

The regular meeting of the Environmental Advisory Council (EAC) was held tonight.

Members present were Dottie Baumgarten, Martin Carey, Barbara Duffy, Deb Forman, David McVeigh-Schultz, Lorna Rosenberg. Ex-officio Member: Sandra Cohen, Janet Starwood. Other Guests: Lara Drawing, Robin Eisman and Tom McHugh. The Township Liaison present was Nancy K. Gibson, Public Information Officer. (See attached attendance sheet.)

1. **Call to Order** – Chairman Schultz called the meeting to order at 7:35 p.m.
2. **Acceptance of Meeting Minutes** – Mr. Schultz asked for a motion to approve the November 19, 2012 minutes. Mr. Carey made a correction to Item 3D: the cost for the Google Apps for Business is \$50 per user per year, not per month. Ms. Baumgarten made a motion to accept the minutes as corrected; seconded by Ms. Duffy. The motion was unanimously approved.

3. **Committee Reports:**

A. Energy – Mr. McHugh reviewed some of the informative charts included in the Sustainability Plan, which compared Cheltenham's standing relative to others (see attached). He didn't know if the recycling statistics included leaves and garden debris, which he thought might not be appropriate. Ms. Rosenberg commented that it depended on whether the leaves were being diverted from the trash stream. Mr. McHugh also reviewed current electric rates and noted the lowering rates for non-renewable energy, which might competitively hurt renewable sources. Mr. Schultz asked whether the final capital budget included conversions from oil to natural gas at the Emergency Medical Service (EMS) facility, Westside Courthouse and Glenside Library. [Acting Township Manager Havar indicated that only the EMS conversion has been programmed into the capital budget.

Montgomery County may discontinue use of the present courthouse facility in the near future, and an efficient new oil tank was recently installed at the library. Extending the natural gas line to the library would require traversing a stream, which would greatly add to both the complexity and cost for such a project.]

B. Water Management – Ms. Duffy presented the Watershed Report (see attached). Mr. Schultz added that Envirosapes won the bid for the next phase of streambank restoration work in Ralph Morgan Park. In addition, relining of the Interceptor A sewer line from Rices Mill Road to York Road is underway, which fortunately does not entail major excavations.

C. EAC School Board Liaison – Ms. Rosenberg presented the following report:

- Cedarbrook teacher Karen Shaffran and her students will be working with Energy Efficiency Consultant Paul Spiegel of Practical Energy to implement energy demand reduction program for the school. They have the utility bills and will start with Energy Star Portfolio Manager Assessment.
- The School Board will be considering a district wide "green policy" for energy, water, waste reduction, etc., in early 2013. A draft was created, which the board must discuss before adoption.
- ECA Energy Works program will be hosting at least three more outreach sessions through the Cheltenham Schools United Parents Group. As a result of the first Energy Works presentation in October, five home energy audits have been conducted and five more are scheduled. Students will be shadowing the Energy Auditor to learn about home audits.
- The Cheltenham High School will be re-invigorating its organic garden and greenhouse for the spring of 2013.

D. Communications – Ms. Baumgarten presented a Communications report (see attached). She clarified that Google Apps for Business includes features for collaboration internally among the EAC and subcommittees and communication with outside audiences. Mr. Carey said Google Apps for Business includes email, internal and external calendars, website groups, and internal and external communication features, including

sharing documents and other resources in a single location. He signed up for a demonstrative version to better understand the features. Although not required, assistance in the initial setup would cost \$500. The annual cost for 25 users would be \$1,380. An additional 50GB of storage would cost \$90, but it is unlikely the EAC would exceed the initial storage capacity for quite some time. Ms. Forman questioned if accepting Mr. Macchi's offer for funding from Arcadia University might pose a conflict of interest. Ms. Gibson said the proposal would require approval from the Commissioners via the normal procedures. Mr. Carey will contact Mr. Macchi informally to determine if the offer Mr. Macchi mentioned at the November meeting is firm.

4. Old Business:

A. EAC Committee Membership – Mr. Schultz asked members to identify at least one in-person meeting per year for each committee, so meeting locations, such as libraries or community centers, can be arranged. He added that 22 people have been identified as possible candidates for committee membership, and some have already responded. Mr. McHugh reiterated his hope that all of the original members of the Sustainability Committee will be invited to participate.

B. Herbicide Control – Ms. Duffy reviewed the draft recommendations for herbicide control (see attached). She emphasized the professional qualifications of consultant John Munro. The recommendations cover issues like professional qualifications, record keeping, advisory signage and herbicide type. Mr. McHugh suggested simplifying the language. Ms. Foreman recommended adding an introduction that emphasizes the Township's commitment to sustainability while explaining the need

for occasional herbicide use. Ms. Duffy will review the draft recommendations with Township Public Works staff and report back to the EAC next month.

C. DEP Educational Grant – Ms. Baumgarten reported a disappointing five attendees at the November 28 program on Clean Water Partners at Curtis Hall. She is considering changing the second program to reach a bigger audience, possibly in concert with the Glenside Chamber of Commerce. She will discuss her program at an upcoming meeting of the Township's Economic Development Task Force.

5. New Business – No items.

6. Announcements:

A. A public meeting with the Army Corps of Engineers (ACOE) has been scheduled for January 30, 2013, for a status report on the existing-conditions analysis and data collection on Tookany Creek Feasibility Flood Study. [Note: The meeting will be held at Glenside Hall, beginning with an open house to review study materials at 6:30 p.m. and the ACOE presentation at 7:00 p.m., followed by questions and answers.

B. The Township received a \$100,000 DCNR grant for High School Park, Phase II to address the edge community around the meadow and define internal pathway connections, rain gardens and interpretive signage.

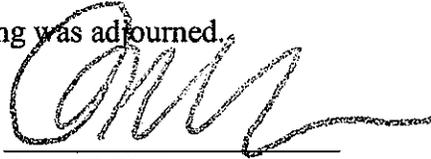
C. A public hearing for the Riparian Corridor Conservation District Ordinance is expected to be scheduled in February 2013.

7. Citizens Forum – Ms. Drawing, an Abington Township resident, submitted numerous changes for consideration to the Herbicide Application Recommendations. She felt it should include a statement that herbicides should only be used if absolutely necessary.

December 17, 2012 7:30 p.m.
Richard Wall Carriage House

She was disappointed that she was not invited to participate in drafting the recommendations.

8. Adjournment – Mr. Schultz made a motion to adjourn the meeting; seconded by Ms. Rosenberg and approved by Committee. The meeting was adjourned.



Bryan T. Havir
Acting Township Manager

Submitted by:
Nancy K. Gibson

Watershed Committee Report: EAC Meeting December 17, 2012

* **Watershed Committee-** met on Thursday, December 13th to discuss the draft proposal for **Herbicide Application Recommendations** for the township parks and our riparian areas specifically to combat noxious non-native invasive species. A model proposal was reviewed by the committee from our consultant John Munro (See Mr. Munro's professional background below). His draft was revised and added to by our committee and now needs to be reviewed by township staff as well as reconsidered by John Munro (who volunteered to review our final draft prior to public review). The final draft of the proposal will be presented and discussed at our January EAC meeting.

John Munro joined the Temple University Department of Landscape Architecture and Horticulture in August 2010 as a full time instructor in the new Master's Degree program, Master's Degree in Landscape Architecture with a concentration in Ecological Restoration. He has taught for the prior three years as an adjunct instructor with the Department. His undergraduate work was in Biology at Eastern University.

He has specialized in Ecological Restoration work for the last 20 years and has worked on projects that have included, restoration of forests, shrublands, grasslands, saltmarsh, freshwater wetlands, swamp forest, and bogs. He has acquired particular skills in design of stream, river and slope restoration projects using eco-structural design methods. He is one of only a few persons worldwide who has worked extensively in large scale vegetation salvage work including the invention of highly specialized equipment for that purpose.

John has worked in ecological consulting for over 30 years as an applied ecologist working in terrestrial, wetland and waterways projects across Eastern North America. His professional experience includes extensive work in wetland delineation, wetland mitigation design, and oversight of installations of major design projects. He has documented, mapped, and written about vegetation and land cover for a large number of projects from one acre size to statewide projects. His clients have included small private, corporate, to township, county, state and federal governments.

The committee reiterates that over the years the township has struggled with the challenge of dealing with noxious non-native invasive species and has used countless volunteers to combat the invasives with non-chemical methods such as cutting back and pulling out invasives only to have the invasives come back larger and stronger and continuing to smother newly planted natives. Herbicide applications were then investigated and chosen after careful risk assessment. This committee has chosen to draft a statement to post on the EAC website to explain the township's commitment to environmental health and to possibly aide in grant proposals. We agreed that the township needs to take a short term risk by using herbicides to create a long term benefit, a health native ecosystem.

* **Watershed/flooding Ad Hoc Committee-** did not meet this month.

***Riparian Corridor Conservation District Ordinance-** Public education and ordinance overview meetings were on Thursday, August 23rd (Curtis Hall) and on September 18th (Glenside Hall). The Public Review meeting has not been scheduled but is targeted for February or March of 2013.

***TTF Watershed Partnership** - We continue to work with TTFW Partnership to create a watershed education programs tailored to needs of various community groups throughout the township. Our next presentation is scheduled for March with the Wyncote Audubon Society.

* Preliminary planning for **Earth Day projects and festival** has started—Date will be in May (Which Saturday has not been confirmed at this time.) Cedarbrook Middle School will be hosting since they have several grants that require public education. Primex has expressed interest in participating to help celebrate their 70th year in business. **Need for volunteers to help with the planning. We will continue to reach out to the Sustainability Committee & other active community members.** Please refer volunteers to Barbara Duffy 215-885-1506

* **Native Plant ordinance**- this draft ordinance is completed and still needs to move onto the next step, but is on hold due to the focus on the flooding issues and Riparian Corridor Conservation District Ordinance.

Submitted by Barbara Duffy

Herbicide Application Recommendations
By the Watershed Committee of the Cheltenham Environmental Advisory Council
In consultation with John Munro, Munro Ecological Services

PROFESSIONAL CERTIFICATIONS

Ecological Society of America: Ecologist, 1983, Senior Ecologist, 1988 to present

Society of Wetland Scientists: Professional Wetland Scientist, 1994 to present

1. The Township of Cheltenham will follow appropriate Commonwealth and Federal regulatory guidance regarding herbicide application, notifications, and pesticide hypersensitivity, and all of the requirements listed below.
2. Any application of herbicide in township parks or bird sanctuaries will be conducted by a fully trained and certified professional, who follows label restrictions and recommendations when using glyphosate or any other herbicide. Herbicide application will never be conducted by landscape crews, as they are not trained to recognize and preserve native plants. Certified professionals will also be highly trained in controlling herbicide spray droplet size so that they are large enough to prevent fine mist generation and small enough to minimize drip-off of herbicide from the leaves to the substrate.
3. All specification of herbicide use in Township parks will be via generic chemical name (not manufacturer or brand name) and spray method, % concentration, the presence and type, or absence of surfactant, and the dye colorant specified.
4. A dye or colorant will be required with any use of glyphosate spray in order to both confirm that spray has been applied approximately, and so that park users see where the (otherwise colorless) spray has been applied.
5. A log of herbicide use per acre, per location, per year, will be kept on file, so that cumulative amounts of glyphosate applied can be tracked, as is done on farms where glyphosate is used much more heavily.
6. Advisory signage will be placed several days before spray around the park areas to be sprayed and placed at lawn/natural land interfaces (approximately every 80-100 feet) and trail entrances. Signage will inform the reader of the proposed timing of the spray work and the material being sprayed. Signage will be kept in place for a minimum of 8 weeks after the spray work is completed. Trail closure is required during, and for at least 4 days after active spray periods. Signage notice will be provided as a courtesy so that those wishing to stay clear know to do so and the warning will provide instructions to parents and pet owners to monitor and control their children's or pet's activities in an area where spraying has taken place. The Township has used several texts for informative signage in past projects. Signage should be easily readable (14 point type and much larger and bolder headlines) and placed on stakes that are about 4 feet height. Deer fencing will be erected in the months following any riparian plantings that take place following the eradication of invasive plants. The fencing will restrict human access to the site as well. Follow-up spot spraying of glyphosate in newly planted areas will not be conducted until this fencing has been erected.
7. Glyphosate is the herbicide specified for use in Township Parks.
8. Where wetland or waterways are present, glyphosate without surfactants is required.

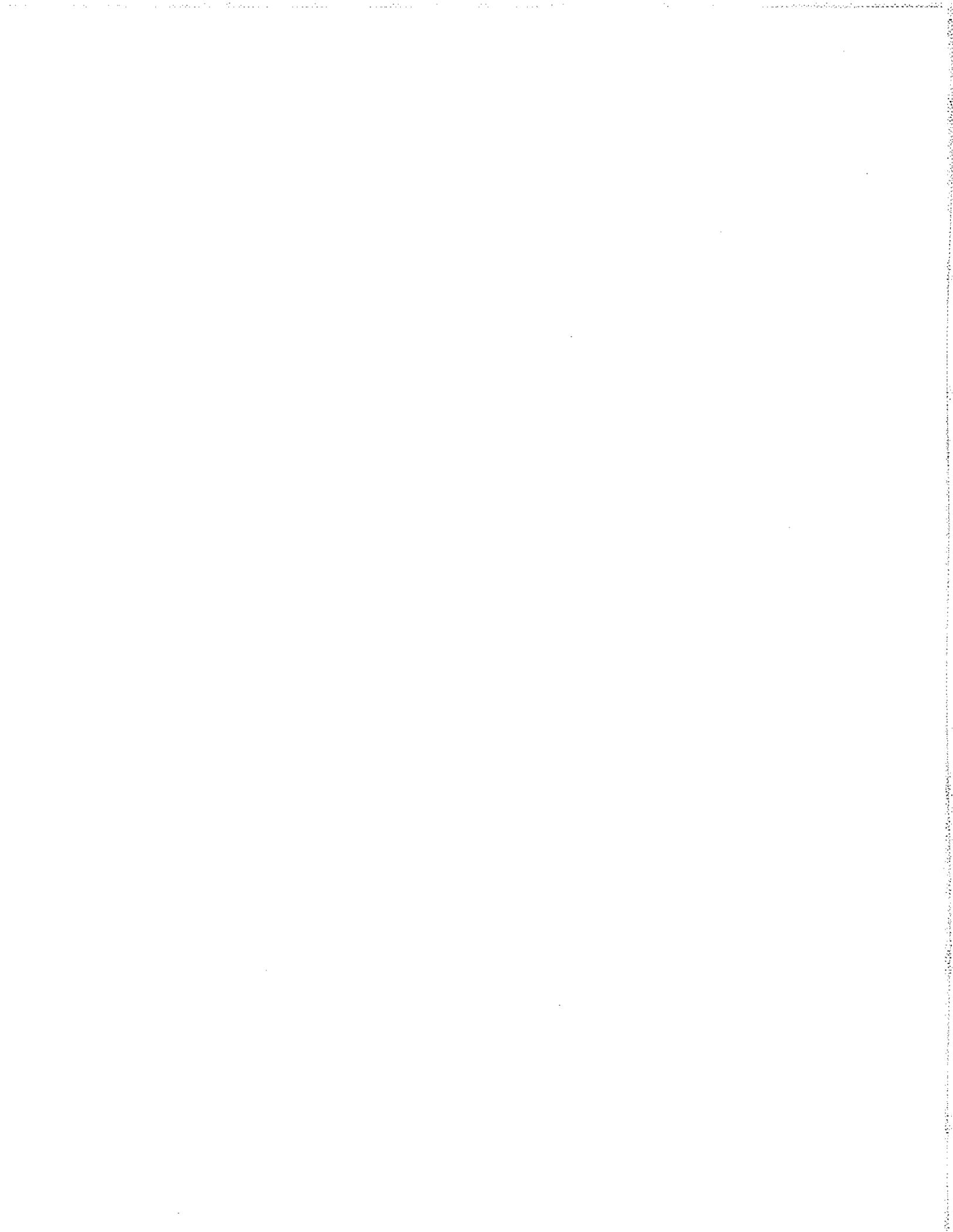
9. Spraying with glyphosate with surfactants will not be permitted in Cheltenham's parks and bird sanctuaries. Instead, alternative means of eradication will be conducted in Cheltenham's parks and bird sanctuaries. Cutting is recommended in any location. Spraying glyphosate alone, and painting glyphosate with surfactant on the girdle cuts of woody plants are permitted outside of waterways, and wetlands. Digging and removal of shrubs and vines is recommended except in waterways or on slopes.
10. Removal of exotic invasive plants within 50 feet of children's play structures requires mechanical methods (excavation, soil replacement) or cut and paint application of glyphosate (20%) without surfactant on basal stems for woody stock that cannot be mechanically removed.
11. Primary spray use for glyphosate spray is to be conducted in the Months of June through August. Follow-up spot spray in eradication protocols may be done during August and September. Cut and painting use of 20% brush painted, dye added glyphosate on fresh cut basal woody stems may be done outside of the wetland area during any month, but only June through February in the wetland.
12. People doing planting work in township parks are advised to use garden gloves. For volunteers, such gloves will be provided and required. Soils in parks are likely to contain rusted metal pieces and sharp glass. Long sleeve clothing and ability to identify poison ivy should also be required.
13. Eradication of exotic invasive plants in Township parks will be followed by dense planting of native plants a minimum of 2 months later or the following season after eradication has been confirmed.
14. Woody invasive plants will be treated by cutting or "girdling" around the branch. That will be followed by painting a small amount of herbicide with surfactant on the cut area, except in waterways and wetlands.
15. It is recommended that vines such as bittersweet, Japanese honeysuckle, and porcelain berry be cut annually, or dug out by the roots, in order to avoid any herbicide spraying of these plants. Cutting vine stems to a stub at the ground, and painting the stub with glyphosate with surfactant will also be permitted, except in waterways and wetlands.
16. Rhizome plant colonies thrive in moist, rich soil and are especially troublesome along riverbanks where they expand rapidly by underground runners, which grow out from the main root and send up new shoots. For rhizome plants, such as knotweed and the common reed (*Phragmites*) the following multiple treatment approach will be required:
 1. depletion of the reserves stored in the rhizomes in late spring, and
 2. injury through use of systemic herbicides in the late summer.
The stems will be cut and destroyed (not mulched) no sooner than May 14 and no later than June 14. The regrowth after cutting at this date is much shorter than the original growth - it's 3 to 4 feet tall rather than the 6 to 10 feet of growth that was there at cutting. (This shorter canopy will be much easier and safer to treat, and will enable the professional that is spraying to apply less glyphosate with a more selective application. Applying less glyphosate will also help protect existing or newly installed plants adjacent to rhizomes.)
 3. Follow-up glyphosate spot treatment, in the second year will be required for rhizome plant removal, preceded by inspection of re-infestation and cutting of regrowth on the

same schedule as indicated above. Third year inspection is recommended.

4. Deer fencing that is erected as protection for native plants, must remain in place for a minimum of two years after erection in rhizome infected areas, as an additional protection against exposure to repeated follow-up spot spraying of these areas.

Note: Though outside of the purview of this proposal, we strongly recommend that the township require deer fencing to remain in place as long as 5 years to protect tree saplings from damage.

17. The Township's Department of Public Works will reallocate any park maintenance labor hours that are reduced for the purpose of improving the park's sustainability, (such as reduction of mowing) to the cutting of invasive vines in areas where riparian plantings have been conducted.
18. In the event that these policies are approved by the Township administration, the Environmental Advisory Council will review the implementation of these policies one year after their approval, and will reevaluate the policy itself 5 years after its approval. The Township's riparian area design consultant and the management of the Public Works Department will participate in each of these reviews.



FACT SHEET

CHELTENHAM TOWNSHIP PARKS INVASIVE EXOTIC PLANT ERADICATION PROJECT

Cheltenham Township Parks were established for passive and active recreation as well as preservation of natural plant communities that sustain native birds and animals. Several of the parks were established specifically as bird sanctuaries.

Since that time the exotic (from other continents) plants arriving as weeds and ornamental plants from places like Asia and Europe began to spread from backyards and rail or road corridors into parks. Even birds, particularly European starlings and English sparrows, aided in the spread of exotic plant seeds. Since the 1970's the rapid growth of exotic plants (invasive characteristics) has proceeded at an ever increasing rate. As the number of exotic species increase, and the area of exotic plant dominance becomes more substantial, the transformation of Cheltenham township Parks from wild natural plant communities to exotic plant thickets or morasses becomes more complete. Now it is sometimes difficult to find a remnant native shrub or wildflower in many parks.

The herbaceous layer, along the ground where ferns and wildflowers once dominated is now replaced by garlic mustard, goutweed, and Japanese honeysuckle.

The shrub layer once dominated by spicebush, blueberries, witch hazel, hazelnut and 30 other native shrubs have been largely replaced by Japanese knotweed, Wisteria, various shrub honeysuckles, and *Seybold viburnum*, all exotic.

The forest canopy has become compromised by growth of porcelainberry, Wisteria, English ivy, and Asiatic bittersweet. Even the native grapes, spurred to aggressive growth by elevated levels of carbon dioxide are more vigorous. The treetops are being shaded out by exotic vine leaves. The weight of the vines causes greater stress on branches and trunks. The additional moisture of vines on tree bark cause greater amounts of fungal growth. The trees are overwhelmed and are felled by winds.

In the native eastern deciduous forest, where native tree seedlings formerly grew to replace fallen trees, now the acorns and hickory nuts fall and are shaded out by exotic vines and herbs. The seedlings (if they sprout) are quickly eaten by deer at ten times their natural density and prefer to eat native plants and avoid exotic plants. In short, almost none of the formerly dominant native trees are being replaced in the forest. What replaces them are exotics such as Norway maple, Tree-of-heaven, and Princess tree, along with some low value native boxelder and silver maples.

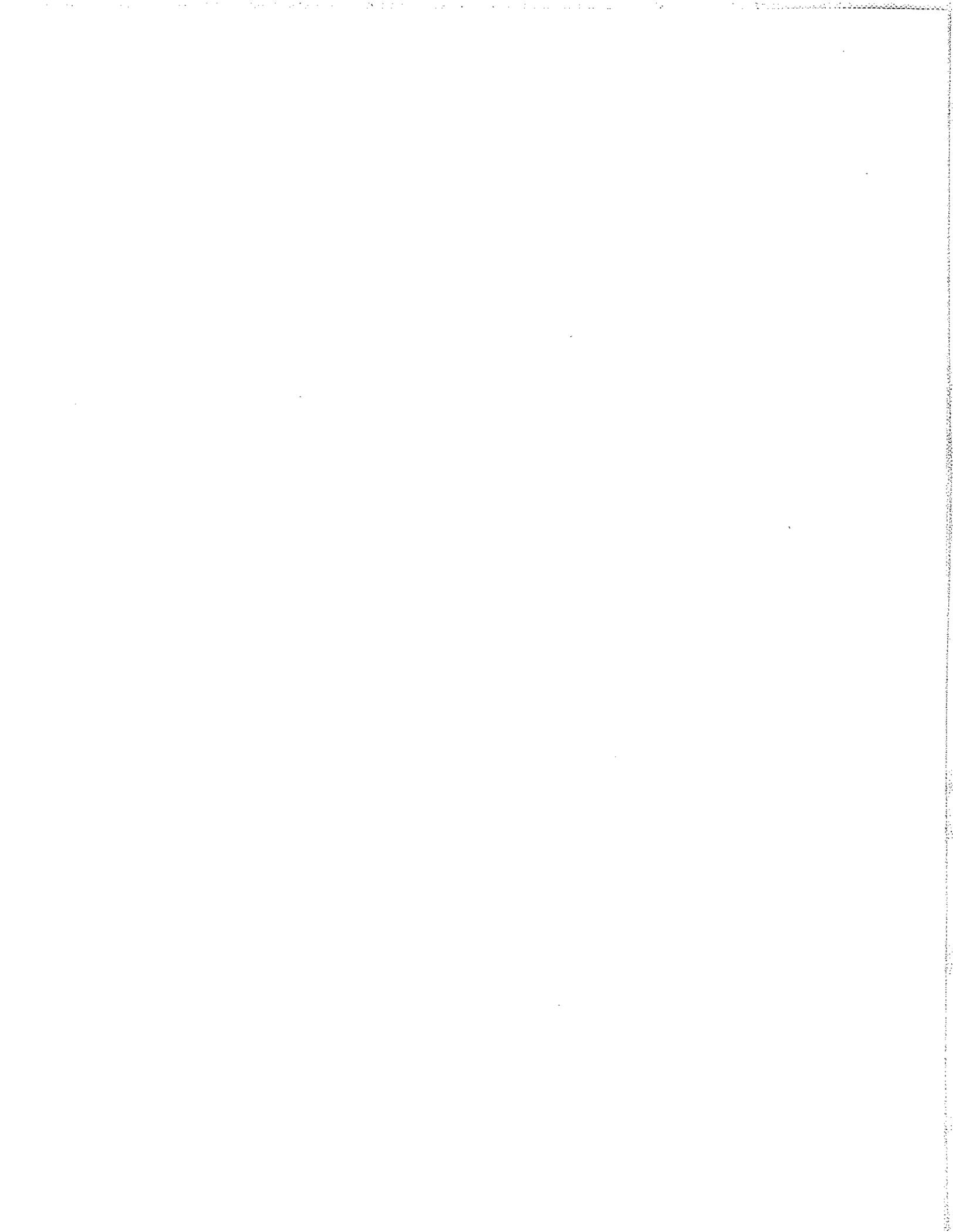
This recent history of a forest cover with a history of hundreds of thousands of years unintentionally being replaced by species from another continent provides the reason and the need that the Township has chosen to act upon to ecologically restore, to the extent possible, the native forest communities that have been heavily impacted. The strategy being employed here (as in many other parts of the world where similar exotic species invasions are occurring) is to:

First – Eradicate a majority of the exotic plants and place mulch to stabilize the surface. This step looks ugly with all of the dead plants, but remember that these are all invading exotic plants.

Second – Re-introduce the lost herbs, trees, and shrubs. They will take time to plant and grow. The birds and animals will have more suitable food and shelter.

Third – Begin to rebuild the soils that have also become impacted.

The Township of Cheltenham requests your patience and support while this restoration process is underway.



EAC Communications Committee Report, December 17, 2012

There were two newsletters that were sent since our last EAC meeting, and one Communications meeting on December 10, 2012:

Newsletter November 20, 2012

Shop, Nibble and Sip For a Good Cause: Support Tookany/Tacony-Frankford Watershed Partners while shopping at Dovetail Artisans in Glenside on Tuesday, Nov. 27 from 5:30-8:00PM.

Clean Water Partners Business Seminar: Businesses large and small can learn simple steps that can help make our water cleaner at a free seminar on Wednesday, Nov. 28 at 8:30 AM at Curtis Hall.

Newsletter December 7, 2012

Sustainable Cheltenham: The Public Works Committee will review the proposed Sustainable Cheltenham Plan on Wednesday, Dec. 12 at 7:45PM, Curtis Hall, 1250 W. Church Road in Wyncote.

Sustainable Cheltenham 10 Goals: Read the 10 goals of Sustainable Cheltenham.

New Electronics Drop-Off Recycling Program Begins in January: Cheltenham expands its recycling program again!

Tree Tender News, Tookany/Tacony-Frankford Partners: Learn about planting and caring for trees at a TTF and Philadelphia Horticultural free event Dec. 12 from 6-8PM at Awbury Arboretum.

Deadline for Ordering Automated Recycling Cart Size is Jan. 2 Automated recycling is coming to Cheltenham Township on April 1, 2013.

EAC communications committee meeting, December 10, 2012

Attending: Dottie Baumgarten, Deb Forman, Martin Carey

We met to discuss Martin's proposal for EAC communications structure based on Google Apps.

Basically, Google apps can be used for communication (reaching out to others) and collaboration (internal email between each other, documents, projects).

There's quite a bit of potential. Martin will communicate the detailed proposal.

We are recommending that we use Google Apps for EAC communication and collaboration.

We are recommending that we fund this from more than one source, to avoid any appearances of undue influence.

Martin has offered to set up the system and Deb has offered to maintain the system.

We are recommending that we start with this:

1. Set EAC members and committees with a sustainable Cheltenham email, based on the structure of four workgroups
2. Set up an EAC calendar for collaborations
3. Committee chair can manage committee calendars, which are accessible (viewed) by everyone.
4. Set up the drive (place of storing information and documents) to hold our meeting minutes and documents

Martin is setting up (not visible to the public) an EAC Website. Deb has created the website and is expecting that we can view it and discuss it.

Respectfully submitted,

Dottie Baumgarten

Cheltenham Township EAC Meeting December 17, 2012

Energy Committee

- A few highlights from the draft sustainability plan
 - GHG Emissions - Cheltenham vs. US, DVRPC & MontCo per capita
 - Recycling of waste – Tonnage per capita of waste and recycled material
 - Public Transportation – Cheltenham about 3 times higher than National average but still too many people get to work by SOV
 - Street lighting and traffic signal costs – How many street lights? – How many lumens? – How much is the tap (distribution) fee?
 - Township Energy costs – Buildings/Outdoor Lighting/Vehicles
 - Regional GHG – 31.1% from transportation
 - Color Maps
 - Population per acre
 - GHG emissions per acre
 - GHG emissions per population
- Latest Electric Price to Compare Data from PECO
- Latest PECO kWh Rate
- Latest PECO Natural Gas Rate

Energy Data for Township Buildings (Based on DVRPC Energy Analysis Toolkit):

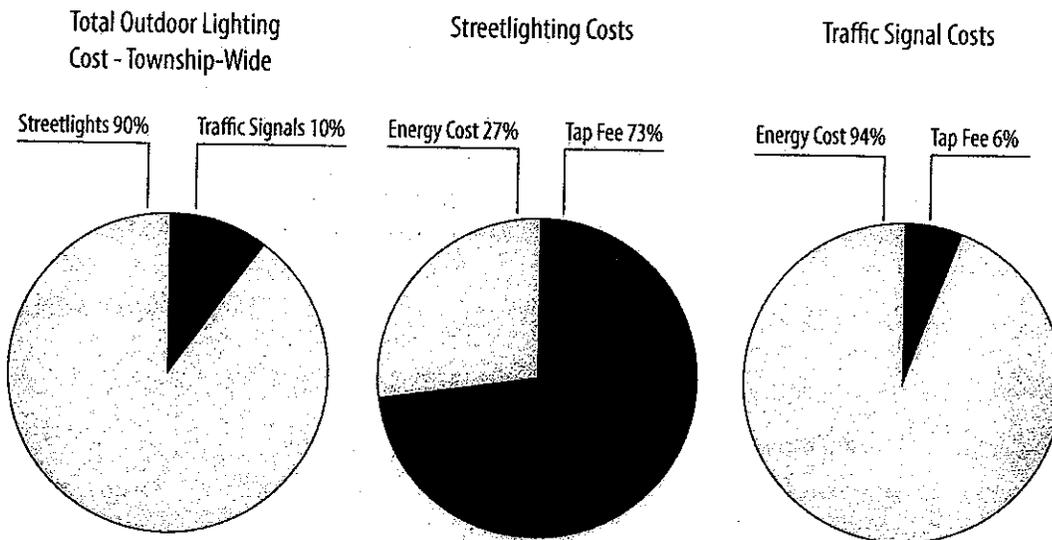
The purpose of the toolkit is to provide local governments with the ability to generate an energy use, cost and GHG emissions baseline of local government operational sectors using EnergyStar Portfolio Manager data and other EXCEL-based programs.

Energy Data for the Township Fleet (Based on DVRPC Energy Analysis Toolkit):

The purpose of the toolkit is to provide local governments with the ability to generate an energy use, cost and GHG emissions baseline of local government operational sectors using EnergyStar Portfolio Manager data and other EXCEL-based programs.

Energy Data for Township Outdoor Lighting (Based on DVRPC Energy Analysis Tool):

The purpose of the toolkit is to provide local governments with the ability to generate an energy use, cost and GHG emissions baseline of local government operational sectors using EnergyStar Portfolio Manager data and other EXCEL-based programs.



| | |
|-----------------|---------------|
| Streetlights | \$ 367,792.91 |
| Traffic Signals | \$ 42,103.74 |

| | |
|--------------|---------------|
| Streetlights | |
| Energy Costs | \$ 100,995.83 |
| Tap Fee | \$ 266,797.08 |
| Total Cost | \$ 367,792.91 |

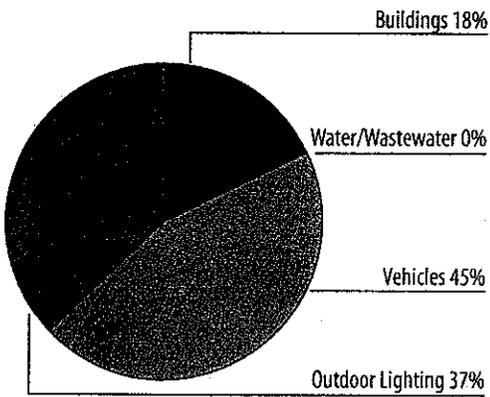
| | |
|-----------------|--------------|
| Traffic Signals | |
| Energy Costs | \$ 39,499.74 |
| Tap Fee | \$ 2,604.00 |
| Total Cost | \$ 42,103.74 |

SUSTAINABILITY RESOURCES

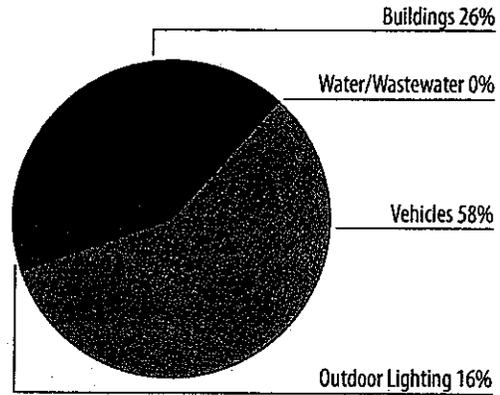
Summary of Township Energy Data (Based on DVRPC Energy Analysis Tool):

The purpose of the toolkit is to provide local governments with the ability to generate an energy use, cost and GHG emissions baseline of local government operational sectors using EnergyStar Portfolio Manager data and other EXCEL-based programs.

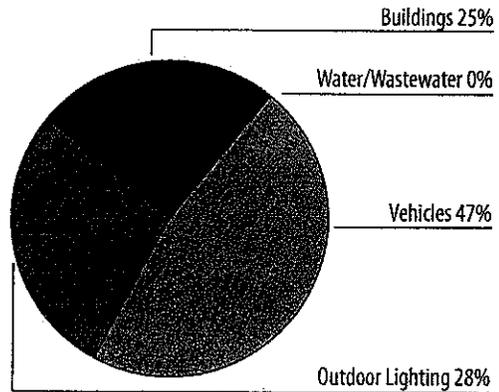
Energy Cost



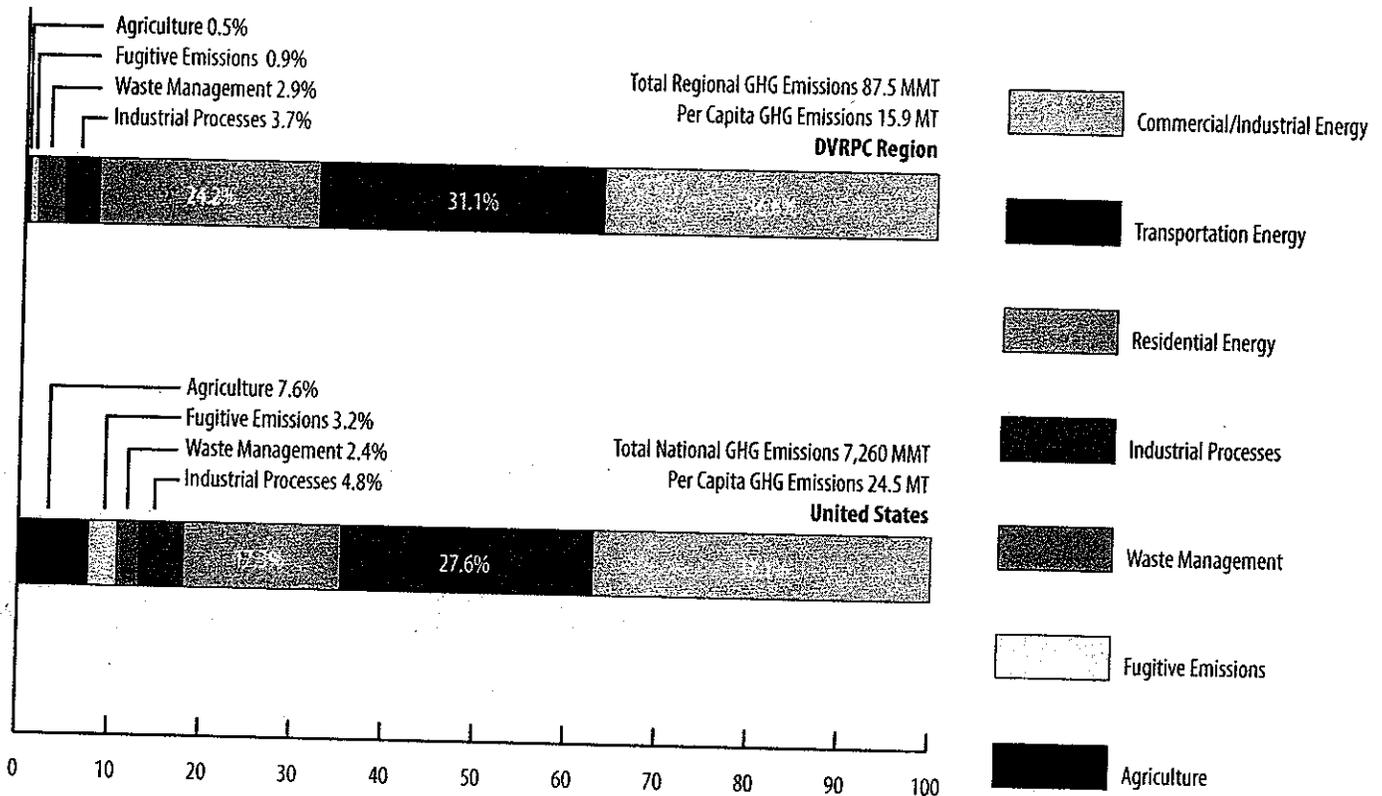
Energy Consumption



GHG Emissions



Regional GHG Emissions Data from the DVRPC
 Regional GHG Inventory Report:
 The full report and a description of the
 methodology used can be found on the DVRPC
 website at [http://www.dvrpc.org/energyclimate/
 inventory.htm](http://www.dvrpc.org/energyclimate/inventory.htm)



QUOTED FROM THE DVRPC REGIONAL GHG INVENTORY REPORT:

Figure 7 shows how the municipalities in the region differ from each other in density of population and employment. Figure 8 and Figure 9 illustrate the results of the municipality level greenhouse gas emissions allocation and their relationship to density in two different views.

Figure 8 shows greenhouse gas emissions per acre by municipality for the DVRPC region. 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 9 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.

Figure 7:
Population + Employment per Acre
by Municipality (2005)

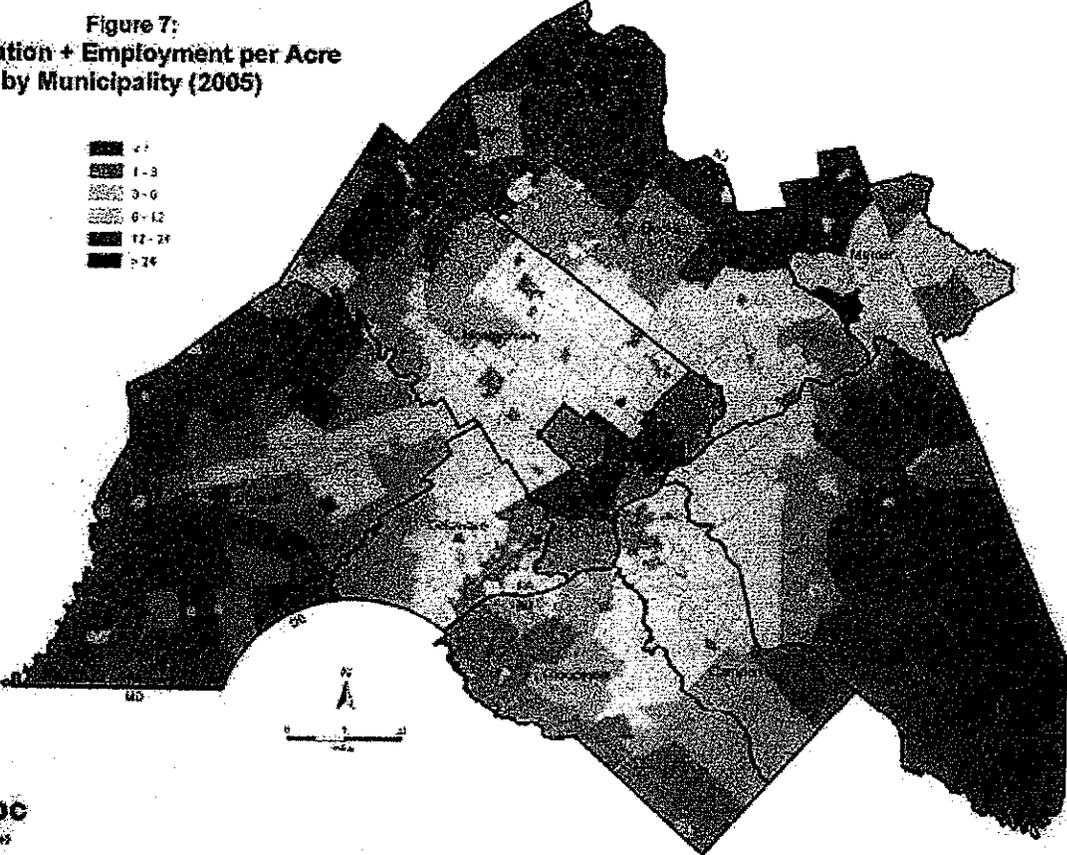
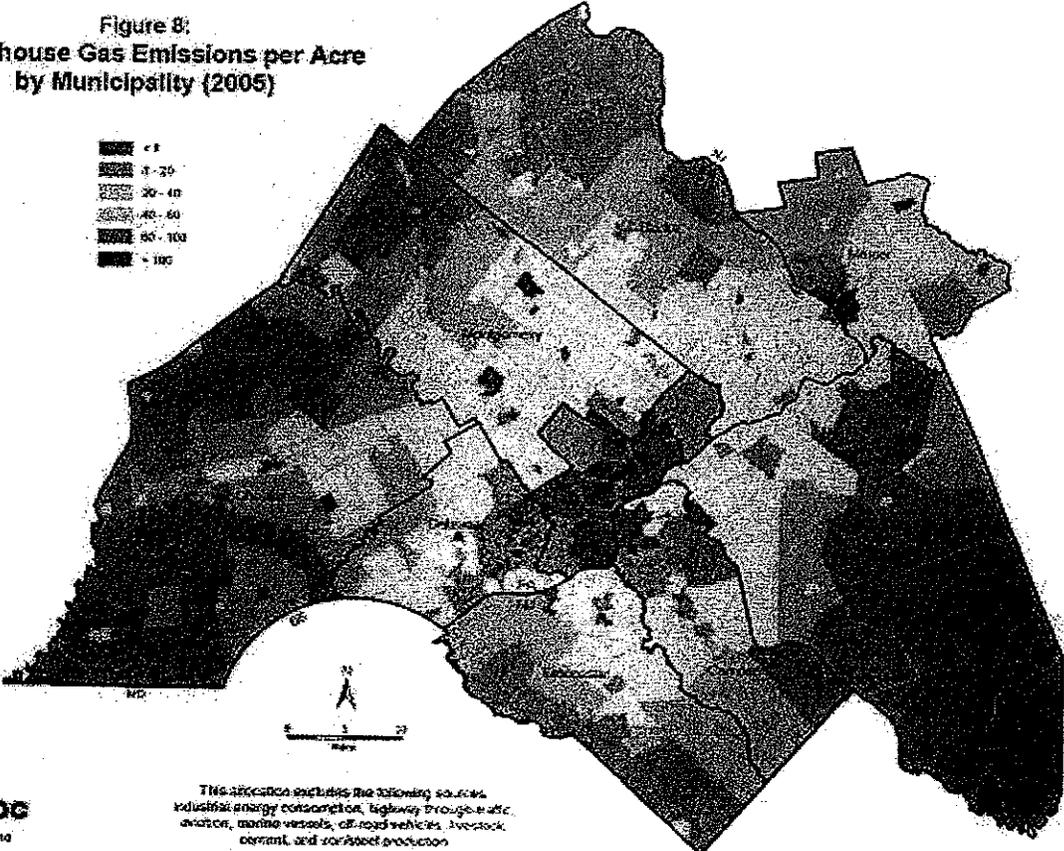


Figure 8:
Greenhouse Gas Emissions per Acre
by Municipality (2005)



This emission excludes the following sources:
industrial energy consumption, highway through traffic,
aircraft, marine vessels, off-road vehicles, livestock
ferment, and non-fuel production

Figure 9:
Greenhouse Gas Emissions per Population +
Employment by Municipality (2006)



Energy Use and Emissions Totals for
Cheltenham Township (Based on DVRPC
Regional GHG Emission Report):
MT = Megaton

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/gplocator.htm>
- Power Profiler, [\[gy-and-you/how-clean.html\]\(http://www.epa.gov/cleanenergy/energy-and-you/how-clean.html\)](http://www.epa.gov/cleanenergy/ener-</div><div data-bbox=)

- Greenhouse Gas Equivalencies Calculator, <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>
- Emissions & Generation Resource Integrated Database, <http://cfpub.epa.gov/egridweb/>
- Green Power Benefits, <http://www.epa.gov/greenpower/buygp/index.htm>
- Energy Saver, <http://energy.gov/energysaver/energy-saver>
- Top 5 Reasons To Be Energy Efficient, <http://ase.org/resources/top-5-reasons-be-energy-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

PECO Energy Rate R Regular Residential Service
 1-800-494-4000
 www.peco.com

| | Prices in cents per kWh | Monthly Generation & Transmission Bill If You Use: | | | Early Cancellation Fee? |
|--|-------------------------|--|----------|----------|---|
| | | 500 kWh | 1000 kWh | 2000 kWh | |
| <u>PECO Price to Compare through December 31, 2012</u> | 10.50 ¢ | \$52.50 | \$105.00 | \$210.00 | |
| <u>PECO Price to Compare for January 1, 2013 through March 31, 2013</u> | 8.69 ¢ | \$43.45 | \$86.90 | \$173.80 | |
| Current Licensed Competitive Supplier Prices: | | | | | |
| AEP Energy 1-866-258-3782 www.aepenergy.com | | | | | |
| Fixed price: 1 year term | 8.25 ¢ | \$41.25 | \$82.50 | \$165.00 | Yes: \$10 for each remaining month of the contract term |
| Fixed price: 1 year term  (100% Renewable) | 8.65 ¢ | \$43.25 | \$86.50 | \$173.00 | Yes: \$10 for each remaining month of the contract term |
| Ambit Energy 1-877-282-6248 www.ambitenergy.com | | | | | |
| Fixed price: 1 year term | 8.99 ¢ | \$44.95 | \$89.90 | \$179.80 | No |
| Monthly variable price* | 9.59 ¢ | \$47.95 | \$95.90 | \$191.80 | No |
| *Introductory price for new customers 8.59¢ | | | | | |
| Fixed price: 1 year term  (100% renewable) | 11.90 ¢ | \$59.50 | \$119.00 | \$238.00 | No |

| | Prices in cents per kWh | Monthly Generation & Transmission Bill If You Use: | | | Early Cancellation Fee? |
|---|-------------------------|--|----------|----------|--|
| | | 500 kWh | 1000 kWh | 2000 kWh | |
| Ambit Energy continued... | | | | | |
| Monthly variable price* | 11.59 ¢ | \$57.95 | \$115.90 | \$231.80 | No |
|  | | | | | |
| *Introductory price for new customers 10.59¢ | | | | | |
| Amerigreen Energy | | | | | |
| 1-888-559-4567 www.amerigreenenergy.com | | | | | |
| Fixed price: 1 year term (100% PA green) | 9.19 ¢ | \$45.95 | \$91.90 | \$183.80 | No |
| Bounce Energy | | | | | |
| 1-888-452-6862 www.bounceenergy.com | | | | | |
| Fixed price: 1 year term | 7.90 ¢ | \$39.50 | \$79.00 | \$158.00 | Yes: \$100 |
| Fixed price: 6 month term | 8.10 ¢ | \$40.50 | \$81.00 | \$162.00 | No |
| Fixed price: 1 year term (100 % renewable) | 8.20 ¢ | \$41.00 | \$82.00 | \$164.00 | No |
| Monthly variable price | 8.50 ¢ | \$42.50 | \$85.00 | \$170.00 | No |
| Champion Energy Services | | | | | |
| 1-877-404-0842 www.championenergyservices.com/pa | | | | | |
| Fixed price: 6 month term | 8.00 ¢ | \$40.00 | \$80.00 | \$160.00 | Yes: \$10 for each remaining month of the contract term |
| Fixed price: 1 year term | 8.40 ¢ | \$42.00 | \$84.00 | \$168.00 | Yes: \$10 for each remaining month of the contract term |
| Clean Currents Inc. | | | | | |
| 1-800-494-6001 www.cleancurrents.com | | | | | |
| Fixed price: 1 year term Clean Currents National (50% wind) | 9.10 ¢ | \$45.50 | \$91.00 | \$182.00 | Yes: The lesser of \$150 or \$20 for each month remaining in the contract term |
|  | | | | | |

| | Prices in cents per kWh | Monthly Generation & Transmission Bill If You Use: | | | Early Cancellation Fee? |
|--|-------------------------|---|----------|----------|--|
| | | 500 kWh | 1000 kWh | 2000 kWh | |
| Clean Currents continued... Fixed price: 1 year term Clean Currents National (100% wind)  | 9.20 ¢ | \$46.00 | \$92.00 | \$184.00 | Yes: The lesser of \$150 or \$20 for each month remaining in the contract term |
| Fixed price: 2 year term Clean Currents National (100% wind)  | 9.20 ¢ | \$46.00 | \$92.00 | \$184.00 | Yes: The lesser of \$150 or \$20 for each month remaining in the contract term |
| Fixed price: 1 year term Neighborhood Wind (100% from PA wind farms)  | 9.50 ¢ | \$47.50 | \$95.00 | \$190.00 | Yes: The lesser of \$150 or \$20 for each month remaining in the contract term |
| Fixed price: 2 year term Neighborhood Wind (100% from PA wind farms)  | 9.60 ¢ | \$48.00 | \$96.00 | \$192.00 | Yes: The lesser of \$150 or \$20 for each month remaining in the contract term |
| Clearview Electric 1-888-CLRVIEW (257-8439) www.clearviewenergy.com Monthly variable rate Call Clearview for current rates | | | | | No |
| Commerce Energy, Inc. 1-877-226-5392 www.commerceenergy.com Monthly variable price* *Introductory rate | 8.99 ¢ | \$44.95 | \$89.90 | \$179.80 | No |
| Community Energy 1-866-946-2123 www.communityenergyinc.com/pawindandsolar Monthly variable price 100% PA renewable energy (99% wind and 1% solar) | 10.39 ¢ | \$51.95 | \$103.90 | \$207.80 | No |

| | Prices in cents per kWh | Monthly Generation & Transmission Bill If You Use: | | | Early Cancellation Fee? |
|--|-------------------------|--|----------|----------|---|
| | | 500 kWh | 1000 kWh | 2000 kWh | |
| Community Energy continued... Monthly variable price 100% PA renewable energy (50% wind and 50% water) | 9.99 ¢ | \$49.95 | \$99.90 | \$199.80 | No |
| Con Ed Solutions 1-866-842-8166 www.conedsolutions.com Fixed price through the April 2013 meter read date | 7.95 ¢ | \$39.75 | \$79.50 | \$159.00 | No |
| Constellation Energy 1-866-577-4700 www.home.constellation.com Fixed price: 6 month term | 8.45 ¢ | \$42.25 | \$84.50 | \$169.00 | Yes: \$150 (unless the contract is cancelled within the first 90 days) |
| Fixed price: 6 month term (100% wind) | 9.29 ¢ | \$46.45 | \$92.90 | \$185.80 | Yes: \$150 (unless the contract is cancelled within the first 90 days) |
| Direct Energy 1-888-734-0741 www.directenergy.com Fixed price: 6 month term | 8.79 ¢ | \$43.95 | \$87.90 | \$175.80 | No |
| Discount Energy Group 1-800-282-3331 www.discountenergygroup.com Monthly variable price | 8.79 ¢ | \$43.95 | \$87.90 | \$175.80 | No |
| Dominion Energy Solutions 1-866-535-9522 www.dom.com/products Fixed price through the December 2013 meter read date | 8.60 ¢ | \$43.00 | \$86.00 | \$172.00 | No |

| | Prices in cents per kWh | Monthly Generation & Transmission Bill If You Use: | | | Early Cancellation Fee? |
|---|-------------------------|--|----------|----------|---|
| | | 500 kWh | 1000 kWh | 2000 kWh | |
| Dominion Energy Solutions continued... | | | | | |
| Fixed price through the December 2013 meter read date | 8.40 ¢ | \$42.00 | \$84.00 | \$168.00 | No |
| (Senior Citizen and Military Plan)* | | | | | |
| * This plan is available for residential customers who are 65 or older or who are active or retired military personnel who have served or are currently serving in any branch of the U.S. Armed Forces. | | | | | |
| The Energy Co-op | | | | | |
| 800-223-5783 or 215-413-2122 www.theenergy.coop | | | | | |
| Fixed rate through January 2014 * (20% renewable) | 10.39 ¢ | \$51.95 | \$103.90 | \$207.80 | No |
| * Must enroll as a member for \$15 per year | | | | | |
| Fixed rate through January 2014* (100 % renewable) | 10.79 ¢ | \$53.95 | \$107.90 | \$215.80 | No |
| * Must enroll as a member for \$15 per year | | | | | |
| First Energy Solutions | | | | | |
| 1-877-204-9524 www.fes.com/peco | | | | | |
| Introductory price through June 2013, then 9.20¢ through December 2014 | 7.10 ¢ | \$35.50 | \$71.00 | \$142.00 | Yes: \$100 |
| Fixed price through July 2019 | 7.50 ¢ | \$37.50 | \$75.00 | \$150.00 | Yes: \$300 for contracts cancelled on or before July 31, 2015, and \$75 for contracts cancelled after July 31, 2015 |

| Prices in cents per kWh | Monthly Generation & Transmission Bill If You Use: | | | Early Cancellation Fee? | |
|--|--|----------|----------|-------------------------|------------|
| | 500 kWh | 1000 kWh | 2000 kWh | | |
| First Energy Solutions continued... Fixed price through December 2013 (100% renewable)  | 9.35 ¢ | \$46.75 | \$93.50 | \$187.00 | Yes: \$100 |
| Fixed price through December 2014 (100% renewable)  | 9.90 ¢ | \$49.50 | \$99.00 | \$198.00 | Yes: \$100 |
| Gateway Energy Services Corporation 1-888-601-3141 www.gesc.com/PA | | | | | |
| Fixed price: 6 month term IGS Energy 1-888-993-0997 www.IGSEnergy.com | 8.79 ¢ | \$43.95 | \$87.90 | \$175.80 | No |
| Fixed price: 1 year term | 9.95 ¢ | \$49.75 | \$99.50 | \$199.00 | No |
| North American Power 1-888-313-9086 www.napower.com | | | | | |
| Monthly variable price* *Introductory rate (25% renewable) | 7.99 ¢ | \$39.95 | \$79.90 | \$159.80 | No |
| Monthly variable price* *Introductory rate (100% renewable) | 9.94 ¢ | \$49.70 | \$99.40 | \$198.80 | No |
| For more information regarding renewable energy content, please visit www.napower.com | | | | | |

| | Prices in cents per kWh | Monthly Generation & Transmission Bill If You Use: | | | Early Cancellation Fee? |
|---|-------------------------|---|----------|----------|--------------------------------|
| | | 500 kWh | 1000 kWh | 2000 kWh | |
| Palmco Power PA, LLC 1-877-726-5862 www.palmcoenergy.com | | | | | |
| Monthly variable price* | 7.58 ¢ | \$37.90 | \$75.80 | \$151.60 | No |
| * The introductory rate is valid for two billing cycles and is for new customers only. Existing customers should contact Palmco for the current rate. | | | | | |
| Planet Energy 1-855-360-3042 www.planetenergyhome.com | | | | | |
| Monthly variable price* | 9.90 ¢ | \$49.50 | \$99.00 | \$198.00 | No |
| *Introductory rate of 9.40¢ good through January 31, 2013 | | | | | |
| Fixed price: 1 year term | 9.90 ¢ | \$49.50 | \$99.00 | \$198.00 | Yes: \$110 (cost recovery fee) |
| PPL Energy Plus 1-888-289-7693 www.pplenergyplus.com | | | | | |
| Fixed price through the April 2013 meter read date | 8.22 ¢ | \$41.10 | \$82.20 | \$164.40 | No |
| Public Power, LLC 1-888-354-4415 www.ppandu.com | | | | | |
| Monthly variable price | 7.79 ¢ | \$38.95 | \$77.90 | \$155.80 | No |
| Reliant Energy 1-877-297-3795 www.reliant.com | | | | | |
| Fixed Price: 6 month term | 8.59 ¢ | \$42.95 | \$85.90 | \$171.80 | No |
| Fixed Price: 1 year term | 9.19 ¢ | \$45.95 | \$91.90 | \$183.80 | Yes: \$150 |
| Fixed price: 2 year term | 9.19 ¢ | \$45.95 | \$91.90 | \$183.80 | Yes: \$150 |

| | Prices in cents per kWh | Monthly Generation & Transmission Bill If You Use: | | | Early Cancellation Fee? |
|--|-------------------------|--|----------|----------|-------------------------|
| | | 500 kWh | 1000 kWh | 2000 kWh | |
| ResCom Energy, LLC. | | | | | |
| 1-888-238-4041 www.rescom-energy.com | | | | | |
| Monthly variable price | 7.99 ¢ | \$39.95 | \$79.90 | \$159.80 | No |
| Respond Power, LLC | | | | | |
| 1-877-9 RESPND www.respondpower.com | | | | | |
| Monthly variable price | 10.19 ¢ | \$50.95 | \$101.90 | \$203.80 | No |
| Spark Energy, L.P. | | | | | |
| 1-877-374-8011 www.sparkenergy.com | | | | | |
| Fixed price: 1 year term | 8.89 ¢ | \$44.45 | \$88.90 | \$177.80 | Yes: \$100 |
| Sperian Energy Corp. | | | | | |
| 1-888-682-8082 www.sperianenergy.com | | | | | |
| Monthly variable price: 1 year term* | 7.79 ¢ | \$43.88 | \$82.83 | \$160.73 | Yes: \$45 |
| *Plus \$4.93 monthly utility billing fee | | | | | |
| Stream Energy Pennsylvania, LLC | | | | | |
| 1-877-369-8150 www.streamenergy.net | | | | | |
| Fixed price: 6 month term | 9.46 ¢ | \$47.30 | \$94.60 | \$189.20 | Yes: \$75 |
| Fixed price: 6 month term | 9.66 ¢ | \$48.30 | \$96.60 | \$193.20 | Yes: \$75 |
| Green and Clean (12% renewable resources) | | | | | |
| Fixed price: 1 year term | 9.88 ¢ | \$49.40 | \$98.80 | \$197.60 | Yes: \$150 |
| Monthly variable price | 9.89 ¢ | \$49.45 | \$98.90 | \$197.80 | No |
| Fixed price: 1 year term | 10.08 ¢ | \$50.40 | \$100.80 | \$201.60 | Yes: \$150 |
| Green and Clean (12% renewable resources) | | | | | |
| Fixed price: 6 month term | 10.16 ¢ | \$50.80 | \$101.60 | \$203.20 | Yes: \$75 |
| Green and Clean (100% renewable resources) | | | | | |
| Monthly variable price | 10.09 ¢ | \$50.45 | \$100.90 | \$201.80 | No |
| Green and Clean (12% renewable resources) | | | | | |

| | Prices in cents per kWh | Monthly Generation & Transmission Bill If You Use: | | | Early Cancellation Fee? |
|--|-------------------------|--|----------|----------|---|
| | | 500 kWh | 1000 kWh | 2000 kWh | |
| Stream Energy continued... | | | | | |
| Fixed price: 1 year term Green and Clean (100% renewable resources) | 10.58 ¢ | \$52.90 | \$105.80 | \$211.60 | Yes: \$150 |
| Monthly variable price Green and Clean (100% renewable resources) | 10.59 ¢ | \$52.95 | \$105.90 | \$211.80 | No |
| Superior Plus Energy Services, Inc. 1-855-285-5999 www.superiorplusenergy.com/electricity | | | | | |
| Monthly variable rate | 7.28 ¢ | \$36.40 | \$72.80 | \$145.60 | No |
| TriEagle Energy 1-877-93EAGLE (933-2453) www.trieagleenergy.com | | | | | |
| Fixed price: 6 month term (2% renewable) | 7.88 ¢ | \$39.40 | \$78.80 | \$157.60 | Yes: \$20 per month for each month remaining in the contract term |
| Fixed price: 1 year term (2% renewable) | 8.29 ¢ | \$41.45 | \$82.90 | \$165.80 | Yes: \$20 per month for each month remaining in the contract term |
| Fixed price: 18 month term (2% renewable) | 8.69 ¢ | \$43.45 | \$86.90 | \$173.80 | Yes: \$20 per month for each month remaining in the contract term |
| Fixed price: 2 year term (2% renewable) | 8.99 ¢ | \$44.95 | \$89.90 | \$179.80 | \$20 per month for each month remaining in the contract term |
| Verde Energy USA, Inc. 1-800-388-3862 www.lowcostpower.com | | | | | |
| Monthly variable price* | 8.10 ¢ | \$40.50 | \$81.00 | \$162.00 | No |

*New enrollments receive a \$50 cash bonus, a 20% discount on energy saving products and free access to Verde

| | Prices in cents per kWh | Monthly Generation & Transmission Bill If You Use: | | | Early Cancellation Fee? |
|--|-------------------------|--|----------|----------|-------------------------|
| | | 500 kWh | 1000 kWh | 2000 kWh | |
| Viridian Energy | | | | | |
| 1-866-663-2508 www.viridian.com | | | | | |
| Fixed price: 6 month term Everyday Green Plan Everyday Green comes from 20 % renewable resources | 9.99 ¢ | \$49.95 | \$99.90 | \$199.80 | Yes: \$50 |
|  | | | | | |
| Fixed price: 6 month term Viridian Pure Green Viridian Pure Green comes from 100% renewable resources. | 11.40 ¢ | \$57.00 | \$114.00 | \$228.00 | Yes: \$50 |
|  | | | | | |
| Monthly variable price* *First month promotional rate of 10.30¢ for new customers. Everyday Green Plan Everyday Green comes from 20 % renewable resources | 11.50 ¢ | \$57.50 | \$115.00 | \$230.00 | No |
|  | | | | | |
| Monthly variable price Viridian Pure Green Viridian Pure Green comes from 100% renewable resources. | 13.00 ¢ | \$65.00 | \$130.00 | \$260.00 | No |
|  | | | | | |
| For more information regarding renewable energy content, please visit www.viridian.com/our-impact/pennsylvania | | | | | |
| Washington Gas Energy Services | | | | | |
| 1-888-884-9437 www.wges.com | | | | | |
| Monthly variable price (includes 5% local wind power) | 8.30 ¢ | \$41.50 | \$83.00 | \$166.00 | No |
| Fixed price: 1 year term (includes 5% local wind power) | 9.30 ¢ | \$46.50 | \$93.00 | \$186.00 | Yes: \$150 |
| Fixed price: 1 year term (includes 50% local wind power) | 9.50 ¢ | \$47.50 | \$95.00 | \$190.00 | Yes: \$150 |
|  | | | | | |

| Prices in cents per kWh | Monthly Generation & Transmission Bill If You Use: | | | Early Cancellation Fee? |
|--|--|----------|----------|---|
| | 500 kWh | 1000 kWh | 2000 kWh | |
| Washington Gas Energy Services continued... Fixed price: 1 year term 9.70 ¢ (includes 100% local wind power)  | \$48.50 | \$97.00 | \$194.00 | Yes: \$150 |
| YEP Energy 1-855-363-7736 www.yepenergy.com Monthly variable price 8.60 ¢ | \$43.00 | \$86.00 | \$172.00 | No |
| Monthly variable price 9.50 ¢ (100% green) | \$47.50 | \$95.00 | \$190.00 | No |
| Fixed price: 6 month term 7.91 ¢ | \$39.55 | \$79.10 | \$158.20 | Yes: \$10 per month for each month remaining in the contract term |
| Fixed price: 6 month term 8.81 ¢ (100% green) | \$44.05 | \$88.10 | \$176.20 | |
| Fixed price: 1 year term 8.22 ¢ | \$41.10 | \$82.20 | \$164.40 | |
| Fixed price: 1 year term 9.12 ¢ (100% green) | \$45.60 | \$91.20 | \$182.40 | |

The following offer is available as an addition to your current electric supply purchase. By selecting this plan, the charge for the plan will be added to your monthly bill.

Renewable Energy Add-On Options:

| | |
|---|--|
| <p>PPL EnergyPlus 610-774-7327 or 1-877-PPL-RECS (775-7327) www.pplrenewables.com **The price of this service will be added to your current electric supply.</p>  | <p>Current supplier charge plus program price (prices start at \$4 per month). Three program options available to support the development of renewable resources. For more information, call PPL Energy Plus or visit their website.</p> |
|---|--|

PECO Energy Company

RATE SL-S STREET LIGHTING-SUBURBAN COUNTIES

AVAILABILITY.

Outdoor lighting of streets, highways, bridges, parks and similar places located in Suburban Counties.

ANNUAL RATE TABLE - MANUFACTURER'S RATING OF LAMP SIZES.

Incandescent Filament Lamps

| <u>Size of Lamp</u> | <u>Billing Watts</u> | <u>Distribution</u> |
|---------------------|----------------------|---------------------|
| 320 Lumens | 32 | \$ 89.69 |
| 600 Lumens | 58 | \$127.31 |
| 1,000 Lumens | 103 | \$179.28 |
| 2,500 Lumens | 202 | \$249.61 |
| 6,000 Lumens | 448 | \$291.80 |
| 10,000 Lumens | 690 | \$333.64 |

(D)

Mercury Vapor Lamps

| <u>Size of Lamp</u> | <u>Billing Watts</u> | <u>Distribution</u> |
|---------------------|----------------------|---------------------|
| 4,000 Lumens | 115 | \$211.28 |
| 8,000 Lumens | 191 | \$225.43 |
| 12,000 Lumens | 275 | \$242.71 |
| 20,000 Lumens | 429 | \$288.83 |
| 42,000 Lumens | 768 | \$417.41 |
| 59,000 Lumens | 1,090 | \$477.68 |

Sodium-Vapor Lamps

| <u>Size of Lamp</u> | <u>Billing Watts</u> | <u>Distribution</u> |
|---------------------|----------------------|---------------------|
| 5,800 Lumens | 94 | \$209.07 |
| 9,500 Lumens | 131 | \$228.45 |
| 16,000 Lumens | 192 | \$258.30 |
| 25,000 Lumens | 294 | \$296.15 |
| 50,000 Lumens | 450 | \$356.43 |

ENERGY SUPPLY CHARGE: Refer to the Generation Supply Adjustment, Procurement Class 2.

STATE TAX ADJUSTMENT CLAUSE, PROVISION FOR THE RECOVERY OF CONSUMER EDUCATION PLAN COSTS, PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAM COSTS, PROVISION FOR THE TAX ACCOUNTING REPAIR CREDIT AND NUCLEAR DECOMMISSIONING COST ADJUSTMENT, APPLY TO THIS RATE. (C)

The Energy Supply Charges: set forth above will apply to the customer if the customer receives Default Service. These charges are not applicable to the customer if it obtains Competitive Energy Supply.

TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT SERVICE: The Transmission Service Charge shall apply.

GENERAL PROVISIONS.

1. Service. The lighting service will be operated on an all-night, every-night lighting schedule of approximately 4,100 hours annual burning time (average monthly burning hours = 341.11 hours), under which lights are turned on after sunset and off before sunrise. It includes the supply of lamps and their removal when burned out or broken.

2. Outage Allowances. Written notice to the Company prior to 4:00 pm of the failure of any light to burn on the previous night shall entitle the customer to a pro rata reduction to the Company's monthly Variable Distribution Service charges. If the customer receives Default service, the outage allowance will also apply to the Energy & Capacity and Transmission Charges. The monthly bill will be adjusted, pro rate, for the hours of failure if such failure continues for a period in excess of 12 hours after the notice is received. Allowances will not be made for outages resulting from the customer's failure to protect the lighting system or from riot, fire, storm, flood, interference by civil or military authorities, or any other cause beyond the Company's control.

3. Lighting Installations. The prices in the Rate Table apply to all Company-approved installations for (a) federal, state, county and municipal authorities and community associations entering into a contract for lighting service; and (b) building operation developers for lighting, during the development period, of streets that are to be dedicated, where the municipality has approved the lighting and agreed to subsequently assume the charges for it under a standard contract.

Standard lighting installations under standard conditions of supply will be made on the public highways at the expense of the Company to the extent warranted by the revenue in prospect, any additional investment to be assumed by the customer.

(D) Denotes Decrease

(C) Denotes Change

RATE SL-S STREET LIGHTING-SUBURBAN COUNTIES (continued)

Standard supply to lighting installations will be from aerial wires, except that, at the option of the Company, in areas where its other electric distribution facilities are underground, supply may be underground.

For underground supply furnished at the request of the Company where aerial supply would be normal, or for other than standard installations made at the request of the customer and of a type approved by the Company, the Company will assume the cost up to the amount it would normally have invested and the additional cost shall be assumed by the customer.

The installation cost of lighting on private property, or for contracts of less than standard term, shall be paid by the customer.

Title to all lighting installations of a type approved by the Company shall be vested in the Company and all necessary maintenance, repair and replacement of equipment in such installations will be made by the Company. Maintenance, repair and replacement of nonstandard equipment shall be at the expense of the customer.

4. Excess Costs. In cases where the remote location of the proposed new or additional lighting, or the number or spacing of the lamps, or the lack of necessary supply lines or any other reason makes the cost of installation excessive, such excess costs shall be assumed by the customer as mutually agreed.

5. Location, Authorization and Protection. The location of lamps to be supplied is to be approved by the properly designated authorized representative of the customer and the customer shall furnish any requisite authority for the erection and maintenance of poles, wires, luminaries and other equipment necessary to operate the lamps at the approved locations. The customer shall protect the Company from damage to the lighting system to the extent of the customer's ability. At the expense of the customer, the Company will relocate a lamp to a new location after receiving a written request from the customer.

6. Equipment Removal. If the customer requests that the Company remove or replace any existing street lighting installation, except incandescent lights, the Company will charge for removal or replacement of the street lighting installations and the associated poles and conducts used exclusively for the street lighting installation. The Company's charge will include the cost of removal or replacement plus the estimated remaining life value of the removed or replaced equipment less salvage.

PAYMENT TERMS.

Bills will be rendered monthly. Each month, for the purpose of prorating the price, shall be considered 1/12 of a year.

TERM OF CONTRACT.

The initial contract term for each lighting installation shall be for at least three years.



Cheltenham Township was one of Philadelphia's first suburbs, growing as railroads and roadways were extended out from the city allowing people to migrate out of the city for a variety of social and economic reasons. But, the roadways were not the reason that people decided to live in Cheltenham. The incentives for expansion came from the desire of residents and businesses to benefit from the natural resources Cheltenham had to offer – woodlands, clean streams, and an exceptional living environment that includes preserved historic structures among a diverse building inventory filled with people of all races, ethnicities and backgrounds.

Although much has changed over its 300 year history, the Township remains an attractive community in which to live and work. Cheltenham Township's combined economic, cultural and natural amenities have attracted over 36,000 residents and 18,000 jobs to the municipality. Some of these amenities include:

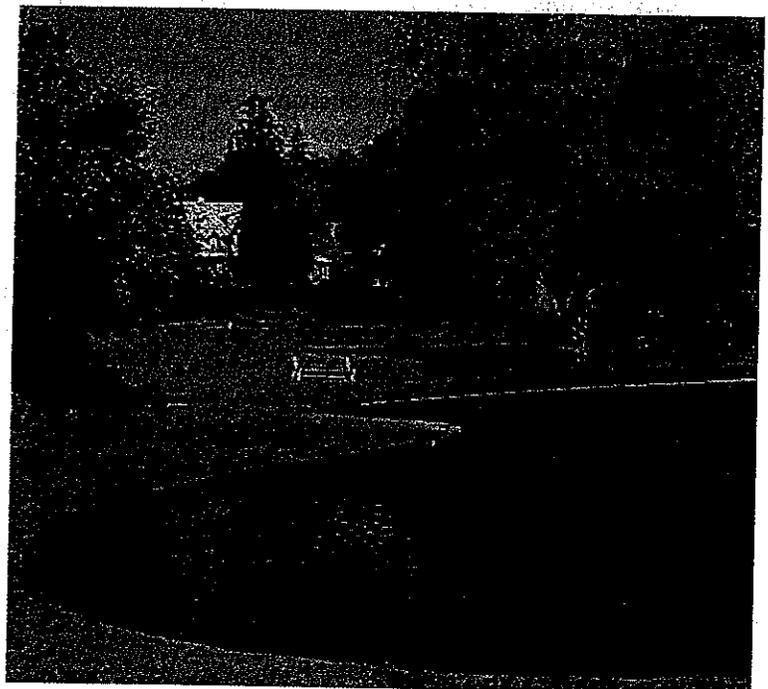
- over 800 acres of preserved land
- a highly educated, civically engaged and diverse community
- nationally- and regionally-respected educational institutions
- thriving business centers
- easy access to transportation choices

Township officials, residents and business owners understand that their quality of life depends on preserving and enhancing these amenities. They are concerned that the factors that brought them to the community may erode without proper long-term sustainability planning. Throughout Cheltenham Township's history freethinking, creative and civically minded people have contributed to the creation of the present day Township. Moving toward sustainability will require this same limitless creative problem solving ability and willingness to adapt to our changing times within the availability of natural resources.

Creating and maintaining a healthy community that balances social, economic, and environmental needs requires an understanding of sustainability, a term that has many meanings. In 1987 the Brundtland Commission, a committee formed to promote sustainability around the world, gave sustainability its classic definition of "meeting the needs of the present without compromising the ability of future generations to meet their own needs." While

the true meaning of sustainability is constantly being explored and revised, at the core of sustainability is the triple bottom line: environmental, social, and economic responsibility, along with a responsibility to not harm the current or future generations. A harmony must be established between the built and natural world which takes into account these three factors and the constraints of our natural resources and local economics.

There are numerous social and environmental factors that influence the quality of life in any community. Some of the most pressing include: climate change, energy and food security, human health, natural resource conservation, and population growth. There are also local issues which are less broad in their impact, but no less important.



ant to quality of life. These include congestion, economic vitality, and open space preservation. Implementing sustainability requires establishing and maintaining the difficult and delicate balance among individuals, society, the economy and natural resources all while taking into account environmental and social changes. To do so, sustainability principles must be established and followed in a consensus-building, participatory process.

There are numerous sustainability principles that can form the foundation for a sustainability plan, linking the community vision to a realistic process to achieve mutually agreed upon goals. Cheltenham's Sustainability Plan relies on the four Natural Steps proposed by Dr. Karl Henrik-Robert. The Natural Steps will be the benchmark by which the Committee evaluates every policy and practice **considered in the plan. All recommendations in the Cheltenham Township Sustainability Plan will seek to meet these four conditions:**

- Reducing to the extent possible our dependence on fossil fuels and ecologically-persistent chemicals
- Eliminating all wasteful use of scarce natural resources and synthetic substances
- Eliminating all thoughtless and unnecessary destruction and degradation of and encroachment on our natural ecosystems and resources
- **Meeting everyone's human needs fairly and efficiently**

Agreement on these principles was achieved in a process that spanned more than a year and involved all parts of the Cheltenham Township community, in an effort called "Sustainable Cheltenham." That effort produced this Cheltenham Township Sustainability Plan – an overarching document using these sustainability principles to guide the community into a future where thoughtful choices and coordinated action can foster economic vitality, preserve natural resources and ensure that people and neighborhoods thrive.

To succeed, a sustainability plan must also take into account the broad scope that these issues cover. Over the years the township has studied many of these issues and developed reports to plan for the future. The Cheltenham Township Sustainability Plan is written in the context of these previous planning efforts and takes their work into consideration. Some of the Township's previous planning efforts include, but are not limited to:

- Cheltenham Comprehensive Plan
- Wall Park Master Plan
- Tookany Creek Trail Master Plan

- Tookany Creek Watershed Management Plan
- Tookany/Tacony-Creek Integrated Watershed Management Plan
- Community Revitalization Plan
- Arcadia University Master Plan
- Commercial District Enhancement Plan
- Glenside Commercial District/Arcadia University Revitalization and Circulation Feasibility Study
- Cheltenham Avenue Business Improvement District
- Cheltenham Open Space Plan

To protect and enhance the resources of the community for future generations, Cheltenham Township realized it needed to be a pioneer and create a formal sustainability plan to address the problems mentioned above. **These new efforts will build upon previous sustainability initiatives and successes:**

- 4 million dollars in federal, state and county grant funded stream bank restoration and stabilization efforts.
- Large scale recycling program that diverts more than 5.5 million pounds of materials each year from the waste stream.
- **Greening efforts that have resulted in awards and recognition from the Pennsylvania Horticultural Society and the Montgomery County Lands Trust.**
- Continued exploration of green energy and green building opportunities.
- Focus on local sustainability issues by local organizations and citizens groups.
- **Creation of an Environmental Advisory Council to manage and oversee all township efforts regarding environmental issues.**

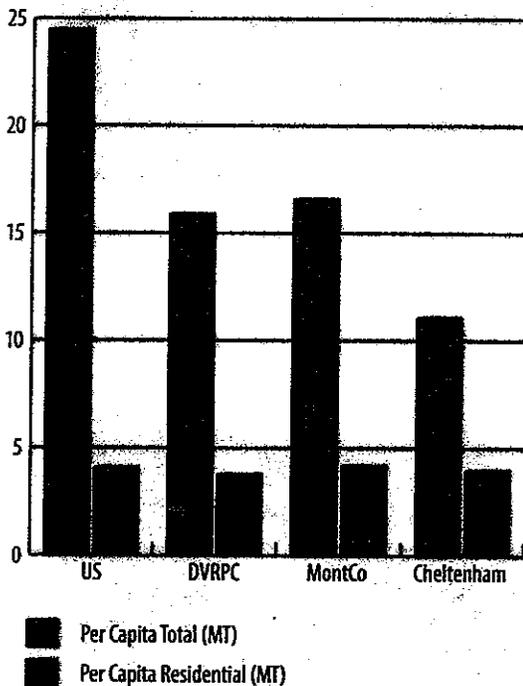
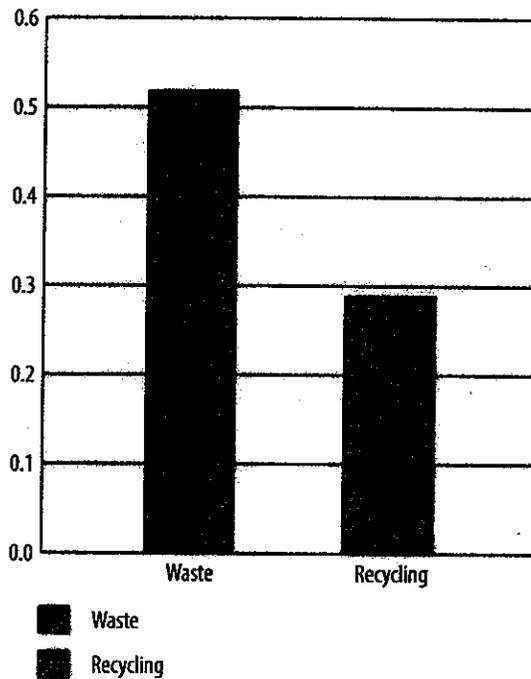
The sustainability plan can become an important municipal tool to address the issues Cheltenham faces. Impacts from climate change, energy insecurity, natural resource loss, population and demographic shifts, shifts in regional economies, and environmental justice issues are first felt on a local level. Municipalities are able to incorporate sustainable practices into their daily operations and long term planning to address these issues internally, which **buffer the local economy and environment from these impacts.** A municipality that adopts a sustainability plan can lead by example and advocate for sustainable practices among businesses and residents.

The plan outlined in this document is a collaboration between Township officials and staff, Montgomery County Planning Commission (MCPC), and the Sustainable Cheltenham Committee (a group of 45 citizens and representatives of major Cheltenham institutions, including the School District of Cheltenham Township, Arcadia University, and Einstein Hospital). Several public meetings, a sustainability open house and a public website were used to create a dialogue between residents and the Sustainability Committee. These meetings and discussions highlighted some of the major challenges facing Cheltenham and its communities:

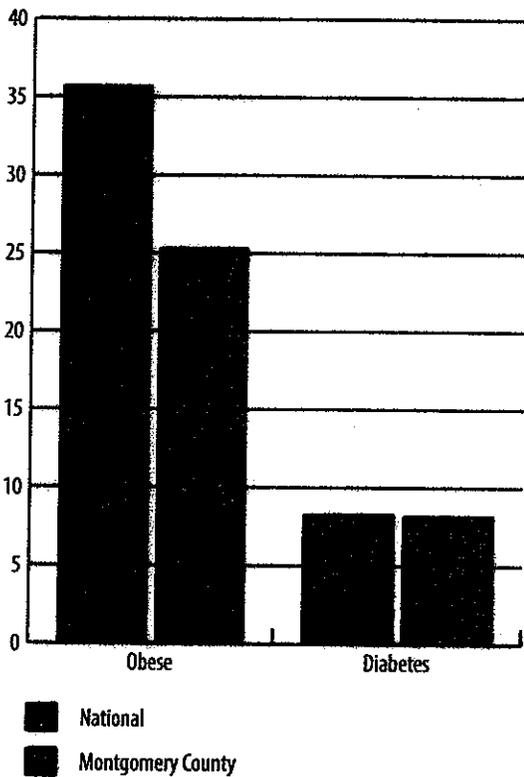
- Energy Quick Fact:** The combustion of natural gas, coal and petroleum for energy lead to the emission of greenhouse gases: carbon dioxide, methane and nitrous oxide. While there is a national trend towards using more renewable energy resources, imported fossil fuels continue to be the main source of national and global energy production. According to the DVRPC Regional Greenhouse Gas Emissions Inventory, Cheltenham emits significantly less GHGs per capita from total emission sources than the national average. However, this difference is essentially eliminated when only residential GHG emissions are taken into account

- Waste Quick Fact:** Waste production continues to be a major environmental problem. In 2010, Americans generated approximately 250 million tons of trash. Unless handled properly, disposal of such large quantities of waste, some hazardous, can lead to ground-water and air pollution. Current disposal practices often ignore the potential for reuse of these materials. Cheltenham residents produce less waste per capita than the national average, but only by 0.01 pounds. In 2010, Cheltenham's 36,793 residents produced 19,070 tons of residential and commercial waste and diverted 10,611 tons into the recycling stream.

PER CAPITA CONSUMPTION IN CHELTENHAM IN 2010 (TONS/PERSON)

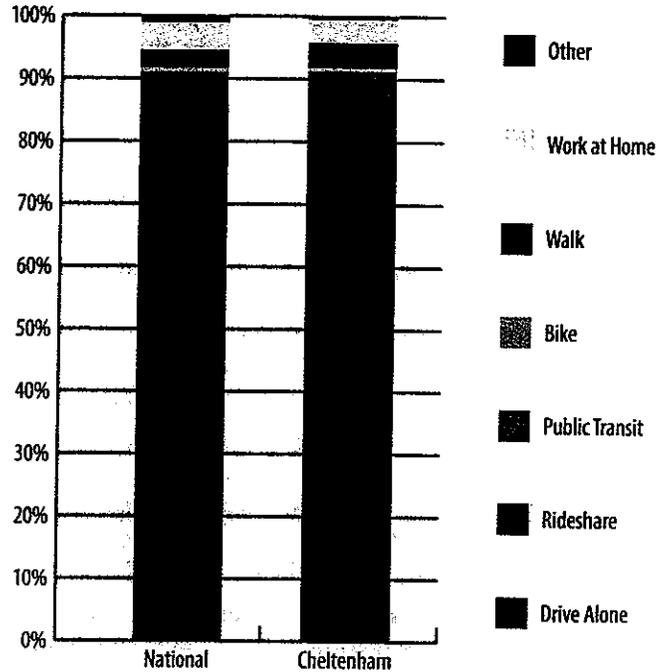


- Healthy Living Quick Fact:** Some of the nation's population lacks access to the basics underlying a healthy lifestyle. This could be a lack of access to education, healthcare, healthy foods, recreation, transportation, and clean air and water. This is exemplified in the nation's obesity rates, where more than one-third of U.S. adults (35.7 percent) are obese, and approximately 8.3 percent of the population has diabetes. In Cheltenham, 25 percent of the population suffers from obesity and the resultant health problems (8.2 percent of the population has diabetes).



- Transportation Quick Fact:** While there is a push to use alternative modes of transportation, the single-occupancy vehicle remains the most prevalent mode of transit. In 2009, 86% of national commuters drove cars (either single-occupancy or carpooled), 5% used public transportation, 3% walked, and 0.6% biked. A car-centric transportation system relies on imported oil, emits carbon dioxide and other pollutants, reduces opportunities for physical exercise, and requires a network of impervious surfaces. The relatively easy access to public transportation means that Cheltenham's population has a higher than aver-

age transit use (10.5 percent in 2010). However, the majority of the Cheltenham's population still relies on single occupancy vehicles for commuting.



The Sustainability Plan

Discussions among residents, the Sustainable Cheltenham Committee, and MCPC about these issues led to the **identification of ten community-wide goals focusing on sustainability**. Each goal contains a set of objectives for private as well as public (local government) action, and the potential for public-private ventures. The community **took the planning process one step further and identified a set of concrete, achievable actions that the local governments could take to meet these important community health objectives**.

This plan is meant to evolve and change over time. The goals, objectives and action items should be assessed on **a regular basis and modified to fit the changing needs of Cheltenham Township**. In the near future, new technologies and techniques may become available that will help Cheltenham become more sustainable. Or new challenges may arise that require swift action by the community. This plan should adapt to the needs of Cheltenham Township so that it can be a valuable tool to promote sustainability. In 2020, the township could perform an overall assessment of the Sustainability Plan and perform a formal update of the plan to ensure it remains a useful

tool for community. The rest of this document will discuss these goals and actions in greater detail.

The Cheltenham Sustainability Plan is divided into various sections detailed below. Each section can be used separately, or they can all be read as one publication. The Cheltenham Sustainability Plan contains the following elements:

Executive Summary – The executive summary is a concise description of the reasons for the plan, the planning process, how the plan is structured and how it will be implemented.

Cheltenham Community Goals and Objectives – This section describes the goals and objectives for Cheltenham Township. These goals and objectives can be used by any organization, institution or individual in the Township to promote sustainability.

Sustainability Resources – This section functions as a resource for Cheltenham Township to pursue the sustainability goals. For each goal, this section provides information so that the reader can understand the role of sustainability in Cheltenham.

Municipal Action Plan – Cheltenham Township government strives to be a leader in sustainability. If the Township hopes its businesses and residents will live in a more sustainable manner, then the Township government should commit itself to be a “good citizen” and set a good example. The Cheltenham Township Sustainability Municipal Action Plan identifies many steps that the Township could take to operate in a more sustainable manner. The Cheltenham Township government has indicated its intention to implement as many of the action items as it can. Some may not be accomplished immediately and some will take consistent resolve over several years to accomplish, but all the items are worthwhile and will be pursued as soon as possible. All members of the community – especially larger employers, academic institutions, school districts, hospitals, and private living communities – are encouraged to create their own sustainability action plans and outline the steps they can undertake to accomplish our community’s sustainability goals.