

LOWER MERION TOWNSHIP ENVIRONMENTAL ACTION PLAN

2018 to 2022



Prepared for:

Lower Merion Township

Prepared by:

2018 Environmental Advisory Council

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EXECUTIVE SUMMARY

Lower Merion is a Township of the First Class with recognized leadership in environmental quality and resource protection. The Environmental Action Plan (EAP) was prepared to further advance the quality of the Township's environment and its natural resources. This EAP provides the second revision to the original EAP prepared for Lower Merion Township (LMT) in 2007 by the Environmental Advisory Council (EAC) with the assistance of LMT staff and the Board of Commissioners' (BOC) Environmental Initiatives Committee (EIC). This EAP was prepared to further advance the quality of our environment and natural resources. This EAP update is influenced heavily by the *Comprehensive Plan for the Preservation, Infill, and Redevelopment of LMT* adopted on January 6, 2016 (Comprehensive Plan). Certain of the Comprehensive Plan's recommendations, for example, lie within the scope of the EAC (members of which participated in the development of the recommendations) and are therefore appropriately included in this EAP. This EAP also renews initiatives proposed in the previous EAP 2012 to 2016 that remain to be adopted or implemented, and continues numerous successful on-going initiatives. For the purpose of making measurable progress towards fulfillment of the objectives laid out in this EAP, the EAP has assigned a level of priority to each of its recommendations (short-, mid-, and long-term); assigned an EAC member to champion each one; and established EAC sub-committees with responsibility for the several action areas.

For reporting and tracking purposes, the proposed actions and initiatives are grouped into six categories as follows:

1. Building Practices and Land Use (BP&LU)
2. Education and Volunteer Projects (E&VP)
3. Energy Conservation and Sustainability (EC&S)
4. Objectionable, Poisonous, and Invasive Species (OP&IS)
5. Recycling (R)
6. Stormwater Management (SWM)

The newly proposed and renewed initiatives presented in the EAP are shown in Table ES-1. (Note that ongoing initiatives were omitted for presentation in the Executive Summary.) The EAC recognizes that this EAP is ambitious and contains numerous initiatives. Although the progress toward all initiatives will be tracked throughout the 5-year EAP implementation period, the EAC will place additional emphasis on the following top 5 priorities presented in Table ES-1:

1. Increase Township Resiliency and Environmental Quality (**EC&S – 5**)
2. Improve the Quality and Reduce the Quantity of Stormwater (**SWM – 1 and SWM-2**)
3. Ensure Protection of Additional Open Space (**BP&LU – 1**)
4. Restore and Rehabilitate Natural Areas (**BP&LU – 4 and OP&IS – 2**)
5. Remove Invasive Species from Township Property (**OP&IS – 4**)

**TABLE ES-1
FUTURE ENVIRONMENTAL INITIATIVES**

Category	Environmental Initiative	Schedule
Building Practices and Land Use (BP&LU)	1. Establish Open Space Funding Source	M
	2. Impose Riparian Buffer Requirements	S
	3. Implement Comprehensive Stream Bank Restoration Plans	M
	4. Restore Natural Areas	M
	5. Increase Use of Porous Pavement or Permeable Pavers	M
	6. Landscape Contractor Licensing/Registration	M
	7. Track Implementation of Comprehensive Plan Recommendations	S, M, L
Energy Conservation and Sustainability (EC&S)	2. Generate Green/Renewable Energy	L
	4. Full Implementation of Resolution No. 2013-03	M
	5. Conduct a Township-wide Sustainability Workshop	S
Objectionable, Poisonous, and Invasive Species (OP&IS)	1. Education and Outreach	S & O
	2. Rehabilitate High-Priority Natural Areas	M
	3. Expand Park Friends and Volunteer Groups to Assist with Stewardship of Public Open Space	M
	4. Remove Invasive Species from Township Property	S
Recycling (R)	1. Pilot Recycling Program in Township Parks and other Properties	M
	2. Selection of Environmentally-friendly Products	M
	3. Increase Recycling, particularly Commercial Recycling and polystyrene	S
	4. Expand Composting Program	S
Stormwater Management (SWM)	1. Assist with the Development of the Comprehensive Stormwater Management Plan (W8)	S
	2. Strengthen Existing Stormwater Regulations (W1)	M
	3. Incorporate Stormwater Best Management Practices into Township Codes (W2)	M
	4. Integrate Urban Forestry and Conservation Design Practices into the Stormwater Management Code (W3)	M
	5. Update the Natural Features Code (W4, W6, and LC12)	M

Short-term (S) – those actions with target completion dates within 1 year
Mid-term (M) – those actions intended for completion within 2-3 years
Long-term (L) – actions to be completed in 4-5 years

I. INTRODUCTION

Lower Merion is a Township of the First Class with recognized leadership in environmental quality and resource protection. The Environmental Action Plan (EAP) was prepared to further advance the quality of the Township's environment and its natural resources. This EAP provides the second revision to the original EAP prepared for Lower Merion Township (LMT) in 2007 by the Environmental Advisory Council (EAC) with the assistance of LMT staff and the Board of Commissioners' (BOC) Environmental Initiatives Committee (EIC). This EAP update is influenced heavily by the *Comprehensive Plan for the Preservation, Infill, and Redevelopment of LMT* adopted on January 6, 2016 (Comprehensive Plan). Certain of the Comprehensive Plan's recommendations, for example, lie within the scope of the EAC (members of which participated in the development of the recommendations) and are therefore appropriately included in this EAP. This EAP also renews initiatives proposed in the previous EAP 2012 to 2016 that remain to be adopted or implemented, and continues numerous successful on-going initiatives. For the purpose of making measurable progress towards fulfillment of the objectives laid out in this EAP, the EAP has assigned a level of priority to each of its recommendations (short-, mid-, and long-term); assigned an EAC member to champion each one; and established EAC sub-committees with responsibility for the several action areas.

To achieve the Township's contribution to environmental quality as envisioned in this EAP will require a meaningful discussion with the BOC and other elements of the Township over the merits of the recommendations. The link between the EAC and BOC should be made strong enough that the EAC's role as an advocate for the environment is not overlooked in Township decision-making that affects the environment. The EAC's point of view may not always prevail, but it should always be invited and considered. Progress on action items will be documented in status updates presented to the EAC at its monthly meetings, and summarized each year within the EAC Annual Report.

Purpose

This plan proposes a Township-guided initiative to promote sustainable development; conservation of energy and natural resources; and enhancement of the quality of life, now and into the future. The EAP is organized around areas of action on which the Township can act directly or exert its influence in pursuit of environmental conservation goals. The plan responds to the increasing awareness that natural resources are being consumed at unsustainable rates and in ways that have a harmful effect on the environment, and that local government has a role to play in preserving and protecting our environmental and natural resources through the stewardship of public facilities and the education of its residents. The EAP therefore proposes actions at the local level that will have a meaningful impact on the local, regional and even global environment.

II. OVERVIEW

This revision of the EAP provides continued opportunity for LMT to further advance the implementation of environmentally-sound initiatives across the spectrum of its areas of influence. The EAP is intended to serve as a 'living document' that is updated at 5-year intervals to reflect current environmental stewardship initiatives and to catalog progress. This revision will serve to guide environmental initiatives undertaken by the LMT EAC for years 2018 to 2022. The following Sections provide an overview of the organization of the EAP, the EAP's approach to implementation and documentation (Section II), and a summary of proposed environmental actions (Section III).

A. AREAS OF INFLUENCE

This EAP presupposes that there are three general areas upon which the Township can exert its influence to conserve energy and natural resources.

1. **Stewardship**

Comprising management of existing Township-owned buildings and grounds, Township oversight of privately owned preservation areas, and the Township's procurement of products and services.

The Township owns and maintains numerous properties and purchases products and services on a large scale as a routine part of operations. The Township stewardship of these properties and assets can have significant environmental impacts. The impact of the Township's stewardship is not confined to its own operations, but can also be applied to its selection of vendors with whom it contracts. Stewardship puts emphasis on the Township's commitment to implementing the EAP.

2. **Capital Improvements**

Comprising Township and other publicly funded projects not yet under contract, and carrying forward.

This focuses on projects that the Township intends to pursue in the future as part of the 5-year plan. Township capital improvements have direct environmental impacts and can be used as an opportunity to promote conservation, sustainable development and environmental protection, as well as set the example for other townships and Township residents. Since the 5-year plan is updated each year, as projects are added, experience gained in the early years of the program can be used to inform efforts put forth in addressing projects that come on line in the later parts of the plan.

3. **Regulation**

Comprising the Township's judicious exercise of its regulatory authority over private sector permits that are subject to land use and building codes, and other permits and approvals.

The ability of the Township to emphasize adherence to elements of the environmental action plan that are part of, or incorporated into Township regulations.

B. CATEGORIES

Within the areas of influence, the proposed actions can be organized into numerous types of projects. For reporting and tracking purposes, the proposed actions and initiatives are grouped into six categories as follows:

1. **Building Practices and Land Use**

Actions taken to manage and guide Township redevelopment projects and open space including the acquisition of new lands, the maintenance of existing parcels, the conservation of regulated natural areas, and the promotion of land use practices that will help to sustain the long-term growth and the health of the community's natural resources.

2. **Education and Volunteer Projects**

Actions that foster the environmental awareness of all residents of LMT, including the support or establishment of educational programs, seminars, events or other vehicles for providing information. Actions that provide opportunities for volunteers to participate in projects or activities aimed at enhancing the quality of the environment.

3. **Energy Conservation and Sustainability**

Actions that promote and/or result in the quantitative reduction of energy use by means of administrative or engineering controls or the use of renewable energy sources that are undertaken by the Township or by the community. Actions that promote sustainable environmental practices in the public and private sectors.

4. Objectionable, Poisonous, and Invasive Species

Actions that promote the removal of objectionable, poisonous, and invasive species from the Township and restore natural lands through the use of native species.

5. Recycling

Actions that result in the increased recycling of products and materials at the Township, business, and public levels.

6. Stormwater Management

Actions that forestall, reduce, or abate stormwater runoff; downstream flooding; stream bank erosion; turbidity from erosion; aquatic and riparian habitat destruction; changes in the stream flow hydrograph (a graph that displays the flow rate of a stream over a period of time); infrastructure damage; and contaminated Township streams and rivers.

C. IMPLEMENTATION SCHEDULE

The EAP identifies target timeframes for each environmental action project or initiative. These timeframes include:

Short-term (S) – those actions with target completion dates within 1 year

Mid-term (M) – those actions intended for completion within 2-3 years

Long-term (L) – actions to be completed in 4-5 years

Ongoing (O) – actions that should continue indefinitely.

D. ROLES AND RESPONSIBILITIES

The EAC will implement the EAP and obtain feedback from LMT residents through public outreach to help guide the execution of the current plan and the development of subsequent plans. Members of the EAC will identify environmental actions within the above categories to champion and will form sub-committees, as necessary, to facilitate the implementation of projects. Implementation progress will be discussed quarterly during EAC scheduled meetings (March, June, September, and December). Each EAC environmental action champion will provide written progress on an annual basis for inclusion in the EAC report.

The current EAC champions are:

- **Bruce Bayne** – Building Practices and Land Use
- **Michael Hays** and **Mitchell Burack** – Education and Volunteer Projects
- **David Richman** – Energy Conservation and Sustainability
- **Sara Pevaroff Schuh** – Objectionable, Poisonous, and Invasive Species
- **Joe Rudek** – Recycling
- **Brian Hoppy** – Stormwater Management

E. PROGRESS REPORTING

The EAP is designed to be continually revised on a set 5-year schedule. This schedule will allow sufficient time to implement many of the proposed actions outlined in the current EAP while identifying new initiatives for the subsequent EAP revision. Each revision is to be reviewed by the LMT EIC and received by the BOC.

Progress on the EAP will be reported each calendar year in the EAC annual report and in an oral presentation to the BOC. Moreover, a current list of proposed actions and their status will be summarized in tabular form for inclusion in LMT newsletters. Finally, each revision of the EAP will include a summary of past accomplishments.

III. ENVIRONMENTAL ACTIONS – ACCOMPLISHMENTS TO DATE

The EAC has made significant strides toward accomplishing many of the environmental actions outlined in the first EAP. Summary points regarding key accomplishments are presented below, organized by action categories.

EAP ACCOMPLISHMENTS

Building Practices and Land Use:

- **2013-2014** – Members of the EAC participated in the development of the Restoration Master Plan completed for Merion Botanical Park.
- **2015** – Green Parking Lot Ordinance – The EAC, with the support and guidance of the Environmental Initiatives Committee (EIC), developed a new ordinance passed by the BOC to amend the Code of the Township of Lower Merion, Chapter 101-9, Natural Features Conservation, Minimum Planting Standards, to amend the size and amount of required planted areas in parking lots. The ordinance requires an increase in vegetation within and adjacent to parking lots and is intended to increase the amount of shade in parking lots, reduce the quantity of stormwater runoff from these areas, result in additional groundwater recharge, and improve water quality. The ordinance was adopted on March 11, 2015.
- **2015** – The EAC, with the support and guidance of the EIC, and with the assistance of Township staff advanced an ordinance amending the definition of Preservation Area to the Board of Commissioners. The ordinance was adopted on July 29, 2015
- **Ongoing** – The EAC has and continues to participate in Land Development Committee meetings to review proposed development projects within LMT ahead of their official presentation to the Planning Commission and Building & Planning Committee. These efforts help to promote the inclusion of EAP elements into Township development.
- **Ongoing** – Riparian Buffer Improvements – LMT has implemented riparian buffer best management practices on several Township owned parklands (e.g., Shortridge Park in 2014). LMT and the EAC continue to look for opportunities to promote such stewardship on Township property and to increase the implementation of such practices along all riparian corridors.

Education and Volunteer Projects:

- **Ongoing** – Environmental Awards Program – The 11th Annual **GO FOR THE GREEN** Awards will be celebrated in 2018. This awards program was established in 2008 by the EAC to honor LMT environmental leaders in categories that include residential, multi-family residential, commercial, organization, education, site greening, and lifetime achievement.
- **Ongoing** – Environmental Education Programs – Periodic and ongoing education programs that have been presented by EAC members include rain barrel and composting workshops. The EAC has also initiated a quarterly television show, *The Environmental Update*, that airs quarterly on Lower Merion TV (LMTV) to address environmental topics of concern within the Township, to provide some helpful hints and other guidance to address environmental issues in our homes or on our properties, and to introduce you to the environmental leaders in our community. The EAC has also produced numerous Public Service Announcements (PSAs) on topics including reducing the use of plastic shopping bags, reducing salt use during the winter, poison ivy removal, and proper pool water removal. The EAC has also contributed regular articles to the *Lower Merion Messenger*.
- **Ongoing** – Volunteer Efforts – EAC members have organized and participated in several events, including the Annual Stormwater Runoff 5K Train Run, NarbEarth Day, and the Lower Merion Conservancy's Earth Day.



Energy Conservation and Sustainability:

- Resolution No. 2013-03 – On January 16, 2013, the BOC adopted Resolution No. 2013-03 committing the Township to use its stewardship to promote energy conservation by:
 - a. evaluating and utilizing, “where economically practical, environmental building practices, including such measures as use of natural light, additional insulation, energy efficient lighting and controls, energy efficient appliances, renewable energy, and energy conservation in the planning, design, construction, maintenance and operation of all new and existing buildings and structures owned or operated by Lower Merion Township; and by
 - b. evaluating and utilizing, “where economically practical, formal systems to evaluate and certify environmental design, construction and operation of Township buildings and structures. Where a formal environmental certification is not used, the building or structure shall incorporate as many environmental and energy saving features as are economically practical, and Township personnel shall instruct all architects and other contractors working on the design of the project to do the same.”
- Subsequent to the publication of the aforementioned summary, the Township undertook the renovation of its libraries, a process that has created opportunities for energy conservation measures. Thus, the Bala Cynwyd Library is now heated and cooled by a geothermal HVAC system; uses LED lighting on sensors; has a white roof membrane to minimize summer heat gain and reduce the expenditure of energy in air conditioning; and features high efficiency glazing to reduce summer heat gain and winter heat loss. Luddington Library is capped with a green roof and utilizes high efficiency lighting. The Penn Wynne Library uses LED lighting, high efficiency air conditioning equipment, and new high efficiency boilers. LED lighting has also been installed in the Ardmore Library. Renovations planned for the Belmont Hills Library include the replacement of all existing lighting with LED lighting; the replacement of the existing HVAC equipment with high efficiency equipment a white roof membrane; and high efficiency glazing.
- **2015** – Members of the EAC worked with Township staff to investigate the use of solar energy on Township buildings.

Objectionable, Poisonous, and Invasive Species:

- **2016** – The EAC recorded a Public Service Announcement presenting an eco-friendly way to remove poison ivy.
- **2016** – The EAC drafted an amendment passed in a somewhat different form by the BOC to amend the Code of the Township of Lower Merion, Chapter 59, Brush, Grass and Weeds, to regulate the planting, growing or maintenance of Running Bamboo among other vegetation.
- **2016** – The EAC in collaboration with the Shade Tree Commission produced guidance for the BOC on the pending Emerald Ash Borer (EAB) infestation within the Township. The Township has recognized the need and has established a goal within the last several annual budgets to undertake measures to survey the Townships parks and street trees for preservation and systematically remove the weak and undesirable specimens to reduce the impact of the Emerald Ash Borer on the Township’s Ash Tree population. The Shade Tree Commission and Township Arborist will continue to educate the community, prescribe the desired management strategies (e.g., treat high value trees, pre-emptively remove lower value trees, replace street trees with other species), and develop a budget for management activities.

Recycling:

- **2015** – The EAC reviewed the Township’s 2015 recycling brochure and prepared comments for the 2016 brochure.
- **2016** – As of 2016, over 40% of municipal solid waste is recycled.

Stormwater Management

- **2012-2014** – Members of the EAC participated in the Water Resources Element Committee as part of the development of the Comprehensive Plan.
- **2015** – By resolution dated March 18, 2015 the BOC created the Lower Merion Storm Water Management Evaluation Task Force (Task Force) to determine the adequacy of the Township's current storm water management program to meet the current and expected future needs of the Township in a fair, fiscally responsible manner. The Task Force was also formed to identify the appropriate next steps to address these needs. Members of the EAC participated in this Task Force.
- **2015 and 2016** – Members of the EAC participated in Stormwater Workshops at Villanova University and St. Joseph's University.
- **Ongoing** – LMT staff encouraged developers to install rain gardens/bio retention areas at numerous sites.

IV. ENVIRONMENTAL ACTIONS – PROPOSED & ONGOING

Recognizing the beneficial environmental impacts the Township can have through stewardship, capital improvement, and regulation, this plan contemplates that the Township's EAC will, with the assistance and input of Township staff and oversight from the BOC and EIC, make concrete proposals to the BOC that can be implemented through the Township's areas of influence. The EAC and Township staff have compiled and evaluated various environmental initiatives. As previously mentioned, the EAC has organized these disparate environmental initiatives into seven categories: Building Practices and Land Use; Education and Volunteer Projects; Energy Conservation and Sustainability; Objectionable, Poisonous, and Invasive Species; Recycling; Stormwater Management; and Miscellaneous Environmental Initiatives.

The EAC has established environmental action champions to lead teams consisting of other members of the EAC, Township staff, interested board members, and selected residents or experts participating in each of these teams. Recommendations, observations and information is presented by the environmental action champions to the entire EAC and participating staff members for comment, discussion and ultimately recommendation by the EAC to the BOC.

This process has generated steady discussions with LMT officials and resulted in well vetted proposals from the EAC for consideration by the BOC and public discussion. This plan would continue the process by which new ideas are always added to the pipeline of initiatives being considered and allows proposals to be made and acted upon as they are developed.

The proposed environmental actions, grouped by category, are summarized below. The proposed environmental actions are ordered according to anticipated implementation schedule and identified accordingly [i.e., Short-term (S), etc.], as presented in TABLE 1:

A. Building Practices and Land Use

The 2012-2016 EAP proposed environmental initiatives for Building Practices and Land Use categories (see Sections IV.A and IV.D of the 2012-2016 EAP, respectively). Of the four primary Business Practice and 11 Land Use initiatives proposed, 10 of them have been reasonably addressed either through direct actions or as part of other activities such as routine project planning and review process, or the development and passage of the Comprehensive Plan.

The Building Practices and Land Use section is influenced by the Comprehensive Plan and the upcoming rewriting of the LMT Zoning Code. The Comprehensive Plan identified that LMT land use is divisible by

10 types (typologies) within Residential, Commercial, or Institutional categories. The typologies recognize the importance of the different characteristics of each. For instance, the Comprehensive Plan recognizes the differences between low-density and high-density residential development; variation in village versus regional center commercial zones; and neighborhood or regional institutions such as churches and colleges. Open space is addressed separately from these land use typologies.

The overall objectives of the Land Use Section of the Comprehensive Plan are to:

- Manage growth consistent with community objectives,
- Preserve and enhance existing land use patterns with targeted redevelopment centers, and
- Achieve these objectives through application of conventional and form based zoning.

To advance LMT toward achieving these objectives, the Comprehensive Plan proposes recommendations and strategies that could be implemented. Of these, environmental related recommendations that are within the EAC (or Council) purview are presented for each of the land use categories and for open space. In total, four residential, 10 commercial, two institutional, and eight open space recommendations presented in the Land Use Section of the Comprehensive Plan have an environmental focus that may be applicable for inclusion in this EAP.

The LMT Administrative Code, particularly the zoning codes, were originally established with building and expansion of development in mind. Now that the Township is mature, revision of the codes is needed to maintain sustainability and guide redevelopment. Such revision is from Euclidean or single-use based zoning to a hybrid form-based zoning code, which accounts for the differences of land use typologies recognized in the Comprehensive Plan. LMT is presently contracting with a specialty firm to assist with the writing of a hybrid form-based building and planning code for the Township. The revised zoning code is expected to be completed in 2018, within the implementation timeframe of this EAP.

The current and proposed Building Practices and Land Use Initiatives are (corresponding Comprehensive Plan Recommendations for Action are indicated parenthetically):

1. **Establish Open Space Funding Source. (M)** Establish a dedicated source of funding to advance LMT open space preservation and improvements, public access, and related projects. The EAC will evaluate open spaces not permanently protected, the applicability of funding sources that are currently being used by other municipalities, and develop a draft resolution for BOC consideration.
2. **Impose Riparian Buffer Requirements. (S)** Increase riparian buffer requirements through the adoption of the Darby Cobbs Stormwater ordinance.
3. **Implement Comprehensive Stream Bank Restoration Plans. (M)** Work with the Lower Merion Conservancy to develop and implement comprehensive stream bank restoration plans for entire tributaries not just portions of stream banks.
4. **Restore Natural Areas. (M)** The Lower Merion Conservancy acknowledged that the Township currently has a Natural Areas Crew but recommended increased resources, such as additional staff, be added to this crew.
5. **Increase Use of Porous Pavement or Permeable Pavers. (M)** Use of porous pavement or permeable pavers in municipal playing courts and/or parking lots.
6. **Landscape Contractor Licensing/Registration. (M)** Promote awareness of preferred horticultural best management practices and techniques for maintaining residential properties and preservation areas. Consider licensing or registration of landscape contractors in the Township to improve regulation of their activities and provide an avenue of communication regarding best management practices and Township requirements.

7. **Track Implementation of the Comprehensive Plan Recommendations (S, M, and L)**

- Preserve and Protect Environmentally Sensitive Areas and Historic Resources (LR3). **(M)**
- Identify Areas for Public Open Space Acquisition as an Alternative to Residential Development (LR4). **(S)**
- Large Scale Residential Development or Subdivisions Community Organization Meetings (LR5). **(L)** Consider establishing a formal procedure where applicants proposing large scale residential development, and subdivisions creating more than three lots from one lot, to present their development plans at a meeting of a recognized community organization with boundaries that include the applicant's property and if the community organization desires to hold a meeting, it must be completed before Township action on the applications.
- Explore Enhancements to the Open Space Preservation Overlay District by Applying Conservation Design Principles (LR6). **(M)**
- Preserve Institutional Uses (over five acres) that Contribute to Open Space and Discourage Conversion to Underlying Residential Use (LR7). **(M)**
- Initiate a "Design Summit" with Car Dealerships (LC5). **(M)** Initiate a "Design Summit" with car dealerships within the township to improve the appearance, function, environmental sustainability, and retail viability of the Lancaster Avenue corridor.
- Prepare Township-Wide Streetscape Standards (LC10). **(S)** Prepare Township-Wide Streetscape Standards for each commercial area typology. Require greening, bicycle, and pedestrian improvements with new development and work with private property owners and business associations to make such improvements to businesses not undergoing redevelopment.
- Improve Village Streetscape (LC11). **(M)** The Township should continue to coordinate with civic associations and local business owners to improve village streetscape. Particular emphasis should be placed on screening/ greening existing parking lots.
- Incorporate Streetscape Standards into Revised Zoning (LC25). **(M)** Promote street trees, commercial greening and landscaped setbacks.
- Promote Commercial Area Greening by Continuing to Recognize Exceptional Local Commercial Landscape Projects (LC58). **(M)**
- Develop a Signature Public Park (LC59). **(M)** Develop a signature public park as part of the redevelopment of the public parking lot at Lancaster and Bryn Mawr Avenue as identified in the Bryn Mawr Master Plan.
- Make Bala a Trail Town Destination (LC62). **(M)** Continue to integrate Cynwyd Heritage Trail (CHT) and regional/township bicycle network with commercial area to make Bala a trail town destination.
- Continue to Partner with CASSD and the Pennsylvania Horticultural Society on Gateway Corridor Greening Projects (LC66). **(M)** (also see Part IV, Section B)
- Fully Link the Trails and Public Gathering Spaces along the CHT and Pencoyd Trail with Trails and Gathering Spaces within the District (LC69). **(S)**
- Protect Valued Resources, Open Space and Scenic Viewsheds under all Future Circumstances (LI4). **(M)**
- Partner with Institutions to Optimize the Public Use of Playing Fields and Facilities to Serve Township Residents (LI5). **(S)**
- Acquire Land Necessary for and Construct New Playfields for Soccer and/or Baseball (LOS1). **(M)**
- Create an Emerald Necklace of Open Spaces (LOS2). **(S)** Create an Emerald Necklace of open spaces along the Schuylkill River from Philadelphia to West Conshohocken connecting many of Township's largest and most important open spaces, natural features and historic resources with a network of recreational trails.
- Create New Open Spaces in Commercial Areas and Underserved Residential Neighborhoods (LOS3). **(M)**

- Preserve and Enhance the Green Country Towne by Improving the Landscaping of Streets and Parks in Residential and Commercial Areas (LOS4). **(M)**
- Permanently Protect Open Space associated with Institutions and Large Residential Properties over 5-acres in Size (LOS5). **(M)**
- Develop Regulatory and Voluntary Methods to Permanently Protect Open Space (LOS6). **(M)**
- Implement the 1996 Parks and Recreation Plan as well as the Recommendations of Individual Park Master Plans Developed since 1996 (LOS7). **(S)**
- Create a Township-wide Bicycle and Pedestrian Network (LOS8). **(S)**

B. Education and Volunteer Projects

By promoting environmental education and participation in volunteer projects aimed at environmental protection and enhancement, the EAC seeks to foster environmental awareness that is crucial to sustainability over the long-term. An educated public will be better environmental stewards.

The summary below highlights actions that are ongoing or newly proposed, as well as recent accomplishments. The Environmental Advisory Council has identified at least four stakeholder groups in the township that we hope will play a role in Education and Volunteer Projects.

- Colleges, universities, and the Lower Merion School District
- Other EACs in the region
- “Friends” groups that manage and improve public trails and parks in LMT
- Non-profits and NGOs -- including, but not limited to -- Riverbend and the Lower Merion Conservancy

The current and proposed Education and Volunteer Projects Initiatives are as follows:

1. **Environmental Awards Program. (O)** Continue the EAC's annual Go for the Green Awards program for exemplary commercial, institutional and residential projects. This has been a powerful incentive to encourage environmentally friendly behavior. Award categories include:
 - **Joseph M. Manko Lifetime Achievement Award** - Presented to an individual or group that makes a long-term significant impact on environmental issues such as improvement, protection, and awareness of the environment. This award was named for former Lower Merion Township BOC President and Ward 9 Commissioner Joseph M. Manko, Esq., whose environmental endeavors as both an attorney and a community leader have improved the quality of life in Lower Merion now and for future generations.
 - **Resident** - Any individual living in the Township or Narberth Borough.
 - **Multi-Family Residential** - Any multi-family building in the Township or Narberth Borough.
 - **Commercial** - Businesses located in or providing services in the Township or Narberth Borough.
 - **Organization** - Nonprofit entities or citizens groups in the Township or Narberth Borough.
 - **Educational** - Schools, universities and affiliated student organizations or youth organizations in the Township or Narberth Borough.
 - **Site Greening** - A property that has been enhanced through greening efforts such as the installation of trees, shrubs and other plant material, the reduction in impervious paving, or other improvement to the outdoor environment thereby improving the site ecologically and aesthetically.
2. **Outreach. (O)** Grow our network of potential volunteers and partners by reaching out to the four aforementioned stakeholder groups, especially colleges and universities along the Main Line. Successful contact has already been made with Haverford College, Bryn Mawr College and Villanova University, with more to follow. These actions may be as simple as attending student

meetings periodically, or sharing upcoming events with students and/or faculty. By developing reciprocal relationships, we will become better informed of local events while expanding our pool of potential volunteers.

3. ***Environmental Education Program. (O)*** Continue the EAC's extensive environmental education program to educate residents/business owners/institutions, etc. through the Township website, newsletter, social media, The Environmental Update on LMTV, PSAs, tax bill mailings, street banners, watershed signs and more.
4. ***Environmental Roundtable Events. (O)*** Participate in annual environmental roundtable events and other activities, such as the Stormwater Runoff 5K Trail Run, Greenfest, Lower Merion High School Earth Week, NarbEarth Day, Lower Merion Conservancy's Earth Day.
5. ***Promote Stewardship with Practical Solutions. (O)*** Low to moderate cost, practical solutions for homes and businesses should be regularly promoted. Examples include rain barrels, composting containers, and road salt alternatives (as recently featured on an episode of the Environmental Update).

C. Energy Conservation and Sustainability

The EAC's 2012-2016 EAP started with the frank declaration that "natural resources are being consumed at unsustainable rates and in ways that have a harmful effect on the environment." To address that concern, the EAP was conceived as a "Township-guided initiative to promote sustainable development [and] conservation of energy and natural resources," among its other objectives. The Plan recognized that the Township has at its disposal three means or "areas of influence" through which it can promote energy conservation: stewardship, capital improvements, and regulation.

To be implemented through one or another of the Township's areas of influence, the EAP proposed numerous actions or initiatives, which it grouped into six substantive categories. Of the six, two have the most obvious pertinence to the goal of energy conservation: Building Practices and Energy Conservation. But the Plan initiative with arguably the strongest bearing on the related goals of energy conservation, sustainability, and environmental protection is found under the Plan's seventh action category denominated Miscellaneous Environmental Initiatives, which proposes the development of a "comprehensive greenhouse gas emission reduction plan for the Township."

As a means of carrying out its proposals, the EAC tasked itself in the previous Plan both to obtain feedback from LMT residents to help guide Plan implementation and revision and to create teams, led by EAC members, comprised of staff, interested members of the Board of Commissioners, and "selected" residents or experts that would assume responsibility for each substantive action category. The Plan also contemplated annual reports to the BOC on the EAC's progress towards implementation of its initiatives.

The intention of this new EAP as it relates to energy conservation and sustainability is threefold: to identify the progress that has been achieved in implementing the several initiatives relevant to energy conservation and the reduction of greenhouse gas emissions that the previous Plan identified; to report on the status of the procedural mechanisms that the Plan contemplated as they relate to energy conservation; and to outline a more rigorous program for fulfilling the Township's stated commitment to energy conservation, sustainability, and environmental protection.

To explain the urgency that the reference to a "more rigorous" plan is meant to convey, since the publication of the EAP, the threat of climate disruption posed by the release of carbon dioxide and other greenhouse gases into the atmosphere has become more acute and is scientifically incontestable. As a non-industrial municipality, LMT is not a conspicuous source of greenhouse gas emissions, as these things go, but all of us who consume energy, whether as public or private actors, are contributors just the same. The responsibility for sustaining the planet is a collective responsibility, and Lower Merion is part of the collective.

A last word of introduction: In 2016, LMT issued a Comprehensive Plan that is a marvel of municipal planning and to which many EAC members are proud to have contributed and to continue to contribute. While it spans a wide range of planning issues, the Comprehensive Plan does not address, save indirectly and to a very limited extent, the issues that a sustainability or greenhouse gas reduction plan of the nature proposed in the EAP would address. A sustainability plan deserves the stature of the elements currently included in the Comprehensive Plan. The kind of process and effort that went into the development of those elements should serve as the model for developing the greenhouse gas emission reduction plan that the EAP contemplated six years ago.

The 2012-2016 EAP called for the use of fuel efficient vehicles for the LMT fleet. However, Fleet Division Management reports that hybrid vehicles are not currently economically practical (“cost effective”) for fleet purposes, but that may change in the future as the engineering or market evolves. According to Fleet Division Management, the difference in cost between a hybrid and a conventional vehicle would fuel a conventional vehicle for 22 years. More than ten years ago, consideration was given to building a compressed natural gas fueling station and retrofitting vehicles to run on CNG. In 2005, it was determined that the project was not cost-effective and it was scrapped. The fleet operates on a mixture of bio-diesel and diesel fuel. Conversion to one hundred percent bio-diesel has been found to be impractical for what appear to be operational and cost considerations.

The current and proposed Energy Conservation Initiatives are as follows:

1. **Purchase Green/Renewable Energy Sources. (O)** Purchase some portion of the electricity used by the Township from green/renewable sources.
2. **Generate Green/Renewable Energy. (L)** Generate some portion of the Township’s electricity using renewable resources.
3. **Upgrade Street Lighting with Energy Efficient Lights. (M)** In early 2016, at the recommendation of the Township Manager, the Board’s Public Works Committee considered participation in the Delaware Valley Regional Planning Commission’s program to replace streetlights in as many as 43 municipalities in Montgomery, Bucks, Delaware, and Chester Counties under a guaranteed energy savings contract or a direct guaranteed energy savings contract via a Township RFP. The cost savings and emission reductions that would have inured to the Township were documented in a Preliminary Audit Report prepared by Johnson Controls in partnership with The Regional Street Light Procurement Program and dated February 19, 2016. Despite the advocacy of the Township Manager in favor of the replacement project, the Public Works Committee elected not to pursue it at that time due to the length of the payback period (9.5 to 17.3 years). The EAC should continue to advocate for a streetlight replacement project that brings about a major reduction in energy consumption through whatever contractual model and technology best serves the Township.
4. **Full Implementation of Resolution No. 2013-03. (S)** The extent to which Resolution No. 2013-03 has been implemented is uncertain. What is known is that a number of energy conservation measures have been undertaken. According to a Township Summary of Energy Conservation Measures (ECM) dated May 1, 2013, energy conservation measures taken to the date of the summary included, most notably, electrical improvements in the form of interior lighting and controls at nine of the Township’s owned buildings, the installation of gas condensing boilers in replacement of existing boilers in three Township buildings, and HVAC improvements in the form of split system installation and chiller replacement or the installation of controls in seven buildings. Formal systems should be adopted and implemented to evaluate and certify the environmental design, construction, and operation of Township buildings and structures, including the Township’s libraries, as mandated by Resolution No. 2013-03.
5. **Conduct a Township-wide Sustainability Workshop. (S)** The EAC, with the assistance of Township staff and the EIC, will organize and conduct a Township-wide Sustainability Workshop to explore ways to make our community more resilient and to further enhance environmental

quality. The workshop will include residents, businesses, Civic Associations, non-profits (e.g., Lower Merion Conservancy), and other organizations to create a unified vision for a sustainable community, propose goals to achieve that vision, and set specific actions members of the community and the Township can take to become a more sustainable (e.g., greenhouse gas emission reduction, energy conservation, use of renewable energy sources, ecological stewardship, waste reduction, monitoring and tracking progress).

6. ***Incorporate Return on Environment as part of the Township Planning Process. (L)*** The “Return on Environment” or ROE concept is a way to provide a valuation of natural system services (e.g., stormwater management, pollination, water quality) as part of the development planning process, and to incentivize developers to protect and connect open space, plant native plants, and maintain biodiversity. The EAC should investigate incorporation of an ROE system as part of the Township planning process.

D. Objectionable, Poisonous, and Invasive Species

Invasive species are the greatest threat to biodiversity after habitat destruction. Roughly 280 exotic, invasive plant species have been identified in the Mid-Atlantic region’s natural areas, and more than 1200 invasive species have been identified across the U.S. It’s well documented that invasive species displace native plants, as they effectively tap the pool of limited resources (healthy soil, nutrients, light, water) needed to survive. As the spread of invasive species increases in our native plant communities, critical food sources for wildlife are supplanted with harmful or inedible plants, and rare or endangered species are propelled towards extinction. Landscapes in many first and second ring suburbs in Pennsylvania are being transformed into low-value ecotones, no longer recognizable as healthy biomes due to lack of diversity and in some cases, even monoculture. The net impact is a loss of native biodiversity in the world of plants, animals and insects, and increasingly high costs for municipalities to manage their open spaces.

The EAC recognizes the urgency of increasing public awareness about invasive species; the importance of educating communities about appropriate actions to minimize the spread of invasive species already present in the Township; and the need to both actively remove invasive species from Township property and to restore healthy, native habitat.

An invasive species, as defined by the Federal Executive Order 13112, is a non-native species “whose introduction does or is likely to cause economic or environmental harm or harm to human health”. The term “invasive” is a biological attribute, meaning that the species under consideration can establish itself outside of its native range and effectively compete with native species, severely disrupting the stability of the affected ecosystem. – PA Invasive Species Management Plan, 2009

The current and proposed Objectionable, Poisonous, and Invasive Species Initiatives are:

1. ***Education and Outreach. (S & O)*** (also see Part IV, Section B) Increase awareness among residents, design and industry professionals, Township staff, and elected officials about the danger of invasive species and educate the public so they do not facilitate the introduction and spread of these organisms through their activities. Target tasks proposed:
 - Create a section on the Township website with guidelines on how to identify common invasive plants in our area and tips on how to control the spread or eradicate from private property. See Plants to Avoid below
 - Conduct a series of Training Sessions and Workshops teaching residents, park Friends and Township staff how to identify the most common invasive plants in our area, and proper techniques for removal and eradication of invasive species.
 - Identify and address pathways used by non-native invasive species in order to minimize their introduction and spread into and throughout the Township.
 - Facilitate a Public Outreach campaign in schools, including distribution of informational flyers, seasonal talks at elementary or middle schools, plant identification workshops for

children and adults focusing on the importance of native habitat, pollinators, and the food web.

- Communicate with local landscape industry with respect to discouraging use of particular plants. These below plants are still available in nurseries, have been listed by the Commonwealth of PA as invasive, and continue to be planted by homeowners:

Common Name	Scientific Name
Callery Pear	<i>Pyrus calleryana</i>
Winged Euonymous	<i>Euonymous alata</i>
Privet sp.	<i>Ligustrum japonica, obtusifolium, obosinsense, vulgare</i>
English Ivy	<i>Hedera helix</i>
Norway Maple	<i>Acer platanoides</i>

- Partner with neighboring townships for broader educational campaign on state-wide nuisance plants or insects (e.g., emerald ash borer).
 - Produce LMTV spot on specific invasives (e.g., Norway maple on public lands) or nuisance species (e.g., poison ivy, lesser celandine for residential areas).
 - Mailing or article in Township Newsletter with a focus on residential scale plantings and how small-scale planting of invasive species can have state-wide damage. Reiterate list of plants to avoid.
 - Contribute to information database and/or develop regional clearinghouse database for invasive (e.g., plants, animals, microbes).
 - Small residential property – targeted mailing about small-scale planting of invasive species can have state-wide damage.
2. **Rehabilitate High-Priority Natural Areas. (M)** Determine priority for targeted restoration efforts in Township open spaces. Actively restore and rehabilitate high-priority natural areas, integrating restoration efforts into on-going land management activities. Seek public and private grant funding opportunities for restoration efforts.
 3. **Expand Park Friends and Volunteer Groups to Assist with Stewardship of Public Open Space. (M)** (also see Part IV, Section B) Volunteers can assist Township staff with management of native plant communities, and control and removal of invasive species. Suggested Parks/Township Natural Lands for restoration are:
 - Ashbridge Memorial Park (28.8)
 - Cynwyd Heritage Trail
 - Eco Valley Nature Park (5.9 ac)
 - Harriton (13 ac)
 - Henry Lane Park (22 ac)
 - Kenealy Nature Park (87 ac)
 - Merion Botanical Park (13.5 ac)
 - Rolling Hill Park (103 ac)
 - Sharpe Bird Sanctuary
 - Shortridge Memorial Park (12.3 ac)
 - West Mill Creek Park (9.6 ac)
 - Wynnewood Valley (10.9 ac)
 4. **Remove Invasive Species from Township Property. (S)** Develop species-specific or location-specific action plans for control, eradication and removal measures, based on Target List below.

Common Name	Scientific Name
Goutweed	<i>Aegeopodium podagraria</i>
Japanese stiltgrass	<i>Microstegium vimineum</i>
Porcelain Berry	<i>Ampelopsis brevipedunculata</i>
Wineberry	<i>Rubus phoenicolasius</i>
Bamboo	<i>Phyllostachys sp.</i>
Japanese Knotweed	<i>Reynoutria japonica</i>

E. Recycling

This team would evaluate actions that result in the increased recycling of products and materials at the Township, business, and public levels that will lead to:

- Reducing the amount of trash within the waste stream
- Emphasizing the importance of and increasing recycling and composting
- Informing commercial business owners and institutions on recycling compliance requirements.

Lower Merion Township Recycling Statistics

Waste Stream Categories/Years	2014	2015	2016
Refuse (tons)	14971	15236	14637
Co-mingled Recycling (tons)	2246	2446	2587
Recycled Mixed Paper (tons)	4113	4027	3920
Composted Brush and Leaves (tons; 2014 includes ice storm debris)	6600	3895	3090
Tires Collected (tons)	27	14	66
Metal Collected (tons)	269	227	264
Computers/TVs Collected (tons)	84	19	4
White Goods Collected (tons)	20	26	19
Textiles Collected (tons; new in 2016)			8
Total Diverted from Landfill (tons)	13359	10654	9958
Percent Diverted	47%	41%	40%

The current and proposed Recycling Initiatives are as follows:

1. **Pilot Recycling Program in Township Parks and other Properties. (M)** To fulfill the Comprehensive Plan strategy to implement a recycling program in all Township-owned properties, including parks, the EAC should work to initiate a pilot program to provide recycling containers in selected Township parks and other properties. Experiment with signage to see if it can improve the proper placement of recycled and trash items. The township should also place

announcements/education pieces on website, newsletter, press release etc. before starting the pilot. The Township should also enlist heavy users of the parks (e.g., recreational sports leagues) to participate in the program. Once a successful approach has been found, use this strategy to place recycling containers in all township parks and properties as well as across business districts.

2. **Selection of Environmentally-friendly Products. (M)** The Township already uses recycled content paper. Continue to select more environmentally-friendly products when purchasing new equipment or updating existing technology. It is noted that many products will have higher up-front costs some of which may be recouped over time. In order to help assure that environmentally-friendly product criteria are communicated to the Township suppliers, the EAC will develop a brochure which outlines procurement decision criteria, as follows:
 - a. Free or minimized toxic components
 - b. Maximum available recycled content
 - c. Product should be easily recycled
 - d. Promote energy conservation
 - e. Extended product life
 - f. Reduced packaging
 - g. Acknowledge/reward companies that have good corporate environmental policies.
3. **Increase Recycling, particularly Commercial Recycling. (S)**
 - a. Pilot having Building and Planning Department staff explain recycling requirements when a Certificate of Occupancy is issued. EAC should work with the appropriate Township departments to develop informational brochures for distribution.
 - b. Use existing Township database of commercial recyclers to begin a written educational campaign to commercial establishments that either do not provide recycling information for our annual reporting or are not recycling at all.
 - c. The EAC should evaluate the current status of business, apartment and construction recycling regulations and consider submitting suggestions for improvement to the Board of Commissioners.
 - d. The EAC should evaluate and recommend actions to the Board of Commissioners for the establishment of a polystyrene recycling program.
 - e. The EAC should work with the Public Works department to evaluate alternatives to the current clean up weekends with the goal of avoiding the congested conditions which are hampering the current approach.
 - f. The EAC should work with the Public Works department to regularly update the recycling brochure.
 - g. The Township should require that, where possible, paperwork submitted to the Township by businesses seeking contracts with the Township should be double-side printed.
 - h. Encourage developers demolishing structures to recycle or salvage materials.
 - i. The EAC should evaluate the establishment of a "Salvage Shed" or other action to support the reuse of household items of good quality by making these items available to interested persons.
4. **Expand Composting Program. (S)** Increase the existing Township compost program to reduce trash flow and increase the availability of high quality compost for home use.
 - a. The EAC will develop a program to educate citizens about keeping invasive species (e.g. bamboo, poison ivy) out of composting stream. (*also see Part IV, Section B*)

- b. The EAC should continue its composting demonstration programs.
 - c. The EAC should encourage Township schools to establish cafeteria composting and recycling programs.
5. **Continue Composting Seminars. (O)** Continue to conduct seminars on composting and provide bins at cost for residents who attend. Continue to apply for grant funds to be used to subsidize the cost of the bins. *(also see Part IV, Section B)*

F. Stormwater Management

The Stormwater Management section is influenced by the Water Resources Element of the Comprehensive Plan with the overall goals to:

- Ensure adequate supply of drinking water.
- Ensure that new development and existing development properly manage the quantity and quality of stormwater runoff.
- Ensure that stormwater management is environmentally and economically sustainable and integrates natural systems.
- Implement innovative methods to efficiently and economically manage municipal stormwater.
- Ensure that local stormwater management efforts meet or exceed federal and state requirements.

To advance LMT toward achieving these goals, the Comprehensive Plan proposes recommendations and strategies that could be implemented, including:

- Ensure that future growth achieved through development of vacant land, modest expansions of existing housing stock, and redevelopment of commercial areas properly manages the quantity and quality of stormwater on site consistent with Township requirements;
- Promote retrofitting of previously developed properties without stormwater management to manage stormwater onsite;
- Promote retrofitting of public stormwater infrastructure to include natural systems to the greatest degree practical to reduce the impact upon sensitive natural features, while also providing opportunities to enhance naturalistic elements consistent with the Township's low-density suburban character;
- Recognize the contribution of broad canopy shade trees along Township roads and on Township properties towards stormwater management; and
- Continue to ensure that local stormwater management efforts meet existing or future federal and state requirements and that local stormwater policy meets these requirements in the most cost-efficient manner.

The current and proposed Stormwater Management Initiatives are as follows:

1. **Assist with the Development of the Comprehensive Stormwater Management Plan (W8). (S)**
To implement the recommended policy, this Comprehensive Plan recommends the preparation of a comprehensive stormwater management plan to guide a three-part implementation strategy of private retrofit improvements, public infrastructure enhancements, and regulatory controls to reduce stress on public infrastructure and natural systems. The first step towards implementing the recommended approach is to expand and update the 2006 Township-wide Stormwater Program to a Comprehensive Stormwater Management Master Plan, which identifies issues, inventories resources, and presents specific strategies for addressing the issues. The Township has selected a contractor to prepare the plan. The EAC will work closely with the contractor throughout the plan's development.
2. **Strengthen Existing Stormwater Regulations (W1). (M)** Work with Township staff to strengthen and expand existing stormwater regulations to require stormwater management best practices on smaller property expansions under 1,500 square feet.

- a. Consider lowering the threshold that triggers mandated stormwater improvements.
 - b. Assist in the development of a point system to give credit for incorporating stormwater best management practices on projects under 1,500 square feet.
3. ***Incorporate Stormwater Best Management Practices into Township Codes (W2). (M)***
 Current Township codes do not fully reflect all best management practices. Assess and amend Township codes to incorporate and incentivize erosion and sediment controls and other best management practices. Revise the Natural Features Code to promote stormwater management by further encouraging the protection of natural features and provision of compensatory landscaping where appropriate.
4. ***Integrate Urban Forestry and Conservation Design Practices into the Stormwater Management Code (W3). (M)*** There exists a need to better integrate protection of natural features and incorporation of urban forestry principles into Stormwater Management Codes.
- a. Assess and amend Township codes to incorporate Low Impact Development/ Conservation Design and Urban Forestry concepts into Stormwater Management Code to better preserve natural site features, manage stormwater runoff, and promote water quality.
 - b. Strengthen regulations that promote preservation of large trees. Quantify the benefits of large tree preservation in terms of stormwater management.
 - c. Work with Shade Tree Commission to establish and track progress towards urban forestry targets.
5. ***Update the Natural Features Code (W4, W6, and LC12). (M)*** A principal original purpose of the Natural Features Code was to manage the development of estates into subdivisions, so currently it does not adequately address more recent development trends toward higher density infill and redevelopment. Also, existing development regulations do not link the requirement for landscape improvements with stormwater management on existing and proposed parking lots. Update the Natural Features Code to adequately address the impacts of higher density infill and redevelopment. Assess and amend the Natural Features Code to eliminate redundancies and to make the Code more applicable to properties undergoing infill and redevelopment in higher density areas of the Township, as well as to improve stormwater management on existing, new, and redeveloped parking lots. Determine if the provision of specific regulations and/or incentives can be integrated into stormwater management and site greening throughout commercial areas (e.g., green parking lot ordinance).
6. ***Continue Rain Barrel Seminars. (O)*** Continue to conduct seminars on rain barrels and provide barrels for residents who attend either at no charge or a nominal fee. Continue to apply for grant funds to be used to subsidize the cost of the barrels. *(also see Part IV, Section B)*
7. ***Continue Annual Stormwater Runoff 5K Trail Run. (O)*** In conjunction with the Lower Merion Conservancy, continue the annual Stormwater Runoff 5K trail run along the Cynwyd Heritage Trail or other LMT location to raise funds for Township stormwater projects and education. Use signage along the run and walk routes to demonstrate natural and manmade features that aide in the Township's stormwater management program. *(also see Part IV, Section B)*
8. ***Continue to Install Stormwater Medallions on Stormwater Inlets Throughout the Township. (O)*** Installation of medallions educates residents to not dump anything into inlets.

**TABLE 1
CURRENT AND FUTURE ENVIRONMENTAL INITIATIVES**

Category	Environmental Initiative	Schedule
Building Practices and Land Use (BP&LU)	1. Establish Open Space Funding Source	M
	2. Impose Riparian Buffer Requirements	S
	3. Implement Comprehensive Stream Bank Restoration Plans	M
	4. Restore Natural Areas	M
	5. Increase Use of Porous Pavement or Permeable Pavers	M
	6. Landscape Contractor Licensing/Registration	M
	7. Track Implementation of Comprehensive Plan Recommendations	S, M, L
Education and Volunteer Projects (E&VP)	1. Environmental Awards Program	O
	2. Outreach	O
	3. Environmental Education Program	O
	4. Environmental Roundtable Events	O
	5. Promote Chemical Free Lawn Care	O
Energy Conservation and Sustainability (EC&S)	1. Purchase Green/Renewable Energy Sources	O
	2. Generate Green/Renewable Energy	L
	3. Upgrade Street Lighting with Energy Efficient Lights	O
	4. Full Implementation of Resolution No. 2013-03	M
	5. Conduct a Township-wide Sustainability Workshop	S
Objectionable, Poisonous, and Invasive Species (OP&IS)	1. Education and Outreach	S & O
	2. Rehabilitate High-Priority Natural Areas	M
	3. Expand Park Friends and Volunteer Groups to Assist with Stewardship of Public Open Space	M
	4. Remove Invasive Species from Township Property	S
Recycling (R)	1. Pilot Recycling Program in Township Parks and other Properties	M
	2. Selection of Environmentally-friendly Products	M
	3. Increase Recycling, particularly Commercial Recycling and polystyrene	S
	4. Expand Composting Program	S
	5. Continue Composting Bin Seminars	O
Stormwater Management (SWM)	1. Assist with the Development of the Comprehensive Stormwater Management Plan (W8)	S
	2. Strengthen Existing Stormwater Regulations (W1)	M
	3. Incorporate Stormwater Best Management Practices into Township Codes (W2)	M
	4. Integrate Urban Forestry and Conservation Design Practices into the Stormwater Management Code (W3)	M
	5. Update the Natural Features Code (W4, W6, and LC12)	M
	6. Continue Rain Barrel Seminars	O
	7. Continue Annual Stormwater Runoff 5K Trail Run	O
	8. Continue to install stormwater medallions on stormwater inlets throughout the Township	O

Short-term (S) – those actions with target completion dates within 1 year,
Mid-term (M) – those actions intended for completion within 2-3 years,
Long-term (L) – actions to be completed in 4-5 years, and
Ongoing (O) – actions that will have continued progress or promotion.