31.89	51.02	121.51	194.42
July	26.38	42.21	97.89	156.62
August	34.35	54.96	121.75	194.80
September	27.43	43.89	83.62	133.79
October	30.88	49.41	100.00	160.00
November	36.83	58.93	121.82	194.91
December	27.73	44.37	91.42	146.27
TOTAL	351.97	563.15	1188.59	1861.30
Average:	29.33	46.92	99.04	155.10



Figure 53
 Collegeville Borough 2010 Recycling and Refuse Collection Rates

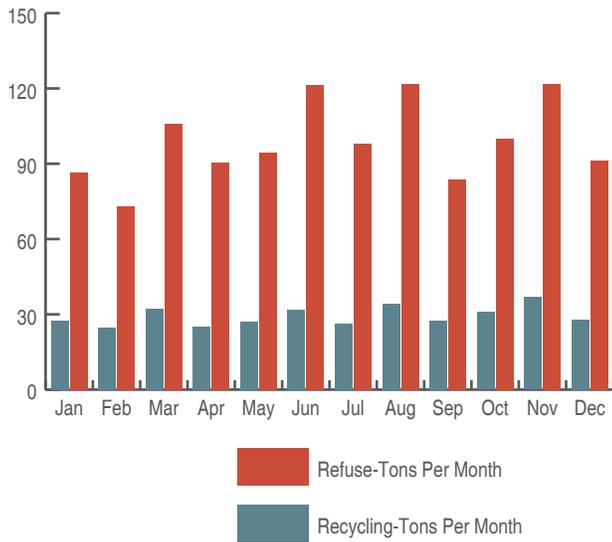


Figure 55
 Collegeville Borough 2010 Recycling and Refuse Collection

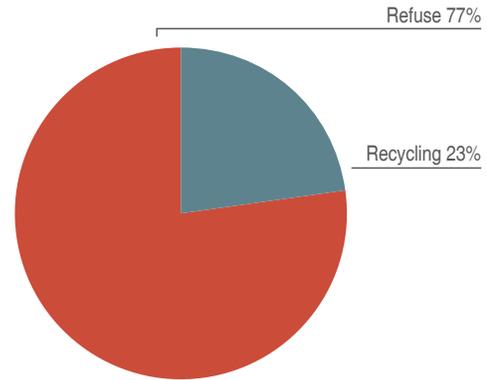
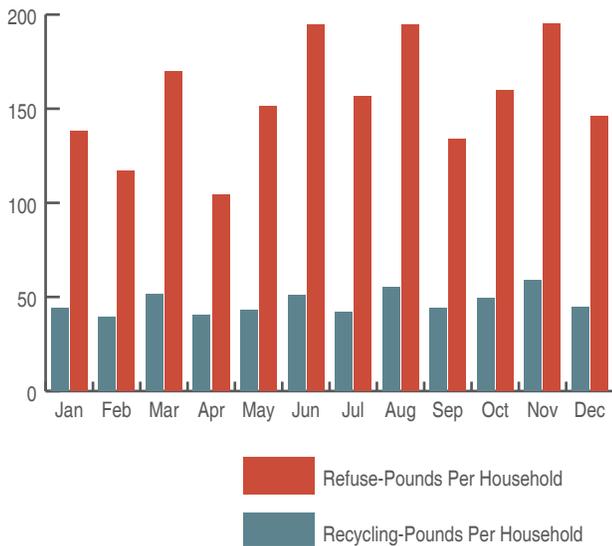


Figure 54
 Collegeville Borough 2010 Recycling and Refuse Pounds per Household



HELPFUL LINKS:

Montgomery County's Household Hazardous Waste Collection Program
<http://www2.montcopa.org/montcol/cwp/view,a,3,q,74873.asp>

Tips for Effective Composting
<http://www.ext.colostate.edu/pubs/garden/07212.pdf> <http://www.epa.gov/epawaste/conserve/rrr/composting/science.htm>

101 Ways to Reduce Waste
<http://www.deq.pima.gov/waste/101ways.html>

Building Materials Reuse Association
<http://www.bmra.org/listings/browse-bystate?catid=54>

Planet Reuse
<http://www.planetreuse.com/>

Collegeville Borough's Trash and Recycling pick-up schedule
http://www.collegeville-pa.gov/s_tr_trash.htm

ECOLOGICAL STEWARDSHIP

Just as it is important for Collegeville to make informed choices for the future of its energy usage and transportation options, it is vital that the Borough continue to invest in its ecological health. Protecting and enhancing the tree canopy, natural areas, habitats, and open space may not seem like investments that promise an immediate return, but the improved quality of life has a long-term value that can be difficult to measure. Activities like tree plantings, streambank restoration, or park clean-up days can also be great ways to foster community spirit and build civic pride.

Tree Canopy

Figure 56 shows the tree canopy currently covering the Borough. The value of a healthy tree canopy cannot be overstated; mature trees sequester carbon, purify the air, help maintain stormwater control and quality, and help reduce the urban heat island effect. Although Collegeville has a fairly good tree canopy, particularly over more established sections of the Borough, this resource must be maintained. Many of the older trees are reaching the end of their life cycle or may be under threat from disease. Tree replacement ordinances, a shade tree commission, and more formal surveys of trees in the Borough and their relative health may be needed to secure this valuable asset.

Open Space

Collegeville has a wealth of open space and recreation amenities, providing most of its residents with safe and easy access to open space. The Perkiomen Trail is an excellent asset, a multi-use trail that connects Collegeville to open space and destinations throughout the region. The Borough may need to expand access to reach the few areas where residents cannot easily get to open space and recreation facilities.

Figure 56.
Tree Canopy Survey Map

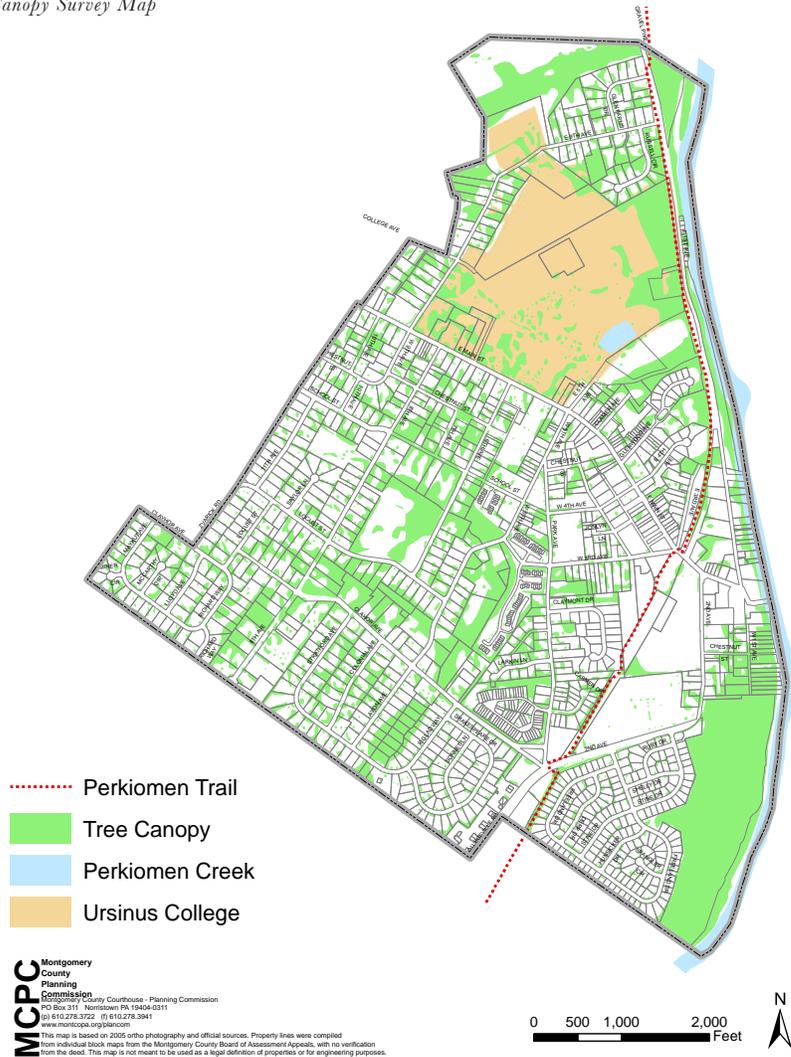
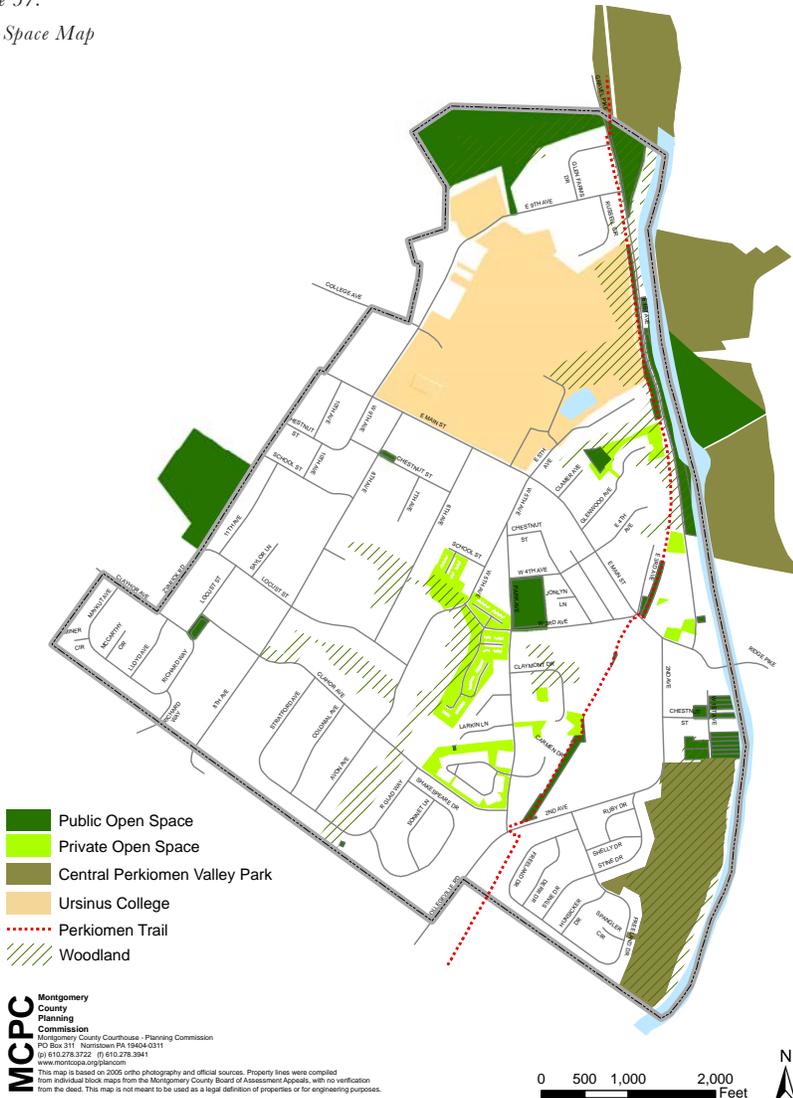


Figure 57.
Open Space Map



HELPFUL LINKS:

FAQs About Invasive Species
<http://www.fws.gov/invasives/faq.html#q9>

American Forests' "Create A Community Tree Planting Project,"
<http://www.americanforests.org/resources/communitytreeplanting/>

Arbor Day Foundation Tree Guide
<http://www.arborday.org/learn/>

Tree Maintenance Guide, Tips on Proper Tree Selection, Planting & Pruning
<http://www.oru.com/documents/energyandsafety/treemaintenanceguide.pdf>

Rutgers, NJ Agricultural Experiment Station, Tree, Shrub and Flower Growing Fact Sheets and Bulletins
<http://njaes.rutgers.edu/pubs/subcategory.asp?cat=5&sub=41>

Eco-health relationship browser
<http://www.epa.gov/research/healthsciencelbrowser/index.html>

Philadelphia Horticultural Society Subject Guides
<http://www.pennsylvaniahorticulturalsociety.org/learning-center/>

PHS Gold Medal Plants
<http://www.goldmedalplants.org/>

Philly Tree Map
<http://www.phillytreemap.org/>

HEALTHY LIVING

Collegeville has a number of resources that actively help to improve the health and wellbeing of its residents. The farmers' market brings in fresh, local produce and there are opportunities for public gardens which would provide even more access to local produce. Promoting healthy lifestyles and healthy food is another long-term investment in the well-being of Collegeville's residents that improves quality of life and fosters community engagement.

Community gardens

Figure 58 shows vacant lots in Collegeville with potential to become community gardens. There is currently one community garden in the Borough, located behind the UCC Church on Main Street, but as this map demonstrates there are possibilities throughout the Borough. In addition there are other privately-owned properties not shown on this map that have terrific potential to become public gardens. If the property owners are amenable, such unused land could be a source of fresh, local produce for the entire community.

Grocery Stores and Farmers' Markets:

Figure 59 shows the grocery stores, markets, and farmers' markets in the immediate Collegeville Area. There are several more grocery stores outside the scope of this map, including a number of them in Limerick, and the relatively new Wegman's in Upper Providence. It is interesting to note, though, that the Collegeville Farmers' Market is the only one in the immediate Collegeville area, making it a valuable asset. The circles around the three stores in or closest to Collegeville show a half-mile radius around each store. Although much of the Borough is covered within these buffers, there are significant portions, particularly on the western side. Residents on this side of town will likely find walking to one of these stores more difficult due to the distance and possible gaps in the sidewalk network.

Area Hospitals:

Although Collegeville is also in the service area of Einstein-Montgomery Hospital, and Pottstown Hospital, only Eagleville Hospital is close enough to fit in the scope of Figure 61.

Figure 58. Potential Community Gardens Map



Figure 59. Food Availability Map

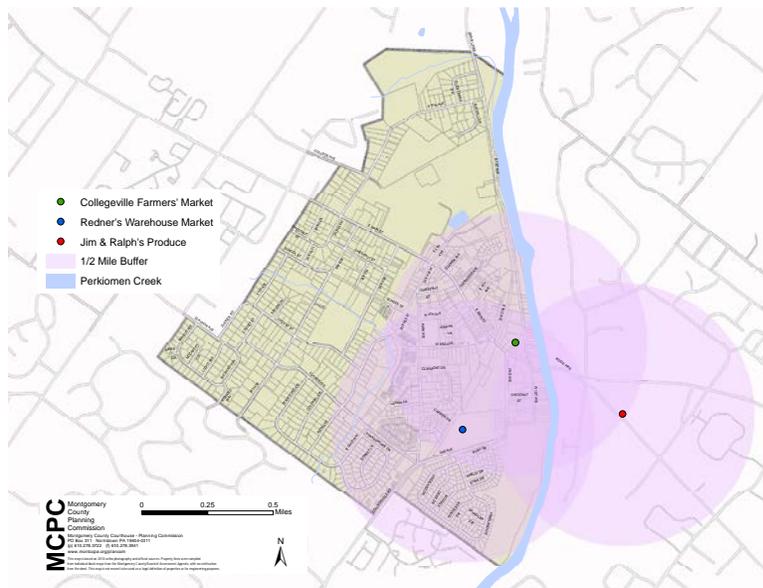


Figure 60. Adults Reporting Selected Health Risks

CENTERS FOR DISEASE CONTROL & PREVENTION, BRFSS 2010			
	OBESITY	DIABETES	EXERCISE
U.S.	27.5%	8.7%	23.9%
Pennsylvania	29.2%	10.3%	25.8%
DVRPC Region	24.4%	10.3%	24.2%
Montgomery County	24.8%	8.0%	18.5%

The Collegeville Economic Development Corporation (CEDC) hosts or supports a number of activities and events geared towards improving public health in Collegeville including advertising blood drives from the American Red Cross, and Main Street Nutrition, a community health initiative. A full list of CEDC events can be found at their website listed below.

HELPFUL LINKS:

Community Garden Benefits & Requirements

<http://www.cityfarmer.org/madison.html>

FoodRoutes Network & Community Involved in Sustaining Agriculture (CISA)

http://www.foodroutes.org/bl_toolkit.jsp

Local Harvest

<http://www.localharvest.org/>

Pennsylvania Association for Sustainable Agriculture

<http://www.pasafarming.org/>

Buy Fresh Buy Local

<http://www.buylocalpa.org/>

The Food Trust

<http://www.thefoodtrust.org/>

AirNow

<http://www.airnow.gov/>

Air Pollutants

<http://www.epa.gov/air/airpollutants.html>

PA's Environmental Facility Application Compliance Tracking System

<http://www.abs2.dep.state.pa.us/eFactsWeb/default.aspx>

Design for the Environment – Labeled Products

<http://www.epa.gov/dfel/pubs/projects/formulat/formpart.htm>

Green at Work Guide

<http://files.dep.state.pa.us/Energy/Governor's%20Green%20Governance%20Council/GGGCPortalFiles/greenatworkguide.pdf>

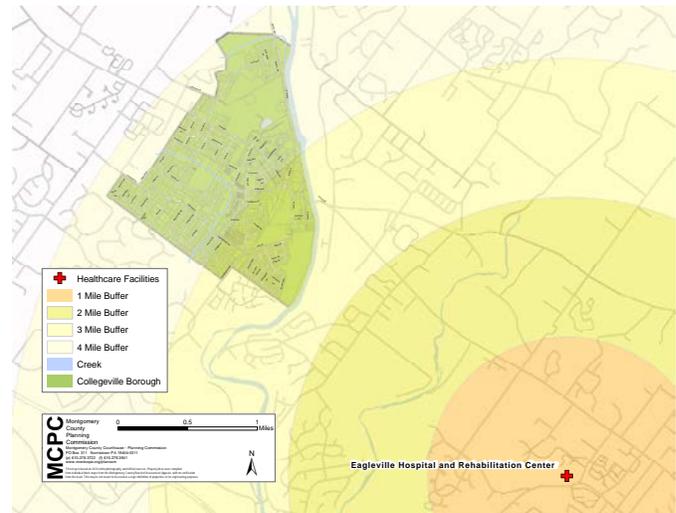
Top Green Homes Terms

<http://www.epa.gov/greenhomes/TopGreenHomeTerms.htm>

Collegeville Economic Development Corporation

<http://www.collegevilledevelopment.org/>

Figure 61. Area Healthcare Facilities Map



WATER MANAGEMENT

Flooding is one of the most important issues threatening Collegeville’s ecological and economic sustainability. The property damage caused by flooding makes it difficult for residents and businesses to rebuild after a storm or other weather event. In addition, landmark commercial properties like the Perkiomen Bridge Hotel lie directly in the path of a flooding Perkiomen Creek, making redevelopment a serious challenge. In addition, all of this floodwater rushing into Collegeville’s waterways without treatment means increased pollution, degrading the quality of habitats and drinking water.

FEMA Floodplain

The new FEMA Floodplain Map is based on the latest mapping technology to get a much more accurate picture of floodplains throughout the nation. The new maps have revealed that many properties once considered to be in the floodplain no longer are, and many that were out of the floodplain are part of it.

HELPFUL LINKS:

EPA’s WaterSense Program for Reducing Water Usage & Calculating Savings
<http://www.epa.gov/WaterSense/index.html>

Hot Water Conservation Tips
<http://energy.gov/energysaver/articles/reduce-hotwater-use-energy-savings>

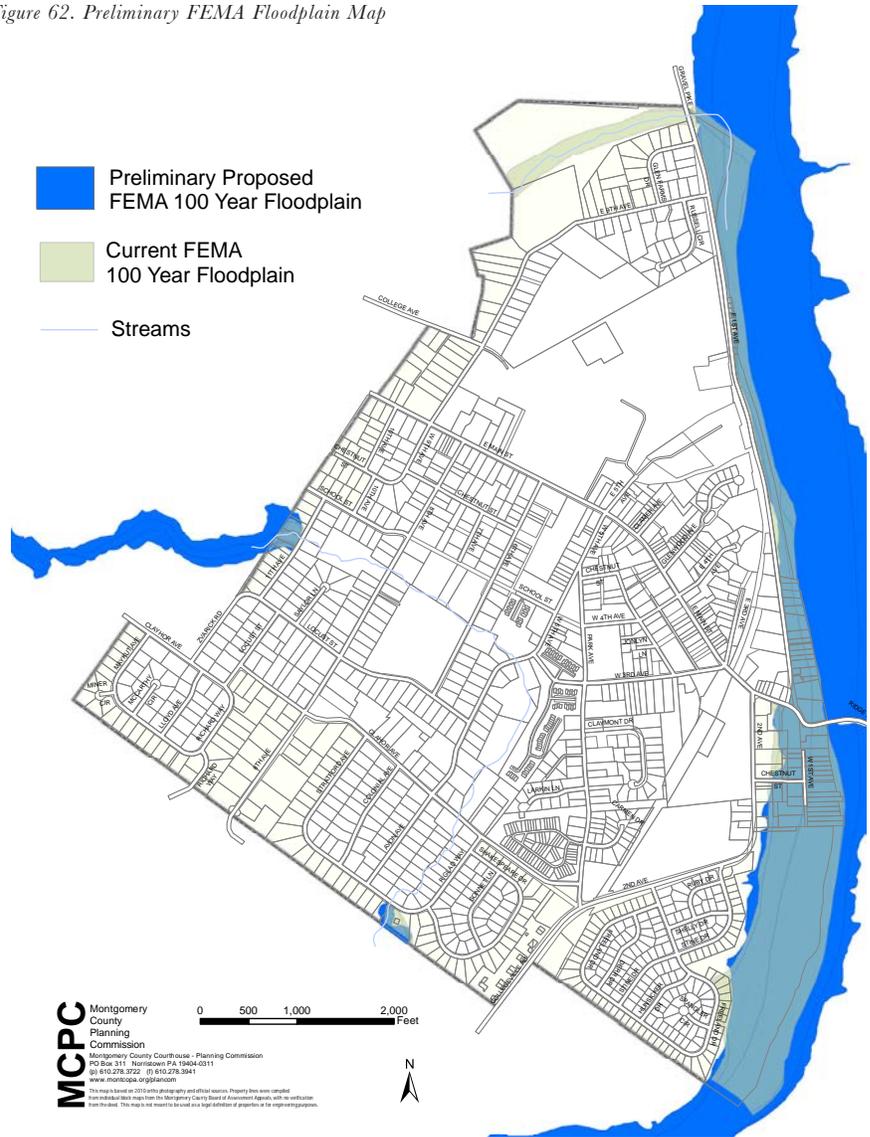
Build- A-Rain Barrel Workshops, Rutgers Water Resources Program
http://www.water.rutgers.edu/Stormwater_Management/rainbarrels.html#home

Energy Star Products
http://www.energystar.gov/index.cfm?c=products.pr_find_es_products

Tookany/Tacony Creek Integrated Watershed Management Plan
http://www.phillywatersheds.org/doc/Tacony_Frankford_WMP.pdf

Water Conservation Tips Sheet
<http://www.warwick-bucks.org/stormwater/pdf/Water%20Conservation%20Tips.pdf>

Figure 62. Preliminary FEMA Floodplain Map



LOCAL ECONOMY

Because of its small size and walkable layout, it is easy for Borough residents to reach goods and services on foot or by bicycle. Although there are gaps in the sidewalk network, and heavy traffic in certain areas can be obstacles, there are opportunities to resolve these issues and help promote local businesses. Large economic issues facing the country have also had an impact on the local economy as large anchor stores in the shopping centers have closed.

HELPFUL LINKS:

Sustainable Business Network of Greater Philadelphia
<http://www.sbnphiladelphia.org/>

Business Alliance for Local Living Economies (BALLE)
<http://www.liveingeconomies.org/>

US Green Chamber
<http://www.usgreenchamber.com/>

Greater Philadelphia Green Business Program
<http://phillygreenbiz.com/>

U.S. Small Business Administration
<http://www.sba.gov/category/navigation/structure/starting-managing-business/managing-business/running-business/greenbusiness-guide>

Figure 63. Commercial Districts Map

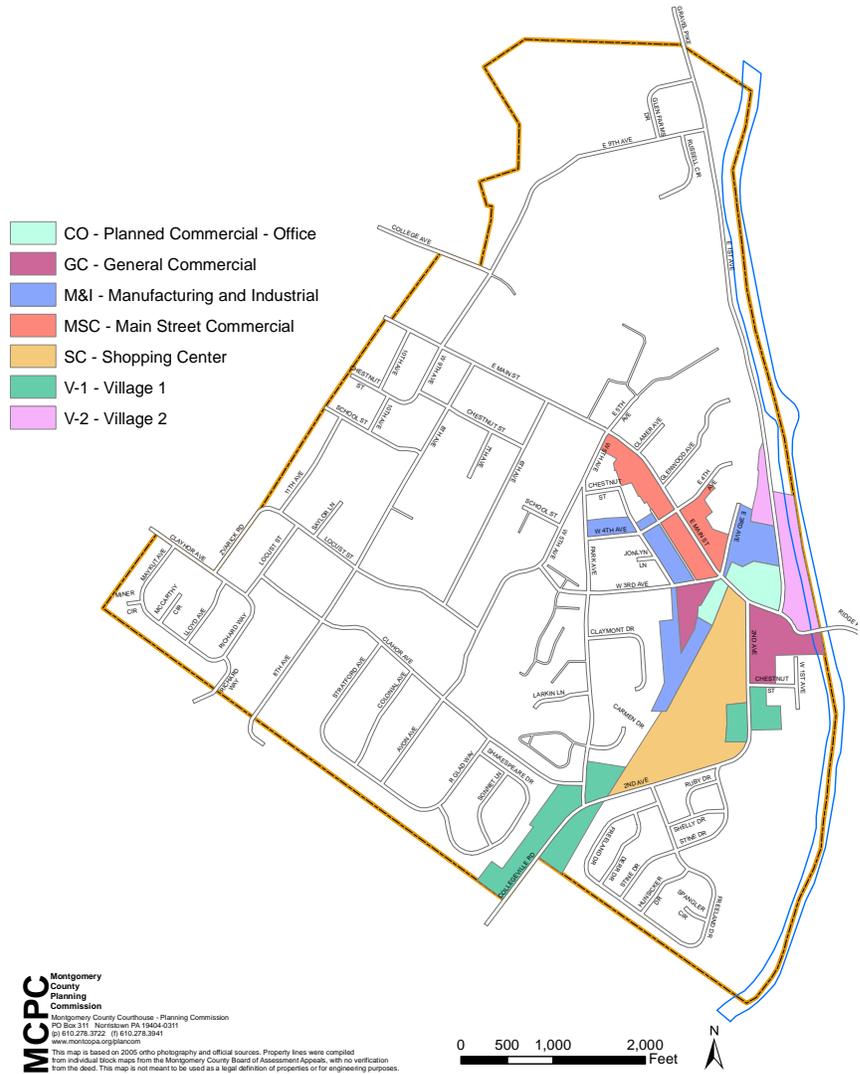


Figure 65. Zoning Map

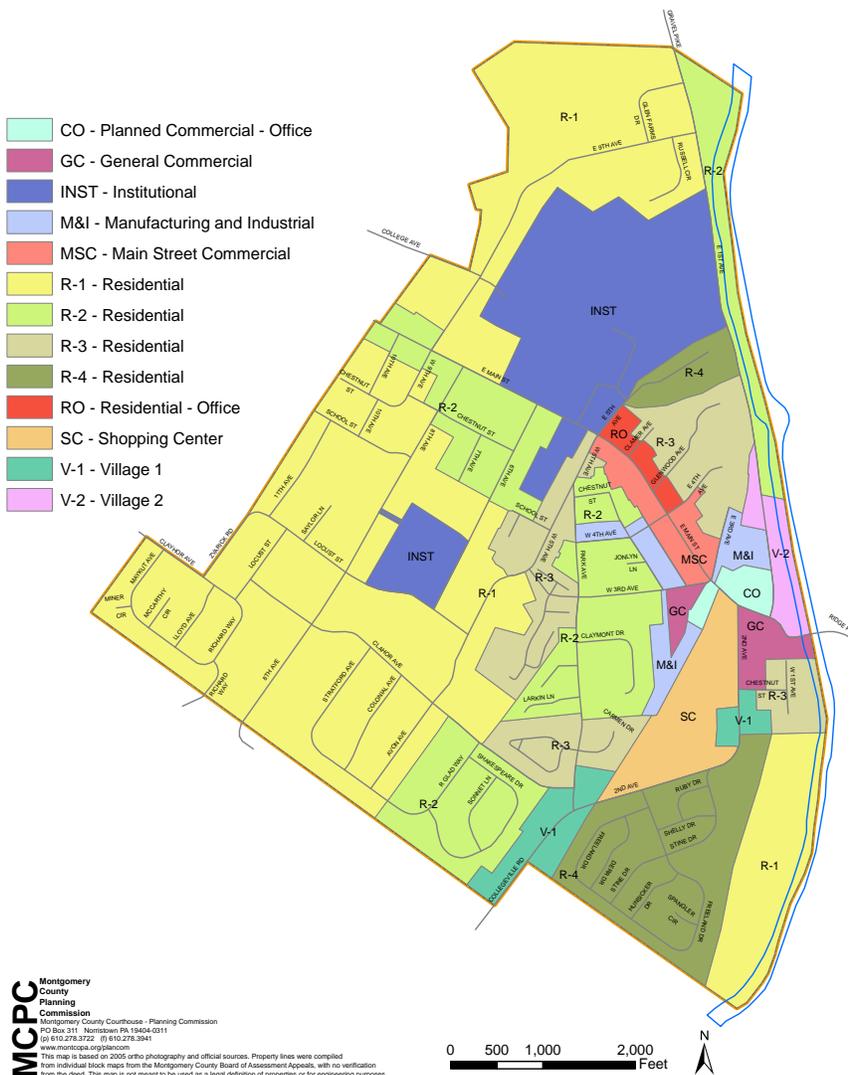
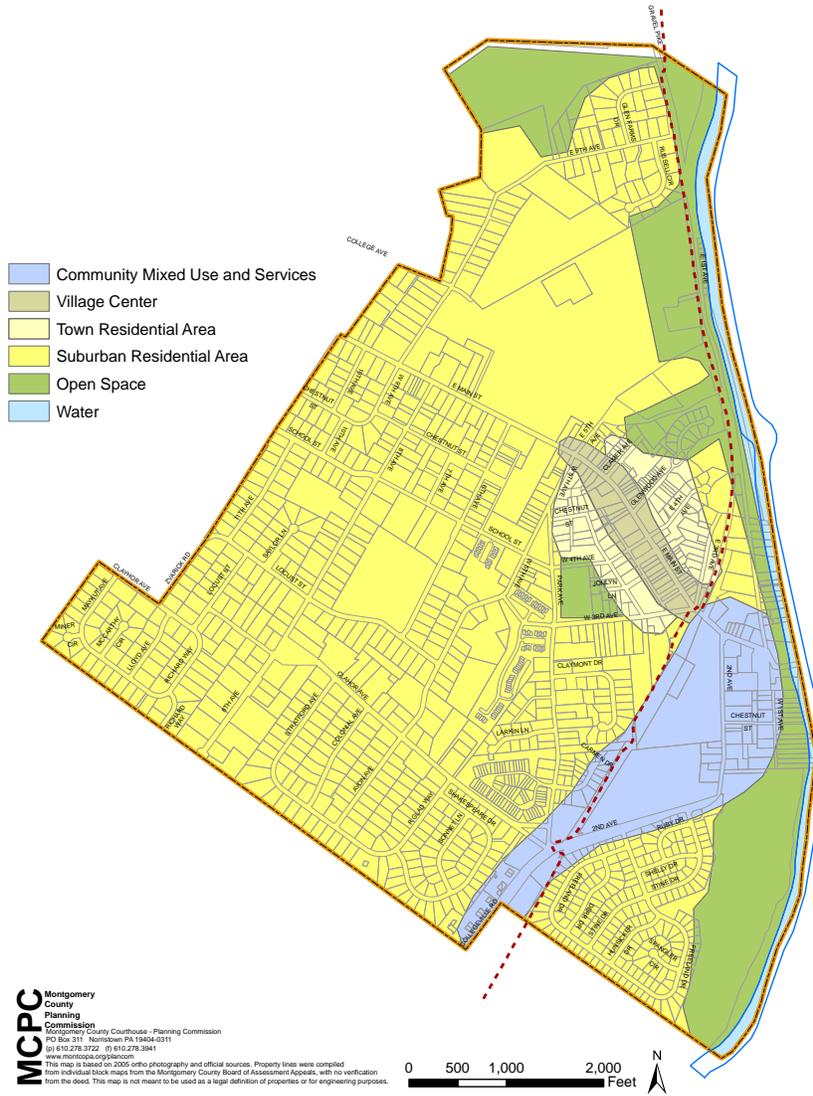


Figure 66. Future Land Use Map



HELPFUL LINKS:

Environments for Living

http://www.environmentsforliving.com/pdfs/PL_CG.pdf

U.S. Green Building Council (USGBC)

<http://www.usgbc.org/>

National Association of Home Builders (NAHB)

<http://www.nahb.org/>

Consensus Committee on the National Green Building Standard

<http://www.nahbrc.org/technical/standards/greenbuilding.aspx>

Rutgers Center for Green Building

<http://www.greenbuilding.rutgers.edu/>

Sustainable Sites Initiative

<http://www.sustainablesites.org/>

LEED for Homes

<http://www.usgbc.org/DisplayPage.aspx?CMSPageID=147>

LEED Building Certifications

<http://www.gbci.org/main-nav/buildingcertification/leed-certification.aspx>

Local Government Guide to LEED

<http://www.usgbc.org/DisplayPage.aspx?CMSPageID=2451>

National Association of Home Builders: Environment

<http://www.nahb.org/page.aspx/category/sectionID=211>

Green Building, Remodeling & Development

<http://www.nahb.org/page.aspx/category/sectionID=206>

COMMUNITY ENGAGEMENT

The Collegeville Economic Development Corporation (CEDC) is a highly active organization dedicated to marketing the Borough to potential businesses, supporting existing local businesses, and organizing community events, such as the Farmers' market and an Arts Festival. The CEDC has also been instrumental in obtaining grant funding for façade improvements and streetscaping along Main Street. The following is a list of events, services, and programs run or supported by the CEDC:

- Concerts in Collegeville Park
- Movies in the Park
- Collegeville Farmers' Market
- Collegeville's Farmer and the Chef
- Community Yard Sale
- Bookmobile in Collegeville
- Duct Tape Fun
- Fall Fashion Show
- Dog's Night Out at the Park
- Rubber Ducky Regatta
- Inside Out
- Main Street Nutrition

Many of these programs directly relate to sustainability and all of them are perfect opportunities for the Borough to expand its outreach and help educate residents about sustainability.

Potential Partner Collegeville Economic Development Corporation.

Although it is no longer part of the state's Main Street Program, the manager has remained as the staff expert to the CEDC, coordinating their efforts to market the Collegeville to potential employers and development. CEDC organized events like the Farmers' Market and other community-based festivals and programs are perfect opportunities to make sustainability part of Collegeville events. In addition, economic prosperity is an essential part of sustainability. Supporting CEDC's efforts to expand Collegeville's commercial sector should be a major component of the Borough's sustainability efforts.

The following is a list of events, services, and programs run or supported by the CEDC:

- Concerts in Collegeville Park
- Movies in the Park
- Collegeville Farmers' Market
- Collegeville's Farmer and the Chef
- Community Yard Sale
- Bookmobile in Collegeville
- Duct Tape Fun
- Fall Fashion Show
- Dog's Night Out at the Park
- Rubber Ducky Regatta
- Inside Out
- Main Street Nutrition



HELPFUL LINKS:

Federal Tax Credits

http://www.energystar.gov/index.cfm?c=tax_credits.tx_index

Education for Sustainable Development Toolkit

<http://www.esdtoolkit.org>

Empowerment Institute: The Low Carbon Diet

http://www.empowermentinstitute.net/lcd/lcd_files/Cool_America.html

The Natural Step Framework

<http://www.naturalstep.org/it/usa>

Sustainable Communities Network

<http://www.sustainable.org/>

Energy Education, Inc.

<http://www.energyeducation.com/OurServices/tabid/58/Default.aspx>

Schools for Energy Efficiency

<http://www.seepgrams.com/overview.html>

EPA It's Easy Being Green-Guide to Planning Environmentally Aware Events

<http://www.epa.gov/osw/wydc/grn-mtgs/gm-bklt.pdf>

Green Event Planning Guide

<http://sustainability.ucsb.edu/purchasing/docs/pubs/Bridging-the-Gap-Green-Event-Manual.pdf>

Sustainable Communities Network's "How to Plan a Sustainable Event,"

<http://www.sustainable.org/information/susevent.html>

Sustainable Green Pages

<http://www.nesca.org/sgp/>

Planet Green

<http://planetgreen.discovery.com/>

GRID Magazine

<http://www.gridpbilly.com/>

Collegeville Borough

<http://www.collegeville-pa.gov/>

Collegeville Economic Development Corporation

<http://www.collegevilledevelopment.org/>

Action Items

ENERGY

Goal: Strive to reduce costs and energy consumption throughout Borough operations and make Borough government a leader in energy conservation, the use of renewable energy sources, and smart management of resources.



ACTION ITEMS:

Explore ways to reduce the energy demands of Borough buildings. It is important for the Borough to consider their energy demands so they can cut costs and their environmental impact. The Borough can reduce its energy demands with simple changes that do not require large capital expenditures, such as switching to compact florescent light bulbs and adjusting its thermostats. Other, less obvious reductions can be achieved by studying the energy use analysis and recommendations provided by the DVRPC Local Energy and Greenhouse Gas Baseline Analysis Toolkit . The Borough may also consider having a professional energy audit performed to get a detailed analysis of their energy consumption and recommendations on how to improve their performance.

Phasing

This effort is already under way. The Borough tracks their energy consumption and GHG emission through the DVRPC Local Energy and Greenhouse Gas Baseline Analysis Toolkit and will continue to do so. A report provided by DVRPC based on the Toolkit gives energy usage and GHG emission data and provides some recommendations. The Borough

St. Paul, Minnesota, has partnered with its electric utility to retrofit heating and cooling systems, purchase ENERGY STAR labeled products, replace street lighting and traffic signals, and implement other energy efficiency improvements. These activities have saved the city nearly \$8 million in energy costs annually and reduced its annual CO2 emissions by more than 73,000 metric tons, equivalent to the annual emissions of 13,000 cars (St. Paul, 2007).

A no-cost analysis of a building's plug load, which can account for 20% of a building's energy consumption, can reveal cost saving alternatives. (Implementing Connections – DVRPC)

can use the information from the Toolkit to plan energy reduction strategies during each fiscal year. Further, other simple changes can be undertaken immediately, while others will take years to plan and implement. It is important to understand that energy conservation is not a project with a definitive timeline; it is more of a fundamental change in how the Township will do business.

Cost and Possible Funding Issues

Enacting behavioral changes have no capital expense and can save a considerable amount of energy and money. When energy consuming products need to be replaced it is an excellent opportunity to explore purchasing more energy efficient options. The Borough can also explore using the savings from less capital intensive energy savings projects and use those funds to pay for more expensive projects.

Possible Partners

The Borough may find opportunities to purchase energy efficient products through a bulk purchasing agreement with other municipalities through the Central Perkiomen Valley Regional Planning Commission (CPVRPC). Bulk purchasing helps reduce the cost of such items.

Explore a street lighting plan to reduce the number of street lights. Street lighting accounts for 62% of the Borough operation's energy costs and 54% of their GHG emissions. It is important to look for ways to reduce these percentages. The Borough has already begun converting its streetlights to more efficient bulbs, which it may continue as needed and technology improves. Unfortunately, a significant portion of its outdoor lighting budget goes to an annual service connection charge of over \$28,000 levied by the utility company. Reducing the number of streetlights used, particularly along Main Street where additional decorative lighting also exists, would help reduce the Borough's energy use and costs.

Phasing

A streetlight reduction program, similar to the one being undertaken in Upper Dublin Township, could begin within a matter of months. This program is driven by municipal and citizen input and does not require a professional lighting plan. To obtain a professional lighting plan would likely take over a year from initiation to completion, but would provide more detailed results.

Cost and Possible Funding Issues

The costs associated with a streetlight reduction program would include staff time to initiate and run the program along with the costs of streetlight removal, although these costs would be offset by energy savings. A professional street lighting plan may be quite expensive, along with staff time and the costs of removing the streetlights, but may lead to more savings due to the thorough nature of the study. These future savings can be projected using the DVRPC Toolkit.

Possible Partners

A street light reduction program would require the input of citizens and other stakeholders in the Borough.

Develop a strategy to promote renewable energy. Although this plan is focused on Borough government operations, the Borough recognizes the importance of increasing the use of renewable energy throughout Collegeville. The Borough has already enacted ordinances to allow for the use of small-scale renewable energy use but educational and outreach programs will help show residents what opportunities they have to increase their usage of renewables.

Phasing

Increased education and outreach can begin almost immediately. The Borough could add information to their website that educates residents about renewable energy technology and the Borough's ordinance. The Borough could also pursue opportunities at public events to distribute the message and have takeaways available at public buildings.

Cost and Possible Funding Issues

The inclusion of materials on the Borough website should be relatively inexpensive. It would require staff time to create the text and upload it to the website. There would be more capital expense to create and publish takeaways for public consumption.

Possible Partners

The Borough could work with renewable energy businesses in the Borough to promote the benefits of renewable energy. The Borough could also support and pursue renewable energy projects at Ursinus College. Borough residents and businesses who have installed renewable energy devices would also make an important partner. The Collegetown Economic Development Corporation (CEDC) could be an invaluable partner, helping to promote renewable energy and bridging the gap between local government, residents, and businesses.

Investigate the use of renewable energy sources in all Borough operations. The Borough could investigate purchasing energy from providers that utilize renewable sources and consider upgrading Borough buildings with solar panels, geothermal heating and cooling, or any other nontraditional energy source that saves money and reduces GHG emissions. Implementation of renewable energy would be a considerable capital expense, but the Borough may want to consider these retrofits if funding becomes available or for future construction projects.

Phasing

The planning and preparation for these types of projects could begin immediately. It is important to research the best course of action as soon as possible so that if an opportunity should arise, the Borough is ready to take action quickly. Grant funding opportunities may have a short application window and it may be advisable for the Borough to have a plan in place to take advantage of such opportunities.

Cost and Possible Funding Issues

The preliminary research, including cost analysis of purchasing renewable energy and researching renovation projects, could be done by the staff. Any further detailed studies may need a professional engineer. Any design costs could be factored into the rate of return for the project.

Possible Partners

The Borough could work with DVRPC and their multiple efforts to assist municipalities in ability to use renewable energy:

- Circuit Rider Program
- Electric Vehicles and Natural Gas Vehicles Study
- DEOWG

TRANSPORTATION

Goal: Reduce fossil fuel dependency in all Borough operations and promote existing multi-modal connections throughout the Borough that enhance pedestrian and bike access to local businesses, institutions, and destinations.



ACTION ITEMS:

Explore ways to shift from conventional vehicles to vehicles that conserve energy and/or use renewable energy. As the Borough's fleet of police cars and other municipal vehicles age, they could be replaced with hybrids, electric vehicles, compressed natural gas or other fuel-efficient vehicles wherever practical. This will help reduce the Borough's GHG emissions and also reduce their fuel costs. Thanks to improved technology the cost of these vehicles is dropping as performance improves, making them a viable option for future municipal and police vehicles.

Phasing

As vehicles age and are in need of replacement, the Borough may wish to explore replacing the models with more fuel efficient, hybrid or alternative fuel vehicles.

Cost and Possible Funding Issues

It is important to consider the type of vehicle needed and the average vehicle miles traveled when considering buying a fuel efficient, hybrid or alternative fuel vehicle. It is also crucial to consider the cost of new fueling infrastructure and its regional availability. Compressed natural gas and electric vehicles need specialized fueling stations that are not currently available in, or near, Collegeville. There may be grant opportunities for the replacement of municipal fleets, particularly for natural gas vehicles, in the near future which the Borough may want to investigate. All of these factors will greatly influence the payback period for the increased cost of a hybrid or alternative fuel vehicle. The DVRPC Energy Analysis Tool can help Collegeville consider these issues by comparing the expenses and savings associated with different vehicle models.

Possible Partners

The Township can look to state, regional and federal partners for decision-making tools, purchasing guidance, and grant assistance.

Not only are electric or hybrid vehicles more efficient in their use of fossil fuels, they are more efficient in their basic mechanics. Electric vehicles convert about 59–62% of the electrical energy from the grid to power at the wheels—conventional gasoline vehicles only convert about 17–21% of the energy stored in gasoline to power at the wheels. This increased efficiency will translate into savings for the Borough. (www.fueleconomy.gov)

Develop and implement an action plan that will connect greenways, sidewalks, trails, and safe roadways to create a car-free transportation system throughout the Borough. The Borough already has a head start with its walkable street grid and proximity to the Perkiomen Trail. As the Pedestrian Facilities Map in the Baseline Analysis section shows, though, there are gaps in that network and not all residents have safe and easy access to the trail. Improving and building upon the Borough's assets will give residents the opportunity to walk or bike to Collegeville's shopping, recreational, and cultural destinations.

Phasing

Planning future connections has already begun. It is important for the Borough to create an action plan so that when opportunities arise, through funding opportunities or when construction projects occur, the network can be built. The action plan could be established immediately, but the actual building might need to be phased over the years to come.

Cost and Possible Funding Issues

The cost of these projects can vary greatly depending on the project. Grant funding exists to help communities plan and implement pedestrian projects and some of the costs may be shared with developers or other entities depending on the situation.

Possible Partners

The Borough should look to the citizens for input on the action plan and can also partner with non-profits such as the Bicycle Coalition of Greater Philadelphia, Pennsylvania Environmental Council and the national Rails to Trails Conservancy. DVRPC and MCPC would also be useful for providing data, analysis, and assistance preparing an action plan.

Improve public infrastructure centered on non-automobile transportation options. The Borough could develop and implement an action plan to prioritize public investment in benches, bike racks, trail connections, and other infrastructure improvements that will make it easier, safer, and more attractive for residents to leave their cars at home when travelling throughout Collegeville.

Phasing

The Borough could begin examining where these public investments should take immediately, and future investments could be prioritized by an action plan. Implementation could begin as soon as funding becomes available either through the Borough's budget, grants, or as part of an agreement with a developer.

Cost and Possible Funding Issues

The cost of these projects can vary greatly depending on the project. Grant funding exists to help communities plan and implement pedestrian projects and some of the costs may be shared with developers or other entities depending on the situation.

Possible Partners

The Borough should look to the citizens for input on the action plan and can also partner with non-profits such as the Bicycle Coalition of Greater Philadelphia, Pennsylvania Environmental Council and the national Rails to Trails Conservancy. DVRPC and MCPC would also be useful for providing data, analysis, and assistance preparing an action plan.

Encourage residents to walk or bike to Borough meetings, work, shopping, and throughout the Borough. With improved facilities it is important to make residents aware of them and aware of the health benefits of walking and biking to local destinations. In addition, more residents and visitors walking and biking around the Borough mean more customers in local businesses.

U.S. cities that have invested in bicycle infrastructure have seen increases in bicycling from year to year from 10% or more. Health benefits, reduced maintenance costs, and other savings from this type of investment far outweigh the initial costs of bicycle infrastructure. (railstotrails.org)

Phasing

This work can begin immediately. The Borough can start to encourage residents personally at their meetings and events. The Borough's website can also be used to provide information about walking and riding in the Borough, such as providing maps, and educational materials about the benefits of physical exercise.

Cost and Possible Funding Issues

To improve the Borough's website it will cost staff time to create the content and make the necessary changes. There will also be costs associated with creating informational materials to distribute to the residents. There may be grant funding available to cover these costs but the most effective tool will be word-of-mouth and encouragement from Borough officials. This is free.

Possible Partners

The Borough can partner with the other organizations and institutions that operate within the Borough to spread the message about the benefits of walking and biking. Local running and biking clubs would also make ideal partners for helping to spread the word.

Reduce vehicle idling through policies, regulation, and education. Idling vehicles reduce fuel efficiency and increase the amount of greenhouse gases being released into the atmosphere. Every 30 minutes of idling consumes between 20-70% of a gallon of gas for an 8-cylinder engine. Every gallon of gas used produces about 19 pounds of carbon dioxide. Not only will reductions in vehicle idling improve Collegeville's carbon footprint, it will also save the Borough and its residents money as fuel efficiency increases. The Borough can work to reduce idling by:

- A. Establishing no-idle zones at schools and other locations, and encourage businesses to do so as well.
- B. Encouraging residents to avoid using a remote vehicle starter and to obey no-idle zones through education campaigns.
- C. Adopting auxiliary power systems in municipal fleet vehicles, which provide heating, cooling, and electronic device power without running the vehicle's primary engine.
- D. Train Borough employees to prevent municipal vehicle idling.

Phasing

Education can begin immediately and the ordinance or regulation adoption process can be completed in a few months.

Cost and Possible Funding Issues

Reducing vehicle idling will save the Borough in fuel costs. It will require staff time to draft regulations and there will be a cost to buy and install signage. Capital costs will also be required to adopt auxiliary power systems, but may be offset by reduced fuel consumption. The auto industry is introducing a feature that shuts down an engine at stops and automatically restarts it when the driver hits the gas pedal; the Borough could consider this and other technological advancements in the future.

Possible Partners

The Borough could work the Montgomery County Planning Commission to draft ordinances and policies. CEDC and the Perkiomen Valley School District would be ideal partners for outreach and public education

Promote the use of carpooling, car share programs, and public transportation wherever possible. Public transit options in Collegeville are limited, but opportunities for car share programs and carpooling exist since the biggest employers in the central Perkiomen region are fairly close to Collegeville along with Ursinus College. Carpooling to employment destinations and public transportation hubs will save Borough residents money and reduce their carbon footprints. The Borough could pursue opportunities with businesses such as Enterprise Car Share or ZipCar to create car share opportunities. The Borough could link to a free carpooling website on the municipal webpage and also encourage employers in the Borough to designate preferred parking for carpooling vehicles.

Phasing

Work on this action item can begin immediately. The Borough could communicate with the necessary partners and begin to gauge their interest.

Cost and Possible Funding Issues

Implementation of these programs will fall on the private partners, but it will take staff time to coordinate with the partners and pursue educational opportunities for the residents.

Possible Partners

Private or non-profit car sharing companies may help to implement car sharing programs and employers in the Borough could provide incentives for carpooling. This action item also depends upon residents who wish to take part in the programs.

Shared driving services like ZipCar and Enterprise Car Share often reduce the amount members drive. Ninety percent of ZipCar members reported driving 5,500 miles or less per year after joining. (www.zipcar.com)

WASTE REDUCTION

Goal: Aggressively work to reduce municipal and hazardous waste and promote recycling and reuse to the greatest possible extent.



ACTION ITEMS:

Adopt a green purchasing policy. In order to reduce waste and the use of non-sustainable products, the Borough could consider a policy to purchase sustainable materials. Such items include recycled paper products, “green” cleaning products, energy and water efficient products, and other products featuring recognized labels

(such as Energy Star or Green Seal). Further, the Borough could investigate a program of making bulk purchases of supplies with neighboring municipalities, reducing the cost of these supplies for each municipality. Delaware Valley Regional Planning Commission (DVRPC) is currently investigating a program to assist municipalities in the bulk purchase of energy efficient products.

Phasing

This action is a matter of researching and adopting policy and can begin as soon as the Borough is ready. Collegeville may want to pursue the DVRPC circuit rider program when it is available

Cost and Possible Funding Issues

Some “green” cleaning products may be more expensive at the outset, but costs could be offset by savings from water and energy efficient products. In addition, the Borough would save money through bulk purchases of supplies in cooperation with its neighbors.

Potential Partners

The Central Perkiomen Valley Regional Planning Commission (CPVRPC) would be a natural partner to help organize local municipalities into a joint bulk purchasing arrangement. If the DVRPC program becomes available, they may be able to provide additional technical assistance and expertise.

Explore ways to reduce waste generation and increase recycling in the Borough.

The Borough could engage in an outreach program to motivate residents to maximize recycling and reduce waste generation. The Borough already offers recycling to its residents but the Borough may want to consider widening the range of materials that can be recycled (to include more types of plastics, for instance), ensure single-stream recycling for all residents, and improve public awareness of improved service. Finally, the borough could provide larger recycling receptacles that allow residents to divert more household waste., residents have access to yard waste recycling at a facility shared with Trappe Borough; this should also receive greater publicity.

Phasing

The Borough can begin investigating an expansion of its recycling program immediately, however implementation may take some time as cost issues and logistics are determined. Promotion of the yard waste recycling facility should be part of the Borough's overall efforts to highlight its sustainability efforts and should be part of the Borough's sustainability website and marketing material as soon as possible.

Cost and Possible Funding Issues

Expanded recycling programs may incur some costs to the Borough; staff will have to find a balance between the benefits of expanded service and the cost. The Borough may want to investigate private companies like Recyclebank, which promote residential recycling through coupons and retail incentives in exchange for recycled materials.

Potential Partners

Montgomery County has a recycling coordinator who may be able to answer questions and assist the Borough in expanding its service. Private companies like Recyclebank are an interesting option the Borough may want to pursue. Even if private companies are not interested for logistical or marketing reasons, they may be willing to provide technical advice upon request.

ENVIRONMENTAL PROTECTION

Goal: Protect the overall health of the Borough's waterways, soils, habitats, and other natural resources.



ACTION ITEMS:

Partner with Ursinus College to marry environmental protection actions with academic study. Environmental protection is vital to the health, safety, and welfare of Borough residents, helping to ensure clean air and water, access to open space, and overall quality of life. Ursinus College has a robust Environmental Studies Department that has taken many of its projects out of the classroom. In addition the College has an Office of Sustainability that coordinates student efforts and sustainable activities across campus. The College assisted Trappe Borough in a tree survey and has been responsible for planting hundreds of trees in Hunsberger Woods, one of Collegeville's parks. The Borough has opportunities for environmental protection projects, but lacks the funding and manpower to tackle many of these projects. A continued partnership between Ursinus College and the Borough could allow for opportunities where both parties can achieve their goals while protecting the environment.

Phasing

These studies or activities could be immediate but, depending on the project, will need to be timed with the beginnings of new semesters and according to the schedules of students and faculty who are working with the Borough.

Cost and Possible Funding Issues

Cost will be dependent on the scale of the project.

Potential Partners

The Borough would be relying on Ursinus College for technical assistance and student manpower. The College also has its UCARE program, which promotes student civic engagement and activity in the surrounding community, making it a terrific partner. This office of Ursinus College Depending on the project, further technical assistance, mapping, and guidance could be provided by MCPC under the current contract.

Map street trees and Borough trees. In any community trees serve a vital role in improving quality of life. Trees reduce the urban heat island effect, help manage stormwater and flooding, and add visual interest. Mapping and assessing trees throughout Collegeville will help the Borough identify areas in need of trees and trees whose health is failing. This data will be essential to prioritizing investment and directing resources. In order to get an accurate assessment of trees throughout Collegeville, the Borough could map and inventory street and shade trees. This data will help the Borough direct resources, guide policy decisions, and prioritize recommendations.

Phasing

Implementation can begin immediately or correspond with the schedule of any local institution or environmental group that is assisting with the project. The number of trees in the Borough is likely to change with development proposals, requiring an accurate count of all trees to be removed and planted from developers will help to keep this information up to date.

Cost and Possible Funding Issues

Costs should remain low on this type of study, particularly if staff relies on volunteers or assistance from local environmental organizations and institutions.

Potential Partners

Ursinus College has completed similar projects in nearby communities and may be willing to work in Collegeville. Montgomery County Planning Commission would be able to provide technical assistance and mapping expertise. Pennsylvania Horticultural Society, Perkiomen Watershed Association, local environmental and tree-tenders groups, Perkiomen Valley School District may be able to provide technical assistance and manpower if necessary. Websites like Phillytreemap.org would also be useful tools for mapping trees and disseminating information.

Explore the creation of a Shade Tree Commission. Shade trees are critical to a Borough such as Collegeville. The shade trees reduce the heat island affect, act a stormwater best management practice and provide an aesthetic quality to the Borough. A Shade Tree Commission promotes and protects this resource. A shade tree is any tree having more than fifty percent (50%) of its trunk diameter at breast height within the right-of-way of a public street or on Township property. The Shade Tree Commission has the “exclusive control and custody” of all Shade Trees in the Borough by requiring anyone who wishes to plant, remove, trim or spray a Shade Tree or that portion of any tree, which extends over the right-of-way to obtain STC approval by making a written request to the Township’s Director of Public Works, which is submitted to the STC for investigation and approval or disapproval.

Phasing

Implementation can begin immediately or correspond with the schedule of any local volunteers who wish to be part of the commission.

Cost and Possible Funding Issues

No cost to the Borough associated with this type of activity except staff time to liaise between the Commission and Council.

Potential Partners

Montgomery County Planning Commission would be available for design review of any development proposal. Pennsylvania Horticultural Society, Perkiomen Watershed Association, Ursinus College, Collegeville Tree Tenders, and local environmental groups and volunteers could provide technical assistance and manpower.

Create a tree replacement ordinance. Mature trees are often lost during land development, mandating that all trees proposed to be cut be replaced with the same number of trees of equal or greater caliper will help to mitigate the loss of such an important feature. Such an ordinance will help the Borough maintain its quality of life and distinctive small-town appeal in the face of new development.

According to the USDA Forest Service, “Trees properly placed around buildings can reduce air conditioning needs by 30 percent and save 20-50 percent in energy used for heating.” (www.saveatree.com)

Forest Service research shows that urban trees store an estimated 21 million tons of carbon, which translates to an environmental service valued at \$1.5 billion in economic benefits. (U.S. Forest Service)

Phasing

There are no impediments to beginning this recommendation, but drafting and implementing may take some time.

Cost and Possible Funding Issues

No additional cost to the Borough associated with this type of activity except staff time and the expense of advertising public hearings which are part of normal Borough operations.

Potential Partners

The ordinance can be written with assistance from the Montgomery County Planning Commission under the contract already in place with Collegeville Borough. Pennsylvania Horticultural Society, local environmental groups and volunteers could provide additional technical assistance.

Increase the tree canopy of the Borough. Enhancing the tree canopy throughout the Borough has a number of benefits, from stormwater control to aesthetics. In addition, shade from mature trees helps to reduce the urban heat island effect and contributes to Collegeville's small-town charm.

Phasing

This could be timed to coincide with prime planting seasons, the schedules of local environmental groups, residents, and volunteers, or whenever funding is available.

Cost and Possible Funding Issues

Grant funding will remain competitive, but opportunities do exist. These grants may require matching funds from the Borough. The Borough may want to pursue this whenever funding is available or as development occurs.

Potential Partners

Montgomery County Planning Commission would be a natural partner for technical assistance and development review. Grant funding and further technical assistance may be available from nonprofit watershed and conservation agencies, and DCNR.

Each year an average acre of mature trees absorb up to 26 pounds of carbon dioxide from the air, which is equal to the amount of CO2 produced by driving a car 28,000 miles. (Harvard University)

Implement the Stormwater Management program required for the PAG-13 Permit. The Borough was required by the Pennsylvania Department of Environmental Protection (PA DEP) to develop, implement and enforce a Stormwater Management Program under its existing PAG -13 permit. The Borough should continue to implement their Stormwater Management Program in the most sustainable manner possible.

Phasing

The Stormwater Management Program must be implemented within the first five-year permit term.

Cost and Possible Funding Issues

The cost of implementing this program falls on the Borough. Grants may become available through a number of sources that may help pay for this program, though the Borough cannot rely solely on these opportunities. Partnering with other municipalities or with non-profit organizations may reduce some of the financial burden when trying to implement the Stormwater Management Program.

Possible Partners

The Township could work closely with Ursinus College, the Central Perkiomen Valley Region, other municipalities, and with Montgomery County to help accomplish its Stormwater Management Program.

Restore streambanks through naturalization. Besides the aesthetic appeal, naturalized streambanks would provide improved water quality and help to reduce erosion along Collegeville's waterways. The Borough could also provide information to residents

through its website and links to resources to assist in the naturalization of privately-owned lands.

Phasing

Project planning could begin immediately or be timed to peak planting seasons, the schedule of local environmental groups and volunteers, or whenever funding or development opportunities become available.

Cost and Possible Funding Issues

Grant funding will remain competitive and most likely require a municipal match. Such funding could become expensive based on the scale of the project. Some of those costs could be deferred to developers by requiring streambank restoration as proposals come in.

Potential Partners

Montgomery County Planning Commission would be a natural partner for technical assistance and development review. Grant funding and further technical assistance may be available from nonprofit watershed and conservation agencies, and DCNR.

Protect floodplain areas through adoption of floodplain ordinance and implementation of best management practices. Floodplain protection and best management practices help to preserve water quality and prevent property damage by keeping development out of the floodplain. An updated Floodplain Ordinance is required by the Federal Emergency Management Agency (FEMA) in order to take part in the National Flood Insurance Program (NFIP). The Borough should adopt and implement the model floodplain ordinance prepared by Montgomery County Planning Commission.

Phasing

The Borough is reviewing and adopting the model floodplain ordinance as of this writing. Final adoption and implementation will begin upon finalization of the FEMA Floodplain Maps.

Cost and Possible Funding Issues

This activity should impose no cost to the Borough other than staff time and will help affected residents acquire flood insurance through the National Flood Insurance Program. It should be noted that affected homeowners will need to pay for this additional insurance.

Potential Partners

Montgomery County Planning Commission has provided a model that the Borough is currently adapting. Nonprofit Watershed and Conservation agencies, FEMA, and DCED may also be able to give technical assistance.

Work to naturalize Borough-owned land. Meadows and other naturalized areas provide valuable open space for residents, help to preserve habitats for indigenous wildlife, and assist stormwater management by reducing impervious surfaces. As part of its efforts to lead by example, the Borough could develop a stewardship plan to naturalize land that it owns and controls. This can work as a showcase for residents who may be looking to naturalize their properties. The Borough may also want to consider partnering with Ursinus College and other local institutions to naturalize their land and for technical assistance.

Phasing

Project planning could begin immediately or be timed to peak planting seasons, the schedule of local environmental groups and volunteers, or as funding becomes available.

Cost and Possible Funding Issues

Grant funding will remain competitive and most likely require a municipal match. Such funding could become expensive based on the scale of the project. This activity could save money, though, as meadows and naturalized

For every five percent of tree cover added to a community, stormwater runoff is reduced by approximately two percent. (Harvard University)

areas require less mowing and plant stocks in these naturalized areas can be used in other places throughout the Borough in need of restoration.

Potential Partners

Montgomery County Planning Commission and Ursinus College would be vital partners in researching and developing a stewardship plan. In addition, DCED and nonprofit watershed and conservation agencies may be able to provide technical assistance and grant funding if available.

SUSTAINABLE DEVELOPMENT

Goal: Ensure that all land use, zoning, and development policies and regulations support the community's sustainability goals.



ACTION ITEMS:

Explore sustainable designs of all retrofits and new construction on Borough Properties. In order to be a leader in sustainability, the Borough could consider sustainable design and building options whenever Borough-owned buildings are redesigned or constructed. Such improvements are often more expensive at the outset, but improved technology and savings from energy-efficient design may return the investment in the long run. In addition, this would be an investment in the overall health and well-being of residents and visitors to Collegeville, generating publicity for the Borough and local businesses.

Phasing

Retrofits will occur on an “as needed” basis. It is likely not cost effective to consider rebuilding or retrofitting Borough Hall at this time, but as repairs or redevelopment becomes necessary, sustainable design should be considered.

Cost and Possible Funding Issues

Although initial costs may seem high compared to traditional construction methods, sustainable building practices will save money in the long term thanks to energy savings.

Potential Partners

Montgomery County Planning Commission (MCPC) would be able to provide technical assistance and design review of any development proposed in the Borough as part of its existing contract.

Align codes with sustainability goals based upon the recommendations from the Zoning Ordinance and Subdivision and Land Development Ordinance audit. As part of this plan the Borough's Zoning Ordinance and Subdivision and Land Development Ordinance were audited to determine their compatibility with Collegeville's sustainability goals and objectives. The Borough's codes already have many features that support sustainability, like provisions for the use of small-scale renewable energy sources and requirements for sidewalks in new development, but there remain areas which can be amended to support sustainability initiatives. The full report is available as an appendix to this plan.

Phasing

Work on amendments to the Subdivision and Land Development Ordinance and the Zoning Ordinance can begin immediately, however the adoption process may take longer. In addition, the Borough will have to be aware of new technologies, techniques, and practices in the future, which may require future amendments. In order to ensure that all new development meets these standards and complies with the Collegeville's goals to improve the quality of life for all its residents, the Borough may wish to pursue this action item immediately.'

Cost and Possible Funding Issues

The only cost associated with these activities is the advertisement of public hearings required by the adoption process. These costs are minimal and part of the regular operation of the Borough; however additional staff time may be required.

Potential Partners

MCPC would be a natural partner for the Borough, helping to draft Zoning Ordinance and Subdivision and Land Development Ordinance amendments as needed. This service would be covered under the Borough's existing contract with MCPC.

Create neighborhood parks and open space within walking distance of every neighborhood in the Borough. Collegeville already has a number of community parks and trails, giving it a head start in providing safe and easy access to open space for all its residents. Still, there are neighborhoods where access to open space and recreation amenities is limited. The Borough may want to consider working to expand existing facilities and providing safe and easy access throughout the community.

Phasing

Research into appropriate or needed locations for trails and new open space can begin immediately, but acquisition and development will be a long-term project as funds become available.

Costs and Possible Funding Issues

Depending on the site and other variables, acquisition and development of open space can become expensive. Studies and planning efforts may be able to be included under the Borough's existing contract with the Montgomery County Planning Commission (MCPC), helping to reduce costs. Grant opportunities are currently available and more grants may become open to competition from various sources.

Potential Partners

Research and Planning could be completed by MCPC as part of the Borough's contract. Grant funding may be available from DCED, DCNR, other state and national grants. Further technical assistance and possible grants may also be available from non-profit conservancy Agencies and local watershed associations.

COMMUNITY ENGAGEMENT

Goal: Educate Borough residents about sustainability and build on partnerships with local and regional institutions, businesses, and stakeholders.



ACTION ITEMS:

Create a Collegetown sustainability website and expand the presence of sustainability on the Borough's website. As part of this plan a website was created to facilitate the sharing of information as the plan was researched and prepared. This site would be expanded and promoted as an outreach tool to residents and a clearinghouse for all things related to sustainability in Collegetown. The Borough could pursue a partnership with Ursinus College to have students update and maintain the website as part of an academic program. Further, on the Borough's homepage announcements regarding day-to-day Borough services and activities should reflect Collegetown's commitment to sustainability.

Phasing

An expanded web site for Collegetown municipal sustainability could be created immediately or upon adoption of the plan. More detail would be added as the website comes online. Although it can be started right away, this is a project that will need to be maintained on a long-term basis.

Cost and Possible Funding Issues

Municipal websites are inexpensive to open and operate; the only drawback may be the time Collegetown's small municipal staff may have to take to run the website.

Possible Partners

As mentioned above, tech-savvy students from Ursinus College with an interest in environmental issues, civic involvement, and web development would be a huge help running the website, freeing staff to focus on their traditional duties. In addition the CEDC, with its community events and contacts in Collegetown's business community, will be an invaluable partner.

Cultivate partnerships with organizations and institutions within the Borough, such as Ursinus College, the Collegetown Economic Development Corporation (CEDC), and the Perkiomen School District to promote sustainability. There are many opportunities for the Borough to partner with local institutions and businesses

71.7 percent of households reported accessing the Internet in 2011, up from 18.0 percent in 1997 (the first year the Census Bureau asked about Internet use) and 54.7 percent in 2003. (U.S. Census)

to promote sustainability. These organizations also have technical expertise on a wide range of sustainability-related topics, from environmental studies and education to community outreach and public events. These institutions are resources that will help the Borough spread the word about its efforts to become more sustainable.

Phasing

The Borough already has a strong working relationship with the CEDC and is on good terms with the local educational and cultural institutions. These relationships could be expanded immediately upon adoption of the plan. Farther-reaching studies and projects can be initiated as these partnerships develop.

Cost and Possible Funding Issues

Although cultivating partnerships should cost the Borough very little, overall costs will be determined by which projects are chosen to pursue. In addition, the amount of time staff can devote to this will need to be considered.

Possible Partners

Ursinus College, Perkiomen Valley School District, Collegeville Economic Development Corporation

Sponsor and encourage community involvement in sustainable activities throughout the Borough. Using resources like the new website, community events, and events at local institutions and businesses the Borough can promote its sustainability activities and enlist residents to take part in future activities.

Phasing

This effort can begin upon adoption of the plan or launch of the sustainability website.

Cost and Possible Funding Issues

There should be very little cost associated with these activities, in many cases the community events are already part of the municipal budget, if the Borough is involved at all. Any costs would come from the expense of producing handouts and other materials and staff time.

Potential Partners

Ursinus College, Perkiomen Valley School District, Collegeville Economic Development Corporation

Promote local foods through the support of community gardens, farmers' markets, and buy local initiatives. The Collegeville Farmers' Market has successfully brought fresh, local food direct from over twenty five farmers and vendors into the community. With continued support from the Borough the Farmers' Market can expand and establish itself as a regular event for the entire Central Perkiomen Region. Further, community gardens and buy local programs will increase the variety and availability of fresh, local food and help stimulate the local economy. The Borough could look for ways to promote and support these types of programs

Phasing

This effort is already under way, the Collegeville Farmers' Market has been up and running for several years with the support of the Borough. Expansion of that support could be initiated immediately upon adoption of the plan, but time may be needed for the planning process and implementation. Establishing new community gardens and supporting existing ones may take more time as research may be needed to determine the best locations.

Cost and Possible Funding Issues

There are virtually no additional costs associated with promoting existing programs and the Farmers' Market. Establishing new community gardens or

Princeton, New Jersey is an excellent example of an institution, a community, and private industry partnering to promote and support sustainable activities. The University's Employee Solar Program, provides assistance and guidance to university employees looking to install solar panels at their homes. (Princeton University)

buy local programs may require some funding from the Borough. However there are grant opportunities for these initiatives as well, potentially offsetting the associated expenditures.

Potential Partners

Ursinus College, Collegetown Farmers' Market, CEDC, Montgomery County, local food nonprofits (are there any?)

TRACK PROGRESS

Goal: Monitor progress and regularly reevaluate sustainability goals and objectives to reflect changing times and conditions.



ACTION ITEMS:

Develop a process so that progress towards the Goals and Objectives can be tracked and publicized. As part of the Borough's efforts to give sustainability a larger presence on its website, it can also use that as a tool to track its progress and post updates on its achievements. Publicizing these sustainability victories will help to increase public awareness and spread the word about sustainability. The Borough can also continue to use the Energy Star Portfolio Manager and DVRPC's Baseline Analysis Tool to track how much is being spent on fuel and electricity and where improvements can be made to cut costs and greenhouse gases.

Phasing

Part of this project is already under way. As part of this plan the Borough tracked its energy consumption and GHG emission through the DVRPC Local Energy and Greenhouse Gas Baseline Analysis Toolkit for 2010. This is a long term goal; publicizing results may take some time as these achievements are to be measured over several years.

Cost and Possible Funding Issues

The toolkits are available publicly and free of charge to municipalities, therefore funding is not an issue. Taking the time away from Collegetown's small staff may prove to be an issue

Possible Partners

The Borough may want to partner with Ursinus College students to maintain and update a municipal sustainability website and add content when the Borough has results to publicize. Interested college students or even high school-level student interns may be available to input the data into the toolkit, saving time for municipal staff.

