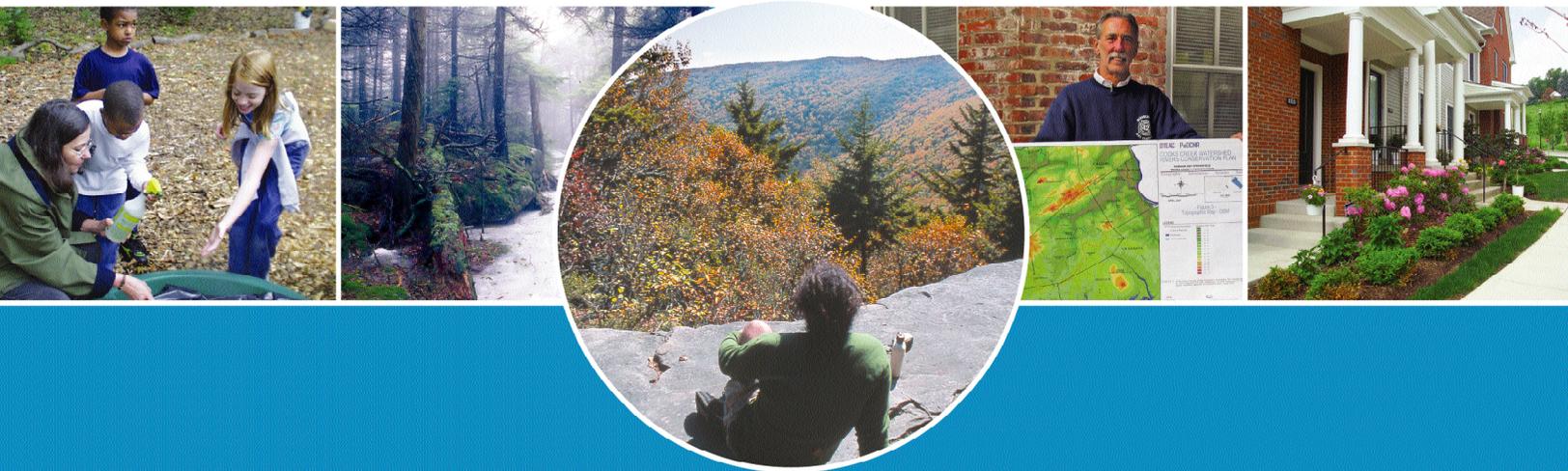




The **EAC** Handbook



A Guide for Pennsylvania's
Environmental Advisory Councils



The EAC Network of the Pennsylvania Environmental Council promotes and supports environmental advisory councils (EACs) across the Commonwealth.

An EAC is a group of community residents, appointed by the elected officials, to advise them and other municipal officials about the protection, conservation, management, promotion and use of natural resources.

EACs work at the local level to:

- Help officials to make sound environmental policy decisions
- Educate the public on natural resource protection and other environmental issues
- Plan and implement projects

Services that the EAC Network provides include:

- Helping to establish municipal and multi-municipal EACs
- Providing technical assistance to EACs
- Maintaining a database of all Pennsylvania EACs and their activities
- Maintaining an EAC website at www.eacnetwork.org
- Networking among EACs through regional EAC meetings and an EAC listserv

For more information and to become a member of the EAC Network call 1-800-322-9214 and visit our website at www.eacnetwork.org.



The **EAC** Handbook

A Guide for Pennsylvania's Environmental Advisory Councils

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Acronyms

BMP: Best Management Practices

CERCLA: Comprehensive Environmental Responsibility, Compensation and Liability

CSA: Community Supported Agriculture

DCED: Department of Community and Economic Development

DCNR: Department of Conservation and Natural Resources

DEP: Department of Environmental Protection

EAC: Environmental Advisory Council

EPA: Environmental Protection Agency

ERI: Environmental Resource Inventory

IBA: Important Bird Area

LUPTAP: Land Use Planning and Technical Assistance Program

MPC: Municipalities Planning Code

MS4: Municipal Separate Storm Sewer System

NEPA: National Environmental Protection Act

PEC: Pennsylvania Environmental Council

PennDOT: Pennsylvania Department of Transportation

PNHP: Pennsylvania Natural Heritage Program

PRD: Planned Residential Development

RCRA: Resource Conservation and Recovery Act

SCC: State Conservation Commission

SSC: Species of Special Concern

TDR: Transfer of Development Rights

TND: Traditional Neighborhood Development

ZHB: Zoning Hearing Board



Preface

Pennsylvania's municipal environmental advisory councils (EACs) are appointed arms of municipal government that have environmental conservation and improvement as their exclusive focus. Their roles as advisors to elected officials, who appoint them, and to planning commissions, is of great importance. The Commonwealth has 2,565 local governing bodies, and decisions those governing bodies make on a variety of issues, from land use designations to stream corridor and watershed protection, have direct impacts on natural resources within individual municipalities and beyond.

EACs can offer local government an additional pool of hometown talent to draw upon when they make decisions affecting the quality of life in their communities. EACs, as advisory bodies, also are a non-threatening way to address environmental matters on a regional scale.

EACs can have a significant impact on the future health and quality of life in Pennsylvania's communities by identifying natural resources that should be protected, connected, or enhanced, and by working with other local government bodies and neighboring communities to plan for and implement measures that will achieve these objectives.

One primary way EACs can provide service to municipal governments is by undertaking the objective, in-depth collection and analysis of information and science about environmental and natural resource issues that will lead to comprehensive plans and zoning ordinances that are founded on sound principles and sustainable against legal challenges.

With the benefits of a statewide network of EACs in mind, in 1990, the Pennsylvania Environmental Council initiated an effort to encourage the establishment of new EACs and to promote the effectiveness of existing councils. In order to accomplish these goals, the Council created The EAC Network, through which we offer assistance and programs specifically for EACs. The EAC Network also provides EACs with opportunities to communicate with each other, share information and collaborate on a multi-municipal basis.

As more and more communities establish EACs and become a part of The EAC Network, a growing group of active and effective councils being developed throughout the state, the cumulative effect of local environmental awareness will benefit individual communities, whole regions, and the entire Commonwealth.

The Pennsylvania Environmental Council is committed to promoting the creation of new EACs and the effective operation of existing councils throughout the Commonwealth. We invite you to comment on this book and suggest changes for future editions. Also, let us know about creative projects your EAC has undertaken so that we will have them on record to share with EACs in other municipalities.

The EAC Network has been supported primarily by grants from the William Penn Foundation, DCNR, and DEP.



Welcome

Welcome—to the growing circle of groups and individuals who share an interest in preserving Pennsylvania’s wealth of natural resources. This handbook is intended for those who wish to understand how they may affect, through EACs, the policies and decisions made by municipalities within the State.

In 1973, the Pennsylvania General Assembly passed and the Governor signed Act 148, giving municipalities the authority to establish EACs by ordinance. In 1996, the Act was amended. Under this law, EACs can advise a municipality’s governing body, commissions and boards on matters concerning the protection, conservation, management and use of the municipality’s natural resources. Modeled after similar statutes in other northeastern states, the Pennsylvania law reflected an increased awareness of the importance of improving the ability of the state’s 2,565 municipal governments to address or prevent environmental problems and create sound environmental policy. Act 148, as amended by Act 177 of 1996, is included in Appendix I.

There are many issues EACs can address, from open space preservation to water and air quality. Many of these issues relate to land use. Therefore, this handbook has been written to encourage EACs to get involved with their local planning and zoning processes. We suggest that the EAC Handbook be used in conjunction with the Pennsylvania Environmental Council’s growth management handbook for Pennsylvania municipalities, [Guiding Growth](#), which comprehensively details the responsibilities and powers of local governments with regard to land use. Most of the information on land use, planning and zoning in this book is drawn from [Guiding Growth](#), but it is only a sampling of the material contained in that publication.

EACs have the ability to promote action on environmental issues by providing information to elected officials, planning commissions and recreation and park boards to help them and the public understand the environmental consequences of the decisions they make. They also can promote action by undertaking specific projects. Due to the flexibility of Act 148 as amended, these projects can reflect the needs of the individual municipalities, and range from complex endeavors, such as the development of a rivers conservation plan, to time-consuming but less complex activities, such as the production of a local environmental newsletter, and still less demanding projects, such as sponsorship of forums for local residents on environmental issues.

We strongly encourage EACs and local governments to work on a multi-municipal basis. Our natural resources are divided up among the 2,565 local governments in the Commonwealth. EACs are an effective means for neighboring communities to collaborate on water resource protection, storm water, air quality, open space and greenways and myriad other environmental matters that transcend municipal boundaries. By working together, EACs can help establish relationships between local governments and maintain connections between our natural resources.

This handbook is designed to provide you with not only an overview of how EACs fit into the government structure of Pennsylvania, but to also offer some basic background information about that structure and about the laws that regulate the issues with which EACs work every day. It should help you to gain perspective enough to determine whether you wish to start an EAC and how to go about it, and (whether you are new to EACs or already participate in one) where your strengths and abilities lie and what you can reasonably take on to make a difference in the way resources are protected.

This handbook is intended to give EACs, and those interested in establishing them, an understanding of their responsibilities and opportunities for action. It also is intended to provide a framework for the more mundane, but nevertheless essential subjects of the effective organization and operation of EACs.



It is hoped that this handbook will also illustrate that you, as an EAC member, are taking part in an effort that is being repeated across the State, and in which you are not alone. There is help and support for you in making use of the ability to create and maintain productive EACs, and this handbook can be a first step in joining a network of volunteers who share your interest in doing so.

Please note that no liability is assumed with respect to the use of information contained in this handbook. Laws may be amended or court rulings made that affect a particular situation, procedure, issue, or interpretation. The authors assume no responsibility for errors and omissions nor any liability for damages resulting from the use of information contained herein. Please contact your local solicitor or lawyer for legal advice.

Environmental Advisory Councils

What Are EACs?

EACs are officially constituted municipal boards created to advise local governments on environmental issues and policies. Any municipality or group of municipalities in Pennsylvania may create an EAC by ordinance.

Authority for Creation of an EAC

In 1973, the Pennsylvania General Assembly passed Act 148 authorizing any municipality or group of municipalities to establish, by ordinance, an EAC. In 1996, Act 177 was passed, which amended Act 148. This State enabling statute, Act 148 of 1973, as amended in 1996 by Act 177, is included in Appendix I. EACs advise the local planning commission, recreation and park board and elected officials on matters dealing with the protection, conservation, management, promotion and use of natural resources located within the municipality's territorial limits.

Mandated Responsibilities

The enabling legislation requires each council to keep records of meetings and activities and to issue an annual report, which should be distributed with the municipality's annual report or made available to the public in other ways.

Specific Powers

Act 148, as amended, empowers EACs to:

- Identify environmental issues and recommend plans and programs to the appropriate municipal agencies for the promotion and conservation of natural resources and for the protection and improvement of the quality of the environment within its territorial limits;
- Make recommendations for the possible use of open land areas;
- Promote a community environmental program;

- Keep an index of all open space, publicly or privately owned, including flood-prone areas, swamps and other unique natural areas, for the purpose of obtaining information on the proper use of those areas;
- Advise the appropriate local government agencies, including the planning commission and recreation and park board and the elected governing body, on the acquisition of property, both real and personal.

Multi-Municipal EACs

Act 148, as amended, also gives individual municipalities the authority to join with neighbors to form regional, multi-municipal EACs. **Multi-municipal EACs are desirable and**

effective because they provide a mechanism for neighboring local governments to join together to focus on natural systems such as watersheds, forests or aquifer recharge areas as units rather than as fragments. The regional perspective offered by a multi-municipal EAC establishes a cohesive, long-term vision as the group plans for natural resource protection. For a sample multi-municipal EAC ordinance, see Appendix IV.

Membership and Terms

Act 148, as amended, stipulates that an EAC may be composed of three to seven members, who serve without compensation and are appointed to staggered three-year terms. EACs with three members can function effectively, however, a full complement of seven members enables access to a wider range of expertise and the ability to undertake more projects.

Members are appointed by the local governing body. In the case of multi-municipal EACs, each participating municipality appoints an equal number of members to serve on the council.

Act 148, as amended, states that "**whenever possible, one**

member shall also be a member of the municipal planning board." This cross-representation can be an important factor in the effectiveness of an EAC.

Beyond this recommendation, members are not required to represent specific groups or to have particular areas of expertise. However, such requirements may be included in the adopted ordinance to allow a municipality to create an EAC that is best able to deal with issues particular to its region. In general, the most important qualifications are interest in environmental issues, interest in local government and planning issues and willingness to devote time to the council's projects. It is always helpful to have at least some members with expertise in relevant areas of science, planning, policy and development.

When new councils are formed, and when vacancies on existing councils occur, the governing body (although not required by law to do so) should advertise the open positions and attempt to fill them with a broadly representative group of individuals.

The governing body can establish an associate member program. Associate members can provide valuable assistance on council projects, and should be given primary consideration when openings on the council occur.

Officers

The governing body selects the chair of a council, except in the case of a multi-municipal EAC, where the council itself selects the chair. The enabling legislation does not mention the election of other officers, but the general practice in Pennsylvania is to provide for the election of other officers, such as vice chair or recording secretary, at the January meeting. The local ordinance or EAC bylaws can also spell out the terms and responsibilities of these officers.

Funding

Act 148, as amended, enables local governments to appropriate funds for the operation of EACs to cover administrative, clerical, printing and legal service costs. The amount of the appropriation is to be determined by the local governing body. All or part of any funds appropriated in a year may be expended, placed in a conservation fund or allowed to accumulate from year to year.

Budget

Act 148, as amended, does not mandate that EACs have designated funding; therefore, EACs in Pennsylvania operate on budgets ranging from nothing to thousands of dollars. A governing body may want to consider a minimum budget of \$500 to cover the basic operating expenses that will enable a council to function effectively.

Once the governing body has established budget parameters, it is advisable for an EAC to prepare an annual budget report for submission to the municipality. The chair and treasurer of the EAC can work together to prepare and submit the annual budget to the local governing body. The treasurer may also want to submit an expense and income report with the budget. To keep the EAC informed regarding the budget, the treasurer can report on the status of funds at each meeting.

Other Sources of Revenue

Act 148, as amended, does not specifically address the issue of an EAC raising funds for its activities; however, this is a common function of an EAC.

Because they are a part of local government, EACs are eligible to receive state and federal funding through their municipality from agencies such as the U.S. Environmental Protection Agency and Pennsylvania's Department of Environmental Protection, Department of Conservation and Natural Resources and Department of Community and Economic Development. To support the EAC's efforts, the governing body can fund or provide matching funds for an EAC project.

Other ways to fund EAC projects include securing gifts, holding fundraisers and partnering with other groups to access funds not typically available to governmental units (e.g., foundations).

State Assistance

Since 1990 the Pennsylvania Environmental Council's EAC Network has advocated for state support of EACs. The primary state agencies with natural resource conservation responsibilities are the Department of Environmental Protection; Department of Conservation and Natural Resources; State Conservation Commission, housed within the Department of Agriculture and Department of

Possible Operating Expenses

- Literature
- Courses and conferences for council members
- Office supplies and postage
- Compensation for municipal secretarial assistance
- Sponsorship of educational programs for local residents
- Dues for affiliation with environmental, educational and planning organizations

Examples of Additional Expenses

- Development of an environmental resource inventory
- Publication and distribution of a council newsletter
- Organization of park or town cleanup programs
- Public relations/outreach

Community and Economic Development. Active partnerships between The EAC Network and these agencies are now coming to fruition. Contact information for these agencies is provided in Appendix VI.

Act 148, as amended, authorized the State Conservation Commission and DCED to provide support services to EACs. The Conservation Commission's role is to support educational services, the exchange of information, technical assistance for natural resources planning and the coordination of state and local conservation efforts. DCED's purview is to help EACs plan for the management, use and development of open space and recreation areas.

The EAC Network has garnered support in recent years from DEP and DCNR. For example, these agencies have supported technical assistance and direct grants to EACs; the development and distribution of educational materials including videos, workshops, municipal and conference presentations; the development and maintenance of the EAC website and environmental resource inventories (see Chapter 6).

The purpose for state support is twofold. It supports The EAC Network's objectives of promoting, networking and assisting EACs. In turn, these efforts enhance the visibility of EACs at the state level and the desire of state officials to engage EACs in the agencies' conservation initiatives.

Establishing an Environmental Advisory Council

Act 148 of 1973, as amended, does not establish individual EACs, but gives municipalities the authority to establish them by ordinance, and provides guidance on their powers and responsibilities. Ordinances must be consistent with Act 148, as amended, and should include details on subjects such as officers, budget and duties.

The wording of the statute is general enough to make it easily adapted by individual municipalities for their own ordinances. An example of this type of ordinance from Paradise Township, Monroe County, is included in Appendix II.

The establishment of an EAC can be incorporated into another environmentally based initiative of a municipality, with the powers and duties of the EAC then related to the goals of that initiative. In the example of Lower Makefield, Bucks County, the township passed a resolution to identify and preserve open space within its boundaries. The establishment of an EAC was included in this resolution as one of the means by which its goals would be accomplished. A copy of this resolution is included in Appendix III. It should be noted that in this example, the EAC was created without making use of the enabling statute.

Since Act 148, as amended, does not mandate that Pennsylvania local governments establish an EAC, it is often up to residents of a community to suggest the establishment of an EAC to their elected officials.

Introducing the EAC

To find out if there is an EAC in your community, call your municipal offices or your local officials, or visit The EAC Network at www.eacnetwork.org. If there is no EAC and you are interested in establishing one in your municipality, consider the following suggestions:

- Contact The EAC Network or visit our website at www.eacnetwork.org for EAC case studies and sample ordinances describing the activities and responsibilities of other EACs around the Commonwealth;



- Before contacting your local officials to suggest that they establish an EAC, attend several of their meetings to get a sense of how they work, and of their views on local issues;

- Introduce yourself to members of your governing body so that you will be familiar to them;

- Talk to friends, neighbors and other acquaintances about an EAC, and make a list of people who are interested in serving on one;

- Consider attending any EAC workshops being offered in your region to get more background and hear first-hand experiences from others who have created EACs. For up-coming workshops, check the EAC website;

- Talk to your governing body members informally about EACs, explain what they are, suggest projects an EAC might undertake and ask for their suggestions on steps you can take to promote the idea of establishing a council;

- Emphasize the fact that EAC members are appointed only to advise the governing body. Some local officials may be concerned that the establishment of an EAC will create a new layer of bureaucracy when, in fact, EACs are only charged with advising and informing the people who appoint them concerning environmental issues;

- Present the establishment of an EAC to your local officials as a source of research and information on environmental issues that is free of charge. For example, an EAC can develop in-depth information on natural resources and environmental issues for the comprehensive planning process and report on the environmental impacts of specific land use proposals;

- Be prepared to submit a written proposal outlining your ideas for an EAC, and be sure to include a list of projects you think the new council should undertake, keeping in mind the needs of the municipality.

For copies of other model ordinances, or for assistance in starting an EAC, contact The EAC Network at the Pennsylvania Environmental Council or visit www.eacnetwork.org.

Structure and Operation of an Environmental Advisory Council

To be effective, your EAC should establish set processes and organizational guidelines. Consider the following suggestions:

Bylaws

Your council should develop a set of bylaws as one of its first actions in order to provide detail on the council's organization and operation. Bylaws can include information on membership, attendance, meetings, order of business and other details. See the Appendix V for a sample set of bylaws (this example is for a multi-municipal EAC; however, it can be modified for a single municipality).

Member Roles

The governing body will designate the council chair, but in most cases EAC members elect other officers provided for under the local ordinance or the EAC bylaws. In addition, it is helpful to make sure that each member has an assignment, such as liaison to a municipal board/commission, or editor of the council newsletter, that fits his or her interests and abilities. Members should report on their assignments at each meeting, with the meetings serving as deadlines for getting work done. As time passes, individual members will develop areas of expertise related to their assigned tasks that will benefit the council and the municipal bodies they advise.

Committees

Organization of standing and special committees enables EACs to delve into issues in detail. Committees examine issues closely, meet periodically and report to the full council on a regular basis. It is advantageous to form standing committees that relate to specific municipal functions, such as land use, parks and public open space, water resources and areas of ongoing interest, such as public education. Special committees can be created to look at single issues that do not fall under the purview of a standing committee.

Associate Members

Act 148, as amended, allows up to seven members on an

EAC. To include more people, consider the establishment of an associate members program. Associate members do not vote but may participate in all other council activities and serve on standing and special committees. It may be desirable to have an associate member serve as recording secretary for the council to ensure that all appointed voting members will be able to fully participate in meetings. Associate members can be an important source of expertise, and should be given high priority for appointment to the EAC when vacancies occur. Associate members may be drawn, for example, from the community, watershed associations and other environmental organizations.

If your local high school has an environmental club, you may want to invite its president to sit on the EAC as an associate member. This arrangement can give students an important experience, and the EAC a pool of volunteers to draw from for projects.

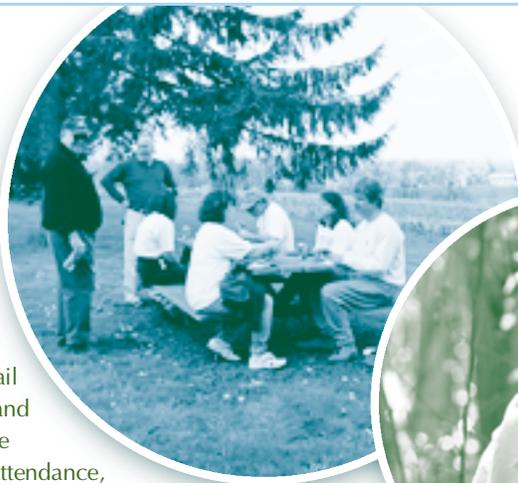
Scheduling Meetings

- Schedule regular meetings, usually monthly, in a public place at a convenient time.
- Schedule your meetings at a time that doesn't conflict with the meetings of the municipal bodies the EAC advises — it is important to have liaisons who will also attend those meetings regularly.

Notice of Meetings

The Pennsylvania Sunshine Law requires all public agencies, including EACs, to present all official actions and conduct all deliberations leading up to official actions at advertised public meetings. Under the law, municipalities must:

- Post notice of scheduled public meetings at the municipal building, or the location of the offices of the municipality's governing body;



- Advertise scheduled public meetings in a local newspaper at least three days prior to the date of any meetings;
- File notice of public meetings with the municipal secretary, manager or county clerk.

With the ability to communicate electronically by sending emails to several recipients, or even to “chat”, it is important to remember that the discussion of issues or revisions to proposed documents over the internet could be construed as deliberation outside a meeting and should be avoided.

Meeting Organization

Even if you choose to run your meetings in an informal manner, as many EACs do, consider using [Roberts Rules of Order](#) to guide the overall organization of meetings and votes on stated questions. In many cases, informal discussion and decision by consensus will suffice—but you may want to be prepared to handle contentious or complex issues with a standard format

Meeting Agenda

An agenda is an important tool for running an effective meeting. Keep the following guidelines in mind:

- Use a printed agenda, preferably agreed to at the conclusion of the last meeting and added to by members in the interim between meetings;
- Send the meeting agenda to members in advance of the meeting date, both as a reminder of the meeting and to enable them to prepare for discussion of agenda items;
- Make agenda length reasonable. Except when there are extenuating circumstances, long late-night meetings are not productive. If individual meeting agendas are frequently lengthy due to pressing business, the council may want to choose between long meetings, or shorter, more frequent meetings. In any case, it is the chair’s responsibility to keep the meetings focused on agenda items and to conduct business in a timely manner;
- Agendas should always allow time for public comment, new business and general comments from members.

Record Keeping

A new EAC should immediately take on the responsibilities required by the Act and delineated by the local ordinance that created it. Although organizing projects and activities may take time, the record-keeping responsibilities begin immediately. The first impression other volunteers, staff and governing officials will receive of the new EAC is whether it produces minutes and reports on time as required, and how they are presented.

Minutes

Minutes are an important tool in operating an effective council. Keep the following points in mind:

- Designate a secretary. Some EACs use a municipal secretary, and others designate or elect an EAC member. Another possibility is appointment of an associate member to the position. No matter who is designated recording secretary, he/she should attend every council meeting to take minutes;
- Minutes generally include the date, time and location of the meeting; members present; subjects considered; decisions made; actions taken and tasks assigned;
- Minutes are most useful when they are sent to members, with the agenda of the upcoming meeting, within a reasonable time following the meeting;
- To facilitate communication, consider sending your minutes to designated contacts on the governing body, planning commission, recreation and park board and other appropriate government agencies;
- Minutes posted on a public bulletin board, in the municipal building or public library or on the internet can promote communication with the public;
- The secretary of the EAC should maintain a file of EAC minutes, and one copy of the minutes should be kept by the municipal secretary as a permanent record.

Priorities

The first few EAC meetings are often “brainstorming” sessions, where members discuss their interests and backgrounds, and determine what issues need immediate attention. Over subsequent early sessions, a prioritized plan should evolve to include a list of projects and activities to address. The effect of these decisions on relations with the other township entities should be discussed. Chapter 5 is devoted to EAC project ideas and examples.

The **environmental resource inventory** is often the first major project taken on by an EAC and it is an excellent beginning. An ERI is a compilation of maps and accompanying text showing and explaining the natural characteristics and environmental features of a municipality and is described in detail in Chapter 6. An ERI provides interesting and useful background information for both the public and the municipality. The ERI provided by an EAC can save money that would otherwise be spent on an outside consultant, serving as an immediate illustration that EACs can provide a tangible benefit.

Willingness to contribute to work done within the municipality, contribution to committees and provision of background information for elected officials all help to establish the EAC

as a useful entity. A good balance of projects should also include some environmental education and public service, which will demonstrate the value of having an EAC in the community. Partnerships with other local groups such as watershed groups, scouts, 4-H clubs, civic organizations and school ecology clubs can help the EAC weave itself into the municipal fabric.

Communicating with the Public

It is important for your EAC to communicate with the public to educate local residents on environmental issues and build public support for policies advocated by the EAC or your governing body. **Communication with the public is often most effective when it is a give-and-take process. The residents of your municipality will be a source of many important ideas and perspectives on environmental issues.** To promote interactive contact with the public and develop a sense of public education needs, consider implementing the following actions:

- Survey residents to ask what they think are the most important environmental issues facing your municipality. Use the results to help set your council's priorities and to persuade local officials to make changes where there is popular support to do so;
- Seek out information on environmental issues, programs or projects that may affect the environment from community leaders, including representatives of the municipal bodies your EAC advises and representatives of civic and neighborhood organizations;
- Make contact with your local watershed associations to introduce the EAC, help communicate their interests to other municipal officials and collaborate on projects;
- Post a list of EAC members on public bulletin boards and the municipal web site, print it in your local paper or municipal newsletter and encourage residents to contact them with concerns or questions;
- Send meeting minutes and agendas to local newspapers and other local media outlets;
- Send press releases about major events and decisions to the same media outlets.

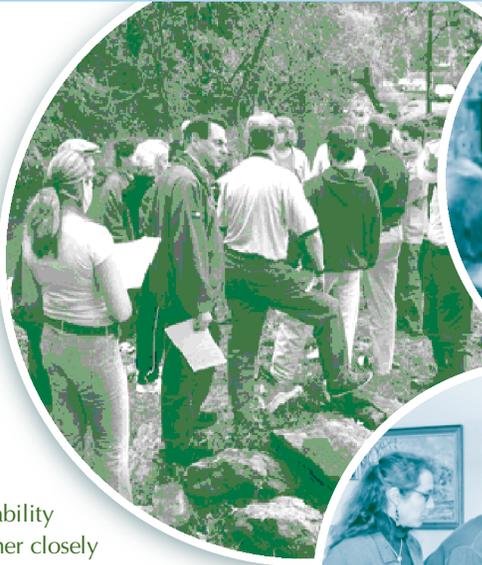
Essential Tips for Successful EACs

The EAC Mission: to advise on matters dealing with the protection, conservation, management, promotion and use of natural resources located within your municipality.

- The EAC is an official government council. Work with your municipality, not against it.
- Understand your local government structure and who works within it. Establish relationships with other municipal officials.
- Be positive and constructive.
- Attend other municipal meetings to provide EAC input and presence.
- Share EAC minutes with other boards. Ask them to reciprocate.
- Prioritize your projects. Evaluate your progress. Do a few projects well – rather than leave many unfinished.
- Be familiar with your local ordinances.
- Make sure your elected officials support your projects before spending hours on them.
- EAC membership is a commitment. Come to meetings. Share the work.
- Research, analyze, come to consensus and then speak. Stand behind your EAC's official opinions.
- Respect differing points of view and approaches to a problem.
- Keep excellent, organized records.
- Understand the Sunshine Law. Welcome anyone wishing to sit in on EAC meetings. Allow for public comment.
- Inform your community about your accomplishments and recommendations.
- Work with other groups in your community (e.g., schools, civic groups and businesses) to gain more volunteers.
- Share ideas with and support other EACs regionally and across the state.

Building Relationships with Municipal Officials

Once an EAC is formed, it becomes part of the municipality's local government structure in much the same way as a planning commission, park and recreation board or other appointed volunteer body. It is different from other agencies, however, in that it is advisory and therefore does not make policy. Its purely advisory function depends upon the ability of its members to work together closely with other municipal officials and staff in an on-going, interactive way. Building and maintaining relationships with others in local government is critical. Not only are EACs a new idea to most municipalities, but the creation of the council introduces new volunteers to the personality pool. An adjustment period is natural when a new entity enters an established system, but for EACs, the outcome of the adjustment is especially important. The establishment of comfortable, working relationships within any size bureaucracy is essential to EAC effectiveness.



should be positive and professional, and should strive to build good relationships and an efficient operation. This handbook offers some fundamental information and advice that can help both new and established EACs maintain good relations and function successfully. To have an EAC established as part of the municipality is already a significant accomplishment, and there is reason for enthusiasm as the group begins its work.

Will the New EAC be Welcomed?

Many EACs are welcomed into a municipality because the potential benefit is recognized. For EACs that are considered to be a welcome addition, establishing good relations may proceed smoothly. They may be integrated into the system, respected and asked for assistance right away. Alternatively, EACs are frequently established in response to an individual or group who approaches the governing body and requests that an EAC be formed. The initiating individuals may have concerns about environmental issues in the municipality and wish to make changes. Under such circumstances, an EAC may have more of an uphill battle in establishing credibility and good relations within the government structure, since it may be viewed as an opposition group at first. This perception can be confusing for some and present a challenge for the EAC to be accepted as an advisory body.

Whatever the circumstances of the EACs beginnings, the manner in which EACs interact within their local government

The EAC Challenge

It should already be evident that the EAC is a unique entity in local government. The EAC defines its own role in the individual municipal setting in order to achieve its purpose. It is a free-floating council that may take on projects and advise any municipal body, either by request or by choice. This presents an almost unlimited opportunity to contribute to any situation relating to natural resource conservation. The legislation creating the potential for municipal EACs is revolutionary in its recognition that **most municipal decisions affect the environment**. It also recognizes that local governments do not always have the resources to understand and address policies that affect natural resources. Placing a broad-based group of environmental experts among the decision-makers and giving it a mandate to comment and advise is a simple and practical solution. **Used properly, and appreciated by the municipality it serves, an EAC can have a significant and lasting effect on how local decisions relate to natural resources.** Much power still rests at the local level, and a large part of Pennsylvania's environmental policy is still created piecemeal by individual local governments.

Taken together, EAC successes may have a significant impact on the environmental future of Pennsylvania. Not only does the EAC have the ability to affect local decisions, but by working together, EACs have the potential to help develop a standard for decision-making that crosses municipal borders and influences policy at many levels.

The challenge that comes with such a role should not be taken lightly: the success of the EAC is completely dependent upon its ability to inform and persuade other members of its government unit and its citizenry. Not only is it a challenge to develop the relationships needed to be effective, but the broad powers legislated to EACs come with a price. With the freedom that the EAC is given, also comes the need for each group to guide its own direction. With the power to comment and advise on any issue comes the reality that no one is required to listen. EACs must grasp the enormous number of issues that fall under the heading “protecting natural resources,” and determine upon which to focus. There are so many needed projects; it is sometimes difficult to know where to start. At what scale should the EAC work? Should it try to affect major policies or start out with a few programs? Should it do some regional work, or stay with the local projects? Which projects will meet with resistance and which will be welcomed? Does the immediate importance of the issue override the controversy it will cause? Some municipalities may never give the EAC any official jobs, and they will have to choose their own. Other municipalities might use the EAC as an inexpensive source of expertise and deluge them with jobs. How does the EAC define its identity? With whom should the EAC work? How do internal politics affect EAC operations? To answer such questions, the EAC must call forth, from a group of volunteers, understanding political savvy, rational thinking, long-term vision, management skills and communication skills—all before the real work begins!

If this seems overwhelming, it is important to remember that almost any challenge can be met by taking one step at a time. Starting with the larger picture can often lend coherence to the smaller pieces of the process because it is useful to recognize the full potential of EACs. However, it is also good to know that any accomplishments and any level of progress in protecting natural resources is of benefit and contributes to the large body of work being done across the state by both government and private environmental organizations. The next section contains recommendations for steps to build upon as the EAC moves forward.

First Steps, First Impressions Knowing the “Nuts and Bolts”

To be effective advisors, it is essential to understand the structure of local government, including how elected officials,

appointed boards and commissions, and administrative employees function and interact. This handbook contains basic information about the government structure of different types of municipalities in Pennsylvania. Within that structure, the mode of operation will vary widely. If the EAC wants to start a recycling project, for example, who should be approached first—the manager, secretary, elected officials, the roadmaster? Power is distributed differently within each municipality. As a first step, the EAC Chair can designate a member to obtain or compile a list of local government officials, both elected and appointed, and their responsibilities. In most cases, the municipal secretary or county secretary can provide such a list. The list can be distributed to EAC members for reference, and will serve as a valuable resource.

In addition, it is important to identify the main municipal contact for the EAC as soon as possible. The EAC Chair should be able to regularly communicate with the municipal secretary or manager for updates on local current events, especially those with which the EAC is involved.

EAC members should also be familiar with local governing documents. **Upon their appointment each member should be provided with a packet that includes any plans and ordinances, such as the municipal comprehensive plan, zoning ordinance, subdivision and land development ordinance, recreation plan, and certain free-standing ordinances, such as stormwater management ordinances. The packet should also include this handbook, a municipal directory, EAC by-laws, and a copy of the specific local ordinance that was used to create the EAC.** It may also be useful to have a working knowledge of the Pennsylvania Municipalities Planning Code and the applicable Borough, Township or City Code. An overview of their functions is provided in Chapters 10 and 11 of this handbook. These documents are used by planning commission members, elected officials, developers and other interested individuals. Familiarity with them will go a long way to show that the EAC is committed to working through the system and is willing to do its homework. It will also provide the EAC members with needed perspective and background in order to provide informed advice.

Establishing Connections

Once an EAC is organized, an important early step is to open the lines of communication with any commissions or boards and any staff members with whom the EAC will interact. To facilitate its advisory role, the EAC Chair should take the lead in maintaining regular contact with the governing body. Ideally, an EAC will have a member on the planning commission who will serve as liaison to that important commission. Some municipalities have also included in the EAC membership an elected official and members from other

boards and commissions, such as the planning commission, recreation and parks, open space, shade tree commission and historic/cultural groups. There are other approaches to maintaining communication between the EAC and other municipal boards: holding the EAC meeting prior to the planning commission meeting and designating EAC liaisons to other boards and commissions. Also, copies of EAC minutes should routinely be sent to other committees and reciprocity should be requested. Whichever method is used, it is important that the EAC be integrated into the local government team and maintain regular contact.

To initiate good working relationships, EAC members should be assigned to attend other municipal meetings and introduce themselves, explain what EACs do and offer assistance. It may be helpful to provide copies of the establishing ordinance and other information about EACs (such as the PEC pamphlet “Environmental Advisory Councils: A Brief Overview”) so that the bounds of EAC duties are better understood. Other boards may have strong opinions as to what environmental issues need most attention, and will appreciate the interest shown by the EAC. They will also appreciate the courtesy of the introduction, and a friendly relationship will be started. In turn, the EAC can benefit from the first-hand contact and a heightened understanding about the responsibilities of each board. These boards form the foundation of operation for many local governments. Many small or rural municipalities are literally held together by the dedicated citizens who serve on volunteer boards. By creating an EAC, you have joined their ranks.

The EAC and the Planning Commission

Because land use decisions so directly affect natural resources, the relationship between the EAC and the planning commission is a very important one. Because of this, it is recommended that an EAC member be appointed to the planning commission in order to be a liaison. In many cases, a planning commission member sits on the EAC. EACs often review subdivision and land development plans and engage in projects that relate to land use planning or comment on planning documents and ordinances. All of these activities are responsibilities of the planning entity of the municipality. The question may arise: “Why do we need both an EAC and a planning commission?”

Planning commissions are needed to administer zoning and subdivision and land development ordinances, and to **recommend land use planning policy to the governing officials. The EAC promotes long-term natural resource conservation in every aspect of its activities.** The EAC has time to look at the big picture with regard to environmental impacts, to gather data to help the planning commission make decisions, help develop an open space and greenway plan for the municipality and carry out other environmental projects. The EAC can provide the planning commission with

information about the **environmental consequences** of both land use plan decisions and ordinance wording. For this reason, plan reviews and land use policy recommendations should be undertaken, but are not the primary function of EACs. EACs and planning commissions exist for different reasons, as do recreation and park boards and planning commissions. Just as recreation and park boards may look out for the long term provision of open space and recreation facilities, which is affected by land use planning, the EAC has natural resource protection as its focus, and views all decisions through this lens. Overlap is inevitable, but does not mean duplication.

In practice, EAC reviews do sometimes identify problems that have been overlooked by other reviewers. This should not be a problem if it is clear that the EAC is focused on environmental issues and has paid special attention to these areas of the ordinance. The EAC should present itself as an ally that can be looked to for assistance. The governing body or planning commission may appreciate the “extra eyes” provided by the EAC review. If comments are duplicated, the EAC’s comments will add weight to those made by others, making it easier to request beneficial changes to a plan, or to recommend rejection if the plan is not compliant. It is also important to note that the EAC does not recommend approval or rejection of plans, but simply makes comments available to the governing body or planning commission.

Relations Within the EAC

EACs may be formed by a cohesive pre-existing group, or may be composed of citizens who respond to notification of the open positions. With luck (and good planning) the members of the EAC will have a variety of backgrounds and come from different geographic areas of the municipality. Varying levels of expertise are frequently represented. A professional environmental scientist may be appointed alongside a resident who simply likes birds and wishes to protect their habitat. Someone with a regulatory background may have very different perspective than someone with a natural history background, but both can have much to contribute. EAC members may share the view that natural resources should be protected, but they may have divergent views about how much protection is needed and how to achieve it. A healthy EAC is one in which differing views and priorities can be presented and received in a respectful atmosphere. Differing points of view and approaches to a problem often result in more discussion, and should be welcome within an EAC as long as they are constructive. The EAC Chair has a responsibility to keep the group focused, and deal with controversy in a consistent and effective manner, so that the group does not get bogged down. For this reason, some formality is very important. At some point during discussions, a decision must be made, and an official vote must finalize the contents of an EAC recommendation. Once the formal decision is made,

the group can put any internal controversy behind it and move on to the next issue.

Regardless of any disagreement within the group, the final decisions that are communicated to others must come from the EAC as a whole. EAC members must respect the finality of a vote and stand behind the council once the decision is made. With even limited power and influence comes compromise.

Activism and the EAC

When an individual or group of individuals has an interest in altering environmental policy in their municipality, there are two main routes that can be taken. One is to try to influence the governing body and boards to change their approach with letters, public comment and local activities promoting a different point of view. Another method is to become part of the government itself and work from within. By choosing to be part of an EAC, **one is making a decision to work with rather than against the municipal government** to facilitate the changes one would like to see.

The most effective method of accomplishing goals and gaining respect is for the EAC to establish itself as a scientifically oriented entity that gives advice only after researching an issue, learning the facts and being able to clearly articulate and back up advice. This is not to say that members must be scientists, but that members must approach issues in a manner which is not biased by unsupported beliefs. If advice is given because of personal beliefs or emotional reaction, the EAC will create an ill-defined role between private activist group and government council that no one will understand. The result can be that the EAC will be viewed as a faction, and will be ignored by all those who disagree. Its opinions will lose their value to the decision-makers. An EAC that demonstrates that it has researched regulations and is informed about advantages and disadvantages of a certain action will be respected. With increased respect will come increased responsibility and more accomplishments.

Projects for Environmental Advisory Councils

Act 148, as amended, enumerates specific powers of EACs. The Act is included in Appendix I. To reiterate, the statute grants councils the power to:

- Identify environmental issues and recommend plans and programs to the appropriate municipal agencies for the promotion and conservation of natural resources and for the protection and improvement of the quality of the environment within its territorial limits;
- Make recommendations for the possible use of open land areas;
- Promote a community environmental program;
- Keep an index of all open space, publicly or privately owned, including flood-prone areas, swamps and other unique natural areas, for the purpose of obtaining information on the proper use of such areas;
- Advise the appropriate local government agencies, including the planning commission and recreation and park board and the elected governing body, on the acquisition of property, both real and personal.

The assignment of these powers provides EACs with a framework for activities rather than a specific list of programs that should be undertaken. The statute implies that this framework should be the focus of council activities and gives them much discretion in choosing activities to use the powers granted to them.

Types of Programs and Projects

In general, an EAC should develop programs and products to:

- Assist local officials in making policy decisions that

relate to natural resource conservation;

- Educate the public on natural resource protection and other environmental issues;
- Coordinate activities to physically improve the municipality's environment.

Before launching any projects, however, an EAC should always assess its capabilities and the demands of proposed projects. Setting unrealistic goals or over-extending is not a good practice, particularly when the key players are volunteers. There is a range of projects that can be undertaken and tailored to meet the capabilities of every council.

Also, consider studies and plans that are relevant to your community, including: storm water management plans, wellhead protection plans, source water protection plans, water use data, county water supply plans, watershed restoration action strategies, scarlift reports, river conservation plans, soil surveys and comprehensive and other land use plans. Reviewing and using existing documents will save time and help your EAC develop a comprehensive conservation program.

All councils should strive to establish a reputation for being able to undertake and complete worthwhile projects and demonstrate that the council can make a difference. This is necessary to sustain the interest of volunteer members and to gain the confidence of the elected officials and appointed boards the council advises. When all levels of local government accept the EAC, it is more likely to be in "the loop."

EACs work on a range of projects across the Commonwealth, with some examples listed below. More information about these projects and EAC activities are available from The EAC Network and on-line at www.eacnetwork.org.

Major EAC Projects

The following projects require a sustained high level of commitment and time from environmental advisory council members.

The Environmental Resource Inventory

Chapter 6 provides a detailed explanation of the ERI and a description of how to conduct one.

Interaction with the Planning Commission: Site Plan and Subdivision/Land Development Review

EACs can play two distinct roles in the site plan and subdivision/land development review process. An EAC may serve as an independent reviewer of site plan or subdivision/land development proposals, making recommendations to the municipal governing body or planning commission relating to a proposal's environmental impact.

They may also serve as an active player on the planning commission, with one member of the EAC appointed by the governing body to serve on both the planning commission and the EAC, fostering significant interaction between the two bodies. Alternatively, a planning commission member can serve on the EAC, which is the practice in several communities.

To perform site plan and subdivision/land development review effectively, it is important that the EAC have a solid understanding of the Pennsylvania Municipalities Planning Code and various state and federal regulatory programs—all of which are briefly discussed in Chapters 10 and 11. The Pennsylvania Environmental Council's book [Guiding Growth](#) provides a more comprehensive description of land use issues and is an important resource for EACs.

When reviewing subdivision or land development plans, the EAC should confine its comments to those portions of the ordinance that specifically relate to natural resources. A range of items fall into this category, including sewage treatment, well placement, storm water management, wetland encroachment, landscape buffers, hillside development and many others. The EAC should create a checklist of ordinance sections that specifically relate to EAC interests, and provide the governing body or the planning commission with a written report once EAC consensus is reached. Comments should be specific and cite the section of the ordinance that is not met. General comments may also occasionally be offered, for example, "not consistent with the Township Comprehensive Plan." The EAC can also contribute by delving deeper for background information relating to the environmental impact of plan particulars and providing the governing body or planning commission with information it would not otherwise receive.

Development of Natural Resource Protection Ordinances

The Pennsylvania Municipalities Planning Code, Act 247, enables municipalities to zone for the protection of natural resources, and EACs can develop natural resource protection ordinances or provisions within a zoning ordinance and subdivision/land development ordinance for consideration by the planning commission and governing body. These ordinances can require that certain delineated natural features be preserved in whole or in part when development occurs. Such ordinances must be based on solid scientific data and information, (such as is gathered in an ERI, Chapter 6) precisely describing the areas and why they are important. Natural resource areas that can be targeted for ordinance protection include, for example, prime agricultural soils, wetlands, aquifers, woodlands, steep slopes and floodplains. Other areas that have been documented and could be targeted for protection are Audubon Important Bird Areas, and unique habitats recommended for protection by the Pennsylvania Natural Heritage Program (formerly the Pennsylvania Natural Diversity Inventory).

Before developing a draft ordinance, an EAC can obtain copies of sample ordinances (ordinances prepared in other communities) relating to the same resource to serve as a guide. Sample ordinances are available through the American Planning Association, the Pennsylvania Environmental Council, county planning commissions and departments, state agencies and various other non-profit and for-profit organizations. The Pennsylvania State Association of Township Supervisors (www.psats.org) and the Governor's Center for Local Government Services (www.landuseinpa.com) keep a library of ordinances on their web site. Natural resource protection ordinance provisions must be based on solid science, and must be generally consistent with the municipal comprehensive plan.

Growing Greener: Conservation By Design™ is a state-wide program that helps municipalities and developers build new homes and businesses while protecting important local open space. Participating municipalities learn how to make straight-forward changes to basic land-use documents in order to protect open space through their municipal land development process, making it possible for builders to design, and municipal leaders to approve, **new subdivisions that leave more than half of the proposed development as open space.** Growing Greener is a collaborative program of the Pennsylvania Department of Conservation and Natural Resources; the Governor's Center for Local Government Services and Natural Lands Trust. For more information visit Natural Lands Trust's website at www.natlands.org.

Greenway Planning and Open Space Acquisition

EACs across Pennsylvania are very involved in greenway development and helping their communities acquire open space. This topic is discussed in detail in Chapter 8.

Green Resources Map

A green resources map is less complex and less precise than an ERI, explained in Chapter 6, but it can show many of the same natural features in a general way. It is used to identify natural, scenic, historical, cultural and recreational resources important to a community on one map. Although a green resources map does not replace an ERI, it serves to help build public awareness and interest in the natural attributes within the municipality. This may help to generate support for protection and conservation.

The first step an EAC should take in a green resources mapping project is to develop a definition of green resources, for example “public and private open space, wildflower sites, woodland stands, large trees, stream corridors, trails,” etc. Cultural, scenic and historic resources may be included and can enhance the map’s meaning to members of the community who often value such resources as important to the community’s quality of life. Next, obtain small copies (1' x 2') of the municipal map and give one to each EAC member. With the green resources definition in mind, each member should note on the map the location of green resources she/he thinks should appear on a large map. If the municipality or county already has an open space or greenway plan, this can be used as a beginning. It is helpful for EAC members to tour the municipality together at the start of this process to generate ideas and discussion of the map’s purpose and goals.

After each individual has completed the map, one council member should be designated to catalogue all of the green resources identified. The list of resources may then be circulated to all council members prior to the next meeting. The resources the group chooses to exclude from the final map should be eliminated at this time.

At the same meeting, after the final resource list has been developed, members can decide on symbols for each resource. The symbols will be used on the finished version of the green resources map and identified in the legend.

The designated project coordinator can request a large (about 5' x 6') copy of the municipality’s tax map. The project coordinator then should transfer information from the list of resources onto the large map, identifying the resources with the agreed-upon symbols and using the small maps developed by council members as a guide. If a tax map is not available, a schematic map can be drawn from topographical maps.

At this point, the project is ready for the public participation component. First, a member of the council should write a press release explaining the project. After the press release has been distributed, the map should be displayed in public spots, such as a library, municipal building and website with a blank map of the same size next to it. The EAC, through the press release, notices to schools and other communications with local residents can invite people to come and add resource sites to the blank map if they are not already on the draft map. EAC members also should take the draft map to watershed associations and various local civic organizations (Rotary, Lions, Chamber of Commerce, etc.) and student clubs to explain the project and ask for resource suggestions. The public participation component of the green resources mapping process is essential, both for developing public support for resource protection and for generating listings of additional resources to be included on the map.

After this process is complete, the final map should be drawn. It is recommended that the council either raise funds to have a professional produce the final map, or solicit assistance from the local or county planning commission, a high school, voc-tech or college drafting or art class.

Finally, the council can raise funds to have the green resources map reproduced as a poster for sale for nominal fee, or ask a local newspaper to reproduce the map in one of its editions. Also, local business may sponsor the printing of the maps for advertising space on the finished product.

Remember—the purpose of developing a green resources map is to raise awareness of and appreciation for your community’s green resources and to encourage their protection and enhancement.

Community Supported Agriculture

A CSA reflects an innovative and resourceful strategy to connect local farmers with local consumers, develop a regional food supply and strong local economy, maintain a sense of community, encourage land stewardship and honor the knowledge and experience of growers and producers working with small to medium farms. CSA is a partnership of mutual commitment between a farm and a community of supporters that provides a direct link between the production and consumption of food. It has sometimes been called “subscription farming”.

In community supported agriculture, growers and consumers provide mutual support and share the risks and benefits of food production. Typically, members or e-mail “shareholders” of the farm or garden pledge in advance to cover the anticipated costs of the farm operation and farmer’s salary. In return, they receive shares in the farm’s bounty throughout the growing season, as well as satisfaction gained from

reconnecting to the land and participating directly in food production. Members also share in the risks of farming, including poor harvests due to unfavorable weather or pests. By direct sales to community members who have provided the farmer with working capital in advance, growers receive better prices for their crops, gain some financial security and are relieved of much of the burden of marketing.

EACs can help support local agriculture by organizing a CSA. As more agricultural products are being produced and distributed in a highly industrialized manner, the market for local and organically grown products is growing. By helping to establish a local CSA, EACs are offering residents this service, while protecting farmland and helping to preserve open space. By purchasing local produce, residents can also help to offset America's dependence on fuel for transportation as well as pollution associated with shipping.

The process for establishing a CSA depends on the resources available in the community. With community support, an EAC can determine an appropriate location for the project. The EAC might identify land already owned by the municipality or work with other municipal officials to acquire the land (obtaining land for conservation purposes is explained in Chapter 8). Some communities have a given amount of open space available or are in the midst of securing open space that would be appropriate for this type of project. Ideal land for a CSA would already have resources, such as a farmhouse and a barn, which would keep costs low for the farmers.

Once the location is secured, the EAC must recruit farmers to run the CSA. Internet advertisements, listservs and newsgroups are a low cost way of reaching a broad audience beyond municipal borders. If the community desires local farmers, the EAC could advertise at community meetings, in local papers and through general word of mouth.

Because the CSA may experience low initial profitability, the EAC should work with the municipality to provide incentives to the farmers at the onset of the CSA. The principal of the CSA is that it guarantees income at a fair price for farmers and provides customers with a share of what is produced. The EAC and municipality can take steps to support farmers and help them keep their business viable. The EAC can save the farmers advertising costs by soliciting customers. Another incentive is reduced rent, especially while the farmers are getting started and sharing resources, such as farm equipment and wells. In turn, the farmers can maintain and mow land adjacent to the farm and provide other services to the municipality.

For more information about starting a CSA in your community, visit these sites:

www.farmtocity.org

www.sare.org/csa

www.nal.usda.gov/afsic/csa/csafarmer.htm

Environmental Management Systems

An EMS minimizes the environmental impacts of municipal operations. It involves analyzing and modifying operations to mitigate environmental damage, targeting areas where the most improvement can be made. Because it is systematic and research-based, an EMS also offers a method to solve problems with the best possible solution and fit for the municipality. Often, an EMS reveals that a major problem can be fixed with just a minimal effort.

The development and implementation of an EMS can be a very time consuming and technical undertaking, but very worthwhile. An EAC is an ideal group to take the lead on developing and implementing an EMS because members understand municipal operations and know local officials. The EAC also could seek assistance through a university or consulting firm to assist with the EMS. Most likely, funding will be necessary to pay for their services.

An EMS starts with a public planning process. The EAC can organize and facilitate a public meeting allowing residents to help set goals and identify municipal operations that should be evaluated.

Below are some areas that a municipality may want to consider evaluating (from "Prospective Topics for Group Discussion," The Environmental Science and Management Program, Duquesne University):

- Land development and land use, including redevelopment, comprehensive planning, zoning and brownfields;
- Operations and maintenance, including roads, parks, vehicles and equipment;
- Municipal services and oversight, including gas, water, sewage, garbage, recycling, composting and contractor management;
- Engineering, design and construction in terms of green design and building codes;
- Environmental stewardship through community outreach, education and enhanced stakeholder relationships.

Once the goals and targeted areas have been identified, municipal operations and functions are assessed for their environmental impact. The EAC can start with a list of people associated with the operations to be evaluated, such as the municipal engineer, planning director, public works director, recreation and parks, sewer authority and community organizations. EAC members can develop a questionnaire and conduct interviews regarding their roles and operations. It also would be helpful to collect maps, plans, codes,

permits and ordinances. The information can be used to identify Standard Operating Practices and develop an Activity Diagram, which are two tools that help clarify municipal operations and raise awareness about current municipal practices.

Based upon research findings, the EAC should work with municipal officials to identify and implement best management practices (BMPs) to improve their operations. BMPs are methods of sediment control, water quality protection, run-off peak attenuation and groundwater recharge recommended for use in developing areas. The EAC can obtain information from a consulting or engineering firm or research institution that has expertise in BMPs. BMPs are more likely to be approved by municipal officials if they are known to have been successful elsewhere. EACs can also partner with their county conservation districts to promote BMPs. As a municipal body with environmental expertise, the EAC is an appropriate group to research and comment on BMPs and train municipal officials to implement them.

Implementation of BMPs does not mean that the EMS is complete. An EMS is an organized way to evaluate municipal operations and their impact on the environment. Progress needs to be tracked on a regular basis. Improvements can always be made, especially with technological advancement. Continued evaluation of the effects of the BMPs is an important part of achieving a successful EMS.

For example, the Municipality of Murrysville EAC, Westmoreland County, is developing an EMS in partnership with Duquesne University. It will be a model for other municipal EMSs in the Commonwealth.

Storm Water

As understanding of good storm water management improves and enhanced regulations follow, EACs can play a pivotal role in providing a conduit of information for municipal officials and facilitating public understanding. Municipalities have a critical responsibility in facilitating the storm water management goals of their county, state and federal government, but local officials often have a workload that does not allow them to absorb all they need to develop perspective on storm water issues and the connections between these issues and the decisions they make. They may not be able to attend information sessions and workshops that are designed to provide this perspective. EACs can represent municipalities at planning sessions and workshops, can become informed and report to their elected officials and answer questions. EACs can also serve as an interface between watershed organizations and municipalities to promote sound policy and the flow of information about good management practices affecting their local waterways.

EACs can help municipalities satisfy Municipal Separate

Storm Sewer System (MS4) requirements by developing and implementing public education and public participation programs. They can also establish “good house-keeping” programs designed to meet the requirements of MS4 regulations.

Although some counties have studied their watersheds under Act 167 and provided ordinance language to affected municipalities for adoption, these ordinances (and other ordinances typically implemented outside Act 167) may only regulate release rates, and may fail to address a host of other opportunities to enhance storm water management. For example, reductions in required impervious surfaces, narrower streets and other storm water friendly provisions can be incorporated into existing ordinances by EAC recommendation. EACs can attend or hold round-table discussions with experts to develop such provisions and offer them to their elected officials for consideration. New additions to Act 167 address volume, water quality and channel protection standards. EACs can encourage their municipal officials to adopt this updated approach to storm water management.

EACs can provide education in general about good practices and why they are important. They can also help to facilitate applications for grants or resources for projects and help to administer grants awarded for projects that improve management. Illustrating that the benefits can be local as well as far-reaching (such as affecting the health of the Chesapeake Bay) can help to make the connections for the public and municipal officials and give them an understanding of the larger picture. This will help speed the process of incorporating better policies into municipal ordinances and everyday practices.

Less Complex EAC Projects

The activities described below require moderate levels of commitment and time.

EAC Newsletter or Web Site

One of the best ways for an EAC to reach a broad audience is through the publication of a newsletter. A one-page, two-sided newsletter is relatively easy and inexpensive to produce, and can be included as an insert in a municipal mailing, included as a featured part, such as a regular column, of an existing newsletter to save postage. There are other low-cost distribution methods, including giving bulk quantities to schools for distribution to students to take them home and placing stacks of newsletters (with prior approval) in public places such as train stations, restaurants and stores.

One member of the EAC should be designated the editor and should develop themes for each issue and suggestions for articles. EAC members can write the articles or arrange for others to do so. Occasionally, articles can be submitted

to the local newspaper for use as an EAC column. This is another effective way to inform the public about council activities.

Finally, because the EAC is advisory to the municipality's governing body, they, or their designee, should have an opportunity to review the newsletter before publication. This is particularly important when public funds are used to produce the newsletter.

Websites also are a popular way for EACs to stay in touch with their communities. Typically EACs will have a separate page on the municipal website. Two examples are Kennett Township EAC, Chester County, and Plumstead Township, Bucks County. Visit their sites at www.kennett.pa.us and www.plumstead.org. The Berks County EAC also has developed an innovative website at www.berkseac.org. The EAC integrated the Department of Environmental Protection's eacts system and the Reading Eagle news archives. By working with DEP and various federal agencies, the Berks County EAC created a model to promote environmental education at the county level. One feature of the website informs citizens of applications submitted to the DEP for review. The website was made possible through the efforts of the Reading Eagle Company, the County of Berks, the Commonwealth of Pennsylvania and various agencies in the United States.

Written Reports on Environmental Issues

Let the governing body know that you would like to provide them with comments on environmental issues that come before the municipality. Respond promptly with well-prepared reports when comments are solicited. Also be proactive and identify issues to bring to the attention of the governing body, planning commission or recreation and park board. Write concise reports explaining the issues and suggesting courses of action.

Town Watch and Hotline

A town watch and hotline is an effective way to involve the community in protecting its environment. Members of an EAC can work to establish an environmental hotline, through which environmental violations, such as illegal dumping, can be quickly reported by citizens of the community. The EAC and local government can then keep track of environmental problems within their jurisdiction. Council members can also develop Town Watch signs to be posted in areas where problems frequently occur in order to deter environmentally harmful activity. Both the hotline number and the signs should be well publicized in order to generate as much response within the community as possible.

Park and Forests Watch

EACs can help keep the municipal government abreast of conditions in local parks and state forests and game lands. First, make a list of all public lands in your municipality. Divide the list between EAC members, with each member visiting his or her designated sites at least once a month, between meetings. On the site visits, look for problems such as dumping, litter, vandalism and erosion. Also look for recreational uses (e.g., rollerblading, biking, walking) and wildlife. Members should report on their sites at each EAC meeting. A Park or Forest Watch Coordinator can be designated, and that person should record all reports and compile one master report, using a standard format every month. The Coordinator can ask the municipality to send copies of Park or Forest Watch reports to the governing body, planning commission members, recreation and park board, school district, park manager, district forester, DCNR and anyone else with responsibility for public lands. Note problems identified and the date they were reported, and continue to note them until they are resolved. The Coordinator or the EAC Chair may want to follow up problem reports with telephone calls. For public exposure, the EAC can post Park or Forest Watch signs in the public library and on bulletin boards in other public areas.

Pennsylvania CleanWays

PA CleanWays is a nonprofit organization with programs that revolve around cleanups, education, adoptions, beautification and proper disposal. CleanWays works in partnership with local volunteers and communities. EACs can participate by adopting a road, greenway or other area, reporting illegal dumpsites or participating in the CleanWays Communities Program. Participation requires support from the municipality, an annual community-wide clean up and proclamation and an educational component, among other things. It is an excellent way to involve the community and to promote community pride while removing potential pollution and promoting beautification. For more information visit www.pacleanways.org.

Stream Watch

Stream watch programs provide important water quality monitoring information that is used by DEP and local governments to ensure the protection of Pennsylvania's streams, rivers and lakes. The EAC can partner with a watershed association, which already may be actively protecting local water resources. Also, this is a good project in which to involve school environmental clubs, civic and neighborhood organizations and interested citizens as stream monitors. Designate an EAC coordinator for the project, and identify streams, rivers and lakes to monitor. A stream watch project can involve testing of water in

specific places several times a month or simply checking for debris, erosion, runoff, fish kills and discharges. It is important to make sure that such volunteers are trained to collect reliable and consistent data. Training programs may be available through local environmental institutions.

Contact The EAC Network for information on regional stream watch programs in Pennsylvania. If there is one in your area, such as the Delaware Riverkeeper for the Delaware River, the Alliance for the Chesapeake Bay for tributaries of the Susquehanna and the French Creek Project in Northwestern Pennsylvania, your EAC might offer them assistance. In addition, if the waterways or water bodies you choose to monitor flow through or extend into neighboring municipalities, consider contacting their EACs to propose working cooperatively.

Alternative Energy Usage

Recent global events have pushed energy conservation to the forefront of the environmental agenda and many incentives for municipalities to take action exist. Among them are improved air quality and better health conditions for residents, potential cost savings and positive publicity benefits, an abatement of the global warming phenomenon and reducing dependence on non-renewable resources. Municipalities can improve their energy usage, and an EAC is an appropriate group to encourage and educate municipalities about the many available options.

Wind Energy

Companies in Pennsylvania are now developing wind farms and generating large quantities of emission-free power that displace conventional and polluting energy sources. The energy generated from wind is combined with other energy sources on the Mid-Atlantic power grid and, when available, it is used before other sources of power. Municipalities can power their municipal facilities, buildings or operations with wind energy.

An EAC can educate municipal officials and the community about wind energy. Organizing a meeting or a community forum where officials can interact with speakers from the industry, the public and conservation organizations is a good starting point. In this manner, EACs can foster open discussion about controversy surrounding wind farms. Several organizations and businesses are now selling, promoting and sharing information about wind power. Others discuss environmental hazards, such as habitat fragmentation and disruption of bird migration, view-shed disturbance and ways to mitigate these. Once they are informed, community residents are likely to support the purchase of wind energy. Encouraging residents to voice their opinions through meetings, letter writing, direct

conversation with appropriate officials or newspaper editorials might help convince local elected officials to purchase wind power. Knowing that this will create a positive, forward thinking image for the municipality is a good incentive for officials.

The EAC can help find a realistic starting point for the municipality. It is possible to start small with an investment, as wind energy purchases are flexible. For example, Swarthmore Borough, Delaware County, started by purchasing enough wind energy to match the amount of electricity consumed by their traffic lights. This purchase was only of marginal cost to the borough, but it made a strong statement that the borough favored alternative energy. The positive feedback from this purchase led the borough to increase its investment in wind energy.

For more information, contact Community Energy or The Clean Air Council's Wind Energy Campaign. Also visit Wind Current at www.windcurrent.com.

Alternative Fuel Vehicles

An additional EAC project that would abate air pollution, reduce our contribution to global warming and help to reduce our dependence on fossil fuels is powering municipal vehicles with alternative fuels rather than gasoline or diesel. Many fuel alternatives such as ethanol, biodiesel, natural gas, propane, electricity, hydrogen, methanol and P-Series Fuel, deserve consideration. An EAC can conduct research on these alternatives and present the information to municipal officials. In some cases, it is not necessary to replace municipal vehicles since many of them can be powered with these fuels.

EACs can work with experts from groups such as the Greater Philadelphia Clean Cities Program, the Pittsburgh Clean Cities Coalition and DEP to assess municipal vehicle usage, including vehicle types, how far they travel, the layover time between trips, the distance from fueling stations and the number of vehicles, to determine recommended improvements. An EAC also can research funding sources such as grants and rebates. This type of project is ideal for collaboration, since several municipal departments use vehicles that can utilize these new technologies.

In Lower Merion, Montgomery County, the school district began purchasing natural gas school buses in the mid 1990's. The District received incentive grants which partially offset the additional cost of the natural gas school buses, as compared to diesel buses. In addition to environmental benefits, the community appreciates cleaner air and reduced noise.

To help ease the transition for municipalities from conventional to alternative fuel vehicles, several grant

and rebate programs are available. The Alternative Fuels Incentive Grant (AFIG) will cover up to 30 percent of any cost attributable to alternative fuel components. There are also AFV project grants competitively awarded by the U.S. Department of Energy. The EAC also can investigate federal tax deductions.

Websites that can provide additional information on these projects include:

www.phillycleancities.org

www.cleancities-pittsburgh.org

www.afdc.doe.gov

www.ott.doe.gov/hev

Basic EAC Projects

The activities described below are basic EAC activities, which require relatively small amounts of time.

Environmental Education

EACs are well suited to host speakers on a wide range of environmental topics and issues. Programs can provide specific information for citizens to use in adopting environmentally sound practices, such as composting, or information on environmental issues or programs, such as growth management, hazardous waste, the Delaware Estuary Program or the Chesapeake Bay Program. Events can be publicized through websites, posters, press releases and notices to schools and civic and neighborhood organizations. Co-sponsoring events with other local organizations can help boost attendance.

Sponsoring a photo or essay contest can encourage citizens to take pride in their local environment.

EACs can also place educational signage or kiosks in the community. A simple sign that identifies the name of a river, trail or park could help gain recognition and appreciation for these areas. The EAC can solicit donations of materials from local businesses and recruit volunteers to help build and install the signs. In the past, the Pennsylvania Resource and Development Council and Pennsylvania Organization of Watersheds and Rivers provided partial reimbursement for this type of informational signage. EACs are encouraged to seek similar sources of funding for these projects.

A more involved environmental education project is designing an environmental education curriculum. In 2002, the academic standards for Environment and Ecology were updated, requiring schools to provide expanded environmental education to students. Human interactions with the ecosystem and the results of human decisions are the main components of this academic area. EACs can help school districts to achieve these goals by offering enrich-

ment of topics that are now required by the Pennsylvania Department of Education. Topics included in the new standards are: Watersheds and Wetlands; Renewable and Nonrenewable Resources; Environmental Health; Agriculture and Society; Integrated Pest Management; Ecosystems and Their Interactions; Threatened, Endangered and Extinct Species; Humans and the Environment and Environmental Laws and Regulations. Schools may add to their teaching staff to fulfill these requirements or extend the responsibility of existing staff; in either case, they may welcome enrichment from EACs. The EAC can work with the school district, teachers and other groups such as local nature centers to design a program.

For more information about the Academic Standards for Environment and Ecology, visit <http://www.pde.state.pa.us>.

Regional Meetings on Regional Issues

Find out which municipalities around you have EACs and contact them to arrange an informal meeting to discuss regional issues that might be good subjects for a regional public meeting. If there is agreement, set a time and place for the meeting and determine appropriate publicity. Topics could include transportation and air quality issues, protection of stream corridors and mountain ridges, recreation, recycling, greenways and watershed management.

Sponsoring Youth Projects

Develop a list of projects that could be undertaken by youth organizations in your community. These could include annual park clean-ups, tree planting or trail maintenance projects. Involve local youth organizations in the development of the list and work together to designate responsibilities and priorities maximizing the collective effort to complete the projects. Also contact the municipal administrator, manager or secretary to let him/her know of potential projects.

Some other basic EAC projects:

- Sponsorship of school environmental clubs
- Nature walks
- Annual park clean-ups
- Annual Earth Day and June Rivers Month observance
- Township Community Day or other municipal event

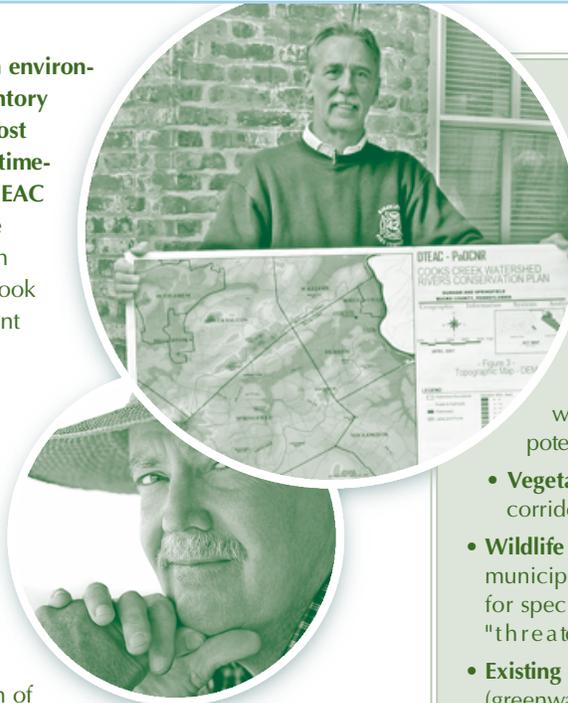
The Environmental Resource Inventory

The development of an environmental resource inventory (ERI) is one of the most substantive, important and time-consuming projects that an EAC can undertake. Due to the magnitude of this project, an entire chapter of this handbook is devoted to its development and function.

For a municipality to make land use decisions that will ensure protection and wise use of its natural resources, including wetlands, streams, aquifers, floodplains, watersheds, prime agricultural soils, forests and open space — it is essential to have a precise description of the location, character and quality of those resources, an **environmental resource inventory**.

In preparing an ERI, a municipality gathers information about its natural resources and then, using maps and text, puts that information into a format that will make it usable in developing an environmentally sound comprehensive plan. The ERI should be designed to serve as the natural resources background section of the municipality's comprehensive plan, or, if one already exists, to update and enhance it. The comprehensive plan, in turn, is used as the basis for the zoning ordinance and subdivision and land development ordinance. These govern a municipality's land use decisions. If the comprehensive plan and zoning ordinance are already in place, an ERI can serve as a valuable reference tool, or guide, to enhance their effectiveness. It can be helpful during the site plan review process to ensure that all resources and ordinances are considered during the development process.

The importance of having an ERI cannot be overstated. The scientific and objective natural resource information contained in an ERI is essential to planning for the preservation and enhancement of a community's resources.



Potential Contents for an Environmental Resource Inventory

- **Physical geography**, including physiographic regions, geology, soils, topography, steep slopes, mineral deposits and hazardous areas (sink-holes, subsidence areas)
- **Hydrologic resources**, including waterways, ponds, wetlands, floodplains, aquifers, watersheds and water quality (septic suitability, potential pollution sources)
- **Vegetation**, including woodlands, woodland corridors, old fields, meadows, lawns and pastures
- **Wildlife habitat**, including typical habitats within the municipality, important natural areas, critical habitat for specific species, including those designated "threatened" or "endangered"
- **Existing land use**, including public and protected lands (greenways and trails, recreation areas, game lands, eased properties), open space, transportation corridors, parcels, current zoning and comprehensive plans, sources of noise pollution and wind-energy farm
- **Agricultural resources**, including prime agricultural land and soil types, Agricultural Security Areas, Agricultural Preservation Areas and properties enrolled in Act 515 "Clean and Green"
- **Historic, cultural and scenic resources**, including historic buildings, scenic landscapes and views

An ERI is a dynamic document. Therefore, it should be added to, revised, and refined over time as additional information is acquired, more data becomes available or situations change.

For a more detailed content guide, see "Information to Include in an Environmental Resource Inventory", later in this chapter.

As will be discussed in Chapter 10, the work of an EAC, particularly the ERI, can provide a sound basis for zoning ordinance provisions protecting natural resources. Such provisions are authorized under the Pennsylvania Municipalities Planning Code, but few municipalities have enacted such measures, in part because of fear of court challenges. An ERI can provide the background information and rationale to sustain, for example, open space requirements to protect

streams, aquifers, wetlands, forests and agricultural lands, and may be useful in upholding such municipal zoning and subdivision/land development ordinances in court. Such ordinances are the major means for local governments to carry out their constitutional duty of stewardship under the environmental rights amendment to Pennsylvania's Constitution.

What is an Environmental Resource Inventory?

An ERI is a compilation of maps and accompanying text showing and explaining the natural characteristics and environmental features of a municipality. An ERI may be created and stored on paper only, or it may exist in digital form as part of a geographic information system. A geographic information system provides an efficient, powerful means for storing, displaying and analyzing environmental resources. Geographic information systems are discussed more below. Regardless of the mechanism, the process for both is similar.

Maps should graphically illustrate the location and extent of environmental resources. The text that accompanies these maps should describe each resource and how it relates to other resources.

An ERI provides an important foundation for the preparation of a comprehensive plan and zoning ordinance. It illustrates the relationship between land use in a municipality and its natural resources through maps and text. It is the framework within which development decisions should be made and it should be a factual and unbiased report.

Legal Authority for the Environmental Resource Inventory

The legal basis for EACs to develop an ERI comes from Act 148, as amended.

The "Specific Powers" section enables EACs to "keep an index of all open areas, publicly or privately owned, including flood-prone areas, swamps, and other unique natural areas, for the purpose of obtaining information on the proper use of such areas." An ERI is, in effect, an index of these natural areas.

EACs are charged with advising "local governmental agencies... on matters dealing with the protection, conservation, management, promotion and use of natural resources, including ...land and water resources." An ERI is the major tool for fulfilling this mandate.

Another charge to EACs is to develop a community environmental program. An ERI, with its maps and text describing a municipality's natural resources, can serve as the blueprint. An ERI can be used by teachers to develop curricula on local resources, by greenway groups planning trail systems

or by local watershed groups developing stream watches — all of which could be components of a community environmental program.

These provisions within Act 148, as amended, provide a clear basis for an EAC to create an ERI.

Components of An Environmental Resource Inventory

An ERI uses maps, text, photographs, charts and graphs to describe a community's natural resources. In general, the geographic extent is defined by municipal boundaries although these are rarely coterminous with natural resource systems. The ERI maps and accompanying text show and explain the relationship of various resources and systems to each other. At the end of this chapter is a list of agencies that may have natural resource data for your community.

1. Maps

An ERI should include a series of maps to graphically illustrate the location and type of natural resources. The first map produced should be a base map, showing municipal boundaries, property boundaries, arterial and collector streets and streams, waterways and watersheds. Municipal tax maps, U.S. Geological Survey 7.5-minute quadrangle maps, or aerial maps often are used as base maps. For paper-only inventories, this base map will be duplicated and then added to subsequent maps. Therefore, it should be clear and easy to read, and contain only the detail that is certain to be required for other maps.

If a community is using a Geographic Information System (GIS) to map its resources, then this base map should be of the highest spatial accuracy that the community can afford. For example, if high resolution (finely grained, very detailed) aerials are available for a fee, then they should be purchased rather than relying on lower resolution aerials that might be available free of charge. As other map layers are developed, these layers will be adjusted to agree with the base map. If the base layer is not very accurate, then other layers will be adjusted poorly. Aerial images make good base maps for a GIS-based inventory.

Once a base map is created, additional resources can be mapped. Ideally, each resource should be mapped separately (e.g., one map for vegetation, one for hydrology and so on). This is quite easy to do in a GIS, but more difficult for paper maps. With a GIS, each layer can be created individually and then included on many different maps. Someone with GIS training or experience is needed to coordinate the layers and make sure that they line up and are accurately overlaid. Layers are available in different projections that must be compatible for the overlay process to work. Once this is

The GIS Innovation

At its core, a GIS contains a computerized mapping application. Information about features on the earth's surface is transferred into digital form, with real world values as to their location, size and geometry. Data are organized into layers; for example, all spatial information about streams and rivers might be stored in a single layer. A second layer might map flood plain boundaries. A third layer might contain the property boundaries in a community. As long as these three layers are stored in a known coordinate system then the layers can be displayed together as overlays.

Over the last 30 years, GIS has improved rapidly and dramatically, providing new opportunities in environmental and municipal planning. A GIS can read digital maps or layers, can display those layers on computer displays or printouts and can perform analyses about the mapped features.

Once an expensive, highly sophisticated mapping application affordable only to specialized industries, GIS is now affordable and easy to use, so almost any municipality should consider investing in the program.

Another advantage of a GIS is that users can quickly create maps to meet specific project needs. A GIS user could see at a glance which properties are most likely to have severe flooding, whereas redrawing maps by hand would be quite time consuming.

A GIS is more than simply a computerized mapping application, a GIS can also provide specific information about the features. For example, a GIS can

present not only a property's boundary lines, but who owns it, whether that property is eased, whether the property is enrolled in Act 515, Pennsylvania's "Clean and Green" program, the street address for the property, the owner's name, when it was last assessed and for how much and indications of how the land is being used. This information is stored in a table or database, with rows and columns representing property records and fields related to each property. With this database behind the map, a user can search for features, filter the records, sort features and perform a variety of analytic processes.

Having information about mapped features opens a host of powerful options. Given the land use codes mentioned above, a user could quickly create a map that colors the mapped features according to land use, and with several more mouse clicks, create a map where properties are 'undeveloped' and larger than a certain size. The user could add hatch marks if those properties are enrolled in Act 43, Pennsylvania's Agricultural Areas Security Law, and to cap off the exercise, add the zoning layer. This type of exercise would permit municipal planners and officials to quickly review their zoning districts to ask, "How are larger parcels in the community zoned, particularly where owners have indicated an interest in preservation?"

A GIS is capable of quickly performing what used to take hours of drafting or analytic time. Creating buffer zones along streams, determining which parcels



A GIS System allows the user to call up different types of information in layers. In this image, parcels are overlaid with water resources. This allows the user to locate homeowners within a certain distance from a stream.

include streams, drawing a circle on a map and determining how many people live within that circle, measuring distance along a route are all examples of easy exercises for a GIS.

Most GIS can also display other information besides mapped features. A GIS can often display aerial images that are correctly positioned with the other layers. Photographs, word documents, PDF documents and spreadsheets can be associated with features, so that when the user clicks on the feature, that document will open.

For more information about GIS, tutorials and Frequently Asked Questions, go to <http://www.pasda.psu.edu> and select "Outreach and Education".

achieved, manipulating the layers to provide different sets of information is efficient and extremely useful.

If paper maps are created, it is beneficial to organize related information on a single map. For example, public open space, historic sites, scenic viewsheds and trails can be depicted on a single "Open Space Network" map. Less desirable, but sometimes more practical, all features discussed in an ERI

can be summarized on one map (e.g., wetlands, flood plains, stream corridors, woodlands, prime agricultural soils, public open space, historic sites, trails, transportation corridors and steep slopes). Although combining features on one or several maps may be a less expensive way to produce an ERI, maps containing too much information are confusing and of limited utility.

Regardless of the mechanism, whether on paper or a computer, the ERI maps should support what is known as an “overlay process”. This is the process of viewing all of the environmental features in the same coordinate space. For paper maps, all maps will need to be transparent and printed at the same scale. This enables the user to see all resources together, and in proper spatial relationship with each other. The user can then review a series of maps each depicting related features. With a GIS, one can simply turn layers off and on to compare how they are located with respect to other resources.

2. Text

The narrative section of the ERI should begin with a general description of the region and the municipality's location. It should also include an overview of the inventory, a description of the methods used in gathering information and preparing the maps, a list of people who prepared the inventory and a bibliography. The bibliography is necessary so that the accuracy of the inventory can be confirmed, and individuals interested in obtaining more information will know where to find it. In addition, when it is time to update the inventory, the bibliography will provide a clear indication of what sources to use. A list of sources is provided at the end of this chapter.

Next, the narrative should include detailed descriptions of each map or layer in the ERI. Each map should be described individually, yet linked to other maps as appropriate (e.g., the vegetation narrative should also refer to hydrological features, such as stream corridors and wetlands). The “textual overlay” is essential for the relationships among resources to be clearly demonstrated.

The narrative should be clear and concise. It should not make recommendations (e.g., for municipal acquisition of a specific piece of land), but should be a **factual and unbiased description** of existing conditions. Recommendations should be made in a separate document, citing the ERI.

Why Invest in an Environmental Resource Inventory?

Why should a municipality commit funds and an EAC commit a substantial amount of time to the development of an ERI? Because an ERI provides a solid foundation on which local comprehensive planning, zoning and land use decisions may be based to ensure the protection of important resources. An ERI can provide a local comprehensive plan with a solid factual basis, without which it may be found to be deficient by citizens, developers and, ultimately, the courts.

An ERI provides:

- A sound basis for municipal land use planning, including preparation of municipal comprehensive plans and zoning ordinances and identification of areas that may be damaged by or unsuitable for certain types of development;
- A comprehensive guide in the site plan and subdivision and land development review process;
- A long-term planning tool to identify potential land use and natural resource conflicts and ways in which to mitigate such conflicts;
- An educational tool for municipal officials and interested residents to increase understanding of natural systems, their relationship to each other and to development and the natural limitations and opportunities for use of those systems.

An ERI is an investment in the future, enabling a municipality to better plan for responsible growth and development.

From [Guiding Growth](#)

3. Graphs, Photographs and Charts

Graphs, photographs and charts can be used to provide additional information in an ERI. For example, a chart might summarize the total acreage covered by each separate zoning district. GIS systems have the capability of associating such data with maps. Pictures are especially valuable. A unique tool that a GIS brings to the process is the ability to map locations and associate a picture with that location. Most GIS have a hotlink feature, where a dot or other symbol represents a picture and when a user clicks on that symbol, the actual photograph becomes visible to the user. This feature brings a richness and depth to an ERI simply not possible with paper maps.

Photographs can be so important to planning and documentation purposes that a community may wish to create a “municipal gallery”. Pictures should be obtained in digital form with certain information collected for each picture, such as the date it was taken, the location, the photographer's name and any other information a community wishes to collect. Some EACs have sponsored contests in which residents send in their favorite picture of the community and receive recognition.

Who Uses an Environmental Resource Inventory?

An ERI may be used by a variety of organizations, agencies and individuals including:

- Environmental advisory councils
- Local elected officials
- Municipal and county planning commissions
- Zoning hearing boards
- Recreation and park boards
- Local historical commissions and societies
- Watershed organizations
- Developers
- Planners

- Engineers
- Environmental consultants
- Landowners
- Transportation planners
- Recreation and park planners
- Rail-trail and greenway planners
- Land trusts and local conservation groups
- Interested residents
- Lawyers

Developing an Environmental Resource Inventory

There are a variety of approaches for developing an ERI. The EAC and municipal governing body should decide together which approach to select, because the approach will have a direct bearing on the extent of the project and its cost. An ERI may be developed as a single project (all maps and text prepared during a specified period) or over time (maps and text produced incrementally over a period of years as time and funding permit).

A series of steps should be followed before initiating an ERI project:

1. Assess financial support and volunteer commitment.

The development of an ERI will require a financial commitment on the part of the municipality (a substantial commitment if most of the work is to be done by paid consultants) and a time commitment on the part of the EAC members (a substantial commitment if the EAC is going to produce most of the ERI). The EAC and the governing body should discuss the amount of money the municipality is willing to spend and the amount of time EAC volunteers are willing to provide in the context of the proposed scope of the ERI.

Once you have a sense of the scope of the ERI project, consider the following four options:

Hire a consultant to prepare a complete inventory.

This requires a financial commitment on the part of the municipality and a time commitment on the part of the EAC, which should serve in an advisory capacity and meet with the consultant periodically. One advantage to this approach is that it insures that a professional-quality inventory will be completed in a specified period of time. Also, inventorying some resources, such as information on aquifers, may require professional assistance. One disadvantage is the cost, which can be substantial.

Hire a consultant to prepare sections of an inventory over a period of several years.

This, too, requires a financial commitment, but allows a

municipality to spread the cost over several years. It also requires a minimal time commitment from EAC members.

Hire a consultant to provide technical assistance to volunteers including members of the EAC, recreation and park board, historical commission, planning commission and elected officials, who will prepare a complete or partial inventory. EACs can also successfully make use of interns to provide technical assistance.

This approach requires minimal financial commitment but substantial time commitment from volunteers. The EAC should take the lead in coordinating a project on this scale, but should make every effort to involve the historical commission, planning commission and elected officials to spread the workload over more volunteers and tie decision-makers into the ERI process.

Rely on volunteers, including members of the EAC, historical commission, planning commission and governing body. Volunteers can also include watershed organizations, local environmental or conservation clubs, school or college science clubs, youth organizations or college interns for specific projects.

This is the least costly approach, but it requires a huge commitment of time from volunteers involved. It is essential, too, that a volunteer with technical expertise be involved. The EAC should take an active role in coordinating this effort.

2. Determine what is to be included in the inventory.

This step should be considered in tandem with the first step, because it relates to cost and level of volunteer effort. Consider involving the historical commission, planning commission, recreation and park board and governing body in this process. Local issues (e.g., development pressure, the need for additional parkland) and the general characteristics of the municipality (e.g., rural, suburban, or urban, flat or hilly, wet or dry) should be considered so that maps that will help to address the most pressing and serious resource protection issues will be produced first.

It is helpful to look at ERIs that have been developed by other municipalities. Contact neighboring municipalities, the county planning commission and The EAC Network at the Pennsylvania Environmental Council for sample ERIs. Local conservation groups also may have produced ERIs.

See the section below, "Information to include..". Outlining and developing a preliminary table of contents helps to set the stage for all steps of the process, and provides perspective on the project for all members of the EAC.

3. Develop a work plan and timetable.

It is essential that a work plan be developed in the formative

stages of the project. Realistically assess the time needed for each task. It is necessary to strike a balance between giving volunteers enough time to accomplish tasks and imposing deadlines that will encourage them to get to work immediately. Work plans should be somewhat flexible, however, to allow for unforeseen complications, particularly when volunteers are involved. If a consultant is used for any phase of the project, she/he should be involved in the development of the work plan. If members of the historical commission, planning commission, recreation and park board or governing body are not involved, the work plan should include a schedule for periodically updating them on the project.

In addition, in developing a work plan it is necessary to identify dates by which the inventory must be complete so that it will be available for important municipal projects, such as the updating of the local comprehensive plan.

4. Decide who will do what.

As soon as a work plan is completed, tasks should be designated. Assignment of tasks should be determined by consensus, with volunteers taking on areas in which they have expertise or interest.

5. Identify and contact sources of information and data.

The first step for each map is to collect relevant data and information that have already been assembled. In addition to local municipal records, contact the municipal planner, engineer, tax assessor, county and regional planning commissions, county conservation district and state agencies for information on the subject areas you are covering in your inventory. Check on-line map sources (discussed later) to see if the maps you need are available. Also check existing documents such as: storm water management plans, well-head protection plans, source water protection plans, water use data, county water supply plans, watershed restoration action strategies, scarlift reports, river conservation plans, soil surveys and comprehensive and other land use plans. Some of the needed work may have already been done and can be incorporated into the ERI easily.

A list of resources for data and information is included at the end of this chapter.

6. Inform the Public.

Publicize your ERI project to educate the community on what you are doing, and why. Publicity will help to increase the community's awareness of its resources and the importance of protecting them—and it may turn up local experts who can help you with the project.

One way to publicize the ERI and the role the EAC will play in its development is to hold a meeting before beginning the project to inform the community about the purpose of the

ERI, and to receive input regarding what should be included. Once the project has been completed, another meeting could be held to unveil and explain the inventory to the community. Invite elected officials and residents from adjoining communities as well. A well-organized and publicized public meeting will strengthen public support for using the ERI in comprehensive planning and ordinance development, and may encourage neighboring municipalities to develop inventories of their own. This is a prime example of how an EAC can promote local action and a regional perspective on natural resource protection.

Information to Include in an Environmental Resource Inventory

This guide can be used to develop the contents of an ERI. The ERI is intended to provide a planning and documentary tool for the municipality and should be geared to local needs. The level of detail may vary, depending on the needs of the municipality, the resources available to create the inventory and the specific characteristics of the area being inventoried. These needs will also dictate which features should be mapped and which can adequately be described by text. When a map is provided for a feature (or features), it should be accompanied by a detailed description within the text.

Description of municipality's location and region

Overview of scope and purpose of inventory

Description of methods used in gathering information and preparing maps

List of preparers

Base map 1 (often a USGS topographical map is used)

Municipal boundaries

Roads

Waterways

Base map 2

Aerial photo

Physical geography (physiography)

Physiographic regions

Topography

Geology

- Formations and characteristics
- Unique geologic features
- Hazardous areas such as mine subsidence-prone areas, sinkholes and landslide-prone areas

- Mineral resources such as limestone, building stone, clay, coal, oil and gas

Soil types and characteristics

- Septic suitability
- Steep slopes
- Prime agricultural land (by class)
- Hydric soils

Hydrology

Surface water

- Watersheds and subwatersheds (drainage units)
- Waterways and water bodies, types and characteristics including information such as waterway names and quality classifications by the 93 PA Code
- Floodplains
- Wetlands, location and types: estuarine (salt and brackish marshes, rivers), riverine (freshwater rivers and streams), palustrine (freshwater marshes, bogs or swamps), scrub/shrub and human-made (drainage swales and basins)
- Liquid waste and disposal systems
- Intakes, outfalls and dams
- Potential point source pollution locations

Groundwater

- Aquifers, location extent, characteristics
- Recharge and discharge areas (may be outside municipality)
- Depth to groundwater
- Wellhead locations and flow rates
- Known areas of groundwater pollution
- Known areas of well contamination, such as elevated nitrate levels

Vegetation

Vegetative types and locations

- Forest cover and characteristics including tree populations and characteristics, historical and recreational value, individual specimens valued for their rarity or size and economic value
- Hydrophytes
- Crops, pastures
- Hedgerows
- Meadows, fields
- Suburban, urban
- Native, non-native
- Fire hazard areas

Wildlife habitat

Seasonal abundance and distribution of wildlife/status of biodiversity

Known species of special concern (SSC) in the municipality

Important natural areas

- Documented (Audubon IBAs, PNHP important natural areas, State Game Lands and Important Mammal Areas)
- Known habitat areas for SSC, including “threatened” or “endangered”

Invasive or hazardous species habitats

Agricultural resources

Prime agricultural soils (see geology)

Agricultural Security Areas

Agricultural Preservation Areas

Properties enrolled in Act 515 “Clean and Green”

Existing active and inactive farm land

Historic and cultural resources

Designated historic locations

- Historic districts
- National Register sites
- Existing or likely archeological sites

Scenic viewsheds and landscapes

Existing land use

Transportation corridors

Public and private recreation areas and protected areas

- State Game Lands
- Greenways and trails
- Parks, athletic fields
- Military facilities
- Eased properties

Parcels

Relevant zoning

- Location and type of permitted development (districts)
- Presence of development restrictions

Sources of noise pollution

Public utilities and facilities (pipelines, transmission lines, reservoirs and wind-energy farms)

Proposed or future land use

Local comprehensive plan

County comprehensive plan

County greenway and open space plan

Available recreation plans

Hazardous and residual waste

Superfund sites

Hazardous waste disposal sites

Landfills

Incinerators

Bibliography

Sources of Information for an Environmental Resource Inventory

Much of the information needed for an ERI is available from county, state and federal sources and from watershed and other non-profit organizations. The challenge is in translating that information into a usable and consistent format, and in ensuring it is up-to-date. Maps can be obtained in many forms, projections and scales and can be digital or printed; it is the job of the ERI compiler to use them in the best way possible to make the information that they contain useful to municipal officials, planners, the EAC and residents. Background information is abundant and the compilers must choose the level of detail and topic coverage. This section offers suggestions for specific and general sources of information, maps and data used in a typical ERI.

Down the Rabbit Hole

As has been discussed, there is a rapid transformation taking place in map availability and the digitization of maps. Searching for maps can be rewarding, and the process of putting together an ERI is made easier by the availability of so many maps at little or no cost. However, the searcher may also find him/herself in a labyrinth of web sites, cross-referenced sources and obsolete links and be discouraged by the varying levels of knowledge required to get to the heart of what is needed. Responsibility is divided among agencies in a manner that is not intuitive. For example, it is useful to know that categories of wildlife are overseen by different agencies:

Fish, Amphibians and Reptiles: Pennsylvania Fish and Boat Commission

Birds and Mammals: Pennsylvania Game Commission

Plants: Pennsylvania DCNR

Invertebrates: Pennsylvania DCNR

The following source list is intended as a starting point, with the understanding that further search will uncover more information, and that the agencies listed may re-organize

their web site material after this handbook is published. Some are in the process of uploading maps and may offer more in the near future. It is important to know the agency and its function, so sites and subjects can be found by search if not by site address. In addition, some sites are more user-friendly than others; while some may have a “GIS” or “data” icon to click on, others may require some tunneling to find out whether they contain maps and data.

Pennsylvania Spatial Data Access (PASDA)

PASDA (<http://www.pasda.psu.edu>) is Pennsylvania’s Spatial Data Clearinghouse, and is a comprehensive resource for GIS layers. Part of a national project to ensure high quality data standards and promote sharing of data layers, PASDA provides direct links and downloading of many feature layers created by the sources listed below. These feature layers often have accompanying data tables containing details about the content of the maps. Many federal, state, county and local offices have provided data to PASDA with the aim to ensure that those who might benefit from having this information can get it. This means that ERIs can be of high quality and still be relatively inexpensive for EACs.

Other Sources for Maps and Information

Although many of the sources listed below have sent their maps and data to PASDA, it is often useful to visit specific sites for additional data, descriptions, overviews and contact information. Sometimes the descriptions of the maps are easier to understand at the agency web site than at PASDA (links are also often provided from the agency to PASDA anyway). There are also many on-line sources that contain information not available at the PASDA web site. Some agencies and organizations can send GIS layers on request if they do not have them available on line. In addition, some maps may be available in graphic form but are not accessible as GIS layers; some of these may serve as useful illustrations to place within the ERI report text. In addition, there are numerous publications, produced before the internet was in use, containing valuable information and background that can be of use in an ERI.

Local field knowledge should not be overlooked, including that which has been obtained from community meetings. One of the most valuable roles of an EAC is to enhance the local data with first hand information about natural resources. Resources such as vernal pools and small or delineated wetlands are rarely recorded by state agencies, either because their information is not on a small scale or it relies on data recorded many years ago (e.g., soil surveys). EACs can also use this community input to provide “groundtruth” — information that corrects erroneous or incomplete data obtained from the various organizations and agencies.

Specific Sources

- **http://www.dep.state.pa.us/external_gis/gis_home.htm:** The Department of Environmental Protection's GIS Geographic Data Center. This site has links to **PASDA**, **eMap PA** (a mapping application that displays DEP permit information on a dynamic web based Map Server), **PaMagic** (an organization devoted to the furtherance of GIS in Pennsylvania), the **Federal Geographic Data Center** (coordinates the development of the National Spatial Data Infrastructure), **What's in My Watershed** (a mapping tool for gathering information about specific areas or neighborhoods; not for complex GIS mapping) and the **United States Geological Survey** (USGS, also noted below).
- **<http://www.usgs.gov>:** The United States Geological Survey, a good source for maps and information. This is a national site; you can click on Pennsylvania in the right-hand corner for links to water data, biological resources, mineral information, recreational information and many other types of information. There is real-time information about floods, droughts, etc. and a list of highlighted links as well.
- **<http://www.pa.nrcs.usda.gov>:** The Natural Resource Conservation Service, U.S. Department of Agriculture. On the left, under "find a service center" there is contact information for county field offices.
- **<http://www.pa.nrcs.usda.gov/technical>:** A sub-page of the above, **www.pa.nrcs.usda.gov**, containing technical information, resources, tools, models and data. On this page there is a list which contains a link to Pennsylvania's Map Compilation and Digitizing Center; **<http://mcdc.cas.psu.edu>**, which then contains links to GIS layers and other forms of soil data. Click the Data Wizard. This site contains a web-based soils mapping service as well.
- **<http://www.dcnr.state.pa.us/topogeo/>** and **<http://www.dcnr.state.pa.us/topogeo/gismaps/digital.aspx>**: Information and data, or links to these, about bedrock geology, oil and gas, geologic maps, topographic maps, aerial photographs, relief and land cover maps.
- **The Atlas of Pennsylvania:** (David Cuff, William J. Young, Edward K. Muller, Wilbur Zelinsk and Ronald F. Abler, Temple University Press: Philadelphia, 1989) contains a wealth of geographical information.
- **<http://www.dcnr.state.pa.us/topogeo/pamap/index.aspx>:** This is the home page for a project to develop a seamless digital base map of Pennsylvania at 1:24,000 scale. Some downloadable maps are available; contacts for acquiring other maps are noted. Please see the next bullet.
- **United States Geological Survey (USGS)** in partnership with Department of Conservation and Natural Resource's Bureau of Topographic and Geologic Survey offers **free printed maps providing statewide views of Pennsylvania's relief and land cover**, two data elements important for regional sound land use planning. Free copies may be obtained by calling 717-702 2017 or by writing the Pennsylvania Bureau of Topographic and Geologic Survey, 3240 Schoolhouse Road, Middletown, PA 17057. These will also shortly be available at PASDA.
- **<http://www.srb.net>:** For EACs within the Susquehanna River basin, The Susquehanna River Basin Commission offers GIS layers of Susquehanna River basin subbasins, counties, population centers, watersheds, soils, ecoregions and many other features. These are available in graphic format or as GIS layers on request.
- **<http://pawatersheds.org>:** The web site for the Pennsylvania Organization of Watersheds and Rivers (POWR). This offers a listing of watershed organizations and links to their web sites, as well as information about Pennsylvania's waterways.
- **<http://www.naturalheritage.state.pa.us>:** This is the home page of the Pennsylvania Natural Heritage Program (PNHP), formerly the Pennsylvania Natural Diversity Inventory (PNDI). Links are provided to participating organizations, also listed below. Lists of Species of Special Concern are here, updates on new inventories and status of listed species.
- **<http://www.paconserv.org>** and **<http://www.paconserv.org/rc/cnhi/html>:** The Western Pennsylvania Conservancy, a partner in the PNHP. Information about County Natural Heritage Inventories. **<http://www.paconserv.org/rc/gis.html>** has limited GIS layers for properties and boundaries of WPC properties, but more GIS data will be available in the future at this site.
- **<http://www.nature.org>** and **<http://gis.tnc.org/data>** and **<http://nature.org/wherework/northamerica/states/pennsylvania>**: The Nature Conservancy, a partner in the PNHP. The GIS data page is in place at time of publication with more data to be made available soon. The Pennsylvania page has information about the Natural Heritage Program's Aquatic Community Classification Project.
- **<http://www.paflora.org>:** This is the home page for the Morris Arboretum of the University of Pennsylvania. It contains a database of flora that can generate a list of plants that have been collected anywhere in the Commonwealth, including their classification.
- **<http://www.fish.state.pa.us>:** The Pennsylvania Fish and

Boat Commission has information about amphibians and reptiles in Pennsylvania.

- <http://www.pgc.state.pa.us>: The Pennsylvania Game Commission home page. Links to information about state game lands and trails.
- http://pa.audubon.org/iba/facts_info_site_conservation.html: This Pennsylvania Audubon Society web site contains Important Bird Area site notes, definitions and GIS data layers. Extra layers have recently been added for the Kittatinny Ridge/Blue Mountain IBA, an extensive swath crossing several counties. The home page is <http://pa.audubon.org>. <http://pabirdingtrails.org> contains a searchable database and information about the Susquehanna River Birding and Wildlife Trail, which highlights parks, natural areas, old growth forests, trails and scenic drives in 39 counties.
- <http://www.fws.gov>: The U.S. Fish and Wildlife Service lists endangered and threatened species from the Threatened and Endangered Species database System (TESS). Information about species is available by state.
- <http://www.phmc.state.pa.us>: The Pennsylvania Historical and Museum Commission. Information on Pennsylvania history, location and text of historical markers and some county history. Specific information about archeological sites is not generally made public, however, general criteria for likely site areas is available, and the files are open to the public by appointment. Confidentiality restrictions apply to the Pennsylvania Archaeological Site Survey (PASS). The National Historic Register Program for Pennsylvania is also administered by the PHMC. At <http://www.arch.state.pa.us> is a searchable database for over 3000 National Register nominations and almost 200 National Historic Landmark properties.
- <http://earth.google.com> provides global satellite imagery of in varying levels of resolution depending on the location. Maps are updated on a rolling basis, but all are 3 years old or newer. Google Earth comes as free downloadable software or in 2 higher levels of software for purchase.

Other general or local sources:

- County conservation district offices
- County and local tax offices
- County planning commission, or regional planning organizations such as the Delaware Valley Regional Planning Commission, the Northeastern Pennsylvania Alliance and the Southwestern Pennsylvania Commission
- County or local recreation and park boards
- Existing open space or recreation plans for your municipality
- Municipal comprehensive plan
- The Land Trust Alliance;
<http://www.lta.org>
- The Pennsylvania Land Trust Association;
<http://www.conserveland.org>
- Local bird clubs
- The Horse-Shoe Trail Club;
<http://www.n99.com/hst>
- The Appalachian Trail Conference;
<http://www.appalachiantrail.org>
- Local, regional and state trail clubs
- Local watershed organizations
- Local Trout Unlimited chapters
- Local land trusts and conservancies
- Commercial sources of high quality aerial photos can be found by internet search

Thornbury Township, Delaware County, Builds a GIS-Based Environmental Resource Inventory Over Time

Thornbury Township provides an exemplary model for the creation and updating of an ERI.

Formed in 1687, Thornbury Township is one of the oldest townships in Pennsylvania. Most of the township was originally farmed, but with the Chester Creek running through this community, mills played a large role in its early history as well. Farms and mills left behind many beautiful landscapes, including scenic farm fields punctuated by mills, hamlets and three quaint train stations.

As nearby development accelerated in the 1980s and 1990s, Thornbury Township formed an open space committee and drafted an open space plan to help manage growth. The plan mapped existing open space and trails, large institutional uses and the high quality natural resource system. In 1999, the open space committee was formally reconstituted as an EAC.

In 2000 the EAC created its first GIS-based ERI. With minimal funding available to complete the work, Thornbury relied on public-domain aerials from the USGS and a parcel layer that had been created by the township engineer. The township added many other layers, including streams and ponds, topography, roads, soils and land use. Several layers of specific interest to the EAC were created, including a mapped photographic gallery and storm water basins.

As the EAC members gained experience with the GIS, more layers were incorporated into the ERI. They added very accurate, high quality aerials from Delaware Valley Regional

Planning Commission. Delaware County also began distributing its parcels layer to member municipalities. These two layers together increased the value of the GIS since they were more accurate, up-to-date and detailed.

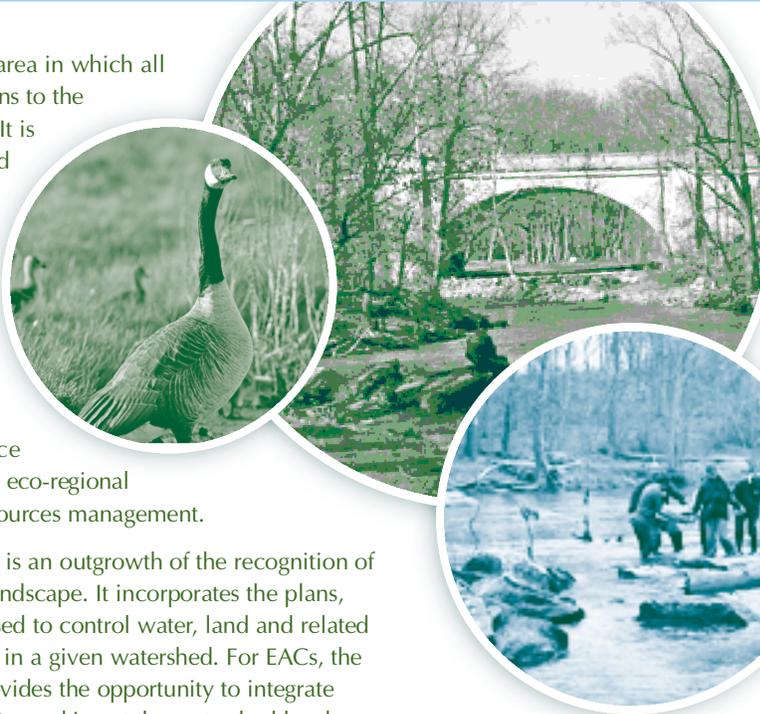
In 2001, the township received additional funding to include a very detailed historic resource inventory in the ERI. The inventory had been completed by the township's Historical Commission, and included a full-page description of more than 200 local properties, including a photograph of the resource. This historic resource inventory was easily incorporated into the GIS.

Thornbury Township's process demonstrates good principles for the evolution of a GIS-based resource inventory. The township started by using information that was readily available. As EAC members gained expertise they began using the inventory in site plan review. As better layers became available, the EAC tapped into the larger community of GIS data providers. They drew multiple layers into their system. This not only enriched the township's ERI but helped municipal officials work better together.

For more information, contact
Thornbury Township,
6 Township Drive,
Cheyney, Pennsylvania 19319;
(610) 399-8383;
<http://www.thornbury.org>

Watershed Protection

A watershed is an area in which all of the water drains to the same waterway. It is comprised of surface and groundwater, soils, vegetation, animals, humans and human impacts. Watersheds provide basic, defined levels at which to manage water quality and quantity and can serve as useful reference points within large-scale, eco-regional approaches to water resources management.



Watershed management is an outgrowth of the recognition of natural features of the landscape. It incorporates the plans, policies and activities used to control water, land and related resources and processes in a given watershed. For EACs, the watershed approach provides the opportunity to integrate resource conservation. By working at the watershed level, EACs can communicate to their municipalities a framework that reflects natural processes and how management of one aspect can affect another. By offering the perspective of a watershed as an integrated system, the EAC provides both education and a basis for good environmental policy. For example, good forestry practices affect erosion and sedimentation, water quality and stream populations. Small projects like localized riparian buffer restoration can be valued as an important factor in the larger picture of a healthy watershed.

Water Quality: Non-point Source Pollution

Today, non-point sources of pollution (NPS) pose the greatest threat to Pennsylvania's, and the nation's water quality. Non-point sources deliver water pollution from a variety of diffuse locations, including runoff from streets and parking lots, farm fields, construction operations, failing septic systems and abandoned mine drainage. The pollution comes in many forms, and problems arise from a broad range of sources, including siltation, nutrients, metals, salinity, dissolved oxygen, pathogens, flow alteration, acidity and pesticides. Given their dispersed, multiple origins, non-point sources are more difficult to identify and monitor than point sources. As a result, non-point sources have historically received much less regulatory, management and monitoring attention than point sources.

Watershed management is well suited to controlling non-point source pollution.

Water Quantity

Water quality and quantity are interrelated issues that are receiving increased attention in Pennsylvania.

A series of dry years and a recognition that our water resources are not unlimited led to the implementation of Act 220 of 2002, the Water Resources Planning Act, which calls for an assessment of water withdrawals, the impact of withdrawals on water quality and quantity and

an update of the state water plan. Ne w

storm water requirements have also heightened interest in how we manage the amount of water that flows from a given site.

Watershed Groups

A watershed group is an organization of conservation-minded citizens who want to preserve, protect and restore the natural resources in the watershed and act as advocates for the ecosystem. Watershed groups focus on natural systems rather than political boundaries. Watershed groups range from small watershed associations dedicated to preserving the headwaters of a prized trout stream to large regional groups focused on entire river basins. Watershed groups and EACs play important, complementary roles in natural resource conservation.

Because of the recognition that many environmental policies affect water quality, from the local level to the state level, watershed organizations have provided opportunities for partnerships with both government agencies and private conservation organizations. They may be involved in direct water quality projects, such as stream clean-ups and riparian buffer restoration, or more projects that have indirect effects, such as support of sound land use policies. They are natural

partners for EAC projects. A good resource for watershed group information is The Pennsylvania Organization for Watersheds and Rivers, <http://www.pawatersheds.org>

Local Governments and Watershed Management

Local governments are vital players in managing watershed resources. Townships and boroughs may affect water quality in a number of ways. For example, they may influence the type and location of activities within a watershed through the enactment of land use regulations, zoning and planning, sewage treatment and the way they manage storm water. By making decisions with the resource in mind, they can help reduce the likelihood that water quality and water quantity will be compromised. Requiring their own employees to adopt best management practices and facilitating such practices among others in the community are ways that local governments may help further protect watersheds.

Although Pennsylvania has responsibility and power under federal and state law, local actions have significant impacts on water quality and quantity. Consequently, well-informed municipal officials are key to preserving and protecting the Commonwealth's water resources. Local officials need to have information on the latest scientific and technical practices, as well as knowledge of public policy tools and financing options to implement best practices. Municipal officials also need to be aware of their obligations under new laws and regulations.

Watershed management is still a relatively new concept for many, if not most, local governments. They may consider it to be an ill-defined topic, think the evidence is inconclusive and consider remedies to be impractical. Even if backed by legally mandated initiatives, local officials may fail to integrate new, complex and narrowly framed environmental

problems into their decision-making or vary in their responses to such regulations.

Furthermore, political and watershed boundaries rarely correspond with one another. Since their authority only extends to their own municipal boundaries, local officials often attend to local matters that affect their constituents rather than downstream concerns.



Advancing Watershed Concepts Within Local Governments

Local governments vary considerably in conditions favoring a watershed approach. Some have strong personnel or financial capacity and a level of commitment that has repeatedly translated into environmental protection. Others have either the capacity or the political will, and some have neither. Ultimately, local governments must understand the issues that they are being asked to address, recognize that action on their part can make a difference, believe their municipality has the ability to act and see the advantages to their community.

EACs and watershed groups can work together for watershed protection. Having an EAC in place will strengthen the work of a watershed group because EACs provide a doorway into local government – gaining support for regional goals at the municipal level. As a part of local government, an EAC has the ability to incorporate watershed goals into local decision-making and activities. Watershed groups can work with EACs to plan and implement activities and foster sound environmental decisions at the local level. Through multi-municipal efforts, EACs can help coordinate municipal actions on a watershed basis.

Elected officials form an EAC by ordinance establishing it as a permanent body within local government. Watershed groups are not a part of local government and may not have the same level of permanence and legitimacy within the city, township, or borough. EACs can play that role.

Large-Scale Problems and Small-Scale Institutions

The role of local governments in watershed management highlights a “paradox of scale.” Watershed management deals with large-scale ecological processes, but local, small-scale institutions are required for effective management. Local governments are closer to pollution sources and have the ability to respond more quickly and flexibly to new information than large-scale institutions. They contribute knowledge about situations in and around specific water bodies and serve a vital role in making the issue part of the local agenda. As partners in the process, local governments are also better prepared to accept and implement corrections to management strategies that may become necessary as new information arises.

Local support is required if watershed management and NPS pollution prevention are to be institutionalized. Successful watershed management programs require local officials and citizens to consider the impacts of their actions on other jurisdictions. EACs are positioned to play an important role in helping this to happen.

Partnerships

In recent years, Pennsylvania has emerged as a national leader in promoting a watershed approach to natural resource management. With the support of programs like Growing Greener and other local, state, federal and private resources, Pennsylvanians are taking steps to restore, protect

and enhance our watershed resources. They are monitoring water quality in local streams, restoring stream banks, conducting watershed assessments, educating the public and taking part in a host of other valuable activities.

Watershed protection and restoration are group efforts. One valuable element of watershed management is its dependence on cooperative partnerships. To fully realize the potential of watershed management, the participants in a project must constantly reach out to new partners to educate them about the benefits of their work and to engage them in current and future planning and activities.

Integrating Watershed Concepts

Because their role is to advise other municipal officials on environmental matters, EACs build relationships and integrate watershed perspectives and concepts into the decision making of elected officials, the planning commission, other municipal boards and the community. Engaging townships and boroughs in the definition of watershed problems and the identification of alternatives improves the quality of the decisions, increases trust among the parties and makes local groups feel like they have a stake in the outcome.

EACs act as the environmental liaisons between watershed associations, the community, elected officials and other municipal decision-makers—they channel public sentiment regarding environmental matters to municipal officials.

EAC enabling legislation allows EACs to tailor their projects to local needs. In cooperation with other municipal officials, EACs typically are charged with developing an environmental resource inventory, reviewing site and subdivision/land development plans, drafting environmental ordinances, prioritizing and purchasing open space, developing greenways, protecting water resources, developing recycling programs, suggesting school curricula and many other tasks. An EAC

can make sure that watershed concepts are integrated into these and other local projects.

EACs critically analyze development plans to help determine environmental impacts and therefore can influence developers to incorporate smart land use practices. The Upper Dublin EAC, Montgomery County, has been doing this since 1979. This case-by-case work can improve the water quality in a region by limiting run-off and NPS pollution and ensure that a proposal has accounted for groundwater recharge and storm water runoff. Since EACs are an effective way to work on a multi-municipal basis, plans, ordinances and techniques of an EAC often are shared and applied throughout the watershed.

EACs can also help local governments implement elements of rivers conservation plans, watershed assessments and other watershed-based planning tools. Again, EACs are the connection to the municipalities and can be the advocates for watershed concepts. Similarly, as the state water plan is updated with local, regional and statewide elements, EACs are in a position to integrate these plans into local decision-making.

EACs help municipal officials raise funds for a wide range of environmental projects—leveraging any resources that the elected officials allocated to the EAC for operating costs and activities. This helps the municipality realize that they may be able to get involved with watershed-related projects that they previously thought were beyond their financial reach.

Multi-Municipal EACs

Municipalities are authorized to establish multi-municipal EACs or simply work together on a multi-municipal level. Because EACs are advisory only, they are an effective — and non-threatening — way for municipalities to work together. A multi-municipal EAC could provide an ideal forum for encouraging watershed management among local governments.

Examples of Joint Projects Between EACs and Watershed Associations

Durham Township, Bucks County, received \$86,000 from the Department of Conservation and Natural Resources and the U.S. Environmental Protection Agency to complete a watershed conservation plan for the Cooks Creek Watershed. One of the plan's elements was to monitor the water quality of Durham Township. The work was completed by EAC members and members of the Cooks Creek Watershed

Association. More than 700 volunteer hours were contributed to the project, educating the volunteers about water quality in the area. This plan was approved by DCNR and placed on the Pennsylvania Rivers Registry. This funding also allowed the township to acquire stream-monitoring equipment and to set up a geographic information system database to capture the data and put it to use in future plans and ordinances.

In some cases, EACs may help to establish watershed groups. For instance, in Montgomery County, the Horsham Township EAC helped interested residents and business owners form the Park Creek Watershed Association. The EAC was the catalyst behind the formation of this group, which includes representatives from Montgomery, Lower Gwynedd, Upper Dublin and Warrington Townships.

Additionally, the Upper Southampton Township EAC, Bucks County, started the Upper Southampton Watershed Association, a group whose objectives are to preserve the township's riparian areas and to educate residents on their watershed impact and on the regulations concerning maintenance of creek beds. The watershed association has completed many educational projects including tree plantings and an educational video, which won the "2003 Communication

Award of Distinction" by the National Academy of Television Arts and Sciences. A project currently in progress is the labeling of township storm drains.

EACs also can be formed by watershed groups. Since 2002, The EAC Network has been collaborating with the Green Valleys Association in northern Chester County to promote the formation of EACs in GVA's stewardship area. GVA is a non-profit organization established

in 1964 to protect the French Creek watershed and now serves to protect and preserve five watersheds that span twenty-one municipalities. EACs help GVA address watershed protection from a local viewpoint, making sure that each municipality's needs are taken into consideration. Several municipalities have formed EACs as a result of the initiative, and they are working on a variety of projects related to improving watershed management.

Open Space Conservation and Greenway Development

Conserving open space and creating green connections are top priorities in Pennsylvania. As envisioned in the June 2001 Pennsylvania Greenways Action Plan for Creating Connections:

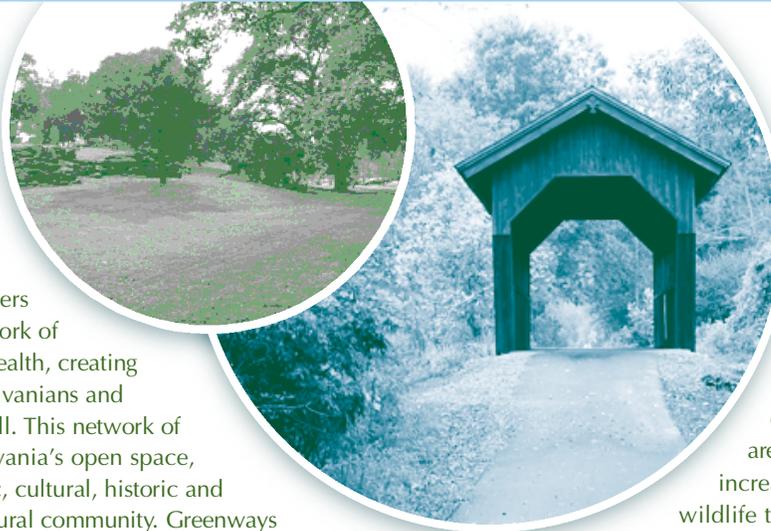
“Pennsylvania and its many partners will develop an outstanding network of greenways across the Commonwealth, creating an asset highly valued by Pennsylvanians and enhancing the quality of life for all. This network of greenways will connect Pennsylvania’s open space, natural landscape features, scenic, cultural, historic and recreational sites and urban and rural community. Greenways will become one of the Commonwealth’s most powerful tools to achieve sustainable growth and livable communities.”

Pennsylvania’s many counties and municipalities are integral to carrying forward this vision. As a start, communities should identify appropriate tracts of land through a public planning process and at a minimum incorporate those areas as open space and connecting greenways within the municipal comprehensive plan.

Reasons for Conserving Open Space and Creating Greenways

Environmental Quality Protection

Greenways and open space serve important environmental quality and natural resource protection functions.



Protection of Natural Resources

Greenways and open space provide opportunities to protect and manage wildlife, forests and ecological systems.

Greenways can become corridors, connecting natural areas, potentially increasing accessibility by wildlife to water and plant life as they travel the greenway. There

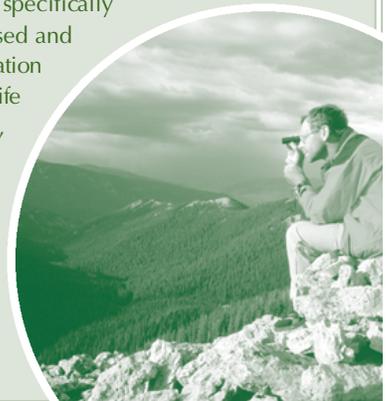
are many other environmental benefits associated with creating greenways, such as improving air quality and reducing noise and thermal pollution.

Protection of Water Resources

Greenways and open space protect our Commonwealth’s water resources by buffering nonpoint sources of pollution. Providing a vegetative buffer between rivers and streams and development can protect water supplies, while at the same time providing recreational and other amenities in a community. Greenways and open spaces also provide recharge areas for groundwater aquifers, critical to the Commonwealth’s drinking water supplies, especially in times of drought.

Greenways are “linear corridors of public and private land that serve as the linkages between specifically identified natural resource-based or manmade features. They can be either land or water based and serve a variety of functions and benefits including recreation, transportation, community revitalization and economic development, natural resource conservation, environmental protection, wildlife habitat and migration and education. These corridors often follow old railways, canals, ridge tops, rivers and stream valleys.” (Pennsylvania’s Greenway Working Definition, www.pagreenways.org)

Open space, broadly defined, is any space unoccupied by buildings or paved surfaces and open to the sky. This includes space on the same lot with a building or the complete area of an undeveloped lot. Initiatives to conserve open space usually focus on larger areas of open space, including farmland, forest, wetlands, habitat and parklands. Such initiatives are generally intended to provide environmental, economic and health benefits, thereby maintaining the quality of life in a community.



Stewardship of Pennsylvania's Rural and Farmland Legacy

Greenways are one solution to maintaining important open spaces and farmland that retains Pennsylvania's rural nature. Creating a greenway that preserves open space and agricultural land can help protect Pennsylvania's rural legacy. This initiates environmental preservation and education, provides recreational facilities and shapes development and opportunities for economic benefits.

Providing Connections

Greenways connect people and places. Many remember children walking and bicycling as their primary vehicle to get from place to place. Changing lifestyles and development patterns that encourage the use of cars now often provide significant barriers to both forms of movement as daily physical activities, leading to declining health and fitness, and increased obesity and illnesses associated with lower activity levels. Trail based greenways connect schools and neighborhoods, reconnect downtown areas to local rivers and provide close to home recreational opportunities.

Economic Benefits

Greenways and open space have documented economic benefits to the communities embracing them, in the form of recreation and tourism, as well increased property sales along greenways and open space. For example, along river and rail corridors across the Commonwealth, the economic potential of greenways-based tourism is transforming once declining steel mill and mining towns into "trail town" destinations for cyclists, kayakers, birdwatchers and other outdoor enthusiasts. The recently proposed "PA Wilds" area is a major nature tourism initiative for the economically struggling communities in north central Pennsylvania. In addition, as noted in the 2002 greenway benefits study prepared for the Pennsylvania Greenways Partnership Commission, realtors have noticed the positive effects of locating along a trail in Western Pennsylvania, the Great Allegheny Passage, noting that clients specifically ask for properties close to the trail. Trails have become so popular, home sale advertisements now note close proximity to them.

Check the following websites for more information on all benefits of greenways and open space:

www.pagreenways.org/benefits.htm,
www.tpl.org, www.railtrails.org

Planning for Greenways and Open Space

Planning is an important and necessary step in setting goals for conservation and outlining ways to make them a reality. A well-thought out open space and greenway plan builds community consensus, identifies and prioritizes critical areas for open space and greenway connections utilizing an

environmental resource inventory (see Chapter 6), outlines strategies to make the plan happen, and provides credible justification for related future funding.

Planning for logically connected greenways and open space is just as important to a community as is planning for growth and development. The two go hand-in-hand in the local comprehensive planning process and are integral to creating livable communities. **Connected open spaces that are strategically conserved and woven into existing and proposed growth areas add more value to community conservation goals than randomly distributed areas.**

Members, partners and stakeholders will respond with greater enthusiasm when they see a firm plan with achievable actions in place.

Moreover, local open space and greenway planning should be coordinated with the efforts of counties, the Commonwealth and other agencies. Of particular importance are county-level open space and greenway plans, laying the foundation for local connections, and the [Pennsylvania Greenways: An Action Plan for Creating Connections](#), drafted and adopted in 2001 by the Pennsylvania Greenways Commission. This document serves as Pennsylvania's plan for establishing greenways across the state and sets out an aggressive 20-year implementation strategy envisioning a distinguishable greenway and open space network similar to the Interstate Highway System that is today the backbone of the nation's system of roadways.

The Action Plan includes twelve strategies for its implementation outlined under four priority goals:

- **To establish a physical network of greenways throughout the Commonwealth.** The Action Plan proposes creating a statewide greenway system with 'hubs' and 'spokes' similar to Pennsylvania's statewide highway system. Parks, state forests, lakes and towns and cities would serve as the hubs with greenways connecting the hubs to each other.
- **To create a framework to enable coordination of the activities of state agencies and greenway partners.** The Action Plan calls for a coordinated effort involving Commonwealth agencies, the National Park Service, counties, local governments, related non-profit groups, the private development community and utilities. A local EAC, planning commission and/or recreation and park board would be an ideal coordinator, ensuring local, regional and state efforts cooperate to maximize benefits and reduce costs.
- **To develop and implement a greenways funding strategy.** The Action Plan promotes the assembling of public and private funding to assist in greenway planning, development and maintenance.

- **To build the capacity of all greenways partners by creating a broad program of technical assistance and support.** Lastly, the Action Plan calls for providing the tools and resources needed to assist and empower municipalities, counties and local organizations with planning, developing and maintaining greenways.

As part of planning for and establishment of greenway connections throughout the Commonwealth, the Department of Conservation and Natural Resources is actively encouraging and assisting counties in the development of county-wide open space and greenway plans with a goal for all counties to have plans underway by 2007. At the time of this writing, over half of the 67 counties have either completed or begun work on their open space and greenway plans. DCNR also encourages the development of multi-municipal open space and greenway plans, consistent with county-level plans, to be carried forward locally. EACs should be encouraging the development of local plans and assist in such efforts.

County plans identify a comprehensive greenways and open space network, provide a context for more local greenway and open space project planning and include opportunities for connections beyond county borders. Fostering greenway connections beyond single county boundaries leverages county and local greenway and open space networks into longer distance recreational and alternative transportation opportunities. It can also help bridge vital gaps existing between smaller parcels of critical open space and conservation lands. When such connections are made across multiple jurisdictions and landscapes, a statewide system of interconnected greenways emerges, becoming a

large-scale economic, environmental and recreational asset for Pennsylvania.

EACs should contact either their county planning commission or DCNR Regional Representative to learn the status of a particular county's planning efforts and encourage those not participating to begin the process. See Appendix VI for a list of DCNR regional offices. Larger water and land-based regional greenway efforts are also underway throughout the Commonwealth, in the form of specific corridor plans and river conservation plans. Examples include the Great Allegheny Passage (rail-trail based), Susquehanna Water Trail (river-based water trail) and the Schuylkill River Greenway (land and water-based). These and other regional greenway and open space plans should be consulted and incorporated into local municipal plans.

For copies of the [Pennsylvania Greenways: An Action Plan for Creating Connections](#), as well as status reports on county open space and greenway initiatives, visit the Pennsylvania Greenways Clearinghouse at <http://www.pagreenways.org>

The Role of EACs in Open Space and Greenway Conservation

An EAC is an ideal organization to work on open space and greenway planning and conservation initiatives at the local and regional level with its role ranging from minor to major involvement. In some cases, EACs were started with the specific purpose of working to conserve a community's open space or develop a greenway.

An EAC's role in planning for open space and greenway development **can** extend beyond municipal boundaries and

EACs and Open Space

The French Creek EAC, Crawford County

The French Creek EAC in northwestern Pennsylvania was formed specifically to work on creating a regional greenway trail system. The multi-municipal EAC is composed of appointed members and volunteers from the City of Meadville and the townships of West Mead and Vernon. The goals of the greenway are to provide for alternative transportation, such as walking and biking, to provide a buffer to preserve wildlife along French Creek and Mill Run and to increase public awareness of natural resources. The EAC received an initial DCNR planning

grant to plan and design a recreational greenway trail system for public use. As the initial planning phase is completed future activities will include fundraising, trail construction and establishing an organization to maintain the trail system. For more information, contact The French Creek EAC, c/o French Creek Project, 301 Chestnut Street, Meadville, PA 16335.

The Stroud Township EAC, Monroe County

The Stroud Township EAC, Monroe County, formed to preserve open space

and help manage the growth of the Township. Members include an elected official, planning commission member, park and recreation commission member and two township residents.

The EAC worked with two other municipalities to create the Stroud Area Regional Open Space Plan which includes goals and strategies pertaining to open space and greenways, agricultural conservation, facilities, transportation, programs and special events, funding and administration, community awareness and involvement and intergovernmental cooperation. A survey conducted by the Regional Open Space Committee

demonstrated that open space preservation was a priority. Residents supported a township referendum to increase earned income taxes .25% for open space protection. The earned income tax raises approximately \$600,000 annually to preserve open space and can be leveraged with funding from other sources.

The first task was to develop a system to prioritize properties to be preserved. The

system analyzes a tax parcel based on its existing use and development potential, the natural resources it holds and its consistency with other plans and programs, such as the Monroe County Open Space Plan.

The Stroud Township EAC is now responsible for correspondence with landowners, facilitating the purchase of land and acquisition of conservation

easements, purchasing development rights and writing grants on behalf of the township to generate money for this purpose. The work of the EAC reinforces the goals outlined in the regional plan. For more information, visit The EAC Network web site at www.eacnetwork.org.

often **must** address the regional scale. Inter-municipal cooperation can be achieved officially by establishing a multi-municipal EAC by ordinance, working with neighboring EACs or by organizing a multi-municipal task force. EACs are appropriate organizations for multi-municipal cooperation and because so many resources are shared beyond municipal boundaries, an advisory group, such as an EAC, can be useful in identifying potential connections.

EACs are given authority to address open space and greenway planning through Act 148 of 1973, as amended. Potential roles include the inventorying of resources and creating a plan; raising public awareness and educating the public to gain support for projects; working with a consultant to create an open space and greenway acquisition plan; project development and implementation and fundraising to make these plans a reality. For example, an EAC can research and present the tools for land acquisition and conservation to municipal officials to clarify options such as outright purchase, conservation easements, land dedication as part of development and transfer of development rights. As residents of their community, EAC members can make recommendations based on the community's best interest.

Increasing Public Awareness

Integral to the development of the [Pennsylvania Greenways: Action Plan for Creating Connections](#) was the public's input into the plan. The Action Plan involved more than a year of extensive research that included a review of state government policies, regional workshops with stakeholders and public opinion surveys. The research confirmed that Pennsylvanians have a long history of developing greenways locally, often with volunteer and non-profit organizations partnering with local governments to put greenways into place.

Through public input, it became clear Pennsylvanians place a high value on greenways. In a survey conducted during the Plan's development, nearly half of those surveyed said they know what greenways are, and more than 80% said they have used one. Even more significant, 93% of those surveyed

supported providing additional greenways in their communities. In the current update to the State Recreation Plan, new survey data continues to confirm the interest in greenways in the state. It also reveals that there is a growing recognition by citizens that greenways can have a positive affect on property values.

In the local open space and greenway planning and implementation process, generating public awareness and involvement must be initiated and continually reinforced. It is important to demonstrate openness to community concerns and interests, to be able to positively address those concerns and to gather feedback from residents on proposed projects. This is an integral part of any planning process in that it shows and acts on a sincere desire to be sensitive to public concerns and to build mutual trust and consensus.

An EAC can obtain the necessary community input by conducting interviews with landowners, public officials, potential users of the greenway or protected land and abutting neighbors who may be affected by the project. Surveys, questionnaires and public meetings are tools used to obtain responses and opinions about projects. Results are then compiled into a report and shared with public officials and the media. An EAC makes recommendations and proceeds based on the information gathered.

An EAC is uniquely suited to work with landowners of parcels critical to the development of the greenway and open space plan including parcels to be purchased or leased as a conservation easement, and those adjacent to them. Because an EAC is advisory rather than regulatory, members can generally approach landowners in a non-threatening way to discuss greenway and open space goals, concerns and opportunities. This should be done on an individual basis either by EAC members or professionals hired by the municipality. In meeting with landowners it is important to fully listen and provide useful information and examples of successful projects. Trusting relationships can then be built with landowners, minimize any areas of controversy and develop consensus. If landowners are willing to donate their property, the EAC can also work with them to ensure they understand

Balancing Private Property Rights and Conservation Initiatives

In Pennsylvania the extreme fragmentation of authority over land use in so many local governments as well as state and county agencies has contributed to court decisions striking down municipal ordinances on the constitutional grounds that they are exclusionary or interfere with private property rights. This is an on-going and controversial question in Pennsylvania, with municipal officials trying to balance individual rights with community needs and considerations for the future. EACs can help to facilitate solutions which abide by current laws and recognize the need to conserve significant natural resources and open space.

There are many ways that land may be conserved while respecting property rights and values. Land may be purchased outright by either a governmental entity or conservation organization; an easement may be granted and held by a land trust or any governmental body already authorized to hold land, which then guarantees protection and permits the land owner to continue owning and using the land; easements may be purchased through a government preservation program or by a non-profit organization; it may be offered as a gift, by bequest; it may be donated for resale or trade if handled in accordance with strict IRS regulations; it may be exchanged for the title for another parcel of land; it may be zoned to preclude development on sensitive natural features and development rights may be transferred to another parcel (known as transfer of development rights, or TDR).

the process and related financial incentives, such as reduced taxes. Many times an EAC has established relationships with conservancies and land trusts that could be beneficial to landowners.

Funding Open Space and Greenways Protection

To implement any open space and greenway program, financial resources, including in-kind voluntary assistance, are always critical for both initiating the effort and on-going maintenance.

It is important to create an annual budget and fiscal plan to identify projected expenses, including start-up, organizational, operating, promotional and fundraising activities; matching funds for grants; feasibility study and master plan; acquisitions and development; operation and maintenance and projected revenues to cover all expenses. This task may be best handled by municipal staff or other available technical advisors.

An EAC can be the ideal group for researching funding opportunities. A number of grant sources are available from county, state and federal funding sources. In a number of areas, there are local foundations whose objectives support open space and environmental protection. By tapping into these sources, local contributions can be matched, leveraging money dedicated by the community, approved by referenda or raised by the EAC. However, grant money is subject to availability and can be limited. An EAC should be cognizant of the need to explore alternatives, such as using debt to finance open space or conservation easement purchases. Fundraising can take many shapes or forms and is only limited by the time and creativity of the members and advisors.

An EAC may run a bond referendum campaign for open space and greenway funding as in Stroud Township, discussed above. As stated previously, community education and awareness are critical for a referendum to pass, outlining the importance for a livable community with open space and greenways for recreational, health and economic benefits. Ideas for implementing a campaign include public meetings or forums, creating newsletters or pamphlets, posting information on the municipal website or creating a website specifically for the campaign, creating a display for public meeting areas, writing articles or editorials for local papers or approaching landowners directly.

The decision to finance open space or easement purchases with debt, projected revenue or existing funds depends largely on the situation of each municipality. With the 'pay-as-you-go' approach, the municipality can use existing revenues or budget surpluses, or pass a tax for additional revenues through property taxes, earned income taxes or real estate transfer taxes. Pennsylvania's Act 153 of 1996 allows municipalities to tax constituents beyond the municipality's tax or debt limits if the extra money will be used for open space purchases. EACs should familiarize themselves with the provisions of Act 153 to understand the rights of their municipality in open space acquisition. A 'pay-as-you-go' approach may be beneficial if land prices are low, the community is adverse to debt and the municipality has funds to cover expenses.

In situations where more money is needed up front or if the municipality wants to purchase a large tract of land, the municipality can borrow money. There are several options available such as issued bonds, bond pools and commercial loans. The EAC should investigate these options, or seek the assistance of a financial advisor. Timing the debt is important because interest will accrue as soon as the money is borrowed.

Heritage Conservancy in Doylestown, Pennsylvania has tracked 31 municipalities that have raised over \$189.96 million and 36 others that have enacted specific taxes that provide an annual stream of funding for open space purposes at the

The Upper Makefield Township EAC, Bucks County

In 2000, residents of Upper Makefield Township passed a \$15 million bond referendum, which supplemented a previous \$6 million open space bond issue. The Upper Makefield Township EAC, Bucks County, managed a successful campaign to get the second referendum passed, which was based on the EAC's [Plan to Preserve Upper Makefield's Farmland and Open Space](#), and which had received the *Governor's Award for Environmental Excellence*. The EAC has been responsible for evaluating parcels to be preserved, and making recommendations to the Board of Supervisors regarding land preservation and easement management. With the preservation of the Rapuano property, the largest open parcel left in the Township, the EAC accomplished a major part of their mission.

The Plan has been successful because the EAC built strong relationships with landowners by holding several meetings to inform potential participants about the open space preservation process and its importance. They used a local cable station to communicate the message to landowners not in attendance. The outreach program attempted to make landowners feel comfortable and excited about the preservation process and benefits as well as making the community aware of the EAC's goals and methods.

The EAC meets regularly to discuss the acquisition of properties, and other environmental matters, and they are working toward protecting more than 1,700 acres of farmland and open space from development. Their open space

plan includes a comprehensive system of tracking properties with preservation potential, continuing educational outreach to landowners and obtaining conservation easements on targeted properties. The EAC is highly organized, and works effectively together to contribute to the common goal of preserving the quality of life in their township.

The Upper Makefield Township EAC has received recognition for their work from the Department of Environmental Protection; the Heritage Conservancy, Doylestown and the Pennsylvania Environmental Council. Recognition of EAC and member efforts serves to encourage and reward members for their hard work and to create good publicity.

end of 2004. Additional information on running an open space referendum and related financing is available in the Conservancy's report, [Public Finance for Open Space](#) and on their website at www.heritageconservancy.org

Additional Resources:

For more information about open space conservation and greenways, contact a local land trust, county and regional planning commission or your county conservation district. Some useful internet sites are:

- www.fundingopenspace.org
- www.greentreks.org/landsavers
- www.natlands.org
- www.pecpa.org
- www.greenspacealliance.info
- www.conservationfund.org
- www.lta.org
- www.conserveland.org
- www.conservationfund.org
- www.heritageconservancy.org
- www.dcnr.state.pa.us
- The Pennsylvania Greenways Clearinghouse web site, an initiative of Pennsylvania's Greenways Program at www.pagreenways.org

DCNR also has a publication: [A Guide for Pennsylvania's Municipalities: Using Conservation Easements to Preserve Open Space](#). It can be found at www.dcnr.state.pa.us/recreation/easements.pdf

The Pennsylvania Environmental Council's publication, [Creating Connections: The Pennsylvania Greenways and Trails How-To Manual](#), is downloadable on the PA Greenways Clearinghouse website, www.pagreenways.org. A limited number of hard copies are available from PEC's Philadelphia office. For more information call 1-800-322-9214.

Municipal Government in Pennsylvania

To be effective advisors on environmental matters, EAC members need to understand the structure, interaction and function of local government. They need to understand the hierarchy of elected officials, appointed boards and commissions and administrative employees. To further assist the EAC, it is important to understand the form of local government and Pennsylvania's other forms of municipal government in the event there is an opportunity to discuss the protection of natural resources that cross municipal boundaries.



The following material is drawn, in part, from the Department of Community and Economic Development's publication [Citizen's Guide to Pennsylvania Local Government](#). The 2003 edition is available at www.NewPA.com.

There are five major categories of municipal government in Pennsylvania. Of these, three are different types of local government: boroughs, townships and cities. The fourth category of municipal government in Pennsylvania comprises the counties and the fifth is the home rule municipalities. Home rule municipalities can be any of the previous four categories that adopt a home rule charter according to the requirements of the home rule law.

All of these, including counties, are **municipalities**. There are 2,565 cities, boroughs and townships, including home rule municipalities, in Pennsylvania as of August 2004. There are 67 counties. Under Act 148, as amended, all forms of municipal government, with the exception of counties, are authorized to establish EACs although some counties have established EACs on their own initiative.

The five forms of municipal government were established by the Pennsylvania General Assembly. By constitutional and common law, the Commonwealth has authority over the state's land and water resources. Through the legislature, the Commonwealth has chosen to delegate its power to regulate land use to the local and county municipalities. As a result,

each local government has only the powers specified by the legislation that created its form (e.g., borough, townships of the first class, townships of the second class, or city).

Other government bodies in the Commonwealth include school districts and special purpose authorities and municipalities. Under Act 148, as amended, EACs can be created only by the 2,565 local municipal government units, but school districts and some authorities, such as water and sewer authorities, may significantly affect environmental issues that are considered by EACs.

The following is a brief overview of the five categories of municipal government in Pennsylvania.

Boroughs

- Boroughs in Pennsylvania represent about one-third of all municipal governments. They range in population from under 1000 to 36,000 people and are governed by the Borough Code.
- Generally boroughs have a strong and dominant council, the official governing body, and a weak executive, or mayor. Other elected officials independent of the council are a tax collector and an assessor.
- Boroughs may be divided into wards having one, two or three elected council representatives. Those without wards have three, five or seven council representatives elected at-large.
- The powers of the council are extensive and cover virtually all municipal functions. A borough manager or

secretary is often appointed to carry out the day-to-day activities of the borough government.

Townships of the First and Second Class

- There are two types or classes of townships: first class and second class. Townships of the first class generally serve urban and suburban areas, are more densely populated than townships of the second class and are governed by the Township of the First Class Code. Townships of the second class serve more rural areas and are governed by the Township of the Second Class Code. Both classes have less government than other classes of municipalities.
- There are 91 townships of the first class and 1,456 townships of the second class.
- All townships are of the second class except those where first class status has been approved by local voters through a referendum.
- A township of the first class has a population density of at least 300 people per square mile. Its governing body is comprised of 5 to 15 elected commissioners with staggered four-year terms.
- A township of the second class has a governing body comprised of three or five at-large supervisors elected to staggered six-year terms.
- In both classes of township, the governing body appoints a township secretary, engineer and solicitor and may appoint a township manager, police chief, zoning officer, planner, building inspector, recreation director, emergency management coordinator and sewage enforcement officer.

Third Class Cities

- Third class cities operate under a commission form of government with a mayor, serving as a member and president of the council, and four councilors. All third class cities are governed by the Third Class City Code.
- There are 37 third class cities in Pennsylvania.
- Each councilor is in charge of one of the city's major departments.
- Councilors, the controller and the treasurer are elected at-large for four-year terms.
- Appointments of all other city officers and employees, including the city manager, are made by the council.

Home Rule Municipalities

- Philadelphia, Pittsburgh, Scranton and many other cities,

The Municipal Secretary-Treasurer

The municipal secretary-treasurer serves as a nonpartisan administrator of the municipality and is responsible for preparing the agenda for the governing body, keeping a catalog of all municipal ordinances, maintaining budgetary records and executing bids for municipal equipment and supplies. Some municipalities separate the positions of secretary and treasurer.

The municipal secretary-treasurer is a valuable source of information for EACs. For example, s/he can provide an EAC with an inventory of relevant issues under consideration by the governing body.

boroughs and townships have adopted home rule charters, a total of 71 as of August 2004.

- The charters reflect variations of the mayor-council, council-manager, weak mayor and commission forms of government. Many home rule boroughs and townships have adopted the title "municipality" to distinguish themselves from units operating under the borough and township codes.
- In most Home Rule Municipalities, the mayor, or executive, has broad appointive and removal powers and control over the administration of the municipality; is responsible for preparing the annual budget and recommending measures for consideration by the council and can veto legislation which can be overridden by a two-thirds majority in the council. By definitions, Home Rule Municipalities define their own form of governance, and there are many variations in Home Rule communities across the State.

Counties

- Counties are classified by size, and governed by the County Code. Counties provide many State-mandated programs, especially in the judicial and human and social services field.
- Most county funding comes through taxation, bond issues and pass-through funds to administer various State programs.
- The state constitution and county code establish the basic organization of county government, but each county may adapt another format under its own Home Rule charter.
- Counties, depending on their size and classification, elect other independently functioning officials, such as a sheriff, district attorney and recorder of deeds.
- Most counties have, or share, a planning director and appointed planning commission.

Non-Municipal Local, County and Regional Government Units

The following non-municipal governmental units can play a significant role in environmental issues in Pennsylvania municipalities.

Authorities

- Unlike boroughs, townships and cities, authorities are not governmental bodies with general powers. They are created by local municipalities or counties to perform

specific services such as the construction or operation of sewage or water systems. They are authorized to finance these actions through borrowing and issuing bonds.

- Authority projects can include public facilities such as school buildings, transportation facilities, marketing and shopping facilities, waterworks, sewage treatment plants, playgrounds, hospitals and industrial development projects.
- Authorities have become increasingly important entities, particularly for organizing and executing joint municipal projects (e.g., joint water and sewer systems).
- Authorities cannot create EACs, but they can play an important role in the effective functioning of EACs.

County Conservation Districts

County conservation districts are the lead agencies at the county level for coordinating local resource conservation efforts. They are staffed by local volunteers and by technical and educational professionals working to create and coordinate conservation efforts of local municipalities and preserve the environmental characteristics unique to each county. They were created by the State Conservation Commission under the County Conservation District Act. Sixty-six of Pennsylvania's 67 counties have conservation districts. Philadelphia County has a conservation partnership.

Districts implement nutrient management law, work with erosion and sedimentation control, storm water management and other conservation programs and issues. Many districts employ specialists who deal with watershed issues and provide conservation education. As county-level entities, districts have the authority and resources to help EACs deal with a wide range of specific issues as they arise.

The powers and duties of county conservation districts include:

- Giving aid to farmers in promoting "best farming practices" by managing soil, nutrient and farmland resources;
- Reviewing and recommending county development plans with regard to management and control of soil erosion, land use, storm water runoff, farmland preservation and wetlands protection;
- Issuing permits for erosion and sedimentation control on behalf of the Department of Environmental Protection;
- Assisting developers in looking for suitable land to develop by providing expertise in soil erosion control, wood-lot management, wetlands protection and abandoned mine land reclamation;
- **Assisting EACs in the review of development plans or in mapping community resources;**
- Assisting educators through environmental education programs;

- Assisting engineers, contractors and foresters through seminars and workshops on topics related to local, state and federal laws and regulations.

More information about county conservation districts can be found at <http://www.pacd.org>.

Planning Agencies

Municipal planning commissions, planning departments and planning committees are important components of local government. Because EACs are charged with focusing on land use as it relates to the protection of natural resources, EACs need to understand land use issues and the structure and responsibilities of planning agencies.

Planning agencies are appointed by local governments to advise and make recommendations about land use and development issues, but the governing bodies render decisions on development applications. Act 247, the Pennsylvania Municipalities Planning Code, allows municipalities to designate planning commissions as approving entities if so desired; however, this is rarely done. It is more common for the planning commission to recommend an action, and for the power of official approval or rejection to lie with the elected officials. The exception is in the case of cities, where the practice of planning commissions as approving entities is more frequent.

Further discussion of the Pennsylvania MPC can be found in Chapters 10 and 11.

General Powers to Create Planning Agencies and Provide for Engineering and Legal Support

Under the MPC, Pennsylvania's planning and land use law, municipalities may, but are not required to, create planning commissions, planning departments and/or planning committees, referred to as planning agencies. Article II, Section 201 of the MPC states that:

"The governing body of any municipality shall have the power to create or abolish, by ordinance, a planning commission or planning department, or both....In lieu of a planning commission or planning department, the governing body may elect to assign the powers and duties conferred by [the MPC] upon a planning committee comprised of members appointed from the governing body."

The same section deals with engineering and legal support for planning agencies:

"The engineer for the municipality, or an engineer appointed by the governing body, shall serve the planning agency as engineering advisor. The solicitor for the municipality, or an attorney appointed by the governing

body, shall serve the planning agency as legal advisor.”

Elected municipal governing bodies have substantial discretion in addressing planning issues in their jurisdictions by determining who will provide engineering support and legal counsel to aid in interpreting planning standards, regulations and laws.

Planning Commissions: Membership, Appointing Authority and Officers

The MPC, in Article II, Section 202, specifies that planning commissions must have at least three but no more than nine members. Section 203 provides that all members of a planning commission are appointed to four-year terms by the appointing authority and approved by the governing body provided it is not the appointing authority. If the mayor of a city is the appointing authority, his/her appointments must be approved by the city council, and if the board of commissioners in a township of the first class is the appointing authority because they comprise the entire governing body, they need not approve their own appointments.

The MPC defines "appointing authorities" as follows:

“...The mayor in cities; the board of commissioners in counties; the council in incorporated towns and boroughs; the board of commissioners in townships of the first class; and the board of supervisors in townships of the second class; or as may be designated in the law providing for the form of government.”

The planning commission chair must report vacancies to the appointing authority that must fill the vacancy for the unexpired term.

Article II, Section 203 also gives governing bodies the power to increase or reduce the membership of planning commissions through passage of an ordinance. Section 205 states that all members of a planning commission must be residents of the municipality, and a specific number of citizens holding no municipal office or position must be members. On a commission of three members, at least two must be citizen members; on a commission of four or five members, at least three must be citizen members; on a commission of six or seven members, at least five must be citizen members and on a commission of eight or nine members, at least six must be citizen members.

Planning commissions elect their own chair and vice chair and create and fill other offices deemed necessary. Officers serve annual terms and may succeed themselves. Commissions may develop and change their own bylaws, rules and regulations, but they must keep a full record of their business. By March 1 of each year, a written report on prior year activities must be presented to the governing body.

Planning Departments

A municipality may have both a planning commission and a planning department. The role of a planning department may include providing technical assistance (reviewing plans and making recommendations to the planning commission, zoning hearing board, EAC and governing body), managing day-to-day code enforcement (developing and updating plans and ordinances) and serving as a repository of community information. In general, counties, cities and large boroughs and townships, which often have more substantial budgets for dealing with planning issues, have planning departments, and less populous municipalities do not.

Most Pennsylvania counties hire professional planners. Local municipalities may also choose to employ the services of a full or part time professional planner to assist with matters that involve more technical expertise than the planning commission can provide. The planner may collect information on open space, population trends and relevant cultural and environmental resources; develop maps; review ordinances and prepare studies on proposed ordinances and comment on subdivision and land development plans and zoning cases.

Planning Committees

If a municipality does not choose to create a planning commission or department, it may form a planning committee comprised of elected members of the governing body to carry out the planning responsibilities of the municipality. Appointing a planning commission or department to carry out planning duties is recommended due to large time commitments. In municipalities with few or no local land use regulations, a planning committee is frequently a first step leading eventually to the creation of a formal planning commission.

Powers and Duties of Planning Agencies

Under the MPC Article II, Section 209.1, planning agencies have a variety of powers and required duties including preparation of a comprehensive plan.

They may also, at the request of the governing body:

- Make recommendations concerning the adoption or amendment of an official map to reflect the provisions and goals of the comprehensive plan;
- Prepare zoning ordinances or amend ordinances;
- Prepare, recommend and administer subdivision, land development, planned residential development and traditional neighborhood development regulations;
- Prepare an environmental study to be presented to the governing body;

- Develop recommendations to the governing body for a capital improvements program;
- Prepare a water survey consistent with the State Water Plan and any applicable water resources plan adopted by a river basin commission;
- Promote public interest in and understanding of the comprehensive plan and planning in general;
- Prepare a study regarding the feasibility and practicality of using renewable energy sources in specific areas of the municipality;
- Review the zoning ordinance, subdivision and land development ordinance, official map, provisions for planned residential or traditional neighborhood development and other ordinances governing the development of land no less frequently than it reviews the comprehensive plan.

Zoning Hearing Board

Under Article IX of the MPC, any municipality that adopts a zoning ordinance must create a zoning hearing board (ZHB) to hear challenges to the validity of ordinances, appeals from the actions of the zoning officer or municipal engineer and applications for variances or special exceptions.

Variances may be granted when an applicant establishes that because of a unique situation (usually physical characteristics of a lot) a zoning ordinance provision will inflict "unnecessary hardship" if applied to the applicant. The variance is a mechanism for insuring on a case-by-case basis, that ordinances do not unconstitutionally infringe on the rights of landowners.

Special exceptions are specifically provided for in zoning ordinances and may be granted by the ZHB if an applicant satisfies the requirements of the ordinance.

Certain applications and challenges must be taken directly to the governing body of a municipality. The "curative amendment" is the process by which a developer can challenge the substantive validity of a zoning ordinance on constitutional grounds and offer an amendment to "cure" the ordinance and permit the proposed use. All such appeals, challenges and hearings must be conducted according to specific rules set out in the MPC. The 1988 MPC amendments added a voluntary mediation option for proceedings before the ZHB to encourage timely negotiation and resolution of land use disputes.

The powers of the ZHB are enumerated in the MPC, which provides the authority to

hear and decide the following:

- Substantive challenges to the validity of any land-use ordinance. In instances where an ordinance is challenged, the ZHB will make a decision concerning its validity and make a recommendation, if appropriate, to the governing body to amend the ordinance;
- Procedural challenges to land use ordinances including proving the existence of defects in the enactment and adoption process of a land use ordinance;
- Certain appeals that dispute the determination of the zoning officer;
- Appeals that dispute a determination by a municipal engineer or zoning officer with regard to the administration of flood plain or flood hazard regulation;
- Applications for variances;
- Applications for special exceptions; referring to land uses that are legitimate within a district, but require a closer examination by the ZHB. Special exception uses are generally reserved for those land uses that will have a significant impact on the district, the whole community or will have more control or additional safeguards;
- Appeals from determinations regarding the administration of transfers of development rights or performance density provisions;
- Appeals from the zoning officer's determination regarding preliminary opinion;
- Appeals from the municipal engineer's or zoning officer's determination in the administration of any land use ordinances regarding storm water management, soil erosion control and sediment control. This does not involve subdivision, land development or planned residential development applications.
- If requested to by a municipal body it advises, an EAC can testify before the ZHB to offer technical and scientific information that has been developed for the municipality's environmental resource inventory.

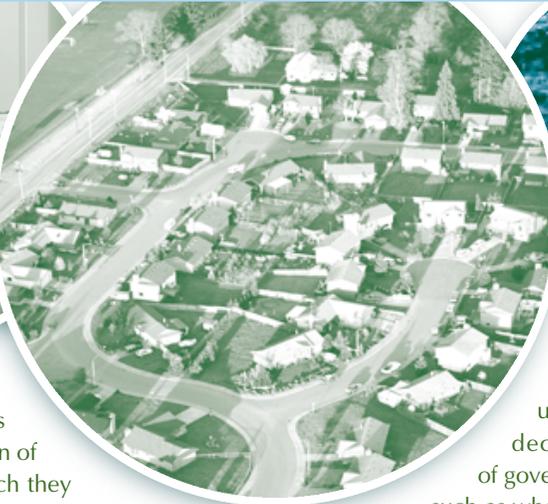
Zoning Officer

The zoning officer is responsible for the day to day administrative procedures provided in the zoning ordinance including receiving, reviewing, and issuing permits for building and zoning purposes and other regulations applicable to development such as the building code. The zoning officer maintains records of applications and permits, performs inspections to ensure ordinance compliance, maintains the zoning ordinance and map up-to-date, presents facts relevant to applications to the zoning hearing board, and acts as a liaison to the public by posting notices of any zoning matters that involve public hearings.

Additional Resources

Visit DCED's website, www.NewPA.com, to download publications, including the [Citizen's Guide to Pennsylvania Local Government](#), and the [Pennsylvania Municipalities Planning Code](#).

The Framework for Land Use Decisions in Pennsylvania



“**Land use**” is a term that refers, broadly, to the description and regulation of human activities on the land including both the location of such activities and the manner in which they are built or conducted. Land use decisions determine where and how we:

- Build our houses, shops and offices
- Farm
- Establish parks
- Locate industry
- Build our highways
- Dispose of waste
- Undertake other activities

Land use decisions result from a combination of social, economic, environmental and legal components and reflect the interplay of a number of factors including:

- Individual market choices
- Federal, state and local funding and regulation
- Developing technologies such as the explosion of automobile use and the building of highways

The way land is developed has a direct effect on the ecology of land, air and water resources and the environmental health of communities, making land use a primary concern for EACs.

“**Land use planning**” is an exercise that must be undertaken by government with consideration given to the interests and desires of all citizens. Individuals, businesses and developers often make their own plans, which sometimes conflict with each other and the goals and objectives of the larger community. Land use plans developed by state, county or local governments provide guidance and rationale for the enactment of laws, regulations, ordinances, fiscal measures and other actions to accomplish the agreed-upon objectives of the community.

Depending on the nature of the land use issue, in Pennsylvania land use decisions may take place at various levels of government. Ideally, “big picture” decisions, such as where transportation and water and sewer

infrastructure will be developed, should occur at the state, regional or county level. Local level decisions should address the location and configuration of particular uses to promote healthy, safe and attractive communities. The most important function for county and local land use plans is to develop guidelines for where and how growth and development should be encouraged, funded (to the extent public investment is involved) and managed.

In Pennsylvania, land use authority has been delegated to each of the 2,565 local municipalities. There is no statewide comprehensive planning and the required county comprehensive plans are advisory only. Pennsylvania municipalities are authorized to plan, zone and regulate development by the Municipalities Planning Code. Although a number of other agencies make decisions that affect land use such as permitting or constructing roads, sewers, utilities and schools, it is local government that has the authority to develop comprehensive plans, subdivision and land development ordinances and zoning ordinances that integrate the expenditure of public money with the provisions of infrastructure and public services, provide for development of all kinds and protect natural resources.

The protection of natural resources through land use planning is an important concern of EACs. Natural systems such as watersheds, aquifers and forests are not confined by political boundaries, but are affected by them. Since each of Pennsylvania's 2,565 municipalities has the authority to determine how the land within its borders is used, each may do so without regard to the effects of that use on natural systems beyond their boundaries. Because most of the

Commonwealth's natural systems lie within more than one political jurisdiction, they are subject to varying approaches to resource use and conservation.

The decisions that are made by each local government are of critical importance in terms of natural resource protection at both the local and regional levels. Under current law, municipal governments in the Commonwealth can plan and zone aggressively with the protection of natural resources in mind. EACs can play an important role in carrying out that type of planning activity.

To play an effective advisory role in land use decision making, members of EACs should have a working knowledge of the structure of local government and planning agencies, as described in Chapter 9, and a basic understanding of the laws and regulations that govern land use in Pennsylvania. This chapter and Chapter 11 provide a cursory explanation of those laws and regulations and an overview of those responsible for their enforcement and implementation.

A full explanation of these topics is available in the Pennsylvania Environmental Council's book [Guiding Growth: Building Better Communities and Protecting Our Countryside](#), from which much of this chapter has been excerpted. [Guiding Growth](#) provides an overall explanation of land use issues and laws in Pennsylvania, and is an important resource for local governments, including EACs.

Statutory Authority for EAC Involvement in Land Use Recommendations

Act 148, as amended, gives EACs the power to advise municipal governments on **"matters dealing with the protection, conservation, management, promotion and use of natural resources, including air, land and water resources."** Act 148, as amended, also recommends that "whenever possible, one member [of the EAC] shall also be a member of the municipal planning board." **Because planning commissions deal exclusively with issues relating to land use, it**

LAND USE AS AN ENVIRONMENTAL ISSUE: AN OVERVIEW FROM [GUIDING GROWTH](#)

Three hundred years ago, William Penn's agents found his land largely forest-covered, and named it Penn's Woods, or Pennsylvania. Uplands were wooded and wetlands dotted the landscape and followed the water's edge. Over thousands of years, native plants and animals had adapted to local conditions, thereby balancing and tightly controlling water and nutrient cycles. In this pre-settlement state, stream-flow was low, flooding was uncommon, vegetation held soil in place and plant and animal organisms and soil chemistry naturally purified water. On land and in the water, species diversity was high.

With early European settlement, land was cleared for agriculture and forests were cut to provide charcoal and lumber. By the mid-1800s, sediment and pollution from eroding lands and industrial practices were so bad in some Pennsylvania streams that the Legislature made plans for cleaning them up. This effort was interrupted by the Civil War. Since the early 1900s, large forested areas that had been clear-cut have regenerated after being set aside for state parks and game lands. Other land taken out of agriculture has also naturally succeeded to woods.

Prior to the automobile age, urban development was usually intense and often obliterated the environment, disrupting natural processes. The disruption was in limited areas, however. The explosion of urban development in a pattern of sprawl and scatter that has occurred in the automobile age has greatly expanded human disruption of the natural environment. In contrast to older development, recent development does not necessarily obliterate an entire ecosystem. Instead, destruction is piecemeal as a stream is encroached on here, a wetland is filled there, in another place a hillside is eroded, mature woodland is cut down, a cherished view is destroyed by a single building and a wooded stream corridor is severed. Incremental land use decisions allow for the destruction of parts of ecosystems causing widespread environmental deterioration.

In the natural world, everything is interdependent. As the landscape is crisscrossed with a network of roads, storm sewers and drainage ditches, water from the land shunts pesticides and nutrients to streams and water-bodies in greater volumes and at faster rates than previously had been the case. Nature's important,

cost-free controls have been by-passed or destroyed. Consequently, local biological diversity is decreased, and air and water quality is seriously diminished.

Development need not shatter natural patterns. By maintaining landscape patterns of large woodlands and wetlands and wooded stream valley and drainage ways, significant natural functions are protected. In addition, forests are usually restricted to mountains, ridges, hillsides, wetlands and streambeds too steep, stony, or wet to be economically developed. With today's scatter and sprawl development, forests and wetlands are often surrounded by disturbed agricultural and developed lands and resemble a system of islands in a "sea" of disturbed land from the point of view of species that are restricted to the islands.

In planning and regulating, local officials, citizen leaders and EAC members should be aware of the important elements in natural patterns and their functions and strive to see that development does not unduly disrupt natural processes.

may be inferred from these two provisions of the Act that the General Assembly intended EACs to advise local governments on land use as it relates to the protection of natural resources.

Environmental Planning, Comprehensive Planning and Private Property Rights

EAC members need to have some understanding of the law with regard to environmental regulation by a municipality in order to do their job effectively. In Pennsylvania, the extreme fragmentation of authority over land use in local municipal bodies, state and county agencies has resulted in laws striking down municipal ordinances on the constitutional grounds that they are exclusionary or interfere with private property rights.

With regard to exclusionary zoning, the court doctrines, which are reflected to some extent in the MPC, require that every municipality that chooses to exercise its zoning power must do so without shutting out growth and development or excluding certain types of housing or other uses. The rules that evolved in both case law and the MPC require every municipality, excluding counties, that chooses to zone do so for all land in the municipality and for **all categories of use**. All municipalities must accommodate growth in their planning and regulating and cannot base land use decisions on trying to stop development or exclude certain uses.

The MPC provisions applicable to comprehensive planning incorporate these requirements. In its comprehensive plan, a municipality must consider and plan for residential housing of all types for all income levels, commercial and industrial development that includes all uses, transportation, water and sewage facilities and the protection of natural resources and agricultural lands. A plan that does all these things is usually developed by the planning commission as advisory to the governing body, and is essential as a rational basis for zoning that will withstand challenges from developers and landowners. The planning commission in any municipality has the difficult but critical job of integrating all aspects of development and resource protection and planning for sustainable development. The comprehensive plans are the only place in Pennsylvania law where such responsibilities are brought together.

The other constitutional court doctrine of great importance is “takings” law, which recognizes the private rights of individual property owners to develop their lands as presumptively valid, and requires a demonstration that regulation taking away from those rights be rationally related to the larger public interest in health, welfare, safety or morals. This right has developed in court-made law interpreting the Fifth Amendment to the U.S. Constitution and Pennsylvania’s Constitution, both of which provide among other things:

“..nor shall private property be taken for public use without just compensation.” This provision was intended by the authors of the Constitution to curtail the British kings’ practice of physically occupying or taking estates or lands for public use such as the housing of troops or the building of roads without paying for them. Eminent domain statutes have been enacted in all states to establish a process for compensating landowners when private property is so “taken” for public use.

The private property right has been expanded by court cases in this century to evaluate the impact of regulations on individual landowners in cases where landowners allege that the value of all or a part of their land has been “taken” by the effect of a particular regulation. The courts have actually found few such ‘takings’ and usually require a landowner to demonstrate a deprivation of all or nearly all economically viable use of property to sustain a claim for compensation. However, the case law contains very important discussions and analyses of required justifications for regulations adopted by government in the exercise of its “police power” to act in the public interest.

Pennsylvania courts are among the most aggressive in the nation in protecting private property rights and require strong justification for environmental or other regulation by local municipalities. **Although Pennsylvania has one of the strongest environmental rights amendments in the nation in its constitution, (see box) the courts have not yet reconciled the strong injunction for the state and its municipalities to act as “trustee” of the state’s natural resources for the benefit of its citizens with the private property rights doctrine.** Instead the courts have taken a rather dim view of attempts by municipalities to justify large-lot zoning (above 2 acres) on environmental grounds such as aquifer recharge and found such zoning presumptively invalid as unnecessarily restrictive of property rights.

Pennsylvania state law makes the role of the EACs particularly important. Although zoning to protect natural resources is specifically authorized in the MPC, which reflects the language of the environmental rights amendment, such zoning must be based on accurate data and sound science in order to be upheld in court. Pennsylvania has the unique provision of the “curative amendment”, which allows developers to challenge a zoning ordinance as unconstitutional if it does not provide for their proposed use based on economic viability. If the challenge is upheld, the ordinance will be “amended” by the court to allow such use.

In this context, it is extremely important that any environmental regulation be reasonably and demonstrably related to the public health, safety and welfare. The relationship can be established for both groundwater and surface water supply sources, contiguous woodlands for biodiversity and

habitat, storm water management for stream protection, floodplain and wetland protection and air quality. But it takes careful inventorying and documentation that is objective and not overreaching in its intent to accomplish this. Usually the planning commission, which has a much larger agenda in developing and updating the comprehensive plan and reviewing particular development proposals, does not have time or expertise to do the thorough environmental planning that is required for sound ordinance provisions. This careful work should be the job of the EAC and is more than enough reason for every municipality that intends to adopt or improve its zoning ordinance to create an EAC.

The Federal Role in Land Use Decisions

Although the federal government does not directly regulate land use, federal policies can have substantial influences on land use. The Federal role in land use historically has been tied to federal funding of major infrastructure projects, such as the interstate highway system and regulation of the effect development has on air, land and water, rather than to direct involvement with planning and zoning issues.

The country's environmental awakening, which began in 1970 induced Congress to adopt a number of critically important environmental protection laws that have many impacts on the land development process and general land use.

- The National Environmental Policy Act (NEPA)
- The Clean Air Act
- The Resource Conservation and Recovery Act of 1976 (RCRA), which established a national framework and a set of national policies governing solid and hazardous waste disposal
- The Comprehensive Environmental Responsibility, Compensation and Liability Act (CERCLA, or "Superfund"), which governs the clean-up of hazardous waste sites
- The Clean Water Act
- The Coastal Zone Management Act
- The Safe Drinking Water Act
- The Toxic Substance Control Act
- The Federal Noise Pollution Control Act

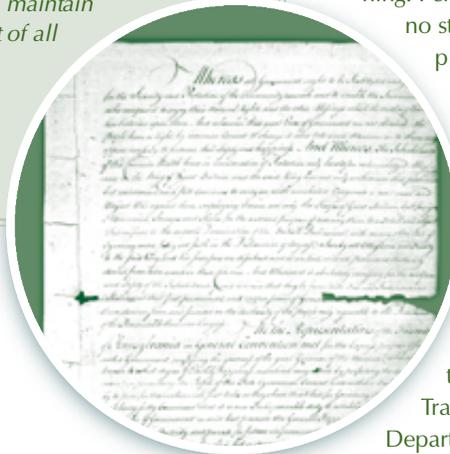
These are just some of the major laws creating a web of federal requirements that have an effect on almost all aspects of a major land development project. In recent years,

concern over hazardous wastes, asbestos, radon, petrochemicals and underground storage tanks have become major issues for developers and realtors as these subjects have become increasingly regulated. The states are often charged with implementing federal environmental regulations and policies.

Pennsylvania's Environmental Amendment

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

(Article 1, Section 27 of the Constitution of the Commonwealth of Pennsylvania)



The State Role in Land Use Decisions: The Governmental Framework for Municipal Planning and Growth Management in Pennsylvania

Some states play a direct role in the implementation of land use goals and objectives through broad-based planning. Pennsylvania does virtually no state comprehensive planning, and its role in land use issues is confined to providing the structure, primarily through the MPC, under which individual municipalities make their own land use decisions. State agencies, most notably the Department of Transportation and Department of Environmental Protection do play a major role in

the planning, construction and permitting of facilities, such as highways and sewer systems that have an effect on land use patterns. The Department of Community and Economic Development plays an important role by providing technical assistance on planning and zoning to municipalities. Functions related to recreation and conservation planning are the responsibility of the Department of Conservation and Natural Resources.

Pennsylvania's Constitution provides the General Assembly the power to enact laws that protect the public health, safety, morals and general welfare. The General Assembly has given local municipalities, towns, townships, boroughs, home rule municipalities and cities the primary responsibility for regulating land use and development through the MPC. Local municipalities are not independent and their powers are limited to those that have been delegated to them by the state legislature. They are exercised through zoning, subdivision and land development and other ordinances.

The federal government, the state, counties, regional agencies

and municipal authorities perform planning and regulatory functions that limit the actions of municipalities and have an effect on development. These include granting permits for and constructing infrastructure such as roadways and sewer systems.

Local municipalities have primary responsibility for regulation of land use and development in Pennsylvania by determining the uses, densities and patterns of development on the land within their jurisdictions.

The statutory structure for governing land use and planning in Pennsylvania is not ideal. It has evolved slowly over the last 70 years as the legislature has reacted to emerging problems and will undoubtedly continue to evolve. The challenge is to coordinate the actions of agencies at all levels of government. If there is comprehensive planning at the local level that is consistent with planning at the county, regional and state levels, all agencies should make spending and regulatory decisions based on those plans. Although improving, under our present land use practices, such coordination is infrequent.

The activities of state agencies that relate to land use are briefly described below

Pennsylvania Department of Transportation

PennDOT has jurisdiction over the planning and construction of all roads in the Commonwealth other than township and county roads. In consultation with counties, regional planning agencies and municipalities, it develops a Twelve Year Transportation Plan and builds roads and public transportation facilities in accordance with that plan.

Under NEPA, an environmental impact study is required for any road or facility using federal funds. Under state law, Act 120, PennDOT must consider the environmental impacts of proposed roads and facilities and avoid taking recreation lands, wildlife refuges, historic sites, state forest and game lands, wilderness areas, public parks, wetlands, prime agricultural lands and other environmentally sensitive forms, unless no other alternative exists. Public hearings on proposed roads and facilities must be held to ascertain and respond to local environmental and social concerns. For more information, visit <http://www.dot.state.pa.us>

Department of Environmental Protection

DEP has basic responsibility for the administration and enforcement of environmental laws in the Commonwealth. It issues permits that are necessary for development activities and therefore affect land use. The most important plans and permits for planning and growth management are related to sewage treatment and water supply facilities. DEP approves municipal sewage facilities plans, issues permits and provides qualified services to address such environmental issues as safe waste disposal, water quality protection, wetlands protection,

air quality and radiation protection, mining, quarrying, community health and recreation, enforcement and education.

Sewage Treatment and Discharge

DEP is responsible for implementing the Sewage Facilities Act, under which every municipality is required to prepare and adopt an official Sewage Facilities Plan. Each plan must comprehensively describe the existing and planned sewage facilities, both public and on-lot, and its consistency with municipal planning, zoning, state and federal water plans, municipal waste-load management and storm water management plans. Each plan must address the protection of resources such as wetlands and high quality streams.

When new development, requiring an extension of sewer lines or facilities not addressed in the plan is proposed, a municipality must adopt an official sewage facilities plan revision which is submitted to DEP for approval. DEP regulations require that both the municipality and DEP independently make extensive evaluations of any plan revision including consistency with planning and zoning, protection of wetlands, stream quality, historic sites and municipal waste-load and storm water plans. These requirements provide a strong growth management tool for coordinated review of the potential impacts of unplanned development on water resources, which could be effective if vigorously applied by both local governments and DEP.

DEP also issues permits for construction and operation of any sewage treatment plant that discharges to the waters of the Commonwealth. Municipalities may become involved in the permitting process for facilities that are likely to affect them by submitting comments or objections to DEP.

Clean Water

Under the Pennsylvania Clean Streams Act, DEP has broad powers to issue orders and take actions necessary to prevent pollution and to clean up the waters of the Commonwealth. DEP has established standards for all the streams and rivers of the Commonwealth, depending on their quality and use. Anti-degradation regulations require that "exceptional value" and "high quality" waters be maintained and enhanced which essentially prohibits discharges into such waters from package sewage treatment plants or larger facilities. In the case of high quality streams, a discharge may be permitted if it is "justified as the result of a necessary economic or social development which is of significant public value," will not violate stream standards and, in combination with other discharges, "will not preclude any use presently possible into the waters and downstream from the waters." This provision of the Pennsylvania Code is of great significance to those who are concerned with the encroachment of development along Pennsylvania's many miles of high quality streams. In 1999, DEP submitted anti-degradation initiatives to the U.S.

Environmental Protection Agency, and they were approved. DEP's Water Resource Advisory Committee approved draft Implementation Guidance relative to the anti-degradation initiatives in 2001. The Implementation Guidance is currently being finalized.

Water Supply Facilities

DEP grants permits for water supply facilities under the Safe Drinking Water Act of 1984 and the Clean Streams Act. Applicants have to show only that they have a source of water that meets drinking water standards. Many local municipal governments make subdivision, land development and zoning decisions independently of water supply considerations. The MPC requires municipalities to engage in water supply planning as part of their comprehensive planning process and implement their actions through zoning for protection of water supplies. In 2000, the MPC was further amended to require comprehensive plans to contain statements recognizing that:

- Mineral extraction may impact water supply sources and is governed by statutes regulating replacement and restoration of water supplies.
- Commercial agricultural production may impact water supply sources.

Each local municipality may implement county or local water supply planning through its ordinances, but if planning is done at the county or multi-municipal level, entire watersheds and aquifers can be assessed and planned for comprehensively.

Storm Water Management

Act 167 of 1978, as amended by Act 63, requires counties to prepare watershed level storm water management plans for designated watersheds within their borders. DEP, in consultation with the DCED, administers the program, provides guidance during the planning process, and reviews and approves final plans. Storm water management ordinances adopted outside of Act 167 are not subject to DEP review. DEP, under chapter 105 of Title 25 of the PA Code, is also assigned responsibility for the permitting program that pertains to stream and wetland encroachment and obstruction, and state and federal flood control programs.

Municipalities subject to Municipal Separate Storm Sewer System (MS4) regulations are required to adopt ordinances that comply with the MS4 regulations. Key points include prohibiting illicit discharges, requiring construction site storm water management planning and requiring post-construction storm water management planning that addresses water quality, infiltration and channel protection. MS4 requirements apply to areas of certain municipalities that are located within urbanized areas. Not every municipality has areas subject to the MS4 regulations. Some municipalities may apply and receive a waiver from DEP of the permit.

Wetlands Protection

Any construction in or affecting a wetland requires a permit from DEP under the Dam Safety and Encroachments Act. Construction in a wetland requires a federal permit from the Army Corps of Engineers and, in certain circumstances, approval of EPA. Historically, the state and federal permit programs have allowed many activities in wetlands. This is changing somewhat as both levels of government have become more aggressive about protecting them.

Since the adoption of the 1988 MPC amendments, local governments clearly have authority to zone to protect wetlands. A number of municipalities have adopted zoning that prohibits building in wetlands. Zoning, such as performance zoning used by many Bucks County municipalities, relies on state and federal regulatory processes and offers the most absolute protection of wetlands.

Waste Facilities

DEP requires and approves permits for all municipal, residual (non-hazardous industrial waste), and hazardous waste facilities in the Commonwealth under Act 97, the Solid Waste Management Act. Act 101, the Municipal Waste Planning, Recycling, and Waste Reduction Act, requires county-level planning for municipal waste recycling, processing and disposal and implementation of municipal waste planning through county and local ordinances. Act 101 also mandates that local municipalities with populations of 5,000 or more provide recycling collection programs for at least three materials in addition to leaf composting.

Waste disposal and treatment facilities are owned both by municipal and county authorities and by private operators. Whether publicly or privately owned, an operator must have a permit and must comply with extensive DEP regulations. Local municipalities are preempted by state law from regulating most environmental aspects of waste facilities but may use their zoning powers to regulate the location and land use aspects of such facilities.

Other DEP-Permitted Economic Activities

DEP grants permits for mining activities, surface and deep mining, oil and gas exploration and extraction, quarrying and air and water emissions for many commercial and industrial activities. As with waste facilities, local governments may determine, through their zoning power (based on comprehensive planning), the location of activities but cannot, for the most part, regulate the operation of these activities.

Department of Community and Economic Development

DCED coordinates and administers a number of housing, community and economic development programs for the state and its municipalities. It is the agency that gives technical assistance to municipalities on planning and zoning.

The Governor's Center for Local Government Services administers the Land Use Planning and Technical Assistance Program (LUPTAP), which provides funding to municipalities for the development of comprehensive plans, special planning studies (open space and recreation plans, environmental studies) and land use controls to implement community planning efforts. Eligible municipalities may apply for grants for specified planning activities, and dependant upon the grant program and type of project, may be required to provide a match of no more than 50 percent. Grant recipients are selected based on established criteria with priority given to multi-municipal efforts and those under development pressure or in economic decline. Public participation is required as an integral part of the planning process.

For communities listed as Community Development Block Grant entitlements, funding may be used for the development of comprehensive plans and ordinances.

Under Act 166, the Flood Plain Management Act, DCED is responsible for developing and administering a statewide flood plain management program. As part of its responsibilities, DCED reviews locally adopted flood plain management ordinances for compliance with Act 166 and other Federal Emergency Management Agency requirements. Municipalities not in compliance with Act 166 are not eligible to receive funding under any program administered by the Department.

Department of Conservation and Natural Resources

DCNR was established in 1995 to:

- Maintain, improve and preserve state parks;
- Manage state forest lands to assure their long term health, sustainability and economic use;
- Provide information on Pennsylvania's ecological and geologic resources;
- Administer grant and technical assistance programs that will benefit rivers conservation, trails and greenways, local recreation, regional heritage conservation and environmental education programs across Pennsylvania.

The core mission of protecting and enhancing Pennsylvania's natural resources remains a cornerstone of DCNR's service. Today, there is additional need for advocacy and leadership on broad environmental issues around land and water. DCNR's new plan, [Shaping A Sustainable Pennsylvania: DCNR's Blueprint for Action](#) lays out a new future for the agency, one in which DCNR is viewed as the steward for state parks and forest lands, a chief advocate for the natural resources of the state, the lead agency for land conservation and outdoor recreation and a critical player in economic growth and community revitalization. Within this expanded approach, the agency will work to improve stewardship and management of state parks and forests, promote statewide

land conservation, create outdoor connections for citizens and visitors, and help to build sustainable and attractive communities. To view the [Action Plan](#), visit www.dcnr.state.pa.us/info/shapefuture.

Pennsylvania has its own funding source for local government recreation and parks projects, called the Community Conservation Partnerships Program (C2P2). DCNR's Bureau of Recreation and Conservation operates this funding program. A priority goal of the Bureau is to develop and sustain partnerships with communities, non-profits and other organizations for recreation and conservation projects and purposes. Whether it's rehabilitating a community athletic field, building a safer playground, preparing a greenway plan, developing a trail or protecting a critical natural area, this program provides communities with technical assistance and grant funding to undertake these and other types of recreation and conservation projects. The C2P2 combines several funding sources and grant programs. There are two annual application cycles with a single application format and process. Generally, all components require a match, usually 50 percent of cash or in-kind contributions.

For more information about this grant program, DCNR has a "how-to-apply" manual and application materials available on its website, www.dcnr.state.pa.us. Contact your regional recreation advisor to discuss funding opportunities. See Appendix VI for a list of DCNR regional offices.

The County Role in Land Use Decisions

Pennsylvania's 67 counties are defined as "municipalities" under the MPC and have been granted the power to plan and, in the absence of local land use controls, may adopt county-wide subdivision and land development ordinances and zoning ordinances. Most of Pennsylvania's counties have planning commissions or departments, but some counties have more active planning programs than others. Many already have comprehensive plans in place and use them to review and comment on proposals for new or amendments to existing local zoning and subdivision/land development ordinances and proposals for subdivision and land development. In 2000, all counties were mandated by the MPC to prepare comprehensive plans within three years of the effective date of the amendments, and nearly all do. However, the MPC requires county plans to be updated every ten years, and many county plans are older than ten years.

County comprehensive plans are advisory only, but they provide an indispensable reference for local municipalities that want to assure that their own plans and development decisions are consistent with sound planning principles and with development forces and land use patterns beyond their own boundaries.

Local municipalities are required to submit many proposed actions to the county planning commission for review. Municipalities with planning, zoning and subdivision/land development ordinances usually have a procedure for referring such proposals and other development applications to the county planning commission for comment.

The legislature has given counties the primary responsibility for storm water and solid waste planning. County plans are required, and state permitting and funding are tied to them. The Storm Water Management Act of 1978 requires counties to develop plans on a watershed basis in consultation with municipalities in the watershed. The Municipal Waste Planning, Recycling, and Waste Reduction Act of 1988, Act 101, authorizes planning for municipal waste collection, treatment and disposal on a county wide basis.

County Zoning

A county can adopt zoning for the entire county if there is no local zoning or for areas within the county that are not zoned. County zoning is preempted by the enactment of local municipal zoning ordinances. In Pennsylvania's more rural counties, it may be more common for planning and zoning to be done at the county level.

Currently, funds and expertise may be inadequate to engage in both planning and zoning at the local level in many rural communities. County zoning is fiscally efficient and permits the identification of patterns in the natural environment such as forests, aquifers, agricultural lands and stream corridors. In rural areas, county zoning would ensure that all land in the Commonwealth is zoned in accordance with comprehensive plans.

County Conservation Districts

Pennsylvania's conservation districts were established in 1945 when the General Assembly passed the Soil Conservation District Act, commonly known as the Conservation District Law. Since then, the state's 66 conservation districts have addressed local natural resource concerns at the county level.

Each county conservation district is lead by a volunteer Board of Directors that is made up of local citizens appointed by their County Commissioners. These volunteers study their county's natural resource issues and help guide decisions to maintain or enhance their community.

Conservation districts offer technical assistance and educational guidance to land owners and managers, local governments, teachers, students and people from every walk of life. District staff can provide information and assistance on reducing soil erosion, protecting water quality, stormwater quality, acid mine drainage and preventing hazardous situations such as floods.

Conservation districts also review plans and issue permits and approvals for erosion controls on construction projects and for nutrient management on farms.

In addition, conservation districts partner with state and federal government agencies and facilitate the work of many private organizations and other conservation districts. In particular, conservation districts are active partners in many Growing Greener grants and are highly successful in winning Growing Greener grants.

The Pennsylvania Association of Conservation Districts, Inc. provides the collective voice for conservation districts at the state and national level. PACD works to enhance locally led efforts that support the wise use of the state's natural resources.

EACs can work with county districts to ensure that important environmental services are being administered at the local level. Interacting with county districts that provide environmental services will ensure that EACs appreciate regional environmental concerns. EACs will be exposed to a wider resource base that can give their communities greater insight concerning matters of land use management, public health and overall environmental quality.

For more information, contact your local conservation district and visit www.PACD.org

Regional Planning Agencies' Role in Land Use Decisions

Pennsylvania has eight regional planning agencies that provide advisory planning, data gathering and analysis and technical assistance in transportation, economic development and other planning areas to the counties and municipalities within their planning districts. These agencies can help to coordinate activities at a multi-county level such as transportation and watershed planning. Some of these serve as metropolitan planning organizations (MPOs) under the Federal Highway Administration Programs.

The regional planning agencies are:

- The Northeastern Pennsylvania Alliance (www.nepa-alliance.org)
- The Delaware Valley Regional Planning Commission (www.dvrpc.org)
- The North Central Pennsylvania Regional Planning and Development Commission (www.ncmtap.com)
- The Northern Tier Regional Planning and Development Commission (www.northerntier.org)
- The Northwest Pennsylvania Regional Planning and Development Commission (www.nwcommission.org)

- The SEDA Council of Governments
(www.seda-cog.org)
- The Southern Alleghenies
Planning and Development Commission
(www.sapdc.org)
- The Southwestern Pennsylvania Commission
(www.spcregion.org)

Municipal Authorities' Role in Land Use Decisions

Decisions affecting land use are also made by water and sewer authorities created by local and county governments under the Municipal Authorities Act of 1945. An authority can be incorporated by one or more municipalities, or a county, for the purpose of constructing and operating sewage collection and treatment facilities, waterworks and other public projects. It should be noted that not all municipalities have authorities.

The Local Role in Land Use Decisions

Local governments do not have the power to regulate, but they have the power that the state legislature has granted to them. In Pennsylvania, the primary enabling authority for controlling land use and managing growth is the Pennsylvania Municipalities Planning Code. Other regulations exist and provide additional authority, such as Act 537, the Pennsylvania Sewage Facilities Act.

The Pennsylvania Municipalities Planning Code (MPC)

The MPC enables local governments to engage in comprehensive planning and to enact a variety of land use related codes and ordinances. It provides for the appointment of planning commissions, allows for the preparation of capital improvement programs and encourages coordination of future development with the availability of infrastructure such as public water, sewer and transportation facilities. The MPC may be downloaded from the Department of Community and Economic Development's website, www.NewPA.com.

The MPC was first enacted by the State Legislature in 1968, as P.L. 805, No. 247. Since that time, it was amended numerous times with major amendatory language being added in 1972, 1978, 1982 and 1988. The last significant revisions were made in 2000, but there have been minor changes since that date. The 2000 amendments included the following:

- Established the goal of general consistency between municipal, multi-municipal and county comprehensive plans, and between comprehensive plans and implementing zoning ordinances, and gave Commonwealth agencies the right to grant funding priority to those municipalities that agree to make their comprehensive plans generally consistent with county comprehensive plans;
- Required that county comprehensive plans be updated every ten years, municipal comprehensive plans be reviewed every ten years;

- Within the comprehensive plan and zoning ordinance, required additional planning related to natural and historic resource protection and agricultural preservation, to the extent it is not preempted by federal and state laws; and further, provided limitations in the local regulation and protection of such uses;

- Provided the opportunity for municipalities to enter into intergovernmental cooperative agreements for the purpose of developing, adopting and implementing a multi-municipal comprehensive plan. In addition, those entering into cooperative agreements may:

- be given priority consideration by state agencies for funding and technical assistance;
- provide for tax revenue sharing and a shared transfer of development rights program;
- adopt specific plans for the systematic implementation of any nonresidential area covered by the multi-municipal comprehensive plan;
- consider the entire geographic area of the multi-municipal comprehensive plan if a party challenges the validity of their zoning ordinance;
- Provided for the identification of growth areas to allow the adequate planning of relevant infrastructure services;
- Provided for limitations in local regulation of, and protections for, agricultural, forestry and mining practices;
- Provided standards and conditions for the development of mixed use traditional neighborhoods.

As in the case of the 1988 revisions to the MPC made by Act 170, Acts 67 and 68 of 2000, other provisions were added that improve the ability of municipalities to manage growth and assure a more livable environment. However, municipalities are more restricted in the regulating of forestry, mining



and agricultural uses. In addition, municipal planning authority is still made clearly advisory by virtue of MPC Section 303(c), which provides that no municipal action may be challenged on the grounds of inconsistency with the comprehensive plan. Comprehensive planning remains critically important as it contains the statement of community development objectives, required by Section 606 of the MPC which can be implemented by an adopted zoning ordinance. For example, the statement of community development objectives can include a goal of controlling "the location, character and timing of future development". Thus, the comprehensive plan is important as a sound and rational basis for zoning regulation or any other land use implementation tool.

The MPC and Growth Management

Although the present system of land use regulation makes it challenging for even the most progressive municipality to do so, there are ways to plan and zone to achieve the maximum natural, historical and cultural resource protection. A careful reading of the MPC, particularly as amended in 1988, indicates that the legislature intended to give local governments in Pennsylvania the power to control the timing, character and location of development within their borders. In 2000, the legislature took that provision one step further, enabling municipalities and counties to identify future areas for growth and development in order to provide a full range of public infrastructure/municipal services, including public schools, as needed to accommodate growth. Analysis of the MPC indicates that the legislature provides direction to municipalities in designing their land use controls to ensure that:

- Adequate roads, sewer facilities, water supplies, schools and other public service facilities are available to serve new development;
- New residential development will provide for a mix of housing types that are affordable to all families;
- New development will be located on appropriate soils, and development patterns will respect slopes, woodlands, wetlands, flood plains, aquifers, natural and historic resources and other natural features of the municipality, to minimize adverse environmental impacts;
- Development patterns will not displace nor restrict agricultural activities or occur on prime agricultural land.

EACs should be aware of these standards for development, which are the essence of a strong municipal growth management program.

The MPC and the Protection of Natural and Historic Resources

As stated above, the MPC enables municipalities to zone,

protect and preserve natural and historic resources within their jurisdictions. These provisions authorize a municipality to adopt ordinances protecting and preserving prime agricultural land and activities, wetlands, aquifers, woodlands, steep slopes, flood plains and historic features development. To do this, a municipality must first establish a sound and rational basis for such protection, including the development of an environmental resource inventory (ERI), discussed in Chapter 6, and ensure that housing needs and other uses are provided for through its comprehensive plan and zoning ordinance.

Plans and Implementation Tools

It is important for EAC members to be familiar with the basics of planning and tools to implement a comprehensive plan provided for by the MPC, such as the official map, subdivision and land development ordinance, zoning ordinance and impact fee ordinance.

The most commonly used implementation tools are the subdivision and land development ordinance and zoning ordinance. Each is adopted as separate and distinct ordinance, and a municipality does not necessarily need to adopt both ordinances. It is strongly recommended that a subdivision and development ordinance be in force at the county, municipal or inter-municipal level.

Municipal planning and its implementation may be accomplished at the county level on their behalf, at the municipal level with plans and ordinances adopted by the specific municipality and thereby superceding the county plans and ordinances, or at the multi-municipal level through intergovernmental agreements. As mentioned previously, the 2000 amendments to the MPC provided a number of benefits to municipalities that jointly plan and implement the jointly adopted plan. Article XI, Intergovernmental Cooperative Planning and Implementation Agreements, was amended into the MPC and specifically provides for joint planning efforts. Municipalities that opt for joint planning and implementation must enter into formal agreements. Growth areas, potential growth areas and rural resource areas may be designated by the comprehensive plan. Joint zoning ordinances may be implemented with districts/uses spread across municipal boundaries, not necessarily providing for every use within every municipality, but within the joint municipal area. Priority funding consideration may be given by state agencies as well. A more detailed description of multi-municipal planning and its implementation is contained within the 10,000 Friends of Pennsylvania publication [Planning Beyond Boundaries](#), available for purchase on their website, www.10000friends.org

The Comprehensive Plan

The comprehensive plan lays the foundation for a municipal-

ity's future. It provides guidance for future conservation and growth and sets aside areas appropriate for each. The plan provides a rational basis for all land use decisions, should be thorough in content, be reflective of the community's needs, and set a course for implementation. The plan must be generally consistent with the county comprehensive plan and those of adjacent municipalities.

Section 301 of the MPC provides standards for the preparation and adoption of a Comprehensive Plan. In general, the Comprehensive Plan must include, but need not be limited to:

- A statement of the municipality's objectives concerning its future development;
- A plan for land use;
- A plan to meet housing needs of all income groups;
- A plan for the movement of people and goods;
- A plan for community facilities and utilities;
- A plan for the protection of natural and historic resources to an extent not preempted by federal and state law;
- A statement regarding the interrelationships of the various plan components;
- A statement indicating the relationship of existing and proposed development in the municipality to those in contiguous municipalities, and the region of which it is a part;
- A discussion of short and long range plan implementation strategies. Although plans prepared in the past typically had little to say about implementation, it has become generally recognized that this is the most important element of the comprehensive plan, and should be updated on a regular basis.

Other plans can be incorporated in the comprehensive plan or prepared separately (e.g., a municipal open space and recreation plan). If a municipality requires dedication of land for recreational purposes or open space, it must have prepared and adopted an open space and recreation plan to base their dedicatory acreage or fees in lieu of dedicated land requirements. Municipalities are responsible for implementing the county storm water management plan through the adoption of a storm water management ordinance or through provisions related to storm water management contained within a subdivision and land development ordinance.

As described in Chapter 6, a recommended project for an EAC is the preparation of an environmental resource inventory. Such an inventory should be a part of the preparation of a comprehensive plan, and can be funded as such. The ERI provides a base for establishing future growth and conservation areas and aides in the development of a municipal open space and recreation plan.

Zoning Ordinance

Municipalities can implement their comprehensive plans through the development and enactment of a zoning ordinance. Zoning ordinances manage growth and conservation by designating appropriate land uses throughout the municipality and setting standards relating to density, area, height, building location and dedicated open space. The zoning ordinance works together with the subdivision and land development ordinance in areas of development design and layout and further designates the types of structures and uses that can be developed through the use of zoning districts and establishes other performance criteria for the preservation of natural and historic features.

A zoning ordinance should provide for the building of livable communities. Traditional zoning ordinances generally divide a municipality into classes of residential districts with specific density requirements such as one district requiring building homes at a density of no less than one unit per acre and perhaps another district with a residential density of one unit to one-quarter acre. Such zoning ordinances generally segregate types of housing (single-family, multi-family, manufactured homes) into separate zoning districts and further segregate nonresidential uses into other districts. Segregated sprawling communities are developed with little or no opportunity for community activity and interaction and little open space.

There are several zoning techniques and tools now available to municipalities, depending upon their needs and existing character, to encourage better development practices, the preservation of open space and mixing of uses. A few are basically described here.

Conservation Zoning

Conservation zoning is a growth management technique that sets aside at least 50 percent of the buildable areas of a development parcel in open space (in addition to natural constraints such as floodplain, wetlands and steep slopes), while permitting development at full density. The same number of homes can be built as would be permitted under conventional zoning, but are simply rearranged in a less land-consumptive manner, allowing the balance of the property to be permanently protected and added to an interconnected network of community greenways. This "density neutral" approach provides a fair and equitable way to balance conservation and development objectives.

Conservation zoning permits a "menu" of density options. Full density is achievable only when the conservation approach is selected. Density is reduced (by as much as 50 percent) if a developer chooses to build a conventional subdivision with only houses, streets and lawns and no open space. A zoning district can include up to five density options, each tied to the amount of open space that is provided. In

addition to the “density neutral” option, two options permit increased density for increased open space and two additional options permit decreased density with no common open space. Full design flexibility is attained when several options are combined. For example, single homes on smaller lots can be combined with a large “estate lot” that is set aside to accommodate an existing farmhouse.

The requirement for significant open space makes it possible to easily design around natural resources that have been previously identified in a community-wide map of Potential Conservation Lands. This map documents the natural and cultural resources of the community and is intended to guide the location of open space in each new development as it is being laid out. This zoning approach is closely tied to open space locational standards and a “Four-Step Design Process” that the subdivision ordinance requires developers to follow (please see “Conservation Subdivision”).

Eleven townships in Pennsylvania have adopted rigorous versions of the model conservation zoning and subdivision regulations promoted by Natural Lands Trust under the state *Growing Greener* program, with ten additional townships in the process of writing such regulations. A January 2004 survey of eight Chester County townships that had approved development plans under the new codes, had collectively preserved 1,330 acres of permanently protected open space, or 63% of the gross tract acreage involved. And an additional 1,300 acres were “in the pipeline” in the form of sketch plans.

Land acquisition costs vary from one county to another, but in growth areas can range from \$10,000 and \$20,000 per acre or more. This equates to a range in value of the open space in these conservation subdivisions from a low of \$13.3 million to a high of \$26.6 million. Had these lands been acquired with local money, with the best-case scenario of a 50 percent match from other funds, the local expenditure would have totaled \$6.6 million to \$13.3 million.

Ordinance amendments typically cost between \$5,000 and \$25,000, so for no more than the cost of acquiring one acre of land, a township can preserve hundreds of acres, at very little cost to the taxpayer, by adopting *Growing Greener* conservation subdivision ordinances.

Traditional Neighborhood Development

With the 2000 amendments, Acts 67 and 68, to the MPC, municipalities were given the authority to develop and adopt Traditional Neighborhood Development (TND) standards (Article VII-A of the MPC) allowing for the creation of traditional mixed use communities. TND provides for more innovative, fully integrated, pedestrian-oriented residential and compatible nonresidential development. This type of development minimizes traffic congestion and infrastructure costs and maximizes the amount of conserved natural

features and usable open space available to residents. TND can take the place of traditional single-family or cluster residential development. Through the creation of TNDs in accordance with the MPC, for the first time, municipalities in Pennsylvania are granted the authority to adopt by ordinance a manual of written and graphic design standards. It allows for infrastructure design and construction standards different than that required by the county or municipal subdivision and land development ordinance.

Planned Residential Development

Article VII of the MPC provides for PRDs, which are mixed use developments combining housing at greater densities with open space and recreation facilities. PRD provisions, generally found in zoning ordinances, combine elements of both zoning and subdivision/land development ordinances into one district. The MPC allows a PRD to include “non-residential uses deemed to be appropriate for incorporation in the design of planned residential development.”

PRDs give builders considerable flexibility within prescribed development standards. As a rule, PRDs allow for greater development densities in return for the preservation, dedication or construction of agreed-upon open space, recreational or other common public facilities. Through the use of PRDs, the municipality and developer can have better control over design.

Transfer of Development Rights

Section 619.1 of the MPC, enacted in 1988, created a new property interest, TDRs, enabling municipalities to allow the transfer of development rights within the municipality. In 2000, the TDR language was further amended to allow for transfers beyond corporate boundaries of municipalities participating in joint zoning ordinances and/or under written agreements established in accordance with the MPC.

TDRs enable a community to protect resources and agricultural land and concentrate development for efficient use of infrastructure. They reduce the intensities of housing and nonresidential development in rural or resource protection areas, encourage more intense development in appropriate areas served by public infrastructure and provide for a system of compensation for land owners who are restricted from development.

TDR programs allow for landowners in rural or resource protection areas to sell their development rights to entities wishing to develop in other locations already identified by a municipality as growth areas. The sale of development rights allows the rural landowner to retain possession of title to the land and the right to use the property as farmland, open space or for a related purpose, but it removes the owner's right to develop the property for other purposes. The purchaser

of development rights may then develop another parcel within the growth area more intensely than would otherwise be allowed, based upon the number of “rights” purchased.

A TDR program can include a variety of elements to achieve the community's particular objectives as specified in the comprehensive plan. All TDR programs have three basic elements with the first being the allocation of an amount of transferable development rights to designated “sending” or rural conservation areas. These areas are parcels or portions of parcels on which the community wishes to curb more intensive development. The second element of a TDR program is the designation of “receiving,” or growth areas, and a determination of the additional amount and type of development that will be permitted at those sites through the use of TDRs. Receiving areas are designated areas, parcels or portions of parcels that can accommodate and are otherwise appropriate for additional development as identified within the comprehensive plan. The third element of a program is the selection of a method of transferring rights from one parcel to another or from one portion of a parcel to another portion. The methods may range from a simple recording system, to the use of a third-party holding entity, or “bank,” to hold rights for transfer to future developers.

Official Map

Article IV of the MPC enables counties and municipalities to develop and adopt an official map, a strong and effective tool for notifying all landowners of existing and proposed public lands and rights of way (e.g. surveyed locations of existing and proposed public streets, watercourses and public grounds, including widenings, extensions, diminution, openings or closings). An official map can be developed for an entire municipality or specific area. It must be consistent with the municipality's Comprehensive Plan and is usually incorporated as part of the adopted zoning ordinance.

Little known is that Article IV also contains a provision that allows municipalities to place environmentally sensitive and valuable areas on an official map. These designations help municipalities plan for the protection of water resources, open space areas and other significant natural assets. Such information can be extracted directly from an ERI.

Designation of existing and proposed public lands and rights of way on an official map allows a municipality one full year, after the land owner has submitted intentions to build, subdivide or otherwise develop the land area, to avoid or minimize impacts to natural resources. If the reservation renders the remainder of the tract unusable, the owner may request a special encroachment permit.

The Bushkill Township EAC, Northampton County, used this provision to place riparian woodlands on the township's official map. The process of including riparian woodlands on

the map was relatively simple. The Bushkill Stream Conservancy was working with the Two Rivers Council of Governments on a Greenways Plan for the Bushkill Creek Watershed. The Bushkill EAC worked closely with the Greenways Plan consultant to develop a “woodlands map layer” for the township. GIS based mapping was obtained from the Lehigh Valley Planning Commission and Northampton County. The woodlands mapping was then integrated into the existing official map and brought before the township's planning commission and board of supervisors for review and adoption.

By adopting the riparian woodlands layer as part of the official map, the township has taken another step to preserve and protect the water quality of the Bushkill Creek, its tributaries, the contributing wetlands and the valuable wildlife corridors. Approximately 5.7 square miles of riparian woodlands are located on privately owned land in Bushkill Township; all of which will now be better protected from land development impacts. Designation on the official map allows the township a full year following submittal of a site development plan to work with the developer to avoid and/or minimize impacts to riparian woodlands found on-site.

The township is now involved in various efforts to educate its landowners and local land developers on the implications of this conservation technique. The flexibility allowed for conservation helps to preserve land values, which is the key to the plans success and implementation. Numerous conservation options are available, including avoidance of impacts, conservation easements, deed restriction, conservation design planning and land purchase through open space programs and other sources. The woodlands in Bushkill Township contribute significantly to the local rural character which makes the township a desirable place to live, and therefore, conservation of these areas will help to preserve land values. The plan is thereby a “win-win” for everyone, and perhaps more importantly for the environment.

Subdivision and Land Development Ordinance

Article V of the MPC allows municipalities to enact regulations governing subdivision and land development. A subdivision and land development ordinance applies any time a land owner proposes to subdivide a tract of land for any use or development involving a group of two or more residential or nonresidential buildings or a single nonresidential building. Such provisions regulate the submission and approval of plats, design and construction standards for streets, curbs, sidewalks or walking paths, street lights, fire protection, adequate provision of on-lot and/or public water and sewer facilities, lot layout and design, standards and conditions for dedication or fees in lieu of dedication of lands for recreational purposes and requirements for public dedication of streets. A

municipality, through this ordinance, may regulate minimum setback lines and lot sizes based upon the availability of water and sewer facilities in the event the municipality has not enacted a zoning ordinance.

Under the MPC, counties may enact subdivision and land development ordinances for areas of the county not governed by such an ordinance at the municipal level. A county ordinance will be pre-empted by the enactment of a local subdivision/land development ordinance. A municipality may adopt the county ordinance and designate the county planning agency as the agency for review and approval of plats. This is not a recommended practice in that a locally prepared and enforced municipal ordinance should be more in context with local features and concerns.

Conservation Subdivision

Conservation subdivision is a growth management technique permitted by the zoning ordinance, which requires at least 50 percent of buildable land to be conserved as open space (please see “Conservation Zoning”). Related design standards and a special plan review process required in the local subdivision and land development ordinance play an important part in properly locating the required open space so as to conserve community natural and cultural resources.

Under this approach, communities adopt subdivision ordinances which require a detailed “Existing Resources/Site Analysis Plan” identifying the special features of each property, and require a design methodology that delineates open space first, before the developed area is designed and engineered. This approach, called the “Four-Step Design Process”, has proven very effective in providing meaningful open space and effective natural resource protection. After the conservation areas are delineated, the next three steps are to locate the house sites, then the roads and tentative locations for storm water management facilities and finally the lot lines (which are the least important).

Because successful conservation subdivisions depend on properly designed open space, other key regulations in the subdivision and land development ordinance ensure that early in the process an opportunity for dialogue exists between the applicant and the municipality, before preliminary plans with detailed engineering are submitted. Once engineering takes place, the ability for a municipality to influence layout is severely diminished. A site visit by municipal officials with the developer is required (with the site analysis in hand). In this informal setting, the officials can inform the developer where the open space should be located to best meet municipal greenway objectives. Ordinance standards for the configuration and location of conservation lands also guide the layout. The regulations strongly encourage an informal sketch plan (following the Four-Step Design Process) to be

submitted after the site visit. When the sketch plan review process (which is not specifically authorized or prohibited by the MPC) is used to best advantage, both municipalities and developers have found it to be extremely useful in agreeing on a basic layout that can then proceed to preliminary engineering.

Mandatory Dedication of Lands

For those municipalities and counties with adopted open space, greenway and recreation plans, provisions may be included in Subdivision and Land Development Ordinances requiring public dedication of land suitable for recreational facilities or fees in lieu of dedication as a requirement for plan approval. The decision of whether land is dedicated or fees provided in lieu of dedicated land must be a decision agreed upon by the municipality/county and the developer, in accordance with specific standards set forth in the ordinance. Furthermore, any required dedications must be reasonable and consistent with the planning goals and actions adopted by the municipality.

The advantages of public dedication of land or fees in lieu of land are many. Municipalities can utilize the provisions as a way to make their plan a reality either through gaining needed facilities or by putting financial resources aside for later use in larger efforts. Dedication of land or fees in lieu of dedicated land may be requested in accordance with Section 503. (II) of the MPC.

Impact Fee Ordinance

In accordance with the MPC, impact fees are charges imposed on new development to equitably allocate among property owners the cost of off-site road improvements only necessitated by and attributed to the new development. A 1990 amendment to the MPC, Act 209, added Article V-A, which allows a municipality to impose transportation impact fees for certain limited off-site transportation-related improvements. Act 68 of 2000 further provided for the enactment of an impact fee ordinance by municipalities having adopted a joint municipal comprehensive plan.

Prior to adopting an impact fee ordinance, the municipality must prepare and adopt a transportation capital improvements plan which includes the designation of an advisory committee, the development of land use assumptions for the determination of future growth and development within the designated transportation service area, identifying roadway improvement needs, projected costs and potential sources of funding to remedy existing deficiencies and the calculation of development-related impact fees.

The preparation of a transportation impact fee ordinance may be costly, and a municipality should carefully assess their needs and potential benefits that could be derived from impact

fees, based upon their growth potential. As an alternative, a fee for transportation improvements may be developed that would include state roads and public transportation facilities as authorized by Act 47, the Transportation Partnership Act. The Act enables cooperating municipalities to establish transportation development districts and levy special property assessments for transportation purposes. The purpose of the Act is to enable the private sector and local municipalities to contribute to the cost of needed transportation improvements approved and built by the Pennsylvania Department of Transportation.

Additional Resources

EACs have a number of easy to understand resources at their disposal, covering the topics in this chapter in more depth and providing examples of best development practices. Here are a few noteworthy publications and web sites:

Publications

[Growing Greener: Conservation by Design](#), Natural Lands Trust, Media, Pennsylvania. This booklet provides an overview of the Conservation Subdivision and Conservation Zoning techniques highlighted in this Chapter. The 18-page document is downloadable free of charge from the Natural Lands Trust website, www.natlands.org

[Guiding Growth: Building Better Communities and Protecting Our Countryside](#), by Robert E. Coughlin, Joanne R. Denworth, John C. Keene and John W. Rogers, and illustrated by Robert F. Brown, Jr., third edition, 1993.

[Guiding Growth](#) is a planning and growth management handbook for Pennsylvania municipalities and is a publication of the Pennsylvania Environmental Council. It includes information about the design of communities in relation to both development and natural resource protection objectives. For more information call 1-800-322-9214.

[Municipalities Planning Code: A Decade of Amendments to the Pennsylvania Municipalities Planning Code](#), Local Government Commission, General Assembly of the Commonwealth of Pennsylvania, Harrisburg, Pennsylvania, September 2000. This publication is an annotated compilation of all amendments to the MPC through 2000. It serves as a good reference document to better understand the language of the amendments and includes a copy of the entire MPC. The MPC has been amended since the publication of this document with the most recent edition dated January 2003, available from the website for the Governor's Center for Local Government Services, www.NewPA.org.

[PA BLUPRINTS: Best Land Use Principles and Results, Interactively Shown](#), School of Architecture and Landscape Architecture, Penn State University, July 1997. This interactive CD-ROM publication is designed for use by professionals and non-professionals alike. It contains a series of best

approaches to land use regulations supplemented with easy-to-understand illustrations. Topics addressed include agriculture, community character, natural systems, signs, streetscapes and trees/woods. "PA BLUPRINTS" may be purchased through the Department of Landscape Architecture, The Pennsylvania State University, 210 Unit "D", University Park, PA 16802-1429.

[PennSCAPEs: Pennsylvania Strategies, Codes and People Environments](#), The Hamer Center for Community Design Assistance, School of Architecture and Landscape Architecture, Penn State University, March 2003. This CD-ROM publication containing sample neighborhood design and layout standards promoting healthy lifestyles and compact, walkable neighborhoods sensitive to the environment, was developed by a team of landscape architects, community planners and architects. It is an interactive document providing code language and images for three types of neighborhoods, rural residential, clustered residential and mixed use. For more information, contact the Hamer Center at 814-865-5300.

[Planning Beyond Boundaries – A Multi-Municipal Planning and Implementation Manual for Pennsylvania Municipalities](#), 10,000 Friends of Pennsylvania, 2002. This manual is a how-to guide for municipalities that choose to work together through agreements to develop and implement a multi-municipal plan as authorized by the 2000 amendments to the Municipalities Planning Code. For more information or to order a copy of the manual, visit www.10000friends.org

[Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania](#), The Brookings Institution Center on Urban Metropolitan Policy, 2003. This report contends that the economic future of Pennsylvania depends on revitalizing its demographic mix and curbing some of the Nation's most radical patterns of sprawl and abandonment. Above all, the study reveals that Pennsylvania's highly decentralized growth patterns are weakening the state's established communities, undercutting the very places whose assets the state needs to compete in the knowledge economy. The report concludes that these trends are not inevitable, and can be reshaped if the state embraces a dynamic new vision of economic competitiveness that links the Commonwealth's desire for prosperity to the need to revive older cities and towns. To download the entire report, go to www.brookings.edu/metro/publications/pa.htm

Websites

www.pecpa.org Website of the Pennsylvania Environmental Council dedicated to improving the quality of life for all Pennsylvanians by enhancing the Commonwealth's natural and built environments.

www.panaonline.org Website of the Pennsylvania Advocates for Nutrition and Activity, a nonprofit organization promoting active living through better community design.

www.planetizen.com: A bi-weekly e-letter provided free of charge containing current news articles from around the United States on planning and environmental issues.

www.planningpa.org The state's foremost membership organization for those working to improve communities through planning. As a Chapter of the American Planning Association (APA), PPA is affiliated with the nation's leading organization dedicated exclusively to promoting best planning practice.

www.NewPA.com: Website for the Governor's Center for Local Government Services, a good resource for publications and general information, including downloadable versions of the MPC and other helpful publications.

www.10000friends.org Website for 10,000 Friends of Pennsylvania, an alliance of organizations and individuals committed to enhancing the quality of life for all Pennsylvanians.

Appendix

I. STATE ENABLING STATUTE

Act 148 of 1973, which allows the establishment of EACs, was amended in 1996 as P.L. 1158, No. 177. The most common reference to Act 177 is “Act 148 as amended.”

TITLE 53

PENNSYLVANIA CONSOLIDATED STATUTES MUNICIPALITIES GENERALLY

PART III. GOVERNMENT AND ADMINISTRATION

SUBPART D. AREA GOVERNMENT AND INTERGOVERNMENTAL COOPERATION

CHAPTER 23

GENERAL PROVISIONS

Subchapter

- A. Intergovernmental Cooperation
- B. Environmental Advisory Councils
- C. Regional Planning

Enactment. Chapter 23 was added December 19, 1996, P.L. 1158, No. 177, effective in 60 days.

SUBCHAPTER B

ENVIRONMENTAL ADVISORY COUNCILS

Sections

- 2321. Scope of subchapter.
- 2322. Establishment of Environmental Advisory Council.
- 2323. Composition and organization of council.
- 2324. Powers and duties of council.
- 2325. Records and reports.
- 2326. Appropriations for expenses of council.
- 2327. Status of existing agencies unaffected.
- 2328. Assistance from State Conservation Commission.
- 2329. Assistance from Department of Community and Economic Development.

§ 2321. Scope of subchapter.

This subchapter applies to all municipal corporations.

§ 2322. Establishment of Environmental Advisory Council.

The governing body of any municipal corporation or group of two or more municipal corporations may by ordinance establish an environmental advisory council to advise other local governmental agencies, including, but not limited to, the planning commission, park and recreation boards and elected officials, on matters dealing with protection, conservation, management, promotion and use of natural resources, including air, land and water resources, located within its or their territorial limits.

§ 2323. Composition and organization of council.

(a) **Composition.**—An environmental advisory council shall be composed of no less than three nor more than seven residents of the municipal corporation establishing the council, who shall be appointed and all vacancies filled by the governing

body. Where two or more municipal corporations jointly establish an environmental advisory council, the members shall be appointed in the same manner by each of the respective municipal corporations establishing the council, each constituent municipal corporation to have equal membership on the joint council.

- (b) **Term of office.**—Council members shall serve for three years except that initial appointments shall be so staggered that the terms of approximately one-third of the membership shall expire each year, the terms of their successors to be of three years each.
- (c) **Compensation and expenses.**—Members shall receive no compensation for their services but shall be reimbursed for the expenses actually and necessarily incurred by them in the performance of their duties.
- (d) **Chairman.**—The appointing authority shall designate the chairman of the council except that in joint councils the chairman shall be elected by the duly selected members. Whenever possible, one member shall also be a member of the municipal planning board.

§ 2324. Powers and duties of council.

- (a) **General rule.**—An environmental advisory council shall have the power to:
 - (1) Identify environmental problems and recommend plans and programs to the appropriate agencies for the promotion and conservation of the natural resources and for the protection and improvement of the quality of the environment within its territorial limits
 - (2) Make recommendations as to the possible use of open land areas of the municipal corporations within its territorial limits.
 - (3) Promote a community environmental program.
 - (4) Keep an index of all open areas, publicly or privately owned, including flood-prone areas, swamps and other unique natural areas, for the purpose of obtaining information on the proper use of those areas.
 - (5) Advise the appropriate local government agencies, including the planning commission and recreation and park board or, if none, the elected governing body or bodies within its territorial limits, in the acquisition of both real and personal property by gift, purchase, grant, bequest, easement, devise or lease, in matters dealing with the purposes of this subchapter.
- (b) **Limitation.**—An environmental advisory council shall not exercise any powers or perform any duties which by law are conferred or imposed upon a Commonwealth agency.

§ 2325. Records and reports.

An environmental advisory council shall keep records of its meetings and activities and shall make an annual report which shall be printed in the annual report of the municipal corporation or, if none, otherwise made known and available.

§ 2326. Appropriations for expenses of council.

The governing body of any municipal corporation establishing an environmental advisory council may appropriate funds for the expenses incurred by the council. Appropriations may be expended for those administrative, clerical, printing and legal services as may be required and as shall be within the limit of funds appropriated to the council. The whole or any part of any funds so appropriated in any year may be placed in a conservation fund and allowed to accumulate from year to year or may be expended in any year.

§ 2327. Status of existing agencies unaffected.

This subchapter shall not be construed to require a municipal corporation to abolish an existing commission with a related responsibility or to prevent its establishment.

§ 2328. Assistance from State Conservation Commission.

The State Conservation Commission shall establish a program of assistance to environmental advisory councils that may include educational services, exchange of information, assignment of technical personnel for natural resources planning assistance and the coordination of State and local conservation activities.

(May 5, 1998, P.L. 301, No 50, eff 60 days)

§ 2329. Assistance from the Department of Community and Economic Development.

The Department of Community and Economic Development shall establish a program of assistance to environmental advisory councils in planning for the management, use and development of open space and recreation areas.

(May 5, 1998, P.L. 301, No. 50, eff. 60 days)

II. SAMPLE EAC ORDINANCE

ORDINANCE NO. 132

AN ORDINANCE OF THE TOWNSHIP OF PARADISE, MONROE COUNTY, PENNSYLVANIA, CREATING AN ENVIRONMENTAL ADVISORY COUNCIL, PROVIDING OPERATING PROCEDURES AND STATING THE POWERS OF THE COUNCIL.

WHEREAS, The Board of Supervisors of Paradise Township, Monroe County, Pennsylvania deems it to be in the best interest and the general welfare of the citizens and residents of Township to be advised as to: environmental issues within the Township; the protection and preservation of natural resources within the Township; possible uses of open land in the Township; creating inventories of natural areas with unique feature within the Township; and

WHEREAS, Section 1506 of the Second-Class Township Code, Act of May 1, 1933, P.L. 103 No. 69, as amended by the Act of Nov. 9, 1995, P.L. 350, No. 60, found at 53 P.S. section 66506, entitled "General Powers", authorizes the Board of Township Supervisors to make and adopt ordinances necessary for the proper management, care and control of the township and the maintenance of peace, good government, health and welfare of the township; and

WHEREAS, Section 11501 of the Act of Dec. 21, 1973, P.L. 425, No. 148, Chapter 30C - Environmental Advisory Councils - authorizes the governing body of any township to establish, by ordinance, an Environmental Advisory Council to advise other local government agencies, including, but not limited to, the planning commission, park and recreation boards and elected officials, on matters dealing with protection, conservation, management, promotion and use of natural resources including air, land and water resources, located within its territorial limits.

NOW, THEREFORE, BE IT ORDAINED AND ENACTED, by the Board of Supervisors of Paradise Township, Monroe County, Pennsylvania, and it is hereby ordained and enacted by the authority of the same, to wit:

CHAPTER 6

Section 1. An advisory council to be known as the Paradise Township Environmental Advisory Council, is hereby created and shall continue to function until this ordinance is revoked.

Section 2. The Environmental Advisory Council shall be composed of five residents of this municipality.

Section 3. Council members shall be appointed in accordance with the following procedures:

- (1) All council members shall be appointed by the Governing Body of the political subdivision.
- (2) Council members' terms of office shall expire on the first Monday in January following the last year of their term of office.
- (3) Duly appointed council members shall serve a term of three years, except that initial appointments shall be so staggered that the terms of approximately one-third of the membership shall expire each year.
- (4) Whenever possible, one member shall also be a member of the local planning commission.

Section 4. Council members shall receive no compensation for their services, but may be reimbursed for the expenses actually and necessarily incurred by them in the performance of their duties.

Section 5. The Environmental Advisory Council is to be advisory to and shall coordinate its activities with the elected officials, planning commission and other such local governmental agencies.

Section 6. The governing body shall designate the chairman of the council.

Section 7. The Environmental Advisory Council shall have the following powers:

- (1) Identify environmental problems.
- (2) Recommend plans and programs to the appropriate agencies for the promotion and conservation of the natural resources and for the protection and improvement of the quality of the environment within the area of this municipality.
- (3) Make recommendations as to the possible use of open land areas of this municipality.
- (4) Promote a community environmental program.
- (5) Keep an index of all open areas, publicly or privately owned, including, but not limited to, flood prone areas, swamps, and other unique natural areas.
- (6) Advise the appropriate local governmental agencies in the acquisition of property, both real and personal.
- (7) To undertake such environmental tasks as requested by the governing body of this municipality.

Section 8. The Environmental Advisory Council shall keep records of its meetings and activities and shall make an annual report which shall be printed in the annual municipal report (if applicable) or otherwise made known and available. Minutes of each meeting shall be forwarded to the governing body.

Section 9. The governing body of this municipality may, from time to time, appropriate funds for the expenses incurred by the Council.

ENACTED AND ORDAINED ON this ____ day of _____, 2002. This ordinance shall become effective five (5) days after adoption.

Theresa Merli, Chairman

John H. Bowman, Jr., Vice-Chairman

Charles DePue, Supervisor

(Township Seal)

Reda Briglia, Secretary/Treasurer

III.

SAMPLE RESOLUTION ESTABLISHING AN EAC

RESOLUTION NO. 882

A RESOLUTION OF THE TOWNSHIP OF LOWER MAKEFIELD, BUCKS COUNTY, PENNSYLVANIA ESTABLISHING A PROCEDURE FOR THE IDENTIFICATION AND PRESERVATION OF OPEN SPACE TO BE KNOWN AS THE LOWER MAKEFIELD OPEN SPACE INITIATIVE.

WHEREAS, the Board of Supervisors of Lower Makefield Township recognizes that open space adds to the aesthetic beauty and value of the community, and maintains its rural character;

WHEREAS, the Board of Supervisors of Lower Makefield Township recognizes that open space can increase property values and, consequently, tax revenues;

WHEREAS, the Board of Supervisors of Lower Makefield Township recognizes that open space can provide Township residents with a variety of active and passive recreational opportunities;

WHEREAS, the Board of Supervisors of Lower Makefield Township recognizes that open space serves a variety of necessary functions including storm water management and flood control, agricultural use, composition of natural debris, and limits the impact of development;

WHEREAS, the Board of Supervisors of Lower Makefield Township recognizes that preservation of open space is in the Township's interest and is necessary to preserve the quality of life for Township residents; and

WHEREAS, Article XIX of the Second Class Township Code specifically authorizes the Board of Supervisors to preserve and acquire open space for the public benefit.

NOW, THEREFORE, be it RESOLVED that Lower Makefield Township shall undertake the Open Space Initiative as set forth herein:

SECTION ONE: OBJECTIVE

To identify available open space and important natural resources, advise the Township of opportunities to acquire or otherwise preserve open space and the resources therein, and set forth guidelines for the acquisition or preservation of open space within the Township's means.

SECTION TWO: DEFINITIONS

The definitions in this section shall be limited in their application to this Resolution and shall not be construed to restrict or expand the definitions of the same or similar terms found in other Township ordinances, resolutions, codes or the Comprehensive Master Plan:

"Open Space"- Those lands located in Lower Makefield Township which remain in a natural state, or are used for agricultural or recreational purposes, and are not owned, possessed or controlled by a real estate developer or subject to a real estate development agreement. Open Space does not include land occupied by structures, roads, rights-of-way, parking lots or storm water detention basins.

"Environmental Advisory Council"- Five (5) member Township committee which shall explore preservation options and make recommendations to the Board of Supervisors.

"Open Space Fund"- Moneys set aside by the Township for the purpose of acquiring or preserving open space.

"Open Space Preservation Plan"- Any preliminary or final plan for the acquisition or preservation of a parcel of open space in the Township.

"Real Estate Developer"- Any person or entity engaged in the business of residential, commercial or industrial development of real estate for profit.

“Real Estate Development Agreement”- Any binding legal contract or agreement to option or sell real estate between a landowner and a real estate developer.

“Supervisors”- The Board of Supervisors of Lower Makefield Township.

“Township”- The Township of Lower Makefield.

SECTION THREE: CREATION OF AN ENVIRONMENTAL ADVISORY COUNCIL

- (1) The Board of Supervisors shall appoint a five (5) member Environmental Advisory Council (EAC) to explore all options for the acquisition and /or preservation of open space and make recommendations to the Board on feasible alternatives for acquisition or preservation.
- (2) The Board of Supervisors will utilize its best efforts to appoint to the EAC, as members, one (1) member of the Board of Supervisors, one (1) member of the Planning Commission, and one (1) member of the Park and Recreation Board. The terms of office for any member of the EAC, who also serves as a member of another board or commission of the Township, shall be for one (1) calendar year commencing with their appointment by the Board of Supervisors. Any person appointed to the EAC who is not a member of a Board or Commission affiliated with the Township shall be appointed for a three (3) year term which said terms shall be staggered for all members at large appointed to the EAC so that the first person shall be appointed for an initial three (3) year term, the next for an initial two (2) year term and the last for an initial one (1) year term. Prior to the expiration of the term of appointment, the Board of Supervisors, the Planning Commission, and Park and Recreation Board shall provide the Board of Supervisors, in writing, with a recommendation for one of their members to be appointed to the EAC but the Board of Supervisors shall make the final determination as to the membership of the EAC. In addition, the Board of Supervisors may also appoint a representative of a recognized conservancy or land trust to act as a consultant to the committee, including but not limited to, the agencies noted in Appendix “A” to this Resolution.
- (3) The EAC shall endeavor to meet monthly as the need arises.

SECTION FOUR: ESTABLISHING AN OPEN SPACE FUND

The Township may establish a fund as permitted by law for the purpose of acquiring or preserving open space and the important natural resources located therein.

SECTION FIVE: IDENTIFICATION

- (1) The EAC shall identify and map all areas of open space and important natural resources in the Township.
- (2) The EAC shall attach priority to each area of open space. A priority of one (1) shall indicate the lowest level of desirability for preservation. A priority of ten (10) shall indicate the highest level of desirability for preservation. When setting priorities, the EAC shall consider the following factors:
 - a. presence of protected natural resources and other natural features of the open space including but not limited to the presence of wetlands, the location of open space within a watershed area or flood plain, and the presence of species of flora and fauna of special concern;
 - b. suitability for use for agricultural purposes;
 - c. suitability for use for recreational purposes;
 - d. suitability for other uses consistent with the character of the land as open space;
 - e. aesthetic value to the community;
 - f. negative features such as the known presence of environmental hazards or contaminants, nuisances or other dangers;
 - g. the danger or likelihood of imminent development;
 - h. presence of historical structures;
 - i. presence of archaeological sites or other features of importance to the preservation of the heritage of Lower Makefield;
 - j. linkage of adjoining areas of protected open space that may be protected in the future; and
 - k. importance to the free movement of wildlife through the area.
- (3) The EAC shall present its findings to the Board of Supervisors. The EAC, with approval of the Board of Supervisors, may alter the priorities as circumstances warrant.

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- (4) The identification, mapping and prioritizing should be completed within eight (8) to twelve (12) months of the formation of the EAC. The identification, mapping and prioritizing shall be the first phase of a comprehensive Environmental Resource Inventory of the Township that shall be revised and expanded as necessary to reflect changing conditions in the Township.
 - (5) The Board of Supervisors hereby authorizes expenditure of funds not to exceed \$1,000.00 to match available grants for supplies and professional assistance in the identification, mapping and prioritizing process.

SECTION SIX: NOTICE

- (1) The Board of Supervisors shall send a letter via first class mail to all owners of open space designated as a priority of five (5) or higher by the EAC advising them of the Township's interest in acquiring and/or preserving open space. The letter shall request the landowner's voluntary cooperation in notifying the Township should they consider the sale or transfer of all or any portion of their open space.
- (2) From time to time, but no more than twice in any calendar year, the Board of Supervisors may send a follow-up letter to all owners of open space designated as a priority of five (5) or higher by the EAC advising them of the Township's continued interest in acquiring and/or preserving open space and requesting their continued voluntary cooperation.
- (3) The Board of Supervisors may also send a letter to local realtors and real estate agencies advising them of the Township's interest in acquiring and/or preserving open space, and requesting their voluntary cooperation in notifying the Township of opportunities for acquisition and/or preservation of open space once they arise.
- (4) The Board of Supervisors or the EAC may also initiate personal contact with landowners when deemed appropriate.

SECTION SEVEN: ADOPTING AN OPEN SPACE PRESERVATION PLAN

- (1) Upon notification of the availability of open space for acquisition or preservation, the EAC shall appoint one or more of its members to meet with the landowner or his/her agent. The EAC may request the participation of representatives of a land trust or conservancy in the discussions with the landowner or his/her agent.
- (2) Within sixty (60) days after appointment, the EAC representative(s) shall meet with the landowner or his/her agent, and shall report back to the EAC regarding possible methods of acquiring or preserving the parcel. The EAC shall then make a recommendation to the Board at its next regularly scheduled public meeting.
- (3) The EAC and Board of Supervisors may consider all methods for acquiring or preserving the open space that are permitted.
- (4) If the Board of supervisors deems that acquisition or preservation of the parcel is feasible, it shall authorize the EAC to draft a preliminary open space preservation plan. The plan shall specify:
 - a. identity of all parties to be involved in the transaction
 - b. the intentions of the parties with regard to the parcel
 - c. the size and location of the parcel
 - d. natural and historic features of the parcel
 - e. the intended use of the parcel
 - f. possible methods of acquisition or preservation
 - g. possible sources of funding
- (5) Not later than sixty (60) days after receiving authorization from the Board of Supervisors, the EAC shall present a preliminary open space preservation plan to the Board of Supervisors. The Board of Supervisors shall approve, conditionally approve, or reject the plan.
 - a. If the plan is approved as presented, or with changes or conditions, the Board of Supervisors shall direct the EAC to finalize the plans with the landowner or his/her agent, and incorporate the changes or conditions, if any.
 - b. If the plan is rejected, the Board of Supervisors may direct the EAC to meet with the landowner or his/her agent in an effort to develop an alternative preliminary open space preservation plan. If the landowner and the EAC develop a new preliminary open space plan, the procedures set forth in this paragraph shall be followed.
- (6) Upon approval of the preliminary open space preservation plan, the Board of Supervisors shall retain an environmental consultant to evaluate the open space for potential environmental hazards and contamination.

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- (7) Upon approval of the preliminary open space preservation plan, the Board of Supervisors shall also authorize a title search for the parcel.
- (8) Not later than sixty (60) days after approval or conditional approval of the preliminary open space preservation plan, the EAC shall present to the Board of Supervisors at a regularly scheduled public meeting a final open space preservation plan. The plan shall meet the requirements of paragraph four (4) (a)-(e) above, but shall identify the final source(s) of funding and the chosen method(s) of acquisition and/or preservation.
- At the meeting, the Board of Supervisors shall review the environmental consultant's evaluation of the parcel and the title search. After a hearing, the Board of Supervisors shall vote to approve or reject the final open space preservation plan.
- (9) Upon approval of the final open space preservation plan, the Board of Supervisors shall take the actions required by the plan within a reasonable time.

SECTION EIGHT: REFUND OF REALTY TRANSFER TAX

In lieu of acquiring or preserving open space through its own funds, the Township may facilitate the transfer of open space from the landowner to a third party desiring to keep the land in its natural state by refunding the Township percentage of the realty transfer tax. In return, the deed shall bear a restriction to run with the land prohibiting future development except for agricultural or recreational uses.

SECTION NINE: SERVERABILITY

If any section, paragraph, sub-section, clause or provision of this Resolution shall be declared invalid or unconstitutional by a court of competent jurisdiction, such decision shall not affect the validity of this Resolution as a whole or any part thereof other than that portion specifically declared invalid.

SECTION TEN: EFFECTIVE DATE

This Resolution shall become effective in accordance with the provisions of the Second Class Township Code of the Commonwealth of Pennsylvania.

RESOLVED, this 15th day of August, 1994

BOARD OF SUPERVISORS OF LOWER MAKEFIELD TOWNSHIP

IV. SAMPLE MULTI-MUNICIPAL EAC ORDINANCE

ARTICLE 153

Sections

- 153.01 Creation and membership.
- 153.02 Compensation and expenses.
- 153.03 Chair.
- 153.04 Advisory function and limitation.
- 153.05 Meetings.
- 153.06 Duties of the council.
- 153.07 Funds and accounting.

153.01 Creation and membership.

- (A) The City of Meadville hereby creates an Environmental Advisory Council, jointly with the municipalities of the Township of Vernon and the Township of West Mead.
- (B) The Environmental Advisory Council shall be composed of six members, two residents representing each of the three municipalities.
- (C) Council members shall be appointed in accordance with the following procedures:
 - (1) Each governing body shall appoint two members of the council, each of whom shall be a resident of the appointing municipality.
 - (2) Whenever possible, one member appointed by each participating municipality shall also be a member of the municipal planning board or commission of that municipality.
 - (3) Council members' terms of office shall expire on the first Monday in January following the last year of their term of office, provided, however, that members shall continue to serve until their successors are appointed by the appropriate municipality(ies) in the event successors are not appointed as of the first Monday in January following the last year of their term.
 - (4) Members of the Council shall serve terms of three years, except that the terms of the initial members shall be so staggered that the terms of one-third of the membership shall expire each year. Terms of the initial members shall be staggered after the appointment of the initial six members of the council through the drawing of lots among them or other method acceptable to the members at their organization meeting. Members shall continue to serve until their successors are duly appointed by the appropriate participating municipality(ies). (Ord. 3511 § 1, 1998)

153.02 Compensation and expenses.

Members shall receive no compensation for their services but may be reimbursed for the expenses actually and necessarily incurred by them in the performance of their duties when, as and to the extent that the Environmental Advisory Council may have funds available for such purposes. The participating municipalities may, from time to time, elect in their sole discretion to make appropriations to or on behalf of the Environmental Advisory Council. The Environmental Advisory Council may accept funding from public or private sources to further its activities. The adoption of the ordinance codified in this article does not in any way commit the adopting municipality to make any appropriation or payment to or for the benefit of the Environmental Advisory Council. (Ord. 3511 § 1m 1998)

153.03 Chair.

A chair of the Environmental Advisory Council shall be elected annually during the month of January by the members of the Council. (Ord. 3511 § 1, 1998)

153.04 Advisory function and limitation.

- (A) The Environmental Advisory Council is to be advisory to and shall coordinate its activities with the elected officials of the participating municipalities and with appropriate agencies of the participating municipalities, including, but

not limited to, their planning commissions and their park and recreation boards, on matters dealing with protection, conservation, management, promotion and use of natural resources, relating to French Creek and its tributaries.

- (B) The Environmental Advisory Council shall not exercise any powers or perform any duties which by law are conferred or imposed upon a Commonwealth agency. (Ord 3511 § 1, 1998)

153.05 Meetings.

Meetings of the Council shall be held at the call of the chair and at such other times as the Council shall determine. All meetings of the Council shall be open to the public, except for meetings which may be held in executive session under applicable law for the purpose of preparing and delivering advice to the governing bodies of the participating municipalities concerning the acquisition or disposition of real estate. The Council shall keep records of its meetings and activities and shall make a written annual report to the governing bodies of the three municipalities. To the extent that any of the municipalities publish or file annual reports of their activities, the annual report of the Environmental Advisory Council shall be included in that municipality's annual report. If any of the participating municipalities do not publish or file an annual report, such municipality(ies) shall make appropriate arrangements to have the annual report of the Environmental Advisory Council made known and available to its citizens. (Ord. 3511 § 1, 1998)

153.06 Duties of the council.

The Environmental Advisory Council shall have the following duties relating to French Creek and its tributaries:

- (A) To advise the appropriate governmental agencies concerning the benefits of, potential for, methods of accomplishing and other facts relevant to the creation of a "greenway" adjacent to French Creek and its tributaries in each of the participating municipalities; and
- (B) To identify environmental problems, issues, and trends affecting the participating municipalities; and
- (C) To recommend plans and programs to the appropriate agencies of the municipalities for the promotion and conservation of the natural resources and for the protection and improvement of the quality of the environment within the corporate boundaries of the three municipalities; and
- (D) To make recommendations as to the appropriate use of open land areas; and
- (E) To develop, recommend, and, when authorized, promote a community environmental program designed to enhance public awareness of environmental issues affecting the municipalities, the alternatives available to address such issues and the impact each alternative may have upon the environment and the development of the region; and
- (F) To work cooperatively with public, private, commercial, and industrial entities in the area to develop a better understanding of the potential environmental impacts of public and private sector actions and to coordinate activities to minimize any negative impact arising therefrom; and
- (G) To keep an index of all open areas, publicly or privately owned, including but not limited to flood-prone areas, wetlands, and other unique natural areas; and
- (H) To advise the appropriate local government agencies in the acquisition of property, both real and personal, whether by gift, purchase, grant, bequest, easement, devise or lease; and
- (I) To undertake such additional environmental tasks as requested by the joint action of the governing bodies of the three participating municipalities. (Ord. 3511 § 1, 1998)

153.07 Funds and accounting.

To the extent that the Environmental Advisory Council receives public or private funding, all such funds shall be held, administered, and paid on behalf of the Environmental Advisory Council by the finance officials of (municipality) under and in accord with the (hold for agency name which covers city/township combinations) generally accepted accounting practices applicable to municipalities (Ord. 3511 § 1, 1998)

V.

SAMPLE MULTI-MUNICIPAL EAC BYLAWS

THE FRENCH CREEK ENVIRONMENTAL ADVISORY COUNCIL BYLAWS

ARTICLE 1 NAME OF COUNCIL

The name of this organization shall be the French Creek Environmental Advisory Council.

ARTICLE 2 AUTHORIZATION

The authorization for the establishment of this Advisory Council is set forth in Act 148 of 1973, authorizing the creation of an Environmental Advisory Council, the Pennsylvania Municipalities Planning Code, Act 247 of 1968, as amended, and the Seventh Class County Code, _____, _____, P.L. _____; 19__ P.L. _____ as amended, P.S. Section _____ et seq.

ARTICLE 3 PURPOSE

The French Creek Environmental Advisory Council (FCEAC, EAC, Advisory Council, or Council) organized under these bylaws shall have power to identify environmental problems and recommend plans and programs to the appropriate agencies for the promotion and conservation of the natural resources and for the protection and the improvement of the quality of the environment within its territorial limits; and shall advise the appropriate governmental agencies, including but not limited to the county planning commission, local planning commissions and recreation and park boards, and to elected governing body or bodies within its territorial limits.

ARTICLE 4 MEMBERSHIP

Section 1 – The EAC shall be comprised of six appointed persons, two of whom shall be residents of the City of Meadville, two of whom shall be residents of the Township of West Mead, and two of whom shall be residents of the Township of Vernon. Additional members who are not appointed as identified by this section shall be considered “associate members”. Individuals who periodically advise the EAC and/or periodically attend meetings for the purpose of advisement are not considered EAC members.

Section 2 – All members, appointed and associate (see Article 4, Section 1, above) are expected to attend scheduled, routine meetings. The EAC Chairperson on his/her own may, or a majority of the members present at any scheduled EAC meeting may vote to “notify” (as defined below) any EAC member who is absent from any four consecutive regular monthly Environmental Advisory Council meetings or who is absent from six regular monthly meetings during any twelve month period without reasonable cause.

The notification shall: (1) be written; (2) include a summary of the member’s attendance record; and (3) request the member to reply in writing within twenty calendar days or appear in person at the next regular monthly EAC meeting, whichever occurs later.

If a member notified as above fails to respond, or if the member’s reply in the judgment of the EAC members present at a regular meeting indicates nonfeasance in office, the municipalities of the City of Meadville, Township of West Mead, and the Township of Vernon, as the appointing authority, shall be notified giving the relevant facts in the matter with a recommendation from the EAC to remove such EAC member from office for nonfeasance according to Section 208 of the Municipalities Planning Code.

ARTICLE 5 OFFICERS

Section 1 – The officers of the EAC shall consist of a Chairperson, Vice-Chairperson, and Secretary. The office of Chairperson and Vice-Chairperson must be resident members of the EAC as identified in Article 4, Section 1.

Section 2 – The Chairperson shall preside at all meetings and hearings of the EAC, and shall have the duties normally conferred by parliamentary usage of this officer. He/she shall be an ex-officio member of all committees.

Section 3 – The Vice-Chairperson shall act as Chairperson in the Chairperson’s absence.

Section 4 – The Secretary, with the assistance of such staff as is available, shall keep the minutes and records of the Council, shall prepare the agenda of regular and special meetings under the guidance of the Chairperson, provide notice of all meetings to EAC members, arrange proper and legal notice of hearings, attend to correspondence of the EAC and such other duties as are normally carried out by a Secretary.

ARTICLE 6 TERMS & ELECTION OF OFFICERS

Section 1 – An annual organization meeting shall be held in the month of January of each year at the time, on the date, and at the place designated by the EAC for a regular meeting. The initial terms of the six (6) resident members (see Article 4, Section 1) of the EAC shall be as follows: two (2) members shall serve until the reorganization meeting of the municipalities of the City of Meadville, Township of West Mead, and the Township of Vernon in 2000, two (2) until the reorganization meeting in 2001, and two (2) until the reorganization meeting in 2002. Their successors shall thereafter serve for a term of three (3) years. The position of any member of the EAC residing within the member’s appointed municipality at the time of appointment who thereafter moves his/her residence from that municipality shall be automatically considered vacant. An appointment to fill a vacancy shall be only for the unexpired portion of the term.

Section 2 – Nominations shall be made from the floor at the annual organizational meeting and election of the officers specified in Article 5, Section 1 shall follow immediately.

Section 3 – A candidate receiving a majority vote of the voting membership of the EAC shall be declared elected and shall serve one year or until his/her successor shall take office.

Section 4 – Vacancies in office shall be filled immediately by regular election procedure.

ARTICLE 7 MEETINGS, VOTING & QUORUMS (See Article 4, Section 2 on Meeting Attendance.)

Section 1 – Regular meetings will be held by the EAC on a periodic, recurring basis. The EAC shall establish the time(s) of day, date(s), and place(s) where the regular meetings will be held by official action. It shall be presumed that the EAC will hold all of its regular meetings at the time, on the date, and at the place designated unless a meeting is canceled by the Chairperson for cause and notice given to EAC members. In the event of a conflict with holidays or other events, a majority vote at any meeting may change the date and place of a regular meeting.

Section 2 –

a. A quorum shall consist of a simple majority of the total EAC resident (appointed) membership, including officers. An associate member (as defined by Article 4, Section 1) may only represent a portion of the quorum if he/she is an officer. Non-officer associate members may not comprise the quorum, nor do they have voting privileges.

b. A simple majority of the total EAC resident (appointed) membership, including officers who may be associate members, is required to transact business in which persons have an interest, there is wide-spread community interest in the three member municipalities, or the action is likely to affect the long-term future development of the member municipalities such as, but not limited to, the adoption of plans, official maps, regulations, review of subdivision plans and land developments, and action on zoning matters and planned commercial and industrial developments.

Section 3 – Special meetings may be called by the Chairperson. It shall be the duty of the Chairperson to call a special meeting within seven days when requested to do so by a majority of members of the EAC. The Secretary shall notify all members of the EAC in writing no less than three days in advance of such special meetings.

Section 4 – All meetings or portions of meetings at which official action is taken shall be open to the public. However, the EAC may meet in closed session for discussion purposes, pursuant to "The Sunshine Act of 1987."

Section 5 – Unless otherwise specified, Robert’s Rules of Order shall govern the proceedings at meetings of this Council.

Section 6 – All meetings not called to order for any reason within fifteen minutes of the time designated may be canceled.

Section 7 – The Chairperson may appoint committees for specific purposes as necessary.

ARTICLE 8 ORDER OF BUSINESS

Section 1 – The order of business at regular meetings shall be:

- a. Roll call
- b. Review of minutes of previous meeting and action thereon
- c. Report of officers and committees
- d. Old business
- e. New business
- f. Public Comment
- g. Adjournment

Section 2 – A motion from the floor must be made and passed in order to dispense with any item on the agenda.

ARTICLE 9 HEARINGS

Section 1 – In addition to those required by law, the EAC may hold public hearings when it decides that such hearings will be in the public interest.

Section 2 – Except as required by law, notice of the time and place of such hearings, when on matters of widespread interest, shall be published in at least one newspaper of general circulation in the territorial jurisdiction of the hearing, not earlier than two weeks prior to the hearing. For matters of limited territorial interest, notice shall be given in such manner as is deemed appropriate by the EAC.

Section 3 – The matter before the EAC shall be presented in summary, by some person designated by the Chairperson, and parties in interest shall have privilege of the floor.

Section 4 – No record or statement shall be recorded or sworn to by the EAC as evidence for any Court of Law without notice to the parties mentioned in the record or statement.

Section 5 – A record shall be kept of those speaking before the EAC at such hearings.

ARTICLE 10 AMENDMENTS

These bylaws may be amended by a majority vote of the voting membership of the EAC. Each member of the EAC shall receive written notice of any proposed amendments a minimum of seven days prior to taking action.

ARTICLE 11 REPEALER

Any bylaws that previously may have been adopted and approved by the EAC are hereby repealed.

VI. DEP, DCNR AND DCED OFFICES

Pennsylvania Department of Environmental Protection Website Address and Regional Offices

Website: www.dep.state.pa.us

Office of the Secretary

16th Floor, Rachel Carson State Office Building
P.O. Box 2063
Harrisburg, PA 17105-2063
(717) 783-2300

DEP Region I – Southeastern Pennsylvania

2 East Main Street
Norristown, PA 19401
(484) 250-5940

DEP Region II – Northeastern Pennsylvania

Two Public Square
Wilkes-Barre, PA 18711-0790
(570) 826-2511

DEP Region III – Southcentral Pennsylvania

909 Elmerton Avenue
Harrisburg, PA 17110
(717) 705-4700

DEP Region IV – Northcentral Pennsylvania

203 West 3rd Street
Williamsport, PA 17701
(570) 327-3636

DEP Region V – Southwestern Pennsylvania

400 Waterfront Drive
Pittsburgh, PA 15222-4745
(412) 442-4000

DEP Region VI – Northwestern Pennsylvania

230 Chestnut Street
Meadeville, PA 16335-3481
(814) 332-6945

Department of Conservation and Natural Resources Website Address and Regional Offices

Website: www.dcnr.state.pa.us

Office of the Secretary

7th Floor, Rachel Carson State Office Building
P.O. Box 8767
Harrisburg, PA 17105-8767
(717) 772-9084

DCNR Region I – Southeastern Pennsylvania

1400 West Spring Garden Street
Suite 207, State Office Building
Philadelphia, PA 19130
(215) 560-1182

DCNR Region II – Northeastern Pennsylvania

201 Samters Building
101 Penn Avenue
Scranton, PA 18503-2025
(570) 963-4157

DCNR Region III – Southcentral Pennsylvania

550 Forum Building
Harrisburg, PA 17105

P.O. Box 1554
Harrisburg, PA 17105
(717) 772-4362

DCNR Region IV – Northcentral Pennsylvania

550 Forum Building
Harrisburg, PA 17105

P.O. Box 1554
Harrisburg, PA 17105
(717) 772-4362

DCNR Region V – Southwestern Pennsylvania

1405 State Office Building
300 Liberty Avenue
Pittsburgh, PA 15222
(412) 880-0486

DCNR Region VI – Northwestern Pennsylvania

1301 French Street
1200 Lovell Place
Erie, PA 16503-2646
(814) 871-4190

Department of Community and Economic Development
Website Address and Regional Offices

Website: www.NewPA.com

DCED - Southeast Regional Office

Bellevue
200 South Broad Street, 11th Floor
Philadelphia, PA 19102
(215) 560-2374, (610) 530-8223

DCED - Northeast Regional Office

4184 Dorney Park Road, Suite 101
Allentown, PA 18104
(610) 530-5718

DCED - Northcentral Regional Office

Governor's North Central Regional Office
200 Innovation Boulevard, Suite 117F
Technology Center
University Park, PA 16802
(814) 689-8102

DCED - Southwest Regional Office

1403A State Office Building
300 Liberty Avenue
Pittsburgh, PA 15222

DCED - Northwest Regional Office

100 State Street, Suite 202
Erie, PA 16507

1200 Lovell Place
Erie, PA 16503

DCED - Southcentral Regional Office

Mitch Hoffman
4th Floor, Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120-0225
(888) 223-6837

VII. GROWTH MANAGEMENT HANDBOOK

Guiding Growth: Building Better Communities and Protecting Our Countryside

A Planning and Growth Management Handbook for Pennsylvania Municipalities

Although Pennsylvania's population growth is modest overall, the current sprawl and scatter pattern of development is destroying farmland, open space and the economic viability of existing cities and towns, while providing housing for relatively few people at great cost. **How can we do it better?**

The 300-page handbook brings together a vast array of information on the environmental, design, legal and practical aspects of planning and growth management for local municipalities. It is a guide to good community development under **existing laws and with the use of existing tools**. It includes a 114-page catalog of techniques and programs, and information on where and how they have been used.

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Chapter 4: The Legal Framework for Local Municipal Planning and Growth Management in PA

Chapter 5: How Every Municipality Can Do Better Planning

Chapter 6: How Every Community Can Implement Its Plan More Effectively

Chapter 7: Special Implementation Topics - Agricultural Protection, Village Protection, Affordable Housing, Stream/Valley Protection, Groundwater Protection

Chapter 8: Enforcing Planning and Growth Management Regulations

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Appendix A: A Catalog of Techniques and Programs

Appendix B: Where to Get More Help

For more information or to order [Guiding Growth](#)
please contact:

Pennsylvania Environmental Council
123 Chestnut Street, Suite 401
Philadelphia, PA 19106
Toll-free number 1-800-322-9214

Cost: \$25.00 for non-profits, individuals and government
agencies; \$31.00 for for-profit businesses and organizations.



Pennsylvania Environmental Council

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1-800-322-9214

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