

## **LOWER MERION TOWNSHIP ENVIRONMENTAL ACTION PLAN**

### **I. Overview**

This plan proposes a Township-guided initiative to promote the conservation of energy and natural resources, and is based on areas of action on which the Township can exert its influence in pursuit of environmental conservation goals. The plan responds to the emerging awareness among local governments and their residents that communities are consuming natural resources at a rate that cannot be sustained indefinitely, and in ways that have a harmful effect on the environment. Equally, the plan encourages action at the local level that can, both individually and in conjunction with other communities, have a meaningful impact on the local, regional and even global environment. Recognizing this emerging awareness and the desire of the Township and its residents to take action, this plan has been developed to provide a framework for moving forward with numerous different environmental initiatives in an organized fashion. It provides an opportunity for Lower Merion Township to join and endorse the growing movement toward environmentally-sound initiatives across the spectrum of its areas of influence.

This plan presupposes that there are three general means by which the Township can exert its influence to conserve energy and natural resources.

#### **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.*

#### **Capital Improvements**

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

#### **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 dramatic impact the Township can have on the implementation of environmental initiatives can be easily illustrated.

### **II. Areas of Influence**

#### **A. Stewardship**

The Township owns and maintains numerous properties throughout the Township and purchases products and services on a large scale as a routine part of its daily operations. The Township's annual purchasing expenditures are approximately \$20 million. The manner in which the Township manages these properties and assets can have significant environmental impacts, whether by reducing the amount of pesticides used on public lands; making choices about the fuels the Township uses to power its fleet of vehicles; or how the Township powers its buildings.

Stewardship can entail establishing programs that focus on energy conservation; or the use of environmentally-friendly products, such as products derived from recycled materials, or those that can be recycled after their useful life has been exhausted. 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 making sure that every measure that can responsibly be taken to further the Township’s environmental action plan is being taken.

**B. Capital Improvements**

This focuses on projects that the Township intends to pursue in the future as part of its five 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 five 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. As can be seen from the chart below, the Township has invested over \$50 million in capital improvements over the past five years.

<b>Lower Merion Township</b>						
Capital expenditures, 2002-2006						
	2002	2003	2004	2005	2006	Totals
Township, from capital fund*	\$6,641,990	\$7,403,762	\$7,403,762	\$12,942,819	\$19,486,410	\$53,878,743
Non-township (i.e., private, institutional, etc)**	\$190,400,000	\$231,448,000	\$277,270,000	\$290,294,200	\$248,320,800	\$1,237,733,000
<b>Totals</b>	<b>\$197,041,990</b>	<b>\$238,851,762</b>	<b>\$284,673,762</b>	<b>\$303,237,019</b>	<b>\$267,807,210</b>	<b>\$1,291,611,743</b>
*Not including federal, county or other supplements						
**Based on building permit applications						

Examples of expenditures that are in the current five-year plan that could fit readily into this part of the plan and be reviewed with a critical eye toward environmental impacts and benefits, include:

1. 4021 The Ardmore Transit Center;
2. 4024 Merion-Cynwyd Streetscape Improvements;
3. 4053 Bryn Mawr Town Center Improvements;
4. 4054 Bala Avenue Streetscape Improvements;
5. 4063 Public Safety Building Renovations;
6. 4072 Schauffele Green Project;
7. 4203 Union Avenue Bridge Reconstruction;
8. 4214 Street Lighting Expansion;
9. 4216 Rock Hill Road/Belmont Avenue Transportation Service Area.

### **C. Regulation**

Perhaps the greatest impact can be realized from changes to our Township regulations. For example, development in the private sector far outstrips the Township's own development activities. Each private sector dollar spent on construction, from design through occupancy, has an impact on resources and the environment, so each dollar spent in an environmentally conscientious way reduces consumption and contributes to environmental well-being. Similarly, stormwater best management practices applied to all properties in the Township obviously can have a far greater impact than if they are only applied to public projects.

From 2002 through 2006, the private sector spent over \$1 billion on construction projects. Had those projects achieved even modest levels of "LEED" ("Leadership in Energy and Environmental Design") certification, they would have played a major role in conserving resources during construction and subsequent operation, protecting the environment, reducing exposure to potentially harmful building materials and encouraging sustainable development practices. The key ingredient for this third part of the plan involves restructuring Township regulations to require the incorporation of principles of conservation and preservation of natural resources into all activities regulated by the Township and especially construction projects.

Before the Board right now are private sector projects that could have tremendous environmental impacts, potentially beneficial impacts, on the environment. Examples include:

1. Developments along Rock Hill Road;
2. Lower Merion and Harriton High Schools;
3. 110-112 Sibley Avenue, Ardmore;
4. 50 Linwood Avenue, Ardmore;
5. Dreycott Lane;
6. 323 Fishers Road (residential scale project, Class II structure, demolition and addition);
7. 10 Union Avenue; and
8. The forthcoming Ardmore Business District Transit Center Redevelopment RFP.
9. 35 Cricket Terrace
10. 600 Righters Ferry Road

### **III. The Path Forward**

Recognizing the beneficial environmental impacts the Township can have through these three areas of influence, this plan contemplates that the Township's Environmental Advisory Council (the "EAC") will, with the assistance and input of Township staff and oversight from the Board, make concrete proposals to the Board that can be implemented through the Township's areas of influence. The EAC and Township staff have already begun compiling and evaluating various environmental initiatives. The EAC has organized these disparate environmental initiatives into six categories: Building Practices and LEED; Education; Energy Conservation; Land Use; Recycling; and Miscellaneous Environmental Initiatives. The EAC has proposed organizing itself into teams consisting of members of the EAC leading each team, with staff, interested Board members and selected residents or experts participating in each of these teams. Recommendations, observations and information would be presented by the teams to the entire EAC and participating staff members for comment, discussion and ultimately recommendation

by the EAC to the Board. The hope would be to generate a steady flow of well vetted proposals from the EAC for consideration by the Board and public discussion. This plan would create a process by which new ideas can always be added to the pipeline of initiatives being considered and would allow proposals to be made and acted upon as they are developed. This would be a dynamic environmental action plan for the Township.

#### **IV. The EAC's Recommended Categories for Evaluating the Current List of Environmental Initiatives and Future Initiatives**

The EAC has taken the current list of environmental initiatives and organized the individual concepts it believes warrant further consideration, evaluation and action as follows:

##### **A. Building Practices and LEED**

This team would evaluate methods by which to encourage or require sound environmental and sustainable practices in public and private sector construction projects, including the use of LEED or other certification programs as a mechanism for implementation of these objectives.

Generally speaking, this team will consider ways to encourage or require developers to use environmentally friendly methods, designs or materials in both new construction and when retrofitting projects. This team may consider sustainable design methods; encouraging use of Energy Star products, recycling grey water, installing geothermal heating/cooling systems and green roofs; whether developers should be offered expedited permit review, expedited approvals or other incentives for employing such technologies. This team will also consider whether the "tear down" phenomenon in the Township is having an environmental impact and whether a regulatory response is warranted. This team would also consider whether Township construction projects should be required to incorporate environmentally friendly practices.

##### **B. Education and Volunteer Projects**

The items from the current list of Ideas to Make the Township Greener that fall into this category are as follows:

**Ask EAC to establish an annual Environmental Awards Program for exemplary commercial, institutional and residential projects. This could be a powerful incentive to encourage businesses and developers to adopt environmentally friendly behavior. A category for junior and/or senior high school students could also be included. The awards ceremony should be conducted in April around Earth Day.**

**Post Integrated Pest Management Program/Policy in Township parks and on Township website to make residents aware of this green initiative (use Township sign shop to create signs).**

**Ask the EAC to undertake an extensive environmental education program to educate residents/business owners/institutions, etc. via Township website, newsletter, channel 7, tax bill mailings, street banners, watershed signs, etc. including but not limited to:**

- **What the Township is currently doing to reduce environmental impacts/emissions and what residents can do to reduce their own impact upon the environment.**
- **Responsible management of contractors including insisting on proper disposal practices, implementation of erosion and sedimentation controls, choice of materials, etc.**
- **Proper stream/riparian/stormwater management using best management practices (BMPs).**
- **Reduction of trash to the waste stream and the importance of recycling and composting.**
- **Informing commercial business owners and institutions on recycling compliance requirements.**

**Make Earth Day a more significant event in the Township, perhaps in conjunction with the Lower Merion Conservancy and Riverbend. Upper Merion Township Parks and Recreation has been very successful in generating excitement and publicity for its celebration of Earth Day.**

**Apply for grant funds to conduct seminars on rain barrels/composting bins and provide barrels/bins for residents who attend either at no charge or a nominal fee. Grant funds can be used to subsidize the cost of the barrels/bins.**

**Convene an annual environmental roundtable.**

### **C. Energy Conservation**

The items from the current list of Ideas to Make the Township Greener that fall within this category are as follows:

**Purchase some portion of the electricity used by the Township from green/renewable sources. Calculations estimate it will cost an additional \$26,152 annually to power the Township Administration Building with 100% wind energy.**

**Generate some portion of the Township's electricity using solar panels or other renewable resources installed at Township facilities. Research whether this may be more feasible if done in partnership with Riverbend, Lower Merion Conservancy and/or other institutions in Township. Apply for grant funding under DEP Energy Harvest Grant Program for pilot program at either Ardmore Pool or Belmont Hills Pool or other Township facility. This was done successfully in Media, where they obtained funding from the aforementioned program to purchase five solar panels.**

**Purchase hybrid vehicles for the Township fleet and/or ensure that gasoline vehicles are the most fuel efficient. Some Township vehicles are driven for inspections/site visits by one person and the possibility exists that some vehicles could be downsized to achieve greater fuel economy.**

**Modify existing Township vehicles to reduce idling and/or emissions.**

**Utilize bio diesel or some other alternative energy source for existing vehicles. Township awaiting results of Clean Fuels Fleet Feasibility Study.**

**Consider signing onto one of the following agreements to reduce emissions within the Township:**

- **Endorsement of the U.S. Mayors Climate Protection Agreement to reduce global warming pollution. The Agreement calls for a commitment from the Township to reduce current emissions by 7% below the level of emissions as they existed in 1990. The program provides municipalities/cities with a standardized means of calculating greenhouse gas emissions, of establishing targets to lower emissions, of reducing greenhouse gas emissions and of monitoring, measuring and reporting performance. There is also a software tool to help municipalities comply with the methodology. The Sierra Club endorses this Agreement through its Cool Cities program.**
- **Endorse Smart Power's PA Clean Energy Communities Campaign by committing to obtain 20% of municipal electricity from clean, renewable sources by the year 2010 and increasing over time to reach the targeted goal. Program also requires establishment of a Task Force to research and make recommendations as to how the community can achieve its goals; and education and encouragement of the community's residents, businesses and institutions to support clean energy. Residents and business owners must sign up to purchase clean energy in one of the two following amounts: 7% of the combined household and business population within the community must sign up for clean energy or new household and business purchases of clean energy within the community must be equivalent to 60,000 kWhs per month approximately. Cost estimate template provided.**

#### **D. Land Use**

The items from the current list of Ideas to Make the Township Greener that fall within this category are as follows:

**Establish a dedicated source of open space funding to advance open space preservation and related projects. Such funding could be used in conjunction with the County's Green Fields/Green Towns allocation to the Township and in conjunction with private sources (charitable gifts), so that the Township could pursue open space projects that are currently financially out of reach. Many of our neighboring inner-ring suburban municipalities have recently approved some form**

**of bond referendums for long term borrowing for open space. Whitemarsh Township (0.25 EIT); Radnor Township, \$20 million open space bond — approved by 78% of voters; Upper Dublin Township, \$20 million bond. If attractive, direct EAC to draft resolution for BOC consideration.**

**Use of bio-retention basins, rain gardens and other innovative stormwater controls in all new/redeveloped parking areas and along streets and intersections.**

**Evaluate following as part of the impending Comprehensive Plan Update:**

- **Increase minimum residential lot size.**
- **Increase preservation area requirements for new Open Space Preservation District developments.**
- **Strengthen the Natural Features Code relative to construction of new parking lots and impervious surfaces. Require stronger minimum standards to ensure that the maximum numbers of trees are planted. Some communities have adopted ordinances in response to the need to shade large expanses of asphalt surfaces. Charlotte, NC requires that each parking space be within 60 feet of the center of a tree, rather than the approach of one tree per “X” number of spaces.**
- **Changes to the impervious surface and/or stormwater management ordinance to improve recharge and stormwater controls.**

**Implementation of a stormwater runoff fee for a dedicated source of funding for stormwater projects and creation of a stormwater utility to manage funds. Utility could be responsible for creating incentives to reduce stormwater runoff. Township could also use funds to implement NPDES Phase II Permit requirements, fund capital improvement projects including projects identified in the 2006 Township-Wide Stormwater Study. Fee would ideally be based on amount of impervious per lot in the Township. In the alternative, Township could adopt a fee in lieu ordinance for stormwater management facilities which would allow a developer to pay a fee to the Township in lieu of providing on-site stormwater management controls. Township could then use accumulated fees to implement more comprehensive stormwater solutions.**

**Practice Chemical Free Lawn Care by going entirely “organic” with our IPM program as was done in Radnor Township where an outside contractor was hired to implement their IPM program.**

**Use of porous pavement or permeable pavers in municipal playing courts and/or parking lots.**

**Work with the Lower Merion Conservancy to develop and implement comprehensive streambank restoration plans for entire tributaries not just portions of streambanks. A consultant may also need to be hired.**

**Restore Natural Areas — 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.**

**Implement the Bike and Pedestrian Study to create bicycle trails, bike lanes and amenity improvements for pedestrians.**

**In Township parks with streams, stop mowing stream edges and convert areas to meadow or plant trees and shrubs. Enhance/restore existing riparian buffers in Township parks by implementing best management practices that were used successfully in other parks.**

**E. Recycling**

The items from the current list of Ideas to Make the Township Greener that fall within this category are as follows:

**Continue to select more environmentally friendly products when purchasing new equipment or updating existing technology. In making procurement decisions the following criteria should be included: demand a reduction or elimination of toxic components in products that are purchased; increase requirement for recycled content; product should be easily recycled; promote energy conservation; extend product life; reduce packaging and acknowledge/reward companies that have good corporate environmental policies.**

**Increase recycling, particularly commercial recycling. Potentially have Building and Planning Department staff explain recycling requirements when a Certificate of Occupancy is issued. Also 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 to PADEP or are not recycling at all.**

**Provide recycling containers in business districts and Township parks. Requires purchase of new containers with smaller openings to prevent trash from being deposited. Note: Township currently exploring this by undertaking a pilot program at Township pools.**

**Expand composting program.**

**F. Miscellaneous Environmental Initiatives**

The items from the current list of Ideas to Make the Township Greener that fall within this category are as follows:

**Seek grant funding to study ways to “green” the Township and reduce greenhouse gas emissions. Develop a comprehensive environmental plan for the Township as was done in Santa Monica, California.**

**Enact an outdoor lighting ordinance that reduces sky glow and controls glare on adjacent properties.**

**Amend the noxious weed ordinance and the list of forbidden plants to promote native plants. The EAC is currently reviewing the Township’s existing ordinance to achieve this suggestion.**

**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. There is a lack of awareness of best management practices or preferred horticultural techniques and strategies, for example, when maintaining preservation areas on private property. Part of the registration process could eventually include demonstrating professional competencies using the PLNA — certification for Landscape Technician or Horticulturist Nurseryman, or the Pennsylvania Landscape and Nurseryman Association guidelines. Requiring registration would assist with enforcement. Will need to define “landscaper” and determine whether arborists and general tree care contractors should be included in that definition. Possibly mimic existing security alarm registration program. Use Township newsletter/civic associations to bring awareness to property owners of impending requirement for landscapers to be licensed.**

## APPENDIX A

### Ideas to Make the Township Greener

As of 6/25/07

Assembled by The Lower Merion Township  
Environmental Advisory Council with  
Commentary from EAC Staff Committee

#### **1. Use of bio-retention basins, rain gardens and other innovative stormwater controls in all new/redeveloped parking areas and along streets and intersections.**

Pros • These facilities, whether installed by the Township as part of public projects or by private developers, would be intended to reduce stormwater runoff and improve the quality of recharged stormwater. The presence of these innovative features will raise public awareness about stormwater quality issues. These facilities are aesthetically pleasing, beneficial to wildlife and may reduce developers hard costs associated with traditional stormwater facilities for piping/inlets.

Cons • Developer resistance due to maintenance requirements and nontraditional/nonstructural methods of stormwater management. Since this is not currently a code requirement, it may be necessary to draft an ordinance amendment to ensure compliance and establish appropriate requirements and standards which will require an investment of staff time including the Township Solicitor's time.

#### **2. Ask EAC to establish an annual Environmental Awards Program for exemplary commercial, institutional and residential projects. This could be a powerful incentive to encourage businesses and developers to adopt environmentally friendly behavior. A category for junior and/or senior high school students could also be included. The awards ceremony should be conducted in April around Earth Day.**

Pros • Highlight environmentally friendly developers, development techniques, projects and activities to raise public awareness.

Cons • Investment of staff time to assist EAC with the creation and implementation of the program. Modest direct costs to purchase award recognition materials and place appropriate advertisements in local newspapers.

#### **3. Seek grant funding to study ways to "green" the Township and reduce greenhouse gas emissions. Develop a comprehensive environmental plan for the Township as was done in Santa Monica, California. These were originally two separate items on the EAC's list and the Staff committee combined them since they are similar.**

Pros • Township will have a detailed plan to follow to ensure that the environmental impacts of all decisions are considered and will have a comprehensive and prioritized list of methods to become greener accompanied by specific cost estimates from experts in this field.

Cons • Investment of staff time to research potential grant opportunities and apply for grant funding. If a grant is received, an investment of staff time will be required to administer grant, prepare a request for proposals, select a consultant, provide information to and oversee selected consultant. Also investment of staff time to implement the plan. If grant funding is not obtained then the Township would have to fund out of general operating budget or seek other funding sources. This was placed in the indirect cost category because other local municipalities have funded similar plans with grant funds.

**4. Post Integrated Pest Management Program/Policy in Township parks and on Township website to make residents aware of this green initiative (use Township sign shop to create signs).**

Pros • The public will be educated on this environmentally friendly program.

Cons • Investment of staff time to design, construct and install signage and direct costs to purchase materials to make the signage.

**5. Ask EAC to undertake an extensive environmental education program to educate residents/business owners/institutions, etc. via Township website, newsletter, channel 7, tax bill mailings, street banners, watershed signs, etc. including but not limited to:**

- **What the Township is currently doing to reduce environmental impacts/emissions and what residents can do to reduce their own impact upon the environment.**
- **Responsible management of contractors including insisting on proper disposal practices, implementation of erosion and sedimentation controls, choice of materials, etc.**
- **Proper stream/riparian/stormwater management using best management practices (BMPs).**
- **Reduction of trash to the waste stream and the importance of recycling and composting.**
- **Informing commercial business owners and institutions on recycling compliance requirements.**

Pros • Directly implements the mission of the EAC which is to educate the public. An educated public will result in positive impacts on the environment.

Cons • Investment of staff time to assist EAC with research and education activities, costs to produce educational materials and public service announcements.

**6. Make Earth Day a more significant event in the Township, perhaps in conjunction with the Lower Merion Conservancy and Riverbend. Upper Merion Township Parks and**

**Recreation has been very successful in generating excitement and publicity for its celebration of Earth Day.**

Pros • An educated public, potential to build community pride and momentum for environmental awareness. An opportunity to collaborate with local environmental and conservation organizations.

Cons • Investment of staff time to plan, advertise and conduct the event and prepare educational materials, notices, etc.

**7. Impose riparian buffer requirements via adoption of Darby Cobbs Stormwater Management ordinance.**

Pros • Protected streambanks, reduced erosion, filtered stormwater runoff whose velocity is slowed by the protection of existing riparian plantings.

Cons — Areas of certain properties which abut streams will no longer be developable and property owners and developers could claim a taking because of the reduced development potential. Investment of staff time to educate public on advantages of riparian buffers. Potential that the riparian buffer requirement may be removed from this ordinance.

**8. Apply for grant funds to conduct seminars on rain barrels/composting bins and provide barrels/bins for residents who attend either at no charge or a nominal fee. Grant funds can be used to subsidize the cost of the barrels/bins.**

Pros • Greywater recycling, reduced stormwater runoff and erosion during storms, reduced property damage, reduced trash flow. Potential opportunity to collaborate with Lower Merion Conservancy and/or Riverbend to implement this program.

Cons • Investment of staff time to write and administer grant application, plan, publicize and attend seminars.

**9. Convene an annual environmental roundtable**

Pros • Provide a forum to discuss local environmental issues and identify common ground and potential for collaboration with other organizations. Identify new ideas and volunteer leadership.

Cons • Investment of staff time to plan, publicize, attend and conduct the roundtables.

**10. Reduce demolition rates**

Pros • Preservation of existing housing stock some of which may have historic value. Reduction of waste to landfills and potential reduction in demand for new materials.

Cons • No obvious way to accomplish this and would result in takings claims from property owners. Investment of staff time to investigate how to accomplish this.

**11. In Township parks with streams, stop mowing stream edges and convert areas to meadow or plant trees and shrubs. Enhance/restore existing riparian buffers in Township parks by implementing best management practices that were used successfully in other parks.**

Pros • Reduction of polluted stormwater runoff entering local streams, regeneration of natural vegetation, enhanced habitat, savings in reduced staff time mowing these areas and savings on fuel which in turn reduces green house gas emissions into the environment. The educational and restoration component can be accomplished in combination with the Lower Merion Conservancy and with grant funding.

Cons • Complaints from residents related to aesthetics, safety, bugs/ticks, vermin, etc. requires an investment of staff time to undertake educational programs. Restoration projects will require additional costs for design, materials and labor. Investment of staff time to oversee restoration projects and possible use of Township staff to implement some of the work. Investment of staff time to apply for grant funding and potential cost for grant match depending on grant program.

**12. Provide incentives to encourage developers to use environmentally friendly methods, designs or materials in both new construction and retrofit projects including but not limited to achieving LEED standards, incorporating sustainable design methods, using energy star products, recycling grey water, installing geothermal heating/cooling systems and green roofs in return for expedited permit review, expedited approvals or other incentives.**

Pros • Variety of environmental benefits including but not limited to reduced green house gas emissions, increased energy efficiency, reduced fuel consumption, etc. The Township would set an example for other municipalities to follow. Under LEED, a third party inspects the projects to ensure that LEED standards are adhered to.

Cons • Challenges from developers if LEED is required rather than offered as an incentive. If incentives are offered, requires an investment of staff time to craft appropriate incentives and determine what benefits should be offered in exchange. Township must determine how to enforce this requirement if incentives are offered and then the LEED standards are not met.

**13. Enact an outdoor lighting ordinance that reduces sky glow and controls glare on adjacent properties.**

Pros — Better lighting designs that minimize/prevent glare on adjacent properties and minimize disruption to wildlife from too much light during overnight hours.

Cons • Investment of staff time to research, write and enforce new regulations. Consultant will likely need to be hired to assist staff with this endeavor. New regulations may be opposed by commercial property owners who desire more lighting on their property for security reasons.

**14. Evaluate following as part of the impending Comprehensive Plan Update:**

- **Increase minimum lot size.**
- **Increase preservation area requirements for new Open Space Preservation District developments.**
- **Strengthen the Natural Features Code relative to construction of new parking lots and impervious surfaces. Require stronger minimum standards to ensure that the maximum numbers of trees are planted. Some communities have adopted ordinances in response to the need to shade large expanses of asphalt surfaces. Charlotte, NC requires that each parking space be within 60 feet of the center of a tree, rather than the approach of one tree per “X” number of spaces.**
- **Changes to the impervious surface and/or stormwater management ordinance to improve recharge and stormwater controls.**

Pros • Township will have a current plan to provide guidance toward future decision making on a wide variety of issues including but not limited to future development and growth, land use, housing needs, transportation, community facilities/utilities, protection of natural and historic resources, water supply and energy.

Cons • Requires significant dedicated staff time to complete the update and a consultant will need to be hired to assist staff so this project can be completed in a timely manner. Proposed changes such as increasing minimum lot size will be viewed by some property owners as a taking.

**15. Amend the noxious weed ordinance and the list of forbidden plants to promote native plants. The EAC is currently reviewing the Township’s existing ordinance to achieve this suggestion.**

Pros • Encourage use of native plants and elimination/reduction of invasive and exotic plants that pose a threat to native plants and diminish biodiversity. Positive impact upon native fauna due to increased availability of native food sources.

Cons • Investment of staff time to assist EAC with research and redrafting existing ordinance and enforcement.

**16. Establish a dedicated source of open space funding to advance open space preservation and related projects. Such funding could be used in conjunction with the County’s Green Fields/Green Towns allocation to the Township and in conjunction with private sources (charitable gifts), so that the Township could pursue open space projects that are currently financially out of reach. Many of our neighboring inner-ring suburban municipalities have recently approved some form of bond referendums for long term borrowing for open space. Whitmarsh Township (0.25 EIT); Radnor Township, \$20**

**million open space bond — approved by 78% of voters; Upper Dublin Township, \$20 million bond. If attractive, direct EAC to draft resolution for BOC consideration.**

Pros • Dedicated funding source for open space purchases and additional permanently protected land available to the public for use as either active or passive recreation. Some of the benefits of preserving land are reduced density, stormwater runoff and traffic congestion and preservation of natural features.

Cons • Objection by property owners due to increased taxes, investment of staff time to administer funds, determine which properties to purchase and negotiate with property owners for purchases. Additional costs to develop open space into active recreational uses such as athletic fields, playgrounds, sports courts, etc.

**17. Implementation of a stormwater runoff fee for a dedicated source of funding for stormwater projects and creation of a stormwater utility to manage funds. Utility could be responsible for creating incentives to reduce stormwater runoff. Township could also use funds to implement NPDES Phase II Permit requirements, fund capital improvement projects including projects identified in the 2006 Township. Wide Stormwater Study. Fee would ideally be based on amount of impervious per lot in the Township. In the alternative, Township could adopt a fee in lieu ordinance for stormwater management facilities which would allow a developer to pay a fee to the Township in lieu of providing on-site stormwater management controls. Township could then use accumulated fees to implement more comprehensive stormwater solutions.**

Pros • Dedicated funding source for stormwater improvements. If the fee is levied against each property based upon the amount of existing impervious surface, it may encourage older buildings to retrofit/add stormwater controls that were not required at the time of construction to minimize the fee.

Cons • Not currently provided for under Pennsylvania law but legislation authorizing has been proposed. House Bill 88 passed the House of Representatives in 2006 and will be re-introduced during 2007. This is often viewed as a new tax on citizens resulting in objections. Requires a substantial administrative cost and may require additional staff which could potentially be funded by the fees collected.

**18. Practice Chemical Free Lawn Care by going entirely “organic” with our IPM program as was done in Radnor Township where an outside contractor was hired to implement their IPM program.**

Pros • Enhanced environment and water quality because less pesticides/fertilizers applied to fields/lawn resulting in less polluted runoff. Reduced risk of health issues associated with use of chemicals.

Cons — Being entirely organic will result in increased costs if a contractor or additional staff must be hired to implement the program. The cost of organic materials may be higher than

traditional chemical materials. Athletic fields may have more weeds as a result of going completely organic. Staff notes that fields currently contain many weeds since they have not been sprayed at all while the current IPM program was being developed.

**19. Put add/alternates on all Township construction projects for environmentally friendly measures.**

Pros • Environmental benefit from increased energy efficiency, reduced fuel consumption/emissions, etc.

Cons — Additional costs most likely to be incurred initially but some may be recouped over time. Investment of staff time to perform a lifecycle cost analysis.

**20. 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. There is a lack of awareness of best management practices or preferred horticultural techniques and strategies, for example, when maintaining preservation areas on private property. Part of the registration process could eventually include demonstrating professional competencies using the PLNA — certification for Landscape Technician or Horticulturist Nurseryman, or the Pennsylvania Landscape and Nurseryman Association guidelines. Requiring registration would assist with enforcement. Will need to define “landscaper” and determine whether arborists and general tree care contractors should be included in that definition. Possibly mimic existing security alarm registration program. Use Township newsletter/civic associations to bring awareness to property owners of impending requirement for landscapers to be licensed.**

Pros • Township will have contact information on landscapers working in the Township and as a result a way to communicate with them to relay local regulations. Increased compliance with regulations. This would result in landscapers filing for a mercantile license which would have a positive financial impact.

Cons • Significant investment of staff time to ensure that all landscapers working in the Township are licensed. Will also require additional staff for enforcement.

**21. Find and build a dog park. Expand dog waste stations.**

Pros • Specific recreational area for dogs so less overrun of natural areas. Increased availability of “mutt mitts” and trash cans for disposal of dog waste resulting in less pollution to streams.

Cons • The Township has attempted to implement this suggestion unsuccessfully in the past because a location could not be found. Cost to purchase land if land not already owned by the Township. Other costs include installation of a water source, fencing, providing doggie mitts and trash cans and a parking area if is one not already available. Daily maintenance also required for disposal of waste unless volunteers agree to maintain the site.

**22. Establish Township Leaf Blower Standards which would be phased-in over time.**

The EAC already prepared a proposed ordinance for consideration by the Board on this subject and no further action by the EAC is contemplated.

**23. Purchase some portion of the electricity used by the Township from green/renewable sources. Calculations estimate it will cost an additional \$26,152 annually to power the Township Administration Building with 100% wind energy.**

Pros • Reduced greenhouse gas emissions. Public education and awareness and the Township would set the example for others.

Cons • Additional costs to tax payers. No immediate benefits to Township citizens since the reduced emissions are not achieved in the Township.

**24. Generate some portion of the Township's electricity using solar panels or other renewable resources installed at Township facilities. Research whether this may be more feasible if done in partnership with Riverbend, Lower Merion Conservancy and/or other institutions in Township. Apply for grant funding under DEP Energy Harvest Grant Program for pilot program at either Ardmore Pool or Belmont Hills Pool or other Township facility. This was done successfully in Media, where they obtained funding from the aforementioned program to purchase five solar panels.**

Pros • Reduced greenhouse gas emissions and public education and awareness. Township would set the example for others.

Cons • Cost to purchase solar panels if grant funding not obtained. Matching funding is looked upon favorably so if the Township decides to apply for funding it should consider providing a cash or in kind match. Investment of staff time to devise a project and fill out the application, administer the grant and oversee implementation.

**25. Purchase hybrid vehicles for the Township fleet and/or ensure that gasoline vehicles are the most fuel efficient. Some Township vehicles are driven for inspections/site visits by one person and the possibility exists that some vehicles could be downsized to achieve, greater fuel economy.**

Pros • Reduced greenhouse gas emissions and reduced fueling costs. Increased public education and awareness as Township would set the example for others.

Cons • Investment of staff time to conduct a cost comparison to determine whether hybrid cars would cost more to purchase/maintain than gasoline cars. Township waiting results of Clean Fuel Fleet Study which will address this issue. May require Township purchase of foreign made vehicles instead of current policy to purchase vehicles made in the USA. However, staff research shows that two American made hybrid compact sport utility vehicles are on the Pennsylvania Department of General Services state contract purchasing program.

**26. Modify existing Township vehicles to reduce idling and/or emissions (EPA's Smart Way Transport Partnership). Staff committee research indicates that only the freight industry is eligible for the Smart Way program. Other avenues would have to be explored.**

Pros • Reduced greenhouse gas emissions and public education and awareness. Township would set the example for others.

Cons • Additional costs to convert existing vehicles and potential increased maintenance costs. Township waiting results of Clean Fuel Fleet Study which will address this issue.

**27. Utilize bio diesel, a clean burning alternative fuel, or some other alternative energy source for existing vehicles. Township awaiting results of Clean Fuels Fleet Feasibility Study.**

Pros • Bio-diesel is produced from domestic renewable resources and it reduces reliance on foreign fuel sources and results in reduced greenhouse gas emissions.

Cons • There is currently a limited availability of bio diesel. However, a bio-diesel fuel plant recently opened in Philadelphia which may make this fuel source more attainable to the Township. Additional costs would be incurred to purchase and maintain a more diverse fleet of vehicles. Investment of staff time to research, oversee and implement this.

**28. In lieu of an Open Space Bond Referendum the Township Could use general funds to acquire open space and conservation easements.**

Pros • Additional permanently protected land available to the public for use as either active or passive recreation. Preservation of land reduces density, stormwater runoff and traffic congestion and preserves natural features.

Cons • Diversion of funds from current use to purchase land. Investment of staff time to select properties/easements for acquisition and negotiate purchases. Additional maintenance costs for acquired land and possible development costs (i.e. for active use as ball fields, playgrounds, etc.) depending on how land will be used. Loss of potential tax revenue if lands were to be developed.

**29. Use of porous pavement or permeable pavers in municipal playing courts and/or parking lots.**

Pros • Enhanced stormwater management, public education. Set example for others, great demonstration project.

Cons • Staff research shows that porous pavement costs approximately 50% more than non porous pavement and requires regular maintenance to ensure that pavement does not become clogged with sediment and/or debris. Investment of additional staff time for maintenance.

**30. Implement the Bike and Pedestrian Pathways Study to create bicycle trails, bike lanes and amenity improvements for pedestrians.**

Pros • Enhanced bike/pedestrian facilities that provide increased recreational opportunities for residents, encourage people to bike to work/school resulting in reduced vehicle trips and reduced greenhouse gas emissions.

Cons • Additional construction costs for signage, bike lanes, and striping. Installation of bike paths/lanes on public roads may result in increased traffic congestion and emissions if travel lanes are reduced or eliminated. Property takings if additional right of way must be acquired to install lanes.

**31. Continue to select more environmentally friendly products when purchasing new equipment or updating existing technology. In making procurement decisions the following criteria should be included: demand a reduction or elimination of toxic components in products that are purchased; increase requirement for recycled content; product should be easily recycled; promote energy conservation; extend product life; reduce packaging and acknowledge/reward companies that have good corporate environmental policies.**

Pros • Variety of environmental benefits including but not limited to reduced green house gas emissions, increased energy efficiency, reduced fuel consumption and reduced waste. The Township would set an example for others. Some products may be able to be recycled/reused at the end of their lifecycle which may not be the case with traditional products.

Cons • Many products will have higher up front costs some of which may be recouped over time. Investment of staff time to evaluate the cost versus the environmental benefit.

**32. Increase recycling, particularly commercial recycling. Potentially have Building and Planning Department staff explain recycling requirements when a Certificate of Occupancy is issued. Also 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.**

Pros • Reduction of waste to landfills and trash burning facilities, reuse of materials, increased recycling grant funding from DEP.

Cons • Recycling market is volatile, higher compliance costs by businesses and enforcement costs for the Township.

**33. Provide recycling containers in business districts and Township parks. Requires purchase of new containers with smaller openings to prevent trash from being deposited. Note: Township currently exploring this by undertaking a pilot program at Township pools.**

Pros • Increased recycling and increased awareness of importance of recycling, Township could place announcements/education pieces on website, newsletter, press release etc. before putting containers out.

Cons • Additional costs to purchase containers, investment of staff time to empty containers and sort materials because items likely to be thrown in wrong containers.

#### **34. Expand composting program.**

Pros • Reduced trash flow, availability of high quality compost for home use.

Cons • Must ensure that high quality compost is produced that does not contain a vast amount of weeds. Additional costs for creation of a covered composting facility and investment of staff time to ensure that the compost is turned regularly to aid in the decomposition process. Investment of staff time and materials to educate the public on importance of composting.

#### **35. Work with the Lower Merion Conservancy to develop and implement comprehensive streambank restoration plans for entire tributaries not just portions of streambanks. A consultant may also need to be hired.**

Pros • Protected streambanks, reduced erosion and filtered stormwater runoff whose velocity is slowed by the protection of existing riparian plantings. Much more significant impact than piecemeal projects in local parks.

Cons • Investment of staff time to assist EAC with the creation and implementation of the program. Will require coordination with numerous property owners to restore significant lengths of streambanks.

#### **36. Ask all Township Departments to practice exceptional environmental stewardship.**

Pros • Variety of environmental benefits including but not limited to reduced greenhouse gas emissions, increased energy efficiency and reduced waste. The Township would also set an example for others.

Cons • Many of these items will cost more than traditional methods. An evaluation of life cycle costs for purchases would have to be performed to determine if costs would be recouped.

#### **37. Restore Natural Areas — 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.**

Pros • Better management of Township owned natural areas, elimination/reduction of invasive plant species, introduction of native plant species resulting in enhanced habitat for native wildlife.

Cons • Increased costs to hire additional staff, purchase additional equipment/materials and purchase native plantings to restore areas.

**38. Consider signing onto one of the following agreements to reduce emissions within the Township:**

- **Endorsement of the U.S. Mayors Climate Protection Agreement to reduce global warming pollution. The Agreement calls for a commitment from the Township to reduce current emissions by 7% below the level of emissions as they existed in 1990. The program provides municipalities/cities with a standardized means of calculating greenhouse gas emissions, of establishing targets to lower emissions, of reducing greenhouse gas emissions and of monitoring, measuring and reporting performance. There is also a software tool to help municipalities comply with the methodology. The Sierra Club endorses this Agreement through its Cool Cities program.**
- **Endorse Smart Power's PA Clean Energy Communities Campaign by committing to obtain 20% of municipal electricity from clean, renewable sources by the year 2010 and increasing over time to reach the targeted goal. Program also requires establishment of a Task Force to research and make recommendations as to how the community can achieve its goals; and education and encouragement of the community's residents, businesses and institutions to support clean energy. Residents and business owners must sign up to purchase clean energy in one of the two following amounts: 7% of the combined household and business population within the community must sign up for clean energy or new household and business purchases of clean energy within the community must be equivalent to 60,000 kWhs per month approximately. Cost estimate template provided.**

Pros • Reduced greenhouse gas emissions to the environment and public education and awareness. Township would set the example for others.

Cons • Additional costs to tax payers. No immediate benefits to Township citizens since the reduced emissions are not achieved in the Township.