ANJEC
Local Environment Matters

# Environmental Commissioners' Handbook

SIXTH EDITION

# Acknowledgements

The sixth edition of the Environmental Commissioners' Handbook incorporates knowledge and experience gained from the accomplishments of environmental commissioners throughout New Jersey over the past 49 years. This edition follows releases in 1972 by the New Jersey Department of Environmental Protection, in 1979 by the ANJEC, in 1990 as a collaboration of the two organizations, in 1997 and 2007 by ANJEC.

Much has changed in the environmental arena since the last edition, and the knowledge and experience of many people went into updating this Handbook. Credit goes to Candace Ashmun, Sandy Batty, Jody Carrara, Stephen Carroll, Jennifer M. Coffey, N.Dini Checko, Michele Gaynor, Sheila Baker Gujral, Julie Lange Groth, Kerry Miller, Dave Peifer, Cheryl Reardon, Elizabeth Ritter and LouAnn Rosenthal who reviewed and authored certain sections.

## About ANJEC

The Association of New Jersey Environmental Commissions is a statewide nonprofit organization that assists environmental commissions, open space committees, local officials and concerned citizens working to protect the environment in their communities and statewide. Member commissions influence decisions in land use, conservation of natural resources and pollution prevention.

As part of our mission to support and educate, ANJEC publishes the quarterly *ANJEC Report* as well as in-depth manuals and handbooks, resource papers, as well as booklets and pamphlets on various environmental issues. We also publish a bi-monthly e-newsletter, *The ANJEC News*, and send timely email alerts and social media messages to a large audience of environmental supporters.

ANJEC offers a variety of training courses and workshops, including our statewide Environmental Congress is attended by hundreds of municipal, county and state officials and environmentali commissioners each fall. The ANJEC Resource Center contains hundreds of publications, reports, sample ordinances on a variety of environmental topics and a staff ready to assist.

ANJEC can be reached at:
P.O. Box 157
Mendham, NJ 07945
(973) 539-7547
Fax (973) 539-7713
*www.anjec.org*
*info@anjec.org*

# Preface

The Environmental Commissioners' Handbook is a guide for local action. It aims to help commission members, the local officials charged with protection of natural resources and environmental quality in their communities. The challenges faced in seeking to protect the environment in towns are enormous. For instance, the potential ecological, economic, and public health impacts of climate change to New Jersey may be devastating. Local environmental commissions, are the life blood of environmental protection at the local level and ultimately the state level and deserve the best information.

Municipalities often make land use decisions without adequate awareness of environmental impacts, particularly on flooding and runoff, open space protection, water and air quality, plant and animal habitat, and waste disposal. Environmental commissions can improve this decision-making by integrating environmental and conservation policies and strategies into local plans and projects.

Commissions can help other local boards understand the environmental consequences of their decisions as well as the state laws and regulations governing their actions.

When it prepares or updates an Environmental Resource Inventory (ERI), a commission gains a thorough knowledge of its community's resources and character. The ERI also helps the commission determine where to concentrate its efforts - on growth management, for example, or on toxics. With the ERI as a reference tool, the commission can comment effectively on site plans and subdivision proposals that the planning board and zoning board of adjustment are reviewing.

Environmental commissions are also primary sources of information on state environmental laws and programs, acting as a liaison between the New Jersey. Department of Environmental Protection and local boards and councils. Commissions play an important role in bringing together local and state concerns.

This book deals with local programs and ordinances. A companion volume, the Environmental Manual for Municipal Officials, describes the opportunities and obligations of municipal boards and commissions to protect the environment. The Manual explains state and local environmental laws and responsibilities to municipal officials engaged in activities affecting the environmental quality of their community.

## Climate Change

Climate change is one of the biggest challenges of our time and there is a scientific consensus that humans have impacted it. Observations and models tell a very compelling story of what's been happening globally and here in New Jersey that can be measured over decades of time. Climate change impacts present a range of threats to New Jersey.

Dr. David A. Robinson Professor, Department of Geography & New Jersey State Climatologist, Rutgers University identifies several key challenges such as rising temperatures, steady or increasing precipitation, increasing weather extremes and rising sea levels. Environmental commissions are a hedge against the local impacts of climate change by helping the community to mitigate and adapt. Commissions provide knowledge and leadership by taking the following actions:

- Educating the community on climate change impacts through programs such as water conservation and citizen science.
- Incorporating climate change projections into municipal master plans.
- Revising land use ordinances to respond to climate change.
- Encouraging more green space and in creased quantities of street trees.
- Preserving and restoring wetlands, marshes, connected open space and agricultural land.
- Advocating the reuse of remediated brown field sites.
- Discouraging development in flood-prone areas.

For more information:

Dr. Robinson's 2016 keynote ANJEC Environmental Congress presentation; *www.anjec.org/pdfs/Congress16-Presentation-Keynote.pdf*

Office of New Jersey State Climatologist; *www.njclimate.org*

New Jersey Climate Adaptation Alliance; *www.njadapt.org*

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Chapter 1

# What is an Environmental Commission?

## ENABLING LEGISLATION

The history of local and county New Jersey environmental commissions begins in 1968. That year, the State Legislature passed a law that authorized but did not require municipalities to set up conservation commissions. The law made the commissions advisory bodies on local and statewide natural resource planning, environmental protection and open space issues.

In 1972 the State Legislature amended the law to expand the commissions' responsibilities to other areas of environmental concern, such as pollution prevention and control, solid waste management, noise control and environmental appearance and to allow the establishment of joint commissions by two or more municipalities. To reflect these increased responsibilities, the law changed the name to Environmental Commissions. (See Appendix A on page 67 for the complete text of the enabling legislation and its amendments.) Today environmental commissions are involved in a broad range of activities.

They:

- advise their governing bodies and boards of health on a variety of environmental issues;
- inform and advise municipal planning boards and zoning boards of adjustment about environmental impacts of proposals for development;
- advocate for open space planning and preservation at the local level;
- investigate environmental and natural resource issues for the governing body and recommend solutions,
- complete actions required for Sustainable Jersey certification,
- inform residents on environmental matters and ways to help protect the environment;
- interact with neighboring commissions and other organizations to tackle regional and state problems;
- develop and maintain an inventory of the environmental resources and environmentally sensitive areas of the municipality;
- help explain to other local officials and residents the programs and regulations of the New Jersey Department of Environmental Protection (NJDEP) and communicate local concerns to the NJDEP.

## LEGAL STATUS

Under the 1968 enabling legislation, a municipality may pass an ordinance to establish an environmental commission. The ordinance gives the commission legal status as an official arm of local government. Once formed, the commission cannot be dissolved without passing a new ordinance, which requires a public hearing, a requirement that gives the commission added stability.

As a formal municipal entity, an environmental commission can receive and spend budget funds, and can seek and utilize grants and donations, with the approval of the governing body. All commission funds are administered through the municipal coffers. A commission cannot maintain a bank account or hold separate monies or property.

The commission can represent the municipality on environmental and conservation matters. (See Appendix A on page 67 for an example of a municipal ordinance establishing an environmental commission.)

### *Commission Under Attack*

*The Manchester Township Council announced its intention to disband the Environmental Commission and proposed an ordinance to abolish it officially. Commission members alerted the public to the Council's intention through letters to the editors of local newspapers. They also contacted ANJEC, who gave advice and also wrote to the newspapers.*

*The Council maintained that its intention to dissolve the Commission stemmed from a lack of volunteers to serve as members. Citing cost savings and the addition of two "environmen-tally sensitive" members to the Planning Board, the Council planned to assume the Commission's responsibilities.*

*Commissioners pointed to the greater expense of hiring consultants rather than using volunteers. Over the years, the Commission had worked to minimize the effects of the Ocean County Landfill, sponsored Earth Day activities, distributed brochures on the proper handling of household hazardous wastes and recommended techniques for surface water protection. Reflecting these achievements, the community overwhelmingly supported the Commission at the public meeting on the ordinance to abolish. As a result, the Council unanimously defeated the motion and preserved the Commission.*

## MEMBERSHIP

The enabling legislation(40:56A-1) spells out the commission's membership. The mayor or other governing chief executive can appoint not less than five and not more than seven members to the commission. Members are unsalaried and must be residents of the municipality. The mayor also appoints the chairperson from the membership of the commission.

Both the enabling legislation and the Municipal Land Use Law (MLUL) acknowledge the important connection between the environmental commission and the planning board. The enabling legislation is explicit: One member of the environmental commission "shall be a member of the municipal planning board."

Some municipalities have taken advantage of recent amendments to the enabling legislation allowing the mayor to appoint two alternate members who can vote when regular members are absent. In an interesting twist, the legislation prohibits an alternate from acting on any matter in which he or she has a direct or indirect personal or financial interest, and while that same limitation is not explicitly stated for regular members, it applies under the New Jersey ethics rules.

Several municipalities have gone beyond the provisions of the enabling legislation to establish other membership categories. Some commissions have associate members, who have expertise in a special area but may not be residents. Others have student members, often high school students with a special interest in the environment, who work on special projects. Usually, neither associate nor student members have voting powers. These classes of membership can be formalized by passage of a local ordinance that spells out the members' powers and requirements.

## LENGTH OF TERM

The enabling legislation clearly states that regular and alternate commission members are appointed for designated terms or until a successor is named (whichever is longer). Each regular commission member serves for three years and each alternate for two years, on staggered terms so that the terms of a portion of the members expire annually. If a commissioner is unable to complete his or her term, an alternate member may be appointed as a replacement for the remainder of the term.

The appointing authority may not remove or discipline members for taking positions on critical issues that may differ from those of other local officials. The mayor, acting mayor or governing body may remove a commission member only "for cause, on written charges served upon the member and after a hearing, where the person charged with bad behavior [not defined in the enabling legislation] shall be entitled to be heard in person or by counsel."

While the statute clearly protects the independence of commissioners, it does not prevent a mayor or governing body from failing to appoint the full membership of the environmental commission, or refusing to appropriate any funds for its activities.

## LEGAL LIABILITY

As an appointed municipal official, an environmental commissioner receives the same protection from vexatious lawsuits as any other municipal official or employee. Such protection comes in two forms. First, under the procedures of the State Tort Claims Act, the town's comprehensive general liability insurance package covers alleged wrongful acts of the municipality and its "agents." Second, public officials' actions in the course of their official duties typically come within a municipality's liability insurance coverage. This includes both the "duty to defend" and the "duty to indemnify" (i.e., pay the damage award if any). Only in the event of an "intentional tort" may a commissioner – no less than the mayor or planning board member – face a lawsuit that falls outside these coverages. Such intentional torts include physical assaults on persons or other acts manifestly beyond the scope of the person's employment duties or appointment functions.

A frequent question concerns the "exposure" of a commissioner who speaks out – or joins in written comments or testimony – on a controversial issue, such as a development application. Certain developers have threatened suits against local commissioners; a few have even brought suit, claiming "slander and libel." While nothing stops the filing of a lawsuit – except high cost, near certainty of losing and the risk of a counter-suit for abuse of process or malicious prosecution – environmental commissioners have little to fear from these threats. The New Jersey courts have been especially diligent in protecting the rights of all persons, whether or not acting in their official capacities, to speak, to petition government and generally to exercise their First Amendment rights in a vigorous and open manner.

## MANDATED RESPONSIBILITIES

The enabling legislation requires an environmental commission to keep records, to submit an annual report to the governing body and to keep an index of all open space, both publicly and privately owned.

## POWERS

The enabling legislation also allows commissions to pursue a broad range of activities for natural resource planning, including the following:

- research the use of open land and make recommendations,
- develop and maintain an environmental resource inventory (ERI) for the municipality,
- "study and make recommendations concerning open space preservation, water resources management, air pollution control, solid waste management, noise control, soil and landscape protection, environmental appearance, marine resources and protection of the flora and fauna." (NJSA 40:56a-6)


**Courtesy of Barbara Pretz**

In some municipalities, some of these functions are assigned to other bodies, such as the open space committee, tree protection committee, etc. The enabling legislation leaves the commission's responsibilities general and thus open-ended. As a result, the interest and initiative of a commission's members usually determine its accomplishments.

Other state laws have expanded the commission's responsibilities since the passage of the enabling legislation. Some laws, like the Freshwater Wetlands Protection Act and the Flood Hazard Area Control Act, specifically require that environmental commissions be notified of permit applications.

## FUNDING

Funding for the environmental commission, as with other appointed bodies in the municipality, comes through an appropriation in the municipal budget. The municipal budget is an itemized summary of probable expenditures and a proposed system for financing them. Adopted each year by the governing body, the budget provides the authority to spend and tax during that year.

The New Jersey Local Budget Law directs the budget approval process. In municipalities whose fiscal year is the calendar year, the governing body must introduce the budget no later than February 10 and publish it at least ten days before a public hearing. If the budget is significantly amended after the public hearing, another public hearing must be held. The budget must be adopted by March 20. In the municipalities whose fiscal year starts on July 1, the budget must be introduced by August 10 and adopted by September 20. The Division of Local Government Services, Department of Community Affairs (DCA) monitors the municipal budget process.

***Pilesgrove constructing new rain garden***

Photo courtesy of Cheryl Reardon

***Rain garden planting at Garrison Park in Woodstown Borough***

Photo courtesy of Cheryl Reardon

No money can be spent that does not appear as a line item in the municipal budget unless DCA has approved an emergency appropriation. The municipal government may transfer funds between appropriation units only during the last two months of the fiscal year. There is a two-month period at the end of the fiscal year when the governing body may pass a resolution to transfer appropriations from one department to another to cover expenditures above the amount budgeted for that year.

A commission should track its spending carefully to avoid losing any unspent balance in its budget in November or December. Also, budget funds are not carried over into the following year. "Use it or lose it" is the general rule.

# THE COMMISSION'S FISCAL BUDGET

As the end of the fiscal year approaches, the environmental commission should prepare a budget request for the next year and discuss it with the appropriate elected officials or municipal staff before submitting it. If approved, this budget will provide the funds for the following fiscal year. The chairman or a commission member should attend the governing body's budget meeting and be prepared to explain and defend its proposed expenditures.

Environmental commissions operate on budgets ranging from zero to thousands of dollars. The typical commission has an operating budget of at least $500, with additional amounts allotted for special projects. Some municipalities begin the budget planning process early. An environmental commission is wise to confer with the clerk or administrator well in advance of the end of the year, to find out how and when it needs to submit its request for the next year

## Possible Budget Items

### Typical operating expenses:

- courses and conferences
- professional affiliations and dues such as ANJEC membership
- office supplies, printing and postage
- administrative salaries (no member of the environmental commission can receive payment for the services he or she provides to it, including consulting or secretarial services)
- educational programs
- website maintenance, commission newsletter, or other forms of communications

### Special projects:

- environmental consultant
- preparation of an environmental resource inventory
- software or hardware for GIS mapping
- park or open space acquisition or improvement
- community outreach programs
- lake or stream restoration
- water quality monitoring
- pest control

## Other sources of revenue

In some municipalities, the environmental commission receive revenues from sources other than the municipal budget. These might include the returns from a fundraiser or proceeds from a recycling program. These revenues, which go into the general municipal fund, may be dedicated to conservation purposes by attaching a rider to the budget or through appropriation in the next fiscal year. The governing body also may amend the current year's budget if funds become available from an unexpected source.

In addition, the enabling legislation permits the commission, subject to governing body approval, to receive grants from public and private sources. From time to time, government and private grants become available for projects such as open space acquisition and management, trails planning, land use planning, lakes management, and historic preservation. For example, ANJEC awards annual open space stewardship grants that commissions use to enhance or raise awareness of local open space.

ANJEC tries to keep commissions informed of the availability of government and other grants. The competition for grants is often stiff and the time for application short.

**For further information:**

- Appendix A: Enabling Legislation, page 67
- ANJEC Resource Center, (973) 539-7547 e-mail *info@ANJEC.org* (All addresses in Appendix B, page 72)

Chapter 2

# How an Effective Commission Operates

Although the enabling legislation does not spell out specific environmental commission responsibilities, the commission should have well defined operations. To be effective, a commission must follow certain procedures. Setting a regular schedule for meetings – generally once a month – is a first step.

The commission is subject to all New Jersey ethics rules as well as the Open Public Meetings Law, known as the "Sunshine Law," which requires that public bodies provide advance notice of meetings, allow the public to attend meetings and provide minutes. All meetings, gatherings or onsite inspections where a quorum of commission members is present must conform to Sunshine Law requirements. This rule also applies to conference calls and group emails involving a quorum.

The commission is responsible for two kinds of adequate notice. The first is an annual notice, giving the schedule of meetings for the coming year, usually set at the first meeting of the year. This notice must include time, date and location of each meeting. Often a municipality will include the notice of environmental commission meetings with its notice of the schedule of municipal meetings. Annual notice must be provided by January 10th.

The second kind of notice, 48-hour notice, applies to any meetings not regularly scheduled. This notice is due at least 48 hours before the meeting begins, and must include the time, date, location, and to the extent known, the agenda of the meeting.

The law sets out specific requirements for publicizing both kinds of notice. The notice must be:

- prominently displayed in at least one public place,
- sent to at least two newspapers in time to publish it at least 48 hours before the meeting, and
- filed with the municipal or county clerk.

### *Sunshine Law Case*

*A 1981 decision by Judge Gascoyne of the Superior Court of New Jersey, Law Division, Morris County, serves as a reminder to environmental commissions throughout New Jersey. In the decision on Timber Properties versus Harding Township Environmental Commission, Judge Gascoyne ruled that the Commission had violated the Open Public Meetings Law (Sunshine Law).*

*The Environmental Commission was appealing to the Township Committee the decision of the Zoning Board of Adjustment to grant a variance to Timber Properties, Inc., which had proposed a development in Morris and Harding Townships. The Commission objected to the creation of a six-acre lake and recreation facilities in an area of environmental sensitivity consisting of wetlands, swamp, floodplains and watershed for the Great Swamp National Wildlife Refuge. The area was originally zoned residential.*

*In an action to set aside the Environmental Commission's appeal, Timber Properties held that the commission had violated the Sunshine Law by deciding to appeal at an unadvertised meeting.*

*Judge Gascoyne ruled that the Environmental Commission had indeed violated the Sunshine Law. The judge stated that the commission, by not deciding to appeal at a publicly advertised meeting initially, could not take remedial action to correct the mistake. As a result, the decision to appeal the variance was declared invalid.*

A 48-hour notice must be mailed to any person who has requested it. The commission can charge a reasonable fee for this service.

The commission should keep minutes of each meeting to help substantiate any decisions it makes, should the governing body, planning board, developer or other affected party have questions. Also, minutes make preparing an annual report easier. The minutes should include the time and place of the meeting, the members present, the subjects considered and the actions taken. Some commissions hire a secretary; others appoint one of their members. Different members may take turns, but having the same person be secretary for a few months lends continuity.

Giving meetings structure makes them run more smoothly. The chairman should draw up an agenda and send it out at least a week before each meeting. This way, each member will know the topics to be covered and what is expected of him or her. The agenda should be adhered to, with an eye on the clock, so no one feels time has been wasted. All members should cooperate in keeping the meeting moving. Because many topics are interesting and worthy of a whole meeting, it is good to agree on major discussion subjects and a time to adjourn at the meeting's start. (A sample agenda appears in Appendix E, page 84.)

The timing of commission meetings is important. The commission should schedule meetings at least two weeks before planning board meetings so that it can prepare comments on applications this board is reviewing. It should send the comments to the board, its professionals and the applicant.

## COMMISSION STRUCTURE

Good organization helps make the commission effective. Each member should have an assignment that fits with his or her interests and abilities. Commission members should report at each meeting on the progress they have made with their assignments. The meeting then serves as a deadline for getting work done. As time passes, the members, having been assigned particular tasks, build up areas of expertise and can be relied upon for specific information. Sometimes commissions form subcommittees to handle particular responsibilities. For example the Pittsgrove Environmental Commission has specific committees that take the lead on ordinance review, public outreach, site plan review and open space.

If the members do not have time for a special project, they should seek assistance of outside volunteers. Using extra volunteers helps build a constituency for the commission and provides added expertise and can keep costs down.

***ANJEC Resource Center***

- *electronic database of sample environmental and planning ordinances;*
- *state and federal environmental laws, policy documents, and studies;*
- *collection of municipal environmental resource inventories as well as open space, greenway, and other plans;*
- *ANJEC's comprehensive web site (www.anjec.org);*
- *Information and referral; and*
- *research service on topics such as tree protection, pipeline development, stormwater management, sustainable communities and many more.*

## TOOLS

Thorough research of a topic is important. Whether developing an environmental resource inventory, solving a local problem or commenting on a developer's proposal, the commission must have the facts to support its position.

For many subjects, training is available. ANJEC offers a variety of training courses, workshops and road shows on topics of interest to environmental commissioners. ANJEC also publishes resource papers, in-depth manuals and handbooks to help commissioners. ANJEC is always ready to help answer questions that arise and maintains an extensive Resource Center where commission members can turn to for information and research.

Sources of information that a commission can use include documents such as development applications and environmental impact statements, the open space plans and environmental resource inventory. Other sources are government agencies, such as the NJDEP, the U.S. Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service, National Marine Fisheries Service, county soil conservation

districts and county planning boards. Private organizations such as watershed associations and other environmental groups also will have helpful information.

Many of these entities maintain extensive web sites that can be excellent sources of information for commissions. (See Appendix B, page 72 for a list of frequently used sources).

Remember local resources such as local and county libraries, nature societies, garden clubs, historical societies and longtime residents. Older newspaper reports and articles on file in libraries can provide needed history and data. Local experts, such as former commission members, also may be able to help. Universities, colleges and high schools are other sources of assistance.

Neighboring environmental commissions often face similar challenges. Check with your neighbors to see if they have an ordinance or policy to handle the problem you are facing.

**For more information:**
- Open Public Meetings Act, NJSA 10:4-6 *http://www.njslom.org/OPMA*
- ANJEC Resource Center; (973) 539-7547 *www.anjec.org*
- Chapter 9: Ordinances, page 62
- Appendix A: Enabling Legislation, page 67

# COMMUNICATING WITH THE PUBLIC

## Establish a dialogue

With facts in hand, it's important to let the residents know the condition of the local environment and what the environmental commission is doing. This builds a constituency to draw on for support on different issues.

Many commissions have surveyed their towns' residents to learn what the public believes are the most important local environmental concerns. A survey can be easy to do. ANJEC has samples to help commissions design survey questions. Commissions can post a survey on the municipal web site, distribute them in tax bills or enclose them in a town newsletter. Make sure that the questions cover all issues, and that they do not produce biased answers. Survey responses can help the commission set priorities. They also can be important in persuading the local government to adopt changes where there is popular support.

Try to get local feedback in other ways. Listen to community leaders. Encourage public comment. List your members' names, addresses, phone numbers and email addresses on the municipal web site and bulletin boards at town hall and the library, and in town newsletters, and encourage people to contact them.

Many environmental commissions have their own web sites that make it easy to inform the public about local environmental issues and invite feedback via email.

## How to communicate

Commissions communicate with their residents in various ways. Many publish a newsletter that can be distributed via email or printed and mailed with other town mailings to conserve on mailing costs. A cost-effective way to get information out is to host a website and to share information via social media. Commissions are getting active on Facebook, Twitter, and Instagram. Some commissions work with weekly newspapers to get a regular column printed. Others write letters to the editors of local papers or send media releases on specific issues. (Appendix E, page 84, has a sample media release.)

The required annual report provides an opportunity to let residents know what the commission has been doing. Consider making a presentation to the governing body. A press release announcing the annual report's publication and summarizing the commission's activities for the year also helps get the information to the community.

Here are some other ways commissions can raise awareness:
- encourage public participation at commission meetings by sending out press releases telling what will be discussed and inviting nonmembers to attend;
- when a topic of particular interest is on the agenda, use of multiple media can increase public attendance; for example, send announcements to local radio and TV stations, post signs and flyers in public places, send out an email blast to everyone on your database and spread the word at community events as well as meetings of school groups,

civic and business organizations.
- work with regional, county and local environmental organizations
- arrange for special programs with outside speakers;
- create a commission web site or newsletter;
- distribute environmental publications to local libraries and schools;
- involve the community in environmental projects, such as river cleanups, painting storm drains or recycling campaigns;
- organize environmental tours of the town to point out natural and historical resources, environmental threats and positive actions. Some commissions have conducted one-day, guided tours to raise funds for the commission; and
- organize fairs on an environmental theme such as energy conservation, toxics or recycling.
- collect email addresses of interested residents for future email alerts, email newsletters or other commission communications.

***Involving the Community***

*In 2015, the Oakland Environmental Commission collaborated with local elementary school children, a boy scout troop, and the department of public works to establish walking trails and plant native grasses/herbs through Stewart Woods/Ramapo Valley Park. Using State and County open space grants, the Borough purchased an environmentally sensitive 6.6 acre wetlands property. The environmental commission used funding from the Borough's Open Space Trust Fund to purchase benches, trail signs, and garbage receptacles.*

### What to say

Let the community know what the commission is doing, and its goals and plans. Build public confidence in the commission, but remember to let people know that the commission has limited powers. It is an advisory body that must rely on public support to achieve goals and affect policy.

Statewide surveys have shown that the public is concerned about environmental degradation. Tell your residents about the local environmental conditions and possible remedies that might be taken to prevent degradation. Maintain objectivity in presenting ideas, giving all sides of an issue. Have the public participate in developing alternatives through public meetings or a suggestion box at town hall.

The commission can serve an important role by explaining in simple terms the basic rationale and importance of complex environmental laws and regulations.

## RELATIONSHIP WITH MUNICIPAL GOVERNMENT

Besides maintaining a good relationship with the public, the commission must keep on good terms with its governing body. Under New Jersey law, municipalities may have one of several different types of government. The most frequently used are Mayor – Council, Council-Manager and Committee.

All municipalities can have environmental commissions, no matter what their form of government. However, the form of the government determines who is responsible for getting things done and how ordinances are passed. Therefore, it's important to know the type of government in order to know whom to contact concerning environmental commission recommendations. The municipal clerk is a good source of advice about a municipality's structure of government and how it operates.

In dealing with local government, remember to keep the tone positive and courteous. Don't just criticize; give facts and offer alternatives. Give praise when praise is justified. If the environmental commission has a reputation as the naysayer of the town, the rest of the government will stop listening to its comments.

Building a good working relationship with the other local agencies is a sensitive process. the environmental commission must support their statements with factual evidence. Commissions should present reports professionally, be well prepared and ready for questions. They will gain credibility and soon officials will be asking their opinion.

Try to establish friendly relationships with key members of other local agencies and their professional staff and advisors. Often informal discussion accomplishes more than formal public hearings do.

Sometimes commissions face biases not of their making. The governing body or planning board might ignore well documented advice. At these times the commission may do well to look for help, enlisting the support of an informed community. Seek assistance from other town agencies who may be as concerned as the commission about specific topics: for instance, the recreation committee on open space, the fire department on proposals for excessively tall buildings, or the health department on water quality. Look to local environmental groups, watershed associations or civic groups to strengthen your position.

# Structure of Municipal Government

Certain municipal positions and boards are common to all forms of municipal government. The governing body is responsible for passing municipal land use ordinances; however, the development of policies and their enforcement lie with local boards and their professionals who report to the governing body. The commission should build a good working relationship with these people and agencies to have its positions understood and supported.

## The municipal clerk

The clerk is a nonpartisan continuing administrator in the municipality who provides continuity and stability. Whatever the form of the municipal government, the clerk is charged with the following statutory duties:

- secretary to the governing body,
- secretary of the municipal corporation,
- an election official with quasi-judicial authority, and
- chief municipal administrative official.

These designated duties make the clerk a valuable resource on what's happening in the municipality. The clerk records the minutes of the governing body, prepares meeting agendas, records ordinances, records the municipal budget, and handles bids for municipal equipment and supplies. The clerk also handles communications, including requests for information and complaints.

As a keeper of town records and ordinances,

***Mayor Cahill (left), talks with gardeners at one of New Brunswick's commmuynity gardens***
**Photo courtesy of the New Brunswick Environmental Commission**

the clerk can help the environmental commission prepare an inventory of all environmental control measures and legal suits relating to environmental protection. Conversely, the commission should keep the clerk and all government officials aware of environmental problems before they reach a level that is costly to remedy or that creates a negative community impact.

## The planning board

The New Jersey Legislature has delegated to municipal government the power to regulate land use through the Municipal Land Use Law (MLUL). The seven or nine member planning board, ideally in partnership with the environmental commission, serves as the municipal land use planning agency. In some municipalities, a land use board serves in the role of both planning board and zoning board of adjustment.

The planning board formulates and adopts the municipal master plan, which must be re-examined every six years. The master plan guides the use of lands within the municipality. The planning board reviews the land use zoning ordinances, which the governing body adopts, to assure required consistency with the master plan.

When called on during State Plan cross-acceptance, the board also reviews the master plan for consistency with the State Development and Redevelopment Plan. It reviews and approves or disapproves applications for site development, subdivisions of property and variances controlled by the land use ordinances.

The MLUL enables the municipal governing body to grant the planning board authority, funding and specific powers:

- preparation and adoption of the municipality's master plan,
- subdivision control and site plan review,
- preparation of a map, reflecting the provisions of the master plan,
- preparation of the zoning ordinance and its conditional uses,
- adoption of a capital improvement program, and
- granting subdivision, site plan review, conditional use approvals, and certain variances.

A good indicator of how well a municipality is managing land use is by counting the number of variances granted in a given year. The zoning board of adjustment (see page 12) typically has the role of granting variances and must publish an annual report that lists these decisions. The planning board also sometimes grants variances but is not required to issue an annual report, so it is wise for commissions to keep track of them.

According to the MLUL, if an environmental commission has prepared and submitted to the planning board and zoning board of adjustment an index of natural resources in the municipality (an ERI), these boards "shall make available to the environmental commission an informational copy of every application for development." (NJSA 40:55D27b) However, the MLUL also says that failure to do this will not invalidate the decision on the application.

To have a voice in the planning process, the environmental commission must establish a good working relationship with the planning board and the planning board secretary. As an advisory body, the environmental commission can only make recommendations – it cannot pass legislation or make planning decisions. The commission's reputation and credibility affect the weight the planning board gives these recommendations.

The environmental commission should advise the planning board on subdivision and site plan proposals, the proposed master plan and subsequent implemented zoning ordinance, State Plan cross-acceptance reviews and any environmentally related ordinances. Under the MLUL and the environmental commission enabling legislation, one member of the commission is also a member of the planning board. This member acts as a liaison between the two and communicates the commission's concerns to the planning board. Because this member also has to function as a planning board member, additional commission members should attend planning board meetings when issues of concern are on the agenda.

Before a public hearing, the commission should send the planning board a memo containing findings of fact and recommendations on any application, ordinance, or master plan proposal that has environmental significance. A commission member should attend the planning board meeting and read the memo aloud so it will be recorded in the minutes.

## The planner

Municipalities often employ or contract with a full or part-time professional planner to advise the planning board or direct studies that require more time and expertise than the planning board may have. The planner may have open space information, population data, mapping and cultural and natural resource inventory data. He or she may develop maps, prepare studies and comments on ordinance changes, and comment on subdivision and site plans.

The environmental commission should request copies of all reports the planner prepares, which will provide good resource material. In turn, the commission should work with the planner when possible to amplify available local data. Maintaining and updating local environmental data are basic responsibilities of the environmental commission.

## The engineer

The municipal engineer plays a critical role in the planning, inspection and maintenance of public water and sewer facilities, roads and drainage in developed and developing areas of the municipality. Some communities employ full-time engineers; others hire consulting engineers on a fee basis. The engineer serves as a technical advisor and enforcement officer to the planning board and the governing body.

Responsibilities of an engineer include representing the municipality in public hearings and litigation; reviewing site plan and subdivision reports; working with the municipality to gain easements for drainage purposes; working with the police to set speed limits, speed surveys and traffic signs; and advising the governing body on location of drainage and sewage lines. The engineer monitors contractors' work and recommends the amount of performance bonds, which serve as construction guarantees from developers. Responsibilities of the office extend to seeking county, state and federal approval of plans relating to public utility and other capital improvements. The municipal engineer's office keeps maps and surveys of the municipality, including the tax maps, and holds all records and business contracts for work by contractors for the community.

Close cooperation between the engineer and the environmental commission will help identify and protect resources, expedite site plan review, and support environmental planning of new public utility systems. The relationship between the engineer and the environmental commission should be based upon an understanding of each other's backgrounds and responsibilities. The engineer's traditional methods and technical solutions may not always seem in accord with the environmentalist's broad view of natural systems. However, the environmental commission will often need the technical advice of the engineer, and the engineer should consult with the environmental commission on the impacts of development on the environment. Their combined involvement can create and foster an environmentally sound community.

## The zoning board of adjustment

The MLUL requires the governing body to establish zoning regulations. After it has adopted such ordinances, it creates a zoning board of adjustment as an appeals agency whose powers, duties and responsibilities are prescribed by state statute, the zoning ordinance and court decisions interpreting the statute. The zoning board of adjustment lends flexibility to the zoning process. The planning board plans for the physical layout of development in the municipality. The governing body implements the plan through appropriate legislative policies. And the board of adjustment grants variances from the plan when appropriate.

The powers of the zoning board of adjustment are generally referred to by the letters that designate them in the MLUL (summarized here):

a. Hear appeals of decisions made by an administrative officer in the enforcement of the zoning ordinance.
b. Interpret the zoning map or ordinance.
c. Consider applications for hardship variances:
    (1) Where by reason of exceptional narrowness, shallowness or shape of a specific piece of property or exceptional topography or physical features or an extraordinary situation, the strict application of the zoning ordinance would result in practical difficulties to, or undue hardship upon the developer, the zoning board of adjustment may grant a variance from strict application of the regulation; or

(2) where the purposes of the MLUL would be advanced by a deviation from the zoning ordinance requirements and the benefits of the deviation would outweigh any detriment, the board may grant a variance to allow departure from the zoning regulations, unless it qualifies for a use variance or must be heard by the planning board under site plan review or subdivision.

d. Consider applications for variances to allow departure from the zoning regulations to permit:
   - a use or principal structure in a district restricted against such use or structure,
   - an expansion of a nonconforming use,
   - an increase in permitted floor area ratio, or
   - an increase in permitted density.

No variance or other relief may be granted unless there is no substantial detriment to the public good and the variance will not substantially impair the intent and purpose of the zoning plan and ordinance.

To avoid having a developer go to two municipal boards, the planning board can grant hardship variances in the course of its review of a site plan or subdivision application. When an application for site plan or subdivision requires a use variance, the zoning board of adjustment must hear the entire subdivision or site plan application and make a decision.

**For more information:**
- N.J. Planning Officials (See Appendix B, page 72.)
- Municipal Land Use Law (MLUL), NJSA 40:55D1 et seq.

# Other municipal officials

Municipalities hire various individuals to assist their governing bodies and boards. The environmental commission should find out who these people are and what their responsibilities are. Often they can be helpful resources.

## The sustainability officer

Some municipalities have established the paid position of environmental or sustainability officer. Here is a sample set of priorities for a municipal sustainability officer:
- review all development applications;
- review, certify and enforce all soil erosion and sediment control plans, except cases that require participation by the Soil Conservation District;
- work in the field to shape development and solve problems in natural resources protection; and
- develop and implement an integrated pest management program.

The environmental officer can report to the town planner, the engineer, the health department, or even directly to the the mayor, as in the case of Newark. Because the environmental commissioners are volunteers, they have difficulty supervising the environmental officer on a day-to-day basis. However, the officer should report to the commission at each of its meetings.

## The construction subcode official

The construction official (sometimes called the building inspector) helps ensure the integrity of new construction and compliance with established codes through building permit approvals. Some municipalities employ full-


Courtesy of Barbara Pretz

time construction subcode officials; many have part-time officials who work for several municipalities.

No construction is authorized without a building permit signed by the construction subcode official, who must ensure compliance with all codes and conditions of approval set by municipal boards. This official is important in the enforcement of local environmental statutes. The Uniform Construction Code forbids this official to issue an occupancy permit for a structure that has not met the requirements of the code or has not been built in accordance with all site plan conditions set by the planning board or board of adjustment.

Before issuing a building permit, the construction subcode official makes a minimum of five inspections of the site: preliminary, footing, backfill, framing and final. Upon approval, following final inspection, the construction official issues a certificate of occupancy (C.O.). Usually, the health department also must inspect and approve a project for water supply and sewage disposal. Environmental ordinances that fall under the jurisdiction of the construction official include litter, fill relocation, tree removal and floodplains.

### The board of health

Municipal boards of health fall into two categories: autonomous and advisory. An autonomous board has the legal authority to make and enforce health policy. It may pass its own ordinances, adopt codes related to sanitation and community health, and supervise its community health department. Often the municipal governing body designates itself as the board of health and contracts with a county or regional health department for health services. An advisory board does what its name implies – it advises the health policymakers, who may be the governing body, a county board of health or other governmental entity. The advisory board has no legal authority.

All municipalities have boards of health, but not all have health departments. The 1975 Local Health Services Act sets minimal standards of performance for the public health services that municipalities must provide. The cost of meeting these standards has led to joint agreements and regionalization to give small municipalities options in providing adequate health care.

Local health departments or agencies that are responsible for providing health services have four possible structures:

- an individual municipal health department;
- a contracting intermunicipal health service agency;
- a county health department; or
- a regional health commission.

The local health officer is a licensed professional who is head of the local health department. He or she provides information to the board of health so it can make policy decisions for the municipality. Environmental commissions and boards of health can work together for the control of air, water, noise and solid waste pollution. They can review septic system applications to be sure they will not create health or environmental problems. They can inform citizens of established links between sources of pollution and related diseases. Health and environmental surveys, air and water quality monitoring, and public education can encourage citizen support for environmental programs and legislation. Since boards of health have statutory, regulatory and enforcement powers, establishing a cooperative working relationship can be helpful to the environmental commission, which is limited to an advisory role.

### The municipal open space committee, land trust, and historical preservation commission

These are among the other municipal bodies that have a major stake in environmental issues and they are often important allies and resources for the environmental commission. See Chapter 7, page 47, for more on open space and historical and cultural preservation.

## RELATIONSHIP WITH OTHER LEVELS OF GOVERNMENT

The environmental commission needs to know the functions and powers of county and state bodies. Social, economic and environmental resource needs, just like natural systems, do not end at municipal boundaries. Planning for land use, roads and highways, utilities, sewerage, water supplies and public services should reflect the capacities of the region and the needs of the people now and in the future.

## The county government

An elected board of chosen freeholders governs each county. Some counties also have an elected county executive. Others have an appointed county administrator who reports to the freeholders. The freeholders manage the county's property, finance and affairs. Using a combination of county, state and federal funds, the freeholders provide social services such as welfare, and maintain county roads and bridges. Counties also raise funds through taxes and bonding to provide their residents with parks and open space, libraries and community colleges.

Counties have several functions that affect environmental quality:

- Most counties have a county planning board or planning department. It develops a county master plan, with which all municipal master plans may agree, and reviews and approves plans for drainage or road systems affecting county roads and property.

## The state government

Similar to the federal government, the New Jersey Constitution organizes the state government with executive, legislative and judicial branches.

### The Executive

The governor, as chief executive, has the power to appoint state executive and judicial officials with the consent of the state Senate. He or she can propose legislation, call special sessions of the Legislature and approve or veto bills passed by the Legislature. Eighteen executive departments carry out the policies of the state government. They write the rules and regulations that implement the laws passed by the Legislature. Environmental commissions have the most contact with the Department of Environmental Protection (NJDEP). It is headed by a single executive, the Commissioner of the NJDEP. He or she and the other 17 department executives are members of the Governor's cabinet.

Established in 1970, the NJDEP has three major objectives:

- to formulate comprehensive policies for the conservation of the state's natural resources;
- to promote environmental protection; and
- to promote the prevention of pollution.

An environmental commission is the logical extension of the NJDEP for information applicable to the local environment. This department provides the environmental commission with technical information and varied services. In turn, the commission acts as a "frontline post" to monitor the quality of the local environment in the depth and detail that larger government agencies cannot. The commission can monitor local enforcement of state laws, and translate state environmental policies and programs into local action. Examples include making sure applications for development have the proper NJDEP permits, such as stream encroachment and wetlands, and urging that no-idling regulations are enforced.

Commission members can do even more to see that the state NJDEP takes local needs into account by serving on environmental councils, commissions, and advisory committees concerned with open space and water quality planning, waste water treatment facilities, solid waste, recycling, wetlands and other issues. An environmental commission also can provide local input and perspective on state proposals for regulations.

Environmental commissions can play an important role in land use planning in New Jersey through the State Planning Commission (SPC), which issues the State Development and Redevelopment Plan. The SPC, which is under the New Jersey Department of Consumer Affairs, includes public and local government representatives as well as members of state agencies. For more information about the State Plan, (see Chapter 4, page 28).

### The Legislature

The New Jersey Legislature determines public policy. It makes the laws, appropriates funds for government activities, determines sources of revenues and ensures that the executive branch of government follows through with its policies. It has the power to impeach. Laws passed by the Legislature, within certain federal and state constitutional limits, control and foster the health, safety and welfare of the people; affect all levels of local government; regulate labor policies and working conditions; establish civil and criminal law; control public education; address social problems; charter corporations; and regulate political parties and elections. The Legislature has delegated some implementation of these laws to local and county governments.

The New Jersey Legislature is composed of two houses, the Senate and the General As-

sembly. One senator and two Assembly members represent each of the state's 40 legislative districts. The senators serve four year terms and the Assembly members two years.

A bill is a proposed statute or law. Bills may be introduced in either house, except that revenue bills must be introduced in the Assembly and the budget in the Senate. After introduction, the bill is numbered and referred to the appropriate committee for consideration. When released by the committee, it is taken up by the full Assembly or Senate. Amendments can still be made there before the bill comes for a vote in either house. Both houses must approve a bill, which the governor then signs to make it a law. The governor can also use a pocket or line item veto to reject all or parts of the bill.

The environmental commission can urge its municipality to support proposed environmental laws. Members, *acting as individuals*, can contact their legislators directly to urge consideration of environmental matters. They can appear and testify at legislative hearings. Many times such support on environmental issues is crucial. Too often, individuals with environmental interest and expertise underestimate the influence they can have through active contact with legislators. As one legislator described his measure of public interest: "Two letters reflect public interest; five letters reflect major public concern; and 12 letters indicate overwhelming public support or opposition!" Individual involvement through a phone call or letter does make a difference.

**For more information:**

- ANJEC Resource Center; (973) 539-7547 www.anjec.org
- "Environmental Manual for Municipal Officials," ANJEC 1998

While individual emails are somewhat less effective than a phone call or personal letter, email lobbying is a grassroots advocacy technique that can have a quick and substantial impact due to the volume of messages it can generate. In addition to potentially raising the awareness of large numbers of people who might receive an initial email "blast" or have one forwarded to them by someone else, recipients have an easy way to lend support to a particular cause by filling out an online form letter that is automatically forwarded to their elected officials.


***Sayreville Environmental Commission Poster Contest Winner & Mayor 2013***
**Photo courtesy of Sayreville Environmental Commission**

Chapter 3

# The Environmental Resource Inventory

Among the most important and gratifying jobs an environmental commission performs is the development of an Environmental Resource Inventory (ERI), also known as a Natural Resource Inventory (NRI) or Index of Natural Resources.

The ERI is the gateway through which environmental concerns enter the municipal process, informing the master plan and the ordinances designed to carry it out. Without an ERI, decisions on a range of municipal functions are made without a conscious knowledge of the environmental impacts they may cause.

ERIs are valuable tools in advocating for new legislation and regulation and defending existing ordinances and planning documents. An ERI confers legitimacy on the Environmental Commission and helps assure that municipal decision makers at all levels properly consider environmental values in their decision making.

Preparation and maintenance of an ERI is specifically mentioned in the Environmental Commission Enabling Legislation (N.J.S.A. 40:56A) as a mandatory duty of an environmental commission: "It shall keep an index of all open areas, publically or privately owned, including open marshland, swamps and other wetlands, in order to obtain information on the proper use of such areas, and may from time to time recommend to the planning board or, if none, to the mayor and governing body of the municipality plans and programs for inclusion in a municipal master plan and the development and use of such areas." (40:56A-2)

Apart from the minimum requirements included in the enabling statute, there is no legislative or regulatory requirements governing what may be included in the ERI. However, it is important to remember that since the ERI will become a part of the master plan and be reflected in various local ordinances, it contents should be adequate to support the planning documents and legislation of the municipality.

Equally important is the task of providing adequate information to future responses to municipal growth, natural disasters, climate change and other likely challenges.

The ERI is an unbiased objective report on all of the environmental features and characteristics in a municipality. It is not a plan in itself but should support municipal planning. It integrates a variety of data from multiple sources to give the most complete picture possible of natural and cultural resources, critical areas, existing development and infrastructure as well as environmental challenges.

Used by environmental commissions, open space committees, planning boards, zoning boards of adjustment and other municipal bodies, the ERI plays an important role in municipal land use planning. Because it provides valuable baseline data for all future resource protection efforts, the planning board should adopt it as part of the municipal master plan, either as an appendix or as part of the conservation element7.

The ERI serves as the foundation for resource protection ordinances and resource based land use planning. It can also help guide developers in formulating more "environmentally friendly" site plans for subdivision applications. A dynamic and evolving document, the ERI should be amended, revised and refined as conditions change, new legislative mandates are added or new information becomes available. It is never "finished".

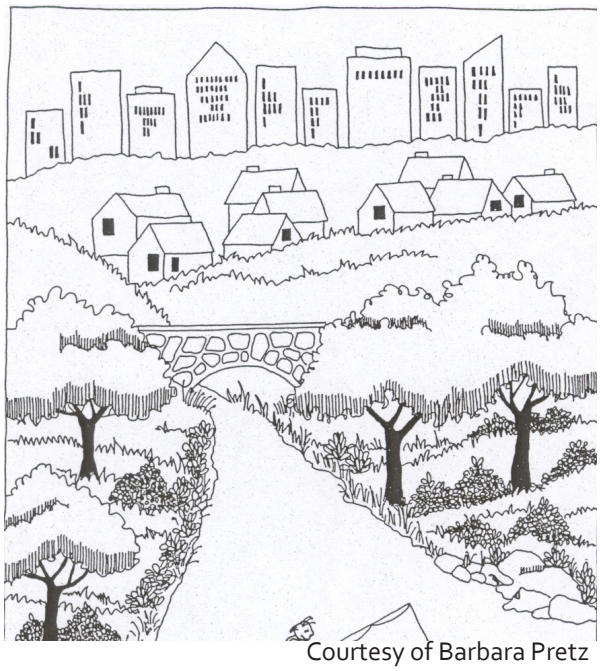
## WHAT'S IN AN ERI?

ERIs use a combination of text, charts, visual information and Geographic Information System (GIS) maps to describe, delineate, display and juxtapose an area's natural resource characteristics and environmental features. The format usually includes three elements – a narrative, maps and an appendix that lists sources and references.

The content varies among municipalities depending on the environmental factors present, the extent of existing development, the budget allotted for the ERI and the skills, interests and time constraints of the volunteers who work on it.

Typically included are factors such as climate, geology, geography, topography, hydrology, vegetation, wildlife and habitat. It will also describe traditionally defined critical areas such as wetlands, stream buffers, steep slopes and floodplains. Land use is typically depicted on maps showing zoning, preserved open space, lakes and streams, roadways, parcel boundaries, recreation areas, historic sites and other cultural uses.

Recognizing that environmental conditions don't begin and end at municipal borders, it is also important to characterize local relationships to regional resources, such as watersheds, aquifers, wetlands and fragile ecosystems. A few examples of regions recognized in New Jersey for planning purposes are, the Highlands, the New Jersey Pinelands, the Delaware Bay Watershed and the Great Swamp National Wildlife Refuge.



Courtesy of Barbara Pretz

## ERI FORMATS

An ERI generally has maps, a report in narrative form and a "library" of source materials. Digital inventories also require a section called "metadata" that is, data about the data, so that the sources, dates of production, purposes for which it was prepared and limitations of the data can be known.

### Maps

Most people have a passing familiarity with maps, such as road maps or small maps depicting areas of interest, like a city or national park. They may even be familiar with highly professional maps prepared by government agencies like the U.S. Geological Survey.

The maps in a municipal ERI identify and locate selected features. It is important to remember, that no matter how accurate or detailed a map is, it is only a representation of a part of the Earth. Reality is far more complex so that by their nature, all maps must leave something out. That is why, no matter how good the ERI maps are, they cannot depict everything going on in a town or in nature. Maps are used to supplement real world experiences like site visits.

An inventory should include a series of maps, preferably all at the same scale, to show all factors that relate to land use in the community. Maps of smaller areas of high interest can also be included. Each digital data layer used to produce a map should be shown on the map and will exist as a separate computer file. These files can be combined and analyzed at will.

While a separate computer file for each map is necessary, a map for each factor is not. Related factors can be displayed on the same map or overlay, for example, surface water and floodplains, or bogs and marshes. Each map should display a title, bar scale, scale ratio, north arrow and key.

On the map, the colors, textures or symbols should identify specific resource areas, such as water resources, endangered species or historic sites. You must give some thought

to composition from the perspective of communications value. Colors can elicit unintended responses (e.g., red = danger, green = good or pale yellow = unimportant). A separate critical or sensitive areas map is an effective way to present the most seriously limiting factors.

Mapping can start with a base map, such as a municipal tax map, also called a parcel map, showing individual properties, and roads. Many municipalities have digitized their parcel maps, either in CAD (Computer Aided Design) or GIS format.

Aerial photographs are a powerful communications tool. Aerial images for different years are available from the NJDEP going back to the 1930's. Other aerial images from different years are also available in infra-red, rather than black and white. These images are useful in showing vegetation conditions. These images have the advantage of being compatible with other readily available data from the NJDEP.

In an ERI, resources may be mapped individually with separate maps for wetlands, soils, historic properties, etc., or they could be grouped by related characteristics. For example, various types of critical areas could appear on a single map, such as steep slopes, recharge areas, priority habitat areas, wetlands and floodplains. Or, all of the water resources (surface waters, aquifers, wellhead protection areas and wells) could be grouped on one map.

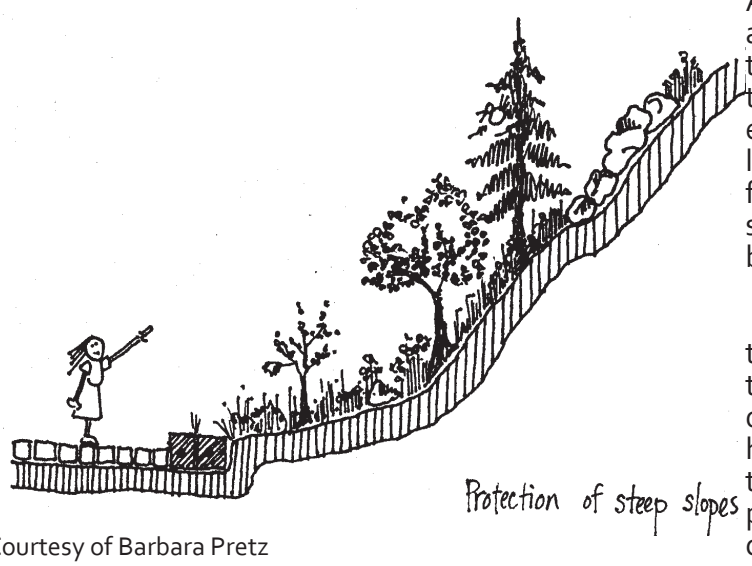
Digital maps are an excellent tool because they allow for easy comparison, combination and analysis of different factors in various combinations.

Today, many municipalities prepare local databases and ERIs using GIS, a computer program for mapping and spatial analysis. GIS programs allow map features to be rearranged and assembled in any combination for printout or analysis. For example, the computer operator can select the factors of steep slopes and easily eroded soils and print a map showing where these two factors coincide (overlay).

The NJDEP has developed an extensive statewide database of digital geologic and environmental information that can be accessed and readily downloaded using ArcView software. Environmental Commissions can obtain both the software and localized GIS data at no cost from the New Jersey Office of GIS. While these maps are an invaluable tool, they are not always up to date or sufficiently definitive at the level of detail needed for ERI maps, so local field checks are important. Verifying conditions on the ground also makes it possible for commissions to make sure that regional plans accurately depict critical areas within the municipality.

Commissions should check with NJDEP before beginning an ERI to make sure their mapping methods will allow them to use existing GIS information. In addition, once the ERI is complete, NJDEP can may wish to incorporate the local data into the state GIS. This will enable the state to have the information available for consideration in its permit review and planning process.

Improvements in technology and software have made GIS data easier and less costly to use.




Courtesy of Barbara Pretz

Available computing power at a reasonable price has made going digital easier than ever before. However, municipalities should be aware of what systems engineers call "the human factor problem". GIS software can be complicated for the average user and unless he or she uses it regularly, specific details can be forgotten.

Initially, municipalities might prefer to work with experienced consultants to create their ERI maps until they develop the skills and technology in house. County planning offices, watershed associations or regional land preservation organizations with GIS capability are sometimes willing to help

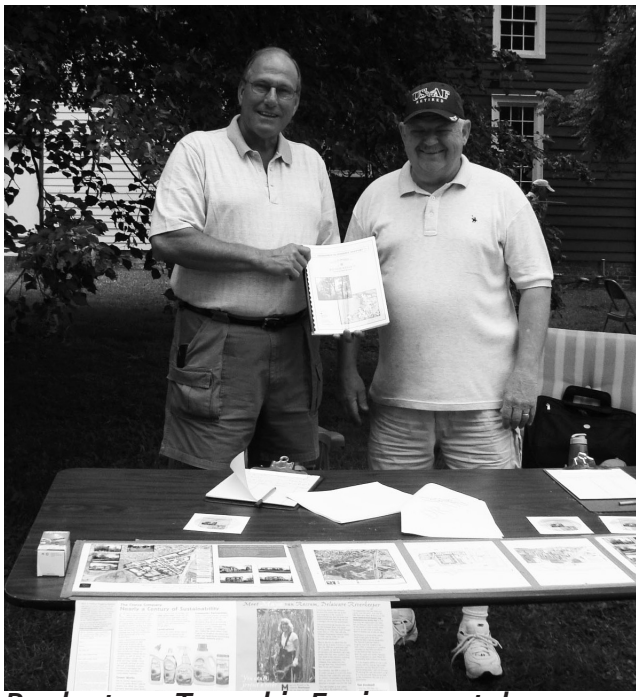
environmental commissions with their initial mapping and subsequent analyses.

## The Report

The text portion of the ERI starts with a general description of the region and the municipality's place in it. It discusses the various factors shown on the maps and how the features relate to each other and the local environment. The report records every source of information utilized in the inventory and documents map processes and other project information that might be needed at a later date. It should be factual and objective. Recommendations that arise from the ERI should be part of a separate report.

The bibliography of an ERI should list the books, maps, web sites, pamphlets and other sources of information used to develop the inventory.

A complete ERI will also include text to accompany the maps and explain their significance. It is important to write text that is usable by a broad range of users, ranging from school children to professional consultants. Many ERIs resemble environmental education textbooks to communicate the significance and complexity of environmental processes. Unless the user understands what the spatial information says and why it is important, environmental factors may be ignored or have their importance minimized. Thinking about the needs of the reader is an important task for the writer of anything for general consumption. In some communities with large non-English speaking populations, a commission might want to consider including presentations in another language to better reach out to the community.



***Bordentown Township Environmental Commission display their ERI***
**Photo courtesy of Bordentown EC**

## Graphics and Tabular Information

Sometimes important facts are best communicated by including tables, graphs, charts or statistics rather than relying solely on maps. For example, growth can be represented by population statistics or number of building permits issued. Depicting "change over time" analyses are also greatly facilitated by graphs. Graphs can readily depict factors like the status and trend of water quality at a glance rather than expecting the reader to wade through a spread sheet. Finally, remember that the overall design presentation should be readable and attractive so that your readers will want to engage with it!

# THE SIGNIFICANCE OF DATA IN THE ERI

The data gathered in the ERI will help determine land use for the community. Below are descriptions of some of the common data categories in an ERI.

## Geography

Geographic maps locate the municipality within a regional context and supply topographical information on elevation, relief and landforms. Factors such as steep slopes, drainage patterns and the influence of vistas can be important because they influence the design of site plans.

## Geology

Geologic factors influence the availability of groundwater, building materials and bearing strength for structures and buildings. They determine to a large degree the topography and soils and can even have profound impacts on living communities. The geology map can show bedrock as well as surficial deposits. Bedrock is the solid rock that underlies the soil or unconsolidated material, such as loose rock

or sand. A geology map can also show areas of limestone, a porous rock which may create sinkholes on the surface.

The materials covering bedrock are called surficial deposits. They, in turn, can be covered by soil and vegetation. Surficial deposits range from glacial tills to sands and gravels and fine grained deposits of silt and clay. These deposits can be important water supply areas and are also sources of sand and gravel for construction.

## Soils

Soils refer to the surface layers of the ground that are influenced by weather and climate. The depth of the soil above bedrock is an important consideration for building and development activities. Roads, utilities and foundations, for example, are difficult and expensive to construct when bedrock is close to the surface or when the soils have low bearing strength. Septic systems are also difficult to place on bedrock or where soils are saturated. Doing so can lead to septic failure and pollution of groundwater.

Shallow depth to bedrock (5-20 inches) presents severe limitations to construction that may not be prohibitive but will certainly require special or alternative methods, such as blasting which are usually more expensive and perhaps more damaging. Areas having moderately deep soils (20-40 inches) and deep soils are more suited for development.

Because soil types are the most common factor referred to in determining the suitability of land use activities, the ERI should identify their general character and distribution. Soils are mapped and classified according to their physical characteristics. Soils vary in color, texture, structure and moisture holding ability.

The U.S. Department of Agriculture's Natural Resource Conservation Service (formerly the Soil Conservation Service) prepared county paper mapped soil surveys for every county that map, name and describe the soils. These paper products have been superseded by digital information on soils data and available from NJ Department of Agriculture.

The physical character of soil varies, making iit more or less suitable for various purposes. The soil surveys data interpret the suitability of specific soils for potential uses: roads, farms, recreation and building.

The infiltration capacity, or ability for water to enter the soils, is an important characteristic. The larger the particles a soil contains, the easier it is for water to infiltrate. Conversely, fine particle materials, such as clay, are relatively impervious, thereby producing more run-off. Infiltration capacity will affect the rate of surface water runoff, the potential for erosion and septic system performance.

Limitations on drainage influence the performance of stormwater detention areas, septic fields, pond reservoir areas, excavated ponds, sprinkler irrigation, shallow excavations, winter grading and pipeline construction and maintenance. Soils can also determine the amount of settling that will occur, which influences the placement of various types of development: foundation for houses with or without basements, local roads, parking lots, and recreation areas. Soils data can also help delineate wetlands, which are characterized by specific soil types called "hydric soils."

## Hydrology

### Groundwater

Groundwater originates as precipitation (rain, snow, sleet) that slowly percolates through soil to reach the water table where all the spaces between the soils particles and fractures in the bedrock are filled with water. An aquifer is a body of permeable rock that can contain or transmit groundwater. Permeability is due either to porosity in the rock or fractures and fissures through which the water moves. An aquifer may be large and contain large volumes of water or it may be very small. Throughout New Jersey, aquifers provide potable water to individual homes of large public water supply systems.

Water enters the aquifer by percolating through the soils. Some soils are more permeable than others and the relatively more permeable soils are sometimes referred to a "prime aquifer recharge areas". Groundwater recharge areas are generally found where a layer of permeable material is close to the land surface, so that precipitation and surface water can move down into (recharge) the aquifer.

Most of New Jersey's aquifers have been mapped, but the recharge areas are more difficult to identify because they are not necessarily adjacent to the aquifer. Locating these areas is essential to their protection. Once mapped, recharge areas can be protected by ensuring that discharges from stormwater systems, onsite waste disposal systems and other sources of pollution such as the storage of toxic materials do not degrade the water quality in the areas of recharge. For instance, the municipality may not want fuel storage tanks or high density developments located in an aquifer recharge area.

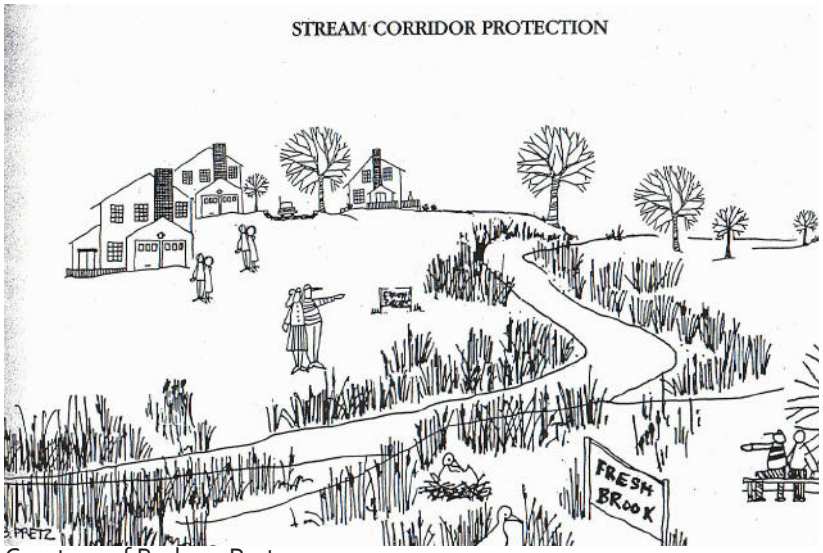
The water table is the level in the soil below which all voids are filled with water. Water in the soil fluctuates in depth from the surface and moves through the ground; thus a source of pollution can be carried to other areas by the moving groundwater. High water tables place severe limits on the use of the land. Frequent water level fluctuations are detrimental to building foundations and also to proper functioning of septic systems.

Surface water in ponds, streams, rivers, lakes, reservoirs and wetlands is replenished by run-off and underground springs (groundwater flow) and can be a source of potable water.

Each surface water area has a watershed, an area defined by the ridge lines that direct the runoff from precipitation into it. All land surface lies within a watershed. Watersheds are nested in order of increasing size from very small to continental in scale. Mapping of the watershed and streams present in your municipality can aid in determining the uses of the surface water, defined by whether it is potable, trout production, trout maintenance, or non-trout, is considered fishable/swimmable or polluted. This knowledge will help in developing methods to maintain or upgrade water quality, such as buffering requirements, stormwater management and controlling sources of pollutants.

A stream corridor is an area that includes the stream and the natural resources that are closely related to it. Vegetated stream corridors help protect surface and groundwater quality by filtering out sediments and nonpoint sources of pollution (pollution carried by water runoff rather than discharged from a "point" source such as a pipe). Stream corridors help store water and provide an important habitat for fish and wildlife. Vegetation along their banks helps shade the stream, keeping it at a lower or more constant temperature benefiting aquatic life.

Floodplains are relatively flat areas along a stream that are naturally subject to flooding. Undeveloped floodplains act as storage basins, lowering flood crests and minimizing erosion. Development in floodplains destroys these natural flood controls, causing increased public costs for storm drains, dams and other manmade flood controls, and diminishing the natural value of the stream corridor.



Courtesy of Barbara Pretz

## Wetlands

Wetlands are areas that are inundated or saturated by surface or ground water, such as swamps, marshes, wet meadows, bogs and vernal pools. Freshwater wetlands filter and preserve drinking water supplies; provide a natural means of flood and storm damage protection; provide essential habitat for a major portion of the State's fish and wildlife; and maintain critical base flows to surface waters during droughts.

Three attributes are essential to identify wetlands: vegetation, soils, and hydrology.

- **Vegetation** – Wetlands plants such as skunk cabbage, elderberry, red maple and bracken fern

that have adapted to living in wet conditions are called hydrophytes.

- **Soils** – Hydric soils that occur in wetlands contain excess water for long enough periods to inhibit the presence of free oxygen, necessary to support normal vegetation and to break down minerals.
- **Hydrology** – Wetlands depend on the presence of surface or ground water supplied by rainfall, flooding, snow melt, and/or subsurface water for a long enough period to support wetland vegetation. At times the presence of water is not apparent in a particular area, so hydrologic indicators, such as sediment deposits, water marks on tree trunks, moss lines on trees and elevated (buttressed) roots, are used to ascertain that water is a dominant factor.

The first step to protect wetlands is to define and map their location. The NJDEP has mapped the wetlands of the state, giving a general guide to the presence or absence of wetlands on a particular site. Because the state mapping omits wetlands of an acre or less in size, site specific surveys must be performed to accurately locate wetlands. The DEP makes wetlands maps available in digital format. Applicants are responsible for on-site mapping under the Freshwater Wetland permitting process.

Once local wetlands and streams are mapped, the commission can recommend development strategies for preserving these ecologically important areas, such as obtaining conservation easements from property owners.

## Topography

Slope is the amount of rise or fall in the elevation of the ground's surface over a given horizontal distance. It is expressed as percent, which means that for a 10 percent slope, the rise or fall in height is 10 feet over a 100 foot horizontal distance. As slopes become more steep, the cost of building increases. Steep slopes affect the economy and functioning of septic systems, stormwater runoff and the placement and maintenance of roads. In addition, combined with soil characteristics and water table, slope has a significant effect on soil erosion potential. Slopes over 12 to 15 percent raise concerns for erosion control and expense of construction. Many municipalities restrict the location of buildings on lands with 15 to 25 percent slopes.

Slopes of over 25 percent are generally unsuitable for development and are best maintained with tree cover. When information on slope is combined with other natural characteristics such as soil, vegetation or surface water, limitations to development become evident. Soils data help identify easily eroded areas; location and type of vegetation makes scenic qualities evident; and surface water information points out potential pollution problems.

## Meteorology

Meteorology is a description of temperature, wind velocity and direction, humidity, precipitation and orientation in relation to the sun. These characteristics affect the placement of walkways, roads and new plantings, the design of buildings, and other site amenities.
An ERI can include baseline data on air quality to measure the significance of additional sources of air pollution. In addition, it can provide seasonal precipitation figures for calculating runoff for stormwater control purposes.


***Moorestown Environmental Commission with their new ERI***
**Photo courtesy of Moorestown Environmental Commission**

## Vegetation

Vegetation found in an area is an expression of climate, soil, and past and current land use. Vegetation characteristics determine the nature and beauty of an area. Vegetation has many values, including soil erosion control, flood control and absorption of water pollutants. Plants produce oxygen, filter air pollution, and can provide microclimate control by blocking northern winter winds or shading hot summer sun. Vegetation is also valued for its visual beauty and can be used as a buffer between land uses.

Maintaining plant diversity is very important to support natural ecosystems and provide food and habitat for wildlife. In 1989 the New Jersey Legislature declared that "plant species have medicinal, genetic, ecological, educational, and aesthetic value to the citizens of New Jersey" and passed the Endangered Plant Species List Act that protects native New Jersey plant species. The Act defined endangered plants as "any native plant species whose survival in the State or the Nation is in jeopardy. Currently, there are 818 endangered and special concern species and the list is constantly updated. (See Endangered Plant Species Program at *http://www.nj.gov/dep/parksandforests/natural/heritage/spplant.html*.)

The ERI should record not only endangered species, but also the other plants that contribute to the local environment.

## Contaminated Sites

Properties where hazardous chemicals have been discharged or have leached into the soil or water can present serious health hazards to people and the environment. Their existence is often not obvious to the casual observer, and pollutants often plume into surrounding properties, contaminating groundwater and, ultimately, drinking water supplies.

The ERI should identify and map locations of Superfund and brownfield sites as well as closed waste dumps, incinerators, resource recovery facilities (recovery of resources from waste stream), underground storage tanks and places where hazardous substances are stored or used. A Superfund site is any land that has been contaminated by hazardous waste and identified by the EPA as a candidate for cleanup because it poses a risk to human health and/or the environment. New Jersey has 114 Superfund sites, the most in the nation. A brownfield is a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant. The "Known Contaminated Sites in New Jersey" report, published by NJDEP, lists places where contaminated soil and/or ground water have been confirmed. (See Known Contaminated Sites Report at *http://www.nj.gov/dep/srp/kcsnj*) It is a good starting point, but should not be used as a sole source of information.

Several other NJDEP sites provide information on existing and proposed resource recovery facilities and industrial establishments involved in the generation, manufacture, refining, transportation, treatment, storage, handling or disposal of hazardous substances or wastes. The Emergency Planning Committee in your municipality or county may also be helpful.

## THE DAWN OF THE DIGITAL ERI

In the past, most ERIs were paper products, compiled in tabbed binders or spiral bound, processes that can be costly and resource intensive. With the advent of low-cost high-quality digital data about the environment, inexpensive computer software and higher powered computer hardware in recent years, more environmental commissions have produced their ERIs in digital format to facilitate distribution on-line, by compact disc, or other electronic media saving the cost of printing, binding and mailing numerous bulky paper copies. By placing a digital ERI on-line, it can readily be accessed by potential developers, environmental commissions, planning boards, members of the public and students.

Digital geographical data can be rapidly and powerfully manipulated to answer complex questions. The ease by which digital data can be communicated can empower residents and advocates, as well as developers and other resource users, to seek better solutions for current and future challenges. Various "what if" scenarios, like calculating the consequences of build-out under the existing zoning can readily be accomplished and future conditions resulting from policies under consideration can be tested before they are implemented.

Analysis performed by the combination of various data layers can be readily accomplished by the use of Geographic Information system (GIS) software to answer complex question efficiently and quickly.

## GATHERING INFORMATION

Most of the basic information needed for an ERI is readily available from a variety of sources, including local, county, state and federal agencies as well as private groups and individuals. The challenges are determining where to go for which information, assuring its quality and translating it into a usable format.

Your first source should be the closest one-town hall. Your municipal engineer, town clerk, planning board and town planner can help you locate a variety of existing digital data, existing maps, documents, plans and studies.

At the county level, talk with staff members at the county soil conservation district and county planning board. A wealth of statewide information is also available on the NJDEP, the New Jersey Highlands Council and EPA web sites. These sites also list phone numbers for departments you may wish to contact. (See Appendix B, page 72.) For example, NJDEP computer map files are excellent sources of information. Remember though, "the map is not the land" so more detailed site-specific information might be necessary during a site plan review. Care should always be taken not to combine map data of highly differing scales when developing a map.

Don't overlook Environmental Impact Statements (EISs) as sources of information. Federal and state agencies usually prepare these studies for major projects like roads, and municipalities often require them for subdivisions and site plans. Many local municipalities also have EIS ordinances that give rise to documents that can be reviewed. Many towns also require site plan submissions in digital format. Consider setting up a process for incorporating these data into your ERI on an ongoing basis.

If data are desired that currently do not exist, it is possible to create your own custom elements by digitizing and the use of Global Positioning System (GPS) technology. For example, achieving the goals of street tree protection and management might begin with a tree inventory compiled with the aid of a GPS system and linking the spatial information to a data base containing information about particular trees. The location of storm drains and their outfalls might be similarly mapped.

## USING THE ERI

The completed ERI is a local reference tool for all municipal bodies. The ERI should be used to locate the boundaries of new zoning districts and proposals for development. As mentioned in Chapter 2, page 6, if an environmental commission has prepared an ERI, the Municipal Land Use Law requires the planning board and zoning board of adjustment to give an informational copy of every application for development to the commission for review. Even some non-traditional entities can use the ERI to advantage. For example, first responders dealing with a toxic material spill can access the ERI to determine the route that the pollutant will take and place containment devices prior to its arrival.

ERIs are frequently used for site plan review. One of the most vexing problems in environmental analysis is that of so called "externalities" where impacts are caused by a project on-site but are felt outside of the immediate project area. ERIs can help identify nearby areas of concern like sensitive human populations (nursing homes, hospitals, day care centers etc.), sensitive natural communities (wetlands, threatened and endangered species habitats), available wastewater treatment, available water supply, known contaminated sites and many others.

The reviewing commission should consider the larger regional perspective that a municipal ERI affords. Always look for regional or neighboring factors before zooming in on the specific lot and block number proposed for development. Determining things like watersheds, large forest blocks, agricultural land patterns, threatened and endangered species habitat and many others can readily be deduced from the ERI. Chapter 5, page 35, provides an in-depth explanation of site plan review.

### Climate (ERI)

Typically, ERIs begin with a discussion of

general climate conditions (e.g., annual rainfall, frost dates, etc.) Recent concerns about climate change have introduced more complexity and commissioners need to understand local environmental impacts and identify what new information should be included in the ERI to help preparedness. Rutgers NJ Climate Adaption Alliance (*http://njadapt.rutgers.edu*) is a leading source of research on climate change impacts and preparedness.

## WHAT CAN WE DO IF WE DON'T HAVE A DIGITAL ERI ?

In recent years there has been a revolution in on-line geo-spatial data availability. In New Jersey, the Department of Environmental Protection maintains and constantly upgrades a free publically accessible geographic resource called GeoWeb (*http://www.nj.gov/dep/gis/geowebsplash.htm*) that allows a great deal of Geographical Information System (GIS) functionality. While the analytic functions of GIS systems are not available, there is a wealth of geo-spatial data that may be combined to produce informative maps. Commissions might want to designate someone specific to be the "GeoWeb person". Free training on the use of the system is offered by the NJDEP.

In addition to GeoWeb, residents of Highlands municipalities have free access to data compiled by the Highlands Council on its interactive map system. (*http://www.highlands.state.nj.us/njhighlands/gis/*).

An extremely detailed and powerful source of soils information is available from the Natural Resources Conservation Service, a division of the U.S. Department of Agriculture (USDA-NRCS) in it Web Soil Survey (*http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm*). The Service also maintains a state office with a GIS specialist to assist you at USDA-NRCS, 220 Davidson Avenue 4th Floor, Somerset NJ 08873 (732-537-6040).

## UPDATING AN ERI

ANJEC is often asked: "When should an ERI be updated?" There is no universal answer, but some general principles apply. First, no ERI is ever complete. Scientific research, legislative changes, development in your municipality or new directions in municipal goals and objectives always have the potential to require more or new information in an ERI. Consider forming a sub-committee to keep the ERI continually updated. The commission should update the ERI as new information becomes available, such as maps resulting from the implementation of the Freshwater Wetlands Protection Act or the State Planning Act. Environmental studies done as part of site plan review applications can supply additional data for the inventory. Although updating the ERI is not mandated, a good target is to review the ERI every five years, despite the fact that the Master Plan must only be reexamined every ten years.

The way an ERI is put together or updated depends on the budget allotted by the town government, outside funding availability, the methodology used and the ability and willingness of commission members to work on it.

Many commissions have developed their own ERIs, sometimes with the help of volunteers with special technical knowledge. Besides reducing costs, this has the advantage of giving the commission access to local experts. The volunteers become an asset to the town and to the commission. ANJEC's resource paper "The Environmental Resource Inventory"" provides detailed advice.

### People to Talk to:

Much ERI information already exists. Ask your:

- municipal engineer
- municipal planner
- municipal tax assessor
- county planning board staff
- planning board
- other environmental commissions
- county soil conservation district (See Appendix B, page 72, for addresses)
- regional agencies, such as the Highlands Council, the Pinelands Commission, Delaware Valley Regional Planning Commission, Delaware River Basin Commission etc.

The best place to start in the NJDEP is the bureau of GIS (*http://www.nj.gov/dep/gis/*). NJDEP has many maps and historical data and current information on natural resources. New studies are constantly being done to support ongoing policy and planning programs. For example, information is available for many parts of the state on geological formations,

watersheds, well sites, aquifers, surface water resources, open spaces, historical and cultural sites.

- Soils: U.S. Department of Agriculture Natural Resource Conservation Service state soil scientist; (732) 537-6061; Soil mapping: *https://www.nrcs.usda.gov*
- Green Acres and Blue Acres Administration; Open Space and Recreational Planning: (609) 984-0500 *www.state.nj.us/dep/greenacres*
- Federal Office of Emergency Management Map Service Center (for information on flood prone areas) *https://msc.fema.gov/portal*
- DEP Site Remediation Program; (609) 633-2325 *www.nj.gov/dep/srp*
- N.J. Geographic Information Network; *https://njgin.state.nj.us*
- Historic Preservation Office; Cultural, Historic, Archaeological resources: (609) 292-2023 *www.state.nj.us/dep/hpo*
- Office of Natural Lands Management; (609) 984-1339 *www.nj.gov/dep/landuse/lu_onlm.html* (trail planning; rare, threatened and endangered species)
- Maps and Publications Office; (609) 777-1039 *www.state.nj.us/dep/njgs/pricelst* (sell copies of NJDEP maps)
- New Jersey Highlands Council; (908) 879-6737; *http://maps.njhighlands.us/hgis/*
- New Jersey Geologic and Water Survey: *http://www.state.nj.us/dep/njgs/*
- New Jersey Pinelands Commission; (609) 894-7300; *www.nj.gov/pinelands*

## The ERI and The Master Plan

Environmental commissioners can help shape the conservation plan element during a master plan reexamination. Planning board members typically do not have an overall understanding of the environmental factors when evaluating inter-related impacts of multiple decisions. Commissions can have these discussions and by so doing identify new information to include in the ERI. By explaining the meaning of the various factors in the ERI to the planning board, they can improve the analyses being done under the Conservation Plan Element during master plan review.

### Green Buildings and Environmental Sustainability Element

One of the newer master plan elements is the green buildings and environmental sustainability plan element. This element, as defined by the Municipal Land Use Law, "shall provide for, encourage, and promote the efficient use of natural resources and the installation and usage of renewable energy systems; consider the impact of buildings on the local, regional global environment; allow ecosystems to function naturally; conserve and reuse water; treat stormwater on-site and optimize climatic conditions through site orientations and design."

Creating this element will require new and perhaps seemingly novel additions to the ERI. For example, increasing the efficiency of natural resource use will require an understanding of how we are currently using natural resources in the municipality, the encouragement of renewable energy systems might require a survey of solar potential, a wind speed study or a discussion about how to site these facilities sustainably.

According to the U.S. Energy Information Agency (USEIA), buildings, commercial and residential combined, use about 40 percent of the energy consumed nationwide. There are no detailed figures of energy consumed by buildings in New Jersey municipalities. An Environmental Commission might estimate and map energy consumption by buildings and work with utilities and the private sector, schools and other public buildings to reduce energy consumption. Structuring such a program would be materially aided by having spatial data available in the ERI.

"Allowing ecosystems to function naturally" is a complex task that will require identification and location of natural systems, estimates of services being provided and an evaluation of likely areas for improvement. So, for example, forest protection (of existing forests) and reforestation wherever feasible could materially assist in stabilizing stream systems, wetlands, urban heat island effects, and carbon sequestration in addition to providing wildlife habitat, aesthetic improvements and a host of other benefits. To develop such an effort, it is first important to know where the forests are, who owns them and what roles they play in the local, regional and global ecosystems. Such knowledge begins with the local ERI that identifies forest resources.

Chapter 4

# Land Use Planning and Regulation

***"We have not inherited the earth from our parents; we are borrowing it from our children."***

*– ancient proverb*

The way we use the land affects all aspects of the environment – the air, water and soil. Proper planning can limit the environmental impact of land development by controlling and abating pollution and preserving resources for future generations.

The state constitution places the responsibility for land use control in the hands of the state legislature, which delegates much of this authority to municipalities through the Municipal Land Use Law. However, land use decisions made at all levels of government, including state agencies, county governments and even neighboring municipalities ultimately play an important role in the actual patterns of development.

## MUNICIPAL PLANNING

The Municipal Land Use Law (MLUL) Chapter 291 New Jersey Statutes Annotated 40:55D-1 et. seq. delegates land use control to local governments. Under this law, municipalities may adopt a master plan, regulate land use consistent with the master plan through land use ordinances, develop a capital improvements plan to control capital expenditures and adopt an official map to show the location and extent of present and future development, streets, drainage ways, flood control basins and public areas.

Municipalities implement the MLUL in three major areas:

- The planning board develops and, after public hearing, adopts a master plan "to guide the use of lands within the municipality in a manner which protects public health and safety and promotes the public welfare."
- The governing body adopts zoning, site plan and subdivision, and other ordinances that must be consistent with the master plan.
- The planning board and, in some cases, the board of adjustment review and approve proposals to develop parcels of land, according to the master plan and zoning ordinance.

### Joint Municipal Planning

Under the MLUL two or more municipalities and counties may create a joint planning board. Towns such as Princeton and Maurice River Township have used this option in New Jersey.

Municipalities facing regional issues, such as rapid suburbanization, traffic congestion, stormwater management, and wildlife habitat protection may want to explore the formation of such a joint planning board with their neighboring municipalities. Some commissions find it beneficial to collaborate on a regional Environmental Resource Inventory (ERI) on a regional basis even if planning and zoning remain at the municipal level.

### Master plan

The master plan is a plan for the appropriate development of a town. It provides local officials and citizens with a vision for the town, a comprehensive database and planning techniques for achieving community objectives. With the master plan, the planning board can outline proper land use, meet local housing needs and protect important natural resources.

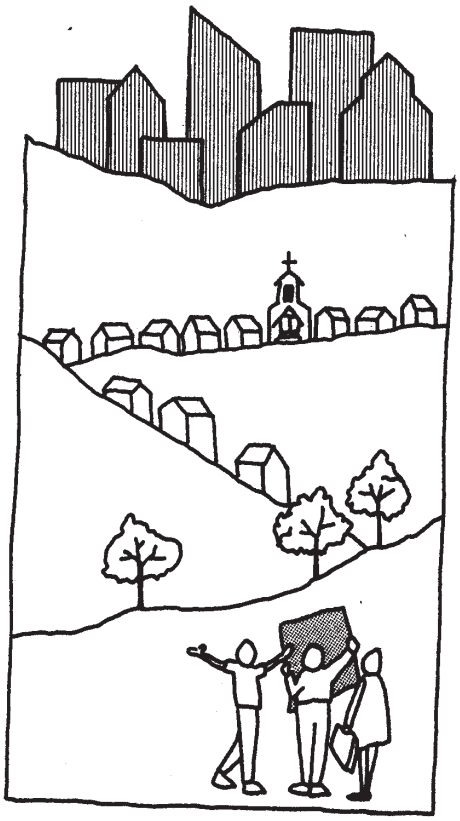
The master plan, which the planning board must reexamine every ten years, should contain a statement of the relationship with contiguous municipalities' master plans, the

county master plan, regional master plans, the State Plan and the district solid waste management plan. It should also consider the plans of regional sewer and water authorities, the New Jersey Department of Transportation, the NJDEP, the Council on Affordable Housing, the Coastal Area Facilities Review Act, the Pinelands Comprehensive Management Plan, the New Jersey Highlands Council and the regional transportation planning organizations. (See page 33 for a discussion of regional plans.)

A master plan must take social, economic and environmental factors into account. Social needs include schools, hospitals, a diversity of housing and other service requirements. Economic considerations include providing the municipality with a base for property tax revenues, having businesses, shopping and service areas for residents, and the infrastructure they need to function. Environmental factors include the impact that development will have on the air, water supply and water quality, soil, open space, scenic, cultural, and recreational opportunities.

The master plan is a report with maps, diagrams and text. According to the MLUL, it must contain two elements:

- a statement of objectives, principles, assumptions, policies and standards upon which proposals for the development of the municipality are based; and
- a land use element, which considers natural conditions including topography, soil conditions, water supply, drainage, floodplain areas, marshes and woodlands. The land use element should show existing and proposed land use and describe population and development intensity as well as the natural conditions of the town. Much of this information can be found in an Environmental Resource Inventory (ERI), if the town has one. Many towns adopt the ERI as part of the master plan.



Courtesy of Barbara Pretz

In addition to these required elements, the master plan should also address the following, as appropriate: housing, circulation, utility service, community/educational facilities, development transfer plan, recreation, conservation, economic factors, historic preservation, recycling, open space plan and farmland preservation. It may also include a sustainability plan. The environmental commission should play an active role in developing the conservation, circulation, utilities, recreation and recycling, and perhaps the farmland preservation, elements of the master plan. Appendices contain the technical foundation of the master plan. The MLUL also requires a stormwater plan as part of the master plan.

The environmental commission should get involved with the master plan development and its revisions to make sure it reflects environmental factors. Also, the commission should have a copy of the master plan in its library and commission members should be familiar with its contents.

## Zoning

The MLUL empowers municipalities to designate and map zones of land for different uses: commercial, residential, industrial, recreational, agricultural and special uses such as education and open space. All zoning should be in accord with the municipal master plan and the MLUL. The governing body adopts, amends, revises and enforces the zoning ordinance, subject to nonbinding review and recommendations of the planning board.

## Purpose of zoning ordinance

The purpose of zoning is to implement the master plan. It controls land use practices to prevent incompatibility of neighboring uses and to restrict uses that are harmful to the health and wellbeing of the community. Specific ordinances vary, depending upon the individual needs of the municipality. However, all zoning should carry out the purposes of the MLUL and be consistent with the municipal Master Plan. Essentially, the zoning ordinance should designate space and performance standards in a variety of locations to implement the concept of multiple land uses and protect public health, safety and welfare by preventing additional air and water pollution.

Zoning regulations control many factors. They:

- provide districts for different land uses;
- specify height, size and situation of buildings on lots with reference to streets and property boundaries;
- specify size of yards by setbacks and open space preservation techniques;
- control density of population by residency use in relation to lot size;
- regulate and designate areas subject to flooding;
- regulate location and use of buildings, structures and land for trade, industry, residence and other purposes;
- provide standards of performance for physical improvements; and
- provide standards to protect important environmental resources.

The courts have suggested that the following social and economic factors, in addition to environmental resource limitations, be considered in zoning:

- the zoning plan shall be comprehensive;
- the zoning ordinance must provide a variety of housing types for a variety of people;
- the ordinance must be compatible with regional considerations;
- the ordinance cannot be arbitrary or exclusionary;
- the zoning plan shall demonstrate protection of public health, welfare and safety; and
- the same regulations shall apply to all districts having similar zone classifications.

## The "taking" issue

As municipalities put zoning restrictions on land use, the "taking" issue often arises. The Fifth Amendment to the U.S. Constitution states that "private property shall not be taken for public purposes without just compensation." The U.S. Supreme Court has ruled that if a regulation is too restrictive, it will be recognized as a "taking" and may be struck down. This means the municipality cannot zone a property so that no use is possible. Sometimes it is difficult for citizens to realize that though they enjoy the woods, streams or other natural features of a piece of open land, if the land is privately owned, the town must allow the owner reasonable use of the land, which may include development.

Open space can be saved from all development and set aside for public use only by public purchase, donation or easement, or ownership by a private land conservancy. Land cannot be taken for public use, but regulations may control all but nominal use, if they serve

### Impacts of Increased Building

| | |
|---|---|
| Direct ..... | less water infiltration into the ground |
| Secondary ..... | more stormwater runoff and nonpoint source pollution of streams |
| Cumulative..... | regional loss of streams, lakes for reservoirs, recreation and associated wildlife; decrease in groundwater recharge |

**Traffic**

| | |
|---|---|
| Direct ..... | increase in traffic to and from site |
| Secondary ..... | traffic congestion and lowered air quality |
| Cumulative ..... | violations of air quality standards and loss of economic development |

**Cover and Pavement**

**Water Resources**

**Biodiversity**

| | |
|---|---|
| Direct ..... | loss of plant species and habitat on site |
| Secondary ..... | increase of invasive plant species and lower wildlife populations in area |
| Cumulative ..... | dramatically lowered wildlife populations and some species loss within a region; loss of edge species; and |

the public interest. New Jersey courts have upheld some extremely restrictive zoning and regulatory provisions allowing only such land uses as farming or low-intensity recreation. Therefore, reasonable use does not always mean the right to construct buildings or even the right to the most profitable use of the property.

Although the town may not use its regulatory power to prohibit all development of the land, it can say how the land will be developed. In fact, in a landmark decision in June 2005, the U.S. Supreme Court ruled that potential economic development could justify the condemnation of 15 waterfront homes in Connecticut. This interpretation of the concept of eminent domain effectively blocked potential legal impediments to condemn private properties in dozens of New Jersey municipalities to make way for renewal and redevelopment projects as long as they serve a "public purpose."

It is the role of the planning board and environmental commission to ensure that the land is zoned for development in a manner sensitive to its environmental features and its regional impact and that this zoning law is enforced.

## Zoning and the ERI

Municipalities should use the ERI as a data base in the creation of the master plan and zoning ordinance. While zoning classifies different areas for specific uses; it does not address each site's characteristics. The ERI is an important tool for refining or revising zoning requirements. For example, municipalities can layer some of the maps in the ERI, such as the parcel map and critical areas maps, to show what build-out might look like under current zoning and determine whether the natural environment or available infrastructure can safely support that level of development.

The commission should examine the zoning ordinance for its long-term environmental impacts assuming the town were to be fully developed in accordance with the ordinance. The commission can evaluate the impacts of the proposed zoning ordinance, or its amendments, prior to adoption. The commission should also address the impacts of population growth if development occurs as the zone allows. Will there be sufficient roads, water supply and sewerage capacity to handle the new population? Will environmental degradation, such as flooding, nonpoint source pollution and septic failures result?

The commission can use ERI information, including a map of existing land use and a combined factor map or critical areas map, to evaluate whether existing land and natural resource conditions are favorable to the proposed zone.

Land use changes result in direct, secondary and cumulative impacts. Direct impacts occur within a specific development site as a result of new development. Secondary impacts result from the development, but occur in areas outside the site. Cumulative impacts occur over time as a result of all development in a region. Cumulative impacts are often irreversible or enormously expensive to remedy, requiring capital improvements like flood control projects, sewer plant expansions or upgrades, and bridge and road expansions.

**Planning and zoning techniques –** The zoning ordinance can incorporate a variety of planning techniques to control and direct land use.

Density averaging, for example, establishes a maximum human occupancy per acre for each zone. The planning board can use a variety of techniques to calculate the average density. The Federal Housing Authority's Land Use Intensity Ratio (LUI) considers the following physical relations:

- total floor area to land area,
- total open space to total floor area,
- open space for people and open space for cars,
- large recreational space, parking space for occupants, and occupant car ratio plus guest parking.

The LUI offers more comprehensive control than simple maximum density regulations, such as dwelling units per acre.

Floor area ratio, one element of the LUI ratio, refers to a ratio of total floor areas to the area of the lot. Floor area ratio adds flexibility to zoning regulations while still controlling the intensity of development. It also can be applied directly to the building design and adapted to many architectural designs.

**State Transfer of Development Rights** – Transfer of development rights (TDR) is one way to reduce density in critical areas while maintaining owner eqity. TDR is a technique of land use planning that, if done right, encourages development in areas with available infrastructure where growth is desirable (a receiving zone) while helping to fund the preservation of open space/farmland in critical resource areas where development should be discouraged (a sending zone). It is essentially a realty transfer system that leverages the developer's interest in being granted more development in a receiving zone to fund sale of credits from land in a sending zone.

### *TDR in Action*

*Woolwich Township, Gloucester County, passed its TDR ordinance in 2014 to help curb sprawl by channeling new development into discrete growth boundaries which will in effect create desirable, compact, mixed use centers, while preserving thousands of acres of productive farmland and scenic open space outside of them. The TDR program allows property owners in designated preservation areas called sending zones to sell the development value of their land to interested buyers. The buyer of these development rights can then transfer the development potential to designated growth areas called receiving zones. The Township works with the private sector and with county and state agencies to ensure that needed infrastructure – especially water, sewer and transportation systems – will be in place to accommodate planned growth in the receiving zone. Sending zone property owners receive the development value of their property without having to subdivide it into housing developments. Instead, their land can continue to be farmed or maintained in open space.*

In 2004, the State passed its TDR Act, which allows municipalities throughout New Jersey to create TDR programs by enacting a TDR ordinance. A TDR program:

- designates sending and receiving zones, including new density and use requirements within the zones;
- establishes a method of assigning credits (worth money) to sending zone parcels based on criteria such as natural resource value and/or development potential;
- mandates that the sale of credits for a sending zone parcel be associated with restrictions on its density and use in perpetuity;
- creates a mechanism of recording and transferring credit ownership from sending zone landowners to purchasers; and
- designates the buying power of credits in a receiving zone.

## Other zoning techniques to preserve open land

**Large lot zoning** – Large minimum lot sizes are effective at maintaining low densities and protecting water resources, particularly in rural areas. However, since zoning is subject to change, they are not an effective device for permanent preservation. Large lots may increase real estate values and infrastructure costs and foster sprawl.

**Lot size averaging** – The density remains the same overall but lot sizes can vary. This improves planning for critical areas and keeps land in private ownership.

**Performance zoning-** Zones are defined by a list of permitted impacts (based on natural resource data and design guidelines) as opposed to permitted uses. This directs development to appropriate places based on a comprehensive, environmentally friendly plan. However, environmental impacts may be hard to measure and criteria hard to establish. The plan can be expensive to prepare.

**Carrying capacity zoning** – The zoning is based on the ability of an area to accommodate growth and development within the limits defined by existing infrastructure and natural resource capabilities. This requires a comprehensive environmental inventory for implementation. Determining carrying capacity can be a difficult process, subject to differing opinions. For example, the need for sewage disposal can limit the land's carrying capacity. If a residential subdivision can connect with a sewage treatment plant, the plant's capacity will dictate the number of new homes possible. If homes must rely on septic systems, a nitrate dilution model can determine the number of systems an area can handle.

**Cluster zoning/planned unit development (PUD)** – This maintains the regular zoning's ratio of housing units to acreage but permits clustered development through undersized lots, thus allowing for open space preservation. A PUD provision allows clustering for a large, mixed use development. Flexibility in siting allows preservation of open space areas within a development site. This will reduce construction and infrastructure costs. However, open space often is preserved in small separate pieces, not necessarily linked to a comprehensive open space system. It may increase processing time for development approval. The MLUL also contains a provision permitting clustering in small-scale developments.

**Special zoning district** – Special districts have development restrictions to protect agriculture, natural and historic areas, scenic views and neighborhood character. Zoning can also be used to promote walkable/transit-friendly neighborhoods. The language in the special district ordinance must be specific enough to avoid varying interpretations.


***Ironbound Community Master Plan***
Photo courtesy of Newark EC

**Overlay zone** – An overlay zone is a mapped zone that imposes a set of requirements in addition to those of the underlying zoning district. Municipalities use overlay zones when a special public interest – such as a stream corridor, aquifer, ridge or steep slope – does not coincide with the underlying zone boundaries. In the overlay zone, the land is simultaneously in two zones and may be developed only under the conditions and requirements of both zones. The overlay zones add an opportunity to implement site-specific public policies, especially with environmental protection.

## Zoning to protect critical areas

As the supply of open land diminishes in New Jersey, municipalities face increasing pressure to allow development on tracts with environmental constraints: floodplains, wetlands, ponds, lakes, streams and steep slopes. Destruction of the natural functions of these areas often results in significant public cost and loss of natural resources. Many towns have enacted ordinances to control the intensity of land use in these sensitive environmental areas. (See Chapter 9, page 62 for a partial listing.)

In addition, the state has enacted laws to protect some critical areas such as wetlands, stream buffers, coastal areas and floodplains. Municipal zoning ordinances should refer to the mandates of these state laws. (See Chapter 7, page 47.)

# REGIONAL PROTECTION AREAS

New Jersey has led the country in understanding the need to provide a regional framework for resource protection, infrastructure planning and land use decisions. Since the late 1960s, the state legislature has been addressing regional and statewide environmental issues by establishing planning entities with varying degrees of authority.

Local environmental commissions should be familiar with regional plans that apply to their municipalities and participate in their development and implementation. Municipal and county governments are essential in implementing the objectives of these plans and, conversely, the regional processes supply local governments with data, information and planning guidance.

***Middlesex greenway visioning***
Photo courtesy of Metuchen EC

**Pinelands** – The Pinelands is the country's first national reserve. It is approximately 1.1 million acres and spans portions of seven counties and all or part of 56 municipalities. The reserve occupies 22% of New Jersey's land area and it is the largest body of open space on the Mid-Atlantic seaboard between Richmond and Boston. After passing the Pinelands Protection Act in 1979, the state legislature established the Pinelands Commission with regulatory authority over the region and responsibility for preparing a comprehensive management plan. Municipal ordinances in the Pinelands must be approved by the Pinelands Commission.

**Hackensack Meadowlands Development District ("The Meadowlands")** – The Hackensack Meadowlands is a 32 square-mile region within three miles of Manhattan, traversing 14 municipalities. The region had fallen victim to environmental degradation and haphazard development, but the state legislature, recognizing the land's potential as developable real estate, passed the Hackensack Meadowlands Reclamation and Development Act in 1968, which created the Hackensack Meadowlands Development Commission (HMDC) and regulates land use in the region. The Commission has the authority to develop a regional master plan, promote development and protect the environment by controlling zoning.

**Coastal Zone** – New Jersey's coastline is important to both the state and federal economy and performs important ecological functions while posing unique safety concerns. In 1973 the legislature passed the Coastal Area Facility Review Act (CAFRA) that gave the NJDEP authority to regulate development in a specifically defined Coastal Zone. The legislature has amended the CAFRA law and Coastal Zone Management rules through the years, the latest being June 2016.

**Highlands** – In 2004 the legislature passed the Highlands Water Protection and Planning Act to safeguard the water resources of most of northern New Jersey, establishing the Highlands Council, which is charged with preparing a Regional Master Plan (RMP), and assigning regulatory control to NJDEP. The Act divides the Highlands regions, which covers 88 municipalities in seven counties, into the Highlands Preservation Area and the Highlands Planning Area. In the Preservation Area, municipalities must conform their planning and zoning to the RMP and comply with the NJDEP regulations, while in the Highlands Planning Area conformance is voluntary.

**For more information:**
- ANJEC; 973-539-7547 *www.anjec.org*
- "Environmental Manual for Municipal Officials," ANJEC
- New Jersey Pinelands Commission; 609-894-7300 *www.state.nj.us/pinelands*
- New Jersey Meadowlands Commission; *www.meadowlands.state.nj.us*
- Coastal Zone Management Rules *http://www.nj.gov/dep/rules/rules/njac7_7.pdf*
- New Jersey Highlands Council; 908-879-6737 *www.nj.gov/njhighlands*

In 1985, New Jersey State Legislature adopted the State Planning Act, (N.J.S.A. 52:18A-196 et seq.). According to the New Jersey Department of State Plan, its goal is to provide a vision for the future that will preserve and enhance the quality of life for all residents of New Jersey. The State Plan is the result of a cross-acceptance process that included thousands of New Jersey citizens in hundreds of public forums, discussing all of the major aspects of the plan – its goals, strategies, policies and application. This process ensures that the plan belongs to the citizens of New Jersey, whose hopes and visions have shaped it.

The purpose of the State Plan is to coordinate planning activities and establish statewide planning objectives in the following areas: land use, housing, economic development, transportation, natural resource conservation, agriculture and farmland retention, recreation, urban and suburban redevelopment, historic preservation, public facilities and services, and intergovernmental coordination (NJSA 52:18A-200(f)). The State Plan Policy Map reflects these planning policies graphically; it serves as the underlying land use planning and management framework that directs funding, infrastructure improvements, and preservation for programs throughout New Jersey. The State Development and Redevelopment Plan with the State Plan Policy Map is a dynamic vision of New Jersey's development and conservation patterns. With that in mind, the State Planning Commission incorporates new data from state agencies, counties and municipalities on an ongoing basis.

**For more information please visit:**
*http://nj.gov/state/planning/spc-state-plan.html*

Chapter 5
# Subdivision and Site Plan Review

The site plan review process is the implementing tool for the master plan and zoning regulations. It is the culmination of previous municipal decision making on land use, including environmental ordinances. The participation of the environmental commission, using environmental resource inventory data, is crucial.

The purpose of subdivision and site plan review is to assure that the developer meets all requirements of the land use ordinances. They must assure basic services, such as potable water supply, sewage disposal and roads. This process ensures that onsite and offsite impacts are mitigated. They also may assess the immediate and secondary impacts of his proposal on traffic, stormwater runoff, flooding and cultural features.

The review process allows evaluation of development plans according to the environmental constraints of the site. The plans should comply with applicable state, county and local plans and regulations. Because municipal planning boards must act on applications within strict time limits, approvals are usually conditioned on the applicant getting all applicable county, state or federal permits. Under the MLUL, the planning board holds subdivision and site plan review powers, except that when a use variance is required the zoning board of adjustment reviews the plan.

## SITE PLAN

The MLUL defines a site plan as a development plan of one or more lots that shows:
(1) the existing and proposed conditions of the lot, including but not necessarily limited to topography, vegetation, drainage, floodplains, marshes and waterways;
(2) the location of all existing and proposed buildings, drives, parking spaces, walkways, means of ingress and egress, drainage facilities, utility services, landscaping, structures and signs, lighting, screening devices; and
(3) any other information that may reasonably be required to make an informed determination pursuant to an ordinance requiring review and approval of site plans.

## Subdivision

The MLUL defines subdivision as the division of a parcel of land into two or more lots. It classifies subdivisions as either minor or major. The municipal ordinance can specify the number of lots a minor subdivision can have. It must have minimal offsite impacts, such as sedimentation, runoff, air or water pollution, and must be in compliance with the master plan and the zoning ordinance. It does not include cluster zones, planned unit development (PUD) zones or the creation of a new street.

The planning board may waive a public hearing for an application for a minor subdivision. However, the environmental commission can develop an informal process to advise the planning board or building inspector on environmental impacts of minor subdivisions. Soil erosion, surface water management, grading, vegetation removal and impacts to streams and wetlands are all important considerations.

A major subdivision is any that is not defined as minor. It requires more extensive review, including a public hearing. Major subdivisions have regional impact, because of the increased demand they impose on water supply and sewage facilities and increased traffic on highways and streets.

The MLUL enables a municipality to amend its zoning ordinance or adopt a separate subdivision and site plan ordinance. The ordinance must require that the planning board review and approve all site plans, except those for one or two dwelling units, as a condition of the issuance of building permits and certificates of occupancy.

The site plan must conform to the criteria of the zoning ordinance. The ordinance outlines the information required on an application. The applicant is given a checklist to make sure all information has been provided on site plan maps or supplementary reports. This includes:

- existing site topography, drainage and vegetation;
- proposed grading and landscaping;
- street design, parking and traffic circulation;
- soil erosion and sediment control plan;
- an environmental impact statement;
- connections to utilities; and
- lighting.

The planning board can ask for whatever additional information it requires to make a decision. Developments requiring site plans also can have regional impacts. Site plans should show compliance with requirements for the impact on drainage, floodplains, ambient air and water quality and noise levels of the region. Lack of adequate water supply or sewerage capacity are reasons for denial of an application.

The county planning board must review any subdivision or site plan proposal affecting county drainage or road systems. It can rule on the impact on drainage and roads only, although it may comment on other aspects of the application.

The county or regional soil conservation district (SCD), under authority of the state Soil Erosion and Sediment Control Act, must certify erosion and sedimentation plans for proposed subdivision or development projects with anticipated land disturbance greater than 5,000 square feet or for which a municipal construction permit is required. SCDs also are charged with enforcing these plans. Single family dwellings not part of major subdivisions are excluded from this requirement.

County soil conservation districts review state required soil erosion and sedimentation control plans. About 30 municipalities elected to assume these review powers by passing a soil erosion and sedimentation control ordinance that complied with the SCD regulations. (This municipal option expired in 1978.)

It is important for the environmental commission to comment on the soil erosion plans. The commission also can monitor compliance during construction and after building is completed. It should communicate with the appropriate enforcement arm of the SCD or the building inspector on noncompliance, using photographs to document ongoing violations.

The MLUL also provides municipalities with the option of setting further conditions of approval; for example, offtract improvements and reservation of open space for public areas. Each municipality has individual needs and so will set different requirements. The purpose behind the procedure is to develop standards for development to protect against a negative impact on the environment.

With the demand for development and the potentially conflicting demand for a clean and healthful environment, intelligent choices must be made, especially as easily developed land is used and the marginal land, with environmentally sensitive areas, is left. The subdivision and site plan review process provides the information necessary for the reviewing agency to make land use decisions in accordance with the natural resource capabilities of the area. By using ERI data, the planning board and environmental commission can gauge how a particular development will affect the municipality, the region and future planning.

***Debbie Kratzer examining a site plan with EC members at the 2016 ANJEC Environmental Congress***
**Photo courtesy of Renee Resky**

## The site plan and subdivision review procedure

Site plan and subdivision review and approval can occur in several steps:

- pre-application conference,
- submission of application package including impact statement,
- complete application,
- preliminary approval, and
- final approval.

## DEADLINES FOR MUNICIPAL REVIEW OF APPLICATION SUBMISSIONS[1]

### Planning Board Action

- Application declared complete or incomplete **45 days**
- Decision for minor site plan or subdivision **45 days**
- Preliminary decision for major site plan or subdivision **95 days**
- Final decision for major site plan or subdivision **45 days**
- Decision on bulk variance for subdivision, site plan or conditional use **95 days**

### Zoning Board of Adjustment Action

- Decision on use variance **120 days**
- Decision on bulk variance not involving subdivision, site plan or conditional use **95 days**

1 General approximations – for more detailed guidelines, see ANJEC's resource paper "Site Plan and Subdivision Review." Review times can be extended with applicant's agreement.

The earlier the environmental commission becomes involved in the process, the more likely it will be able to have an impact. If the planning board or its subcommittee has a preapplication conference, sometimes called a "sketch plan," "conceptual review" or "informal review," a commission member should attend this meeting. At this stage, the developer has not invested a great deal in engineering and design, and so is in the best position to respond favorably to the concerns of the planning board and environmental commission. The developer will want to have an application that is agreeable to the town, so it will get approved.

Courtesy of Barbara Pretz

## Preliminary approval

Preliminary approval establishes for subdivisions how many lots a tract of land can support, or for site plans how one tract will be developed in detail. Preliminary approval determines use requirements; the layout and design standards for streets, curbs and sidewalks; the lot size; yard dimensions; safe vehicular access; and stormwater management. Preliminary approval is not tentative or conditional but the first step in a process that will – everything else being equal – go forward. Some work on the site can be authorized with preliminary approval. The commission must express its concerns to planning board members and staff and at hearings on applications before preliminary approval is granted.

For preliminary approval, the developer submits a site plan and other pertinent information to the planning board. The required information, as outlined in each municipality's site plan or subdivision ordinance, should provide the reviewing agency with a conceptual view of present land uses on and off the site, how the project will alter these uses, and the private and public benefits from the project in the long and short term.

The planning board can send copies of the plan for review to other relevant agencies, such as the police department, board of health and the fire department. The MLUL requires that if the environmental commission has completed an "index of natural resources" (an ERI), the planning board and board of adjustment must send the commission an informational copy of every application for development submitted to either board. (However, the MLUL also says that failure to do this will not invalidate the decision on the application.)

Even if the commission has not prepared an ERI, it should request copies of applications so it may comment on them. If it does not receive copies, the commission can review the copy that is required to be on file for public inspection. However this alternative is not as good as having its own copy for study. Comments should always be based on fact and written and dated.

During the preliminary review and approval process, the planning board receives advice from its planners, engineer, environmental commission and board of health to establish conditions of density, open space preservation, critical areas protection and off-site impacts. The public can comment at the required planning board public hearing and at the informational meeting of the environmental commission, if it holds one.

## Final approval

The last part of site plan or subdivision review is gaining final approval. Preliminary approval is the go-ahead for the project, and final approval guarantees compliance with the specifics.

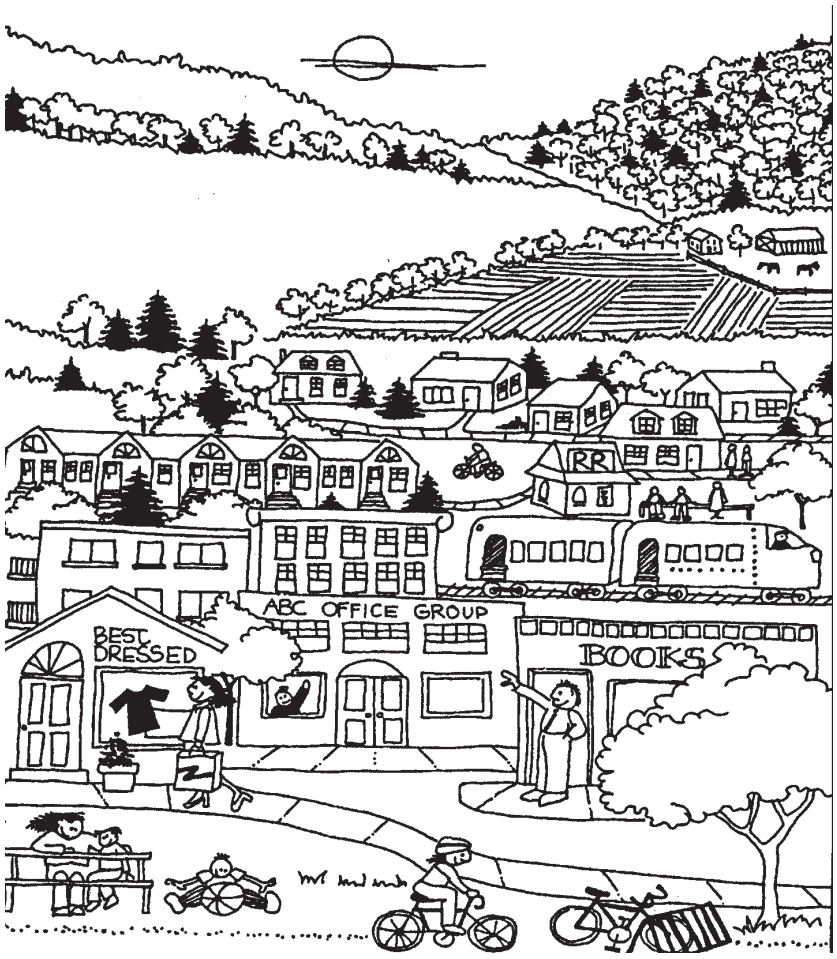
Final approval determines the detailed conditions the applicant must meet, ratifying those given in preliminary approval. The conditions for final approval require conformance to the design standards in the site plan ordinance and the fulfillment of valid conditions appended during the preliminary approval process. Conditions specified for applicant's performance can save taxpayers and future homeowners dollars, and prevent the loss of irreplaceable resources.

# THE ENVIRONMENTAL IMPACT STATEMENT

Many municipalities have ordinances requiring that an environmental impact statement (EIS) be filed with major site plan and subdivision applications. Usually the ordinance has a clause saying that the planning board can waive the requirement if the impacts will be negligible.

The ordinance lists the subjects to be covered by the EIS, including the potential impacts of the development and proposals for mitigation. (A listing of EIS subjects appears in Appendix E, page 84.)

Because the developer's consultant prepares the EIS, it will probably not be completely objective. While most EIS ordinances list the specific information required, the statement usually presents one side of the issue, minimizing difficulties with the site. The commission should evaluate the EIS for the data given and the data omitted, and rely on its own judgment, not that of the person who prepared the EIS. The commission can request further information be provided in the EIS.




Courtesy of Barbara Pretz

# SITE PLAN REVIEW PROCEDURE

Review present land uses on and off-site.

Review existing environmental features, critical areas and the like. Compare with ERI/NRI data, zoning and design requirements, the municipal master plan, county plans, and other databases, such as NJDEP's Geo Web, available at *http://www.nj.gov/dep/gis/geowebsplash.htm.*

Evaluate the proposed project's impact on existing environmental resources.

Review applicant's Environmental Impact Statement (EIS) if submitted; evaluate for data given and omitted. The EIS should include site specific data; for example, soil borings as opposed to generalized information about soils found in county soil surveys.

Make a site inspection with all parties involved in review, including applicant, to compare the maps and reports to the existing conditions.

Prepare report in the format of Findings of Fact and Recommendations and send to the planning board early in the review process and well in advance of the board meeting.

Review public comment.

Review site preparation and construction phases of project.

Present the written commission's report orally at a planning board or board of adjustment public hearing to offer opportunities for questions and clarification and to ensure it is incorporated into the public record.

Continue to follow the application. Be prepared to make additional recommendations based on project modifications.

## *Sample Format for Reports*

**Findings of Fact**

- Description of application or proposed action,
- Description of site as it is now,
- Existing surrounding, local and regional conditions,
- Conditions on and off site during construction,
- Conditions following occupancy,
- Applicable ordinances, and
- Permits required from other agencies. (Footnote all sources of information)

**Findings of Impact Based on Facts Above**

- Local impacts, positive and negative, and
- Regional impacts, positive and negative. (Note sources of expertise)

**Recommendations**

- Local and regional conditions to be met to mitigate impacts,
- Conditions to be met to mitigate impacts during construction and over life of project, and
- Permits to be in hand before action starts.

**Conclusion**

- Commission could conclude that based on above, project should be approved, approved on condition, ejected, or redesigned.
- Include rationale and expert testimony leading to decision.

*West Milford Environmental Commission (WMEC) Review of Site Plan in Action with a Focus on Climate Change:*

*When a fast food restaurant decided to open for business in West Milford, the environmental commission played a key role in assessing the building's environmental viability. The WMEC noticed a potential for excessive runoff that might carry vehicle contaminants onto an adjacent property on the site plan. That property had a stream flowing through it and draining into an environmentally sensitive lake that extends into New York. The WMEC recommended containment vault with oil separator and a rain garden to hold and slow down runoff from the property. They also recommended installing No Idling signs to help reduce greenhouse gases production. The applicant readily agreed to these suggestions and incorporated them into the final plans.*

The Woodstown/Pilesgrove Environmental Commission has tried to limit the developer's ability to submit biased data in an EIS by designing a worksheet for applicants to complete.

It is important to remember that the EIS is simply an information gathering tool. While it doesn't protect the environment and often is used to justify environmentally damaging projects, it does force environmental issues to surface for discussion.

## Sample Questions from Woodstown/ Pilesgrove EIS Worksheet

### Environmentally Sensitive Areas

*Does the proposed development site include any environmentally sensitive areas?* ☒yes ☒no

*If yes, check the environmentally sensitive area category that occurs on the site and give acreage:*

☒ Freshwater Wetland/Marshes
☒ Flood Prone Areas
☒ Prime Aquifer Recharge Areas
☒ Woodland and Wildlife
☒ Prime Agricultural Land
☒ Historical Sites
☒ Streams

*Will these environmentally sensitive areas be impacted by development?* ☒yes ☒no
*Any impacts may be discussed in more detail in the mitigative measures section.*

## RESIDENTIAL SITE IMPROVEMENT STANDARDS (RSIS)

To avoid the multiplicity of standards in various towns and levels of government, the NJ Legislature passed a law to establish uniform site improvement standards for subdivisions and site construction of residential development. The law established a board to set standards for streets, off-street parking, water supply, sanitary sewers and stormwater management. The standards for stormwater management must conform with the NJDEP regulations and use the department's Best Management Practices Manual for guidance. (The ANJEC Resource Center has a copy of the full worksheet.)

Courtesy of Barbara Pretz

## State Permits Reviewing

| Permit | NJDEP Program |
|---|---|
| • Air Quality | *Air Quality Permitting* |
| • Coastal Area Facility Review (CAFRA) | *Land Use Regulation* |
| • Coastal Wetlands | *Land Use Regulation* |
| • 401 Water Quality Certificate | *Division of Water Quality* |
| • Freshwater Wetland or State Open Water Fill Permit | *Land Use Regulation* |
| • Freshwater Wetland Transition Area Waiver | *Land Use Regulation* |
| • NJ Pollution Discharge Elimination System (NJPDES) | *Division of Water Quality* |
| • Sewer Extension and Connection | *Division of Water Quality* |
| • Flood Hazard Area | *Land Use Regulation* |
| • Soil Erosion and Sediment County Soil Control Plan Conservation District | *Land Use Regulation* |
| • Waterfront Development | *Land Use Regulation* |
| • Water Quality – Division of Management Plan Water Quality Consistency | *Division of Water Quality* |

## Permits from Other Agencies

Often the state requires applicants to obtain permits if their developments encroach on areas protected by state law, such as streams, floodplains or wetlands. Planning boards should make these permits a condition of final approval. Any approval given should state in writing that no site work shall begin until all local, state and county permits have been obtained. The environmental commission may want to work with the planning board secretary or the construction subcode official to assure that all permits are obtained before a building permit is issued.

A single application for development may involve several state permits and review by different divisions in the NJDEP Environmental Regulation Program. See above for a listing of some of the more common permits an applicant may require.

# THE COMMISSION'S ROLE IN SITE PLAN REVIEW

To be effective, the environmental commission must provide its comments before the applicant receives preliminary approval. This approval gives important rights to the developer that may allow site work to begin. Substantial changes cannot be made after preliminary approval is given.

The commission should follow a set procedure in site plan review. Find out who coordinates the review process in town. This varies in municipalities; it may be the municipal planner, engineer or planning board secretary. Work with this person to be sure that the commission receives a copy of all documents submitted to the planning board and notice of meetings.

The commission should develop a checklist to insure that all important areas of concern are addressed completely and to provide consistency in review for each site. The checklist should reflect state laws and regulations and local land use ordinances. It should include consistency with the ERI, the master plan and the county master plan. This gives the commission the opportunity to let the planning board know if more information is needed.

***Cranford EC meeting: Becky Hoeffler, Ed O'Malley (Deputy Mayor), Nelson Ditmar, Jr., and Mary O'Reilly***

**Photo courtesy of Nelson Ditmar, Jr.**

## The commission report

The commission should agree upon and present testimony and a report that includes findings of fact and its recommendations to the planning or zoning board on all phases of the project.

The findings of fact should be based on the review of material submitted by the applicant and observations of the site. It should include a description of existing conditions, with information derived from the site inspections and the ERI, as well as county and state sources.

Although the ERI does not give site specific information, it suggests conditions and gives a regional overview. The commission should carefully review the applicant's EIS and request the planning board get further information from the applicant if necessary. It should also include in the findings of fact what permits are required for the application, such as wetlands, flood hazard area , highway openings, wells, water supply and wastewater.

The commission should verify the information by visiting the site, with permission from the applicant. Go with the site plan in hand and preferably with the applicant or the engineer. If needed, the commission should use the services of soil science and extension specialists. If funds are available, it should hire a consultant for complicated proposals requiring technical review.

## Recommendations

After stating its findings of fact, the commission then makes recommendations concerning the density of the project, resource protection, regional impacts on neighboring municipalities or watersheds and on quality of life. The commission can recommend that the planning board hire a consultant to evaluate problem areas of a site plan. Many municipalities have established escrow ordinances that require the applicant to provide funds to the municipality to allow the board to hire its own experts for analysis.

The commission should meet to discuss a draft of the report, exchange ideas and vote on the recommendations. Holding the discussion at a regularly scheduled meeting fulfills the obligations of the Sunshine Law, allowing for public participation.

In its recommendations, the commission can suggest conditions of approval. These are based on the uniqueness of each site. For instance, the commission can recommend locating buildings to protect environmental conditions such as wetlands, slopes or streams. It can make recommendations concerning resource protection, appropriateness of design in relationship to natural conditions and preservation of open space.
Based on its findings and recommendations, the commission should recommend approval, with or without conditions, or denial.

The commission should deliver copies of its report to all board members and the applicant at least a week before the public hearing on the project. Reading the report at the hearing makes it an official document and ensures that all board members hear the commission's concerns. In addition, the commission should be available to answer questions from the planning board and applicants.

The commission also should comment at the meeting for final approval on performance standards for the development. This includes stormwater control, maintenance of open space, parking and traffic management during and after construction.

After final approval is granted, the commission can check the site from time to time to make sure that the temporary conditions of construction do not have irreversible impact. The commission can inform the municipal enforcement authority of infractions of soil erosion provisions or fencing to preserve existing landscaping from damage by heavy equipment.

**For more information:**

- ANJEC Resource Center; (973) 539-7547 *www.anjec.org*
- N.J. Planning Officials; (908) 412-9592 *www.njpo.org*
- Municipal Land Use Law (MLUL)
- NJSA 40:55D1 et seq.
- "Site Plan and Subdivision Review: Environmental Analysis," ANJEC
- "Major State Programs Affecting Land Use,"
- Your municipal master plan, land use ordinances and zoning map, ANJEC
- American Planning Association – New Jersey Chapter; (973) 286-4708 *njplanning.org*
- NJ Future; (609) 393-0008 *www.njfuture.org*
- Regional Plan Association; 732-828-9945 *www.rpa.org*

Chapter 6

# Land Use Issues in Developed Communities

The "environment" is a term that often brings to mind rolling green meadows, old growth forests and mountain streams, so those who live in heavily developed areas may not believe they have an environment to protect. Environmental efforts in New Jersey's cities sometimes face special challenges because other pressing social or financial issues tend to overshadow the environment. But natural resource protection is just as important in cities as in rural areas.

Urban and developed communities are hubs of cultural, economic and transportation activity, where industry, commerce and concentrations of people converge to produce large amounts of waste products and pollutants that can contaminate air and water if not controlled. Likewise, environmental health hazards in cities put more people at risk due to the population density.

But cities also represent important opportunities for creating a more sustainable way of life in New Jersey. They enable people to live near the places where they work, shop and socialize, so they use less gas to get around. The availability of mass transportation reduces dependence on personal cars and resulting greenhouse gas emissions. In a variety of ways, concentrating development around existing infrastructure conserves resources while improving cost efficiencies.

Channeling future development into areas that have the infrastructure to accommodate growth also helps to preserve unspoiled areas that provide vital natural resources and filter our air and water, benefiting everyone who lives in New Jersey. But that growth has to be planned and efficient to provide the environmental and quality of life components that will serve us well into a sustainable future.

## THE URBAN ENVIRONMENT

City environments differ from suburban and rural areas in several significant ways. They tend to have:

- large areas of impervious surface, such as asphalt and buildings;
- limited amounts and varieties of trees, vegetation and wildlife;
- altered water bodies that are often channelized and polluted;
- severely altered and compacted soils, often containing lead and other contaminants;
- extensive sanitary and stormwater sewer systems instead of septic systems and natural infiltration of rain water into the ground;
- older buildings that may contain contaminants like lead, asbestos or other industrial pollutants;
- higher summer temperatures due to the "heat island" effect; and
- dependence on water imported from distant areas.

## COMMISSIONS IN DEVELOPED COMMUNITIES

Active environmental commissions can accomplish much to protect health and the environment in urban and developed communities by:

- acting as watchdogs for environmental problems and opportunities;
- educating local officials and citizens about the importance of air, water and land to public health and the economy;
- informing and advising elected officials;
- participating in community planning and decisions by serving on committees;
- researching environmental issues and advocating for sound environmental policy; and
- serving as liaison between local government, state environmental agencies and the public.

By participating in land use planning and site plan review in developed communities, commissions help ensure that future development, redevelopment and infill meets the environmental quality of life needs of residents. Commissions take the lead in creating environmental resource inventories (ERI) and open space inventories that provide a basis for resource-based land use planning in urban communities. In some cities, environmental commissioners also serve as community liaisons for site remediation projects and brownfields conversions, keeping abreast of potential environmental health issues that affect the community.

Commissions can also help ensure adequate places for active and passive recreation in cities by helping to protect parks, riverfronts and greenways and by promoting open space preservation. Their efforts can yield important environmental, aesthetic, economic and social benefits by working to establish programs for tree maintenance and replacement, stream bank revegetation, landscaping and other green infrastructure.

Working with local government to educate and mobilize the community, urban commissions often help to reduce littering and encourage recycling; organize stream cleanups and water monitoring programs; restore vegetation and tree cover to provide wildlife habitat; urge enforcement of no-idling rules; advocate for safe pedestrian and bike pathways; and promote energy conservation, green building practices and mass transportation.

**For more information:**

- ANJEC; (973) 539-7547 *www.anjec.org*
- "UrbanEnvironmentalCommissions: Protecting health and the environment in New Jersey's developed communities," ANJEC 2003

## BROWNFIELDS REDEVELOPMENT

Brownfields are former industrial or commercial properties that remain vacant or underutilized, often because suspected contaminants make it difficult for owners to do anything with them. While brownfields may be found in any community, they are especially common in developed communities. These sites become a drain on the local economy and can also pose a threat to health and safety.

But many brownfields are located near existing sewer and water lines, transportation systems and a potential workforce, where they can be redeveloped to create vital, productive businesses. Others can be converted into urban parks and playgrounds that can help bring blighted neighborhoods back to life.

In order to create a shared vision of how a brownfields property should be developed, broad community participation is crucial to the process, and should include local residents, municipal officials, owners, developers, investors, community organizations and government agencies.

Many resources are available to help New Jersey communities turn brownfields into productive properties. The State of New Jersey has created the Brownfields Redevelopment Task Force to provide various resources and support. In addition, NJDEP has created a Brownfields Development Area (BDA) Initiative to help communities with multiple brownfields sites pull together interested parties to create simultaneous remediation plans for these sites.

### *Overcoming Contamination Challenges: South Camden Historic Waterfront*

*The southern section of the Camden waterfront was once the original manufacturing facility for the Victor Talking Machine Company. The site attracted a developer who conducted the voluntary remediation and redevelopment. Other players included the Cooper's Ferry Development Association, the Delaware River Port Authority, multiple state agencies including the NJ Department of Community Affairs, the Office of the Governor and the City of Camden's Office of the Mayor. NJDEP established a technical team which developed creative solutions to address PCB contamination in the floors, walls, basement, air and groundwater.*

For more information:

- ANJEC; (973) 539-7547 www.anjec.org
- "Remediating and Redeveloping Brownfields in New Jersey: A Guide for Municipalities and Community Organizations," ANJEC 2014
- "New Jersey Brownfields Redevelopment Resource Kit"; (609) 292-3096 nj.gov/state/planning/docs/brownfieldsresourcekit.pdf

# EMINENT DOMAIN

Traditionally, eminent domain has been understood as the government's right to take private property for public use such as building roads, hospitals and schools in exchange for fair remuneration. In current New Jersey redevelopment law, eminent domain can occur in designated "Areas in Need of Redevelopment" and for other public purposes like preservation of open space.

Defining what constitutes the legal use of eminent domain has sometimes been controversial. In 2005, the Federal Supreme Court ruled in the landmark Kelo v. The City of New London that 15 homes in the Fort Trumbull waterfront neighborhood of New London, CT, could be condemned for "economic development." Economic development was determined to be a legal "public use." In their dissenting opinions, Justice Sandra Day O'Connor and Justice Clarence Thomas warned that the taking would encourage local governments to misuse the power of eminent domain and threaten homes, businesses, churches and other properties so that they could be transferred to other private parties.

The State of New Jersey is grappling with how to plan, create and promote the redevelopment of cities and developed communities while at the same time preserving neighborhoods and protecting the rights of individual landowners.

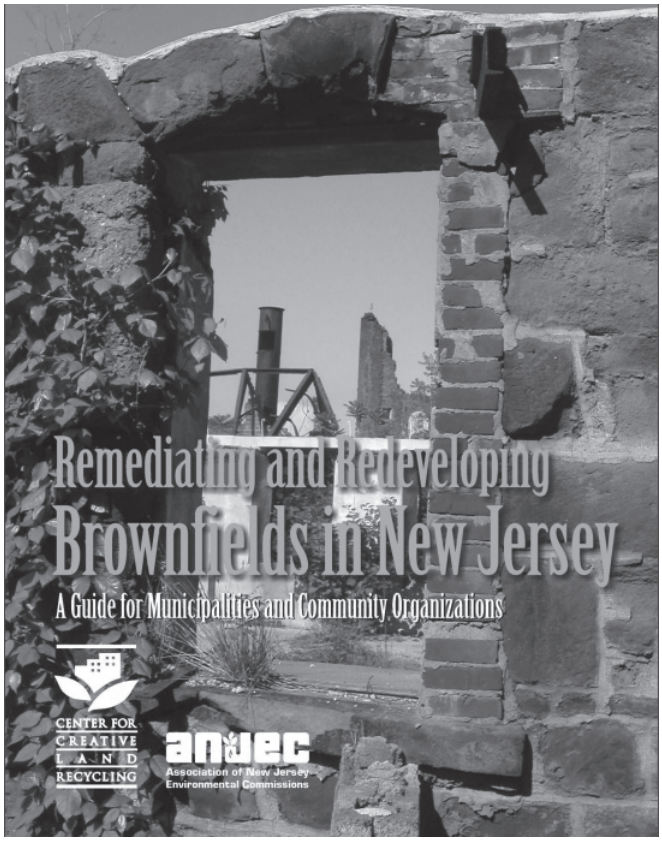
By keeping community members informed and involved in planning for redevelopment, environmental commissions can play a role in helping municipalities avoid eminent domain abuse. When local government is identifying areas in need of redevelopment, commissions can provide advice on those areas' suitability in terms of natural resources and other environmental factors.

# ENVIRONMENTAL JUSTICE

Nationwide studies have shown that many people of color, members of the working class or those with low incomes live in communities with a disproportionate share of pollution, especially urban areas. These conditions raise important questions about the environmental burdens placed on people living and working in these areas.

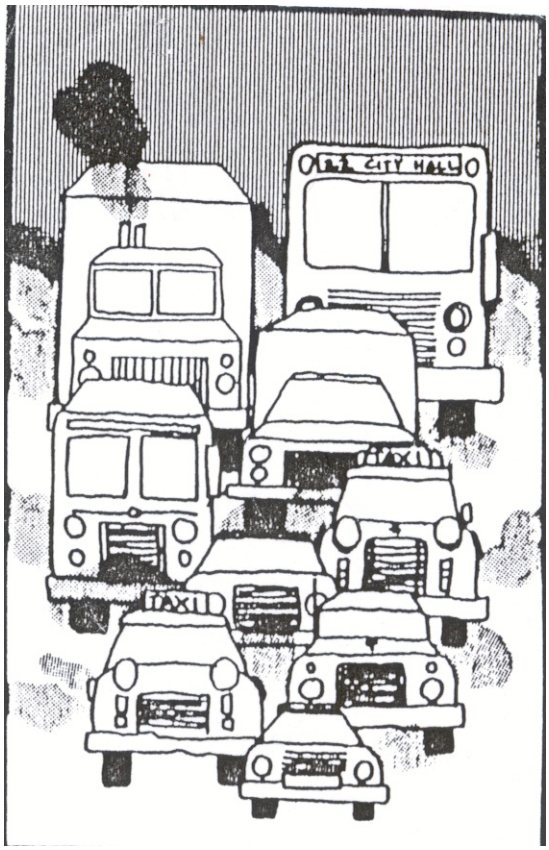
## New Jersey Environmental Justice Initiative

In 2004, Governor James McGreevey signed the first statewide Environmental Justice Policy Executive Order, acknowledging that "New Jersey's communities of color and low income communities have historically been located in areas of the State having a higher density of known contaminated sites as compared to other communities, with the accompanying potential for increased environmental and public health impacts."
This Executive Order led to the formation of an interagency Environmental Justice Task Force (EJTF) to address environmental health and qualityoflife issues in these communities. This initiative challenges all government agencies to consider urban environmental and public health concerns and to increase public participation in the environmental decision-making process.



## Petitions for Environmental Justice

Environmental commissions have an opportunity to join with residents and workers in affected communities to petition the EJTF to address potential environmental justice concerns. The Executive Order provides communities with a process for appeal on a wide range of issues, from specific events like chemical releases to ongoing problems like the cleanup of contaminated properties, odors, or industrial and truck activity.




Courtesy of Barbara Pretz

Petitions must have at least 50 signatures from either residents (at least 25 of the total) or workers in the area of concern. Although the Executive Order does not require local government approval, some submitted petitions have included the endorsement of environmental commissions or elected officials. Petitions should include a thorough description of the community in question, including demographic and environmental information such as the proportion of low income and minority people and the nature of the environmental burdens. After the Task Force accepts a petition, it works with citizens, local and county officials to develop an Action Plan that will guide state agencies' responses to the problem.

### *Newark City Environmental Justice and Cumulative Impacts Ordinance*

*In July 2016, Newark City became the first municipality in the country to pass an Environmental Justice and Cumulative Impacts (EJ-CI) ordinance. The New Jersey Environmental Justice Alliance (NJEJA) is a collaborative effort of organizations and individuals that focus on creating healthy, sustainable and just communities. One major goal of the environmental justice community is to reduce emissions of air pollutants such as fine particulate matter and carbon dioxide. The EJ-CI ordinance triggers an environmental review from the Newark Environmental Commission when projects applying for approval from the Planning Board or Zoning Board of Adjustment are for any commercial or industrial use AND require one or more environmental permits from the county, state, or federal government.*

### For more information:

- Environmental Justice Task Force; (609) 633-0715 *www.nj.gov/ejtaskforce*
- NJDEP Environmental Justice Program Coordinator; (609) 292-2908 *www.nj.gov/dep/ej*
- New Jersey Anvironmental Justice Alliance; *www.njeja.org*

Chapter 7

# Preserving Natural and Cultural Resources

Environmental commissions accomplish a variety of local activities to safeguard precious natural and cultural resources.

## PROTECTING WATER RESOURCES

### Wetlands Protection

Freshwater wetlands are important natural resources that provide vital public benefits. They protect and preserve drinking water supplies; provide a natural means of flood and storm damage protection that prevents loss of life and property; protect water quality by vegetative uptake of pollution and provide essential habitat for a major portion of the state's fish and wildlife. They also provide untrammeled open space.

Freshwater wetlands usually lie between dry upland areas and water bodies and occur most frequently along rivers and streams or on margins of lakes or ponds. They can be groundwater fed depressions, and they also can occur on slopes or ridges where springs erupt at the surface.

Three attributes are necessary to identify wetlands: vegetation, soil and hydrology. To be considered a wetland, an area must have enough water maintained in the region of the root system at some time during the growing season to support vegetation that tolerates wet conditions.

The 1987 New Jersey Freshwater Wetlands Protection Act provides the primary protection for wetlands in New Jersey. Far stronger than the federal wetlands regulations, the Act regulates all activities in wetlands, not just the excavation and filling of wetlands that the federal rules regulate. The New Jersey law also regulates buffer areas (also called transition zones) around wetlands, the size of which depends on whether the wetlands contain threatened or endangered species. NJ wetlands are classified by resource value; buffer area sizes are based on individual values, ranging from 150 foot to no buffer zone.

### Stormwater Regulations

Another evolving area of water resource protection concern is the management of stormwater. Stormwater runoff caused by precipitation is an important resource that replenishes our water supply. The natural water cycle involves perpetual recycling of all precipitation. There is no new source of water – we are drinking the same water that the dinosaurs drank. So how we use and reuse or recycle water is of critical importance, and the way we use land has a direct effect on our waterways.

The New Jersey Stormwater Management Regulations (NJAC 7:8 et seq.) provide minimum standards that municipalities must adopt for handling runoff. Under natural conditions, over 50 percent of the runoff from stormwater soaks into the ground to replenish groundwater. The new standards require increased infiltration of stormwater. With increasing development, more and more stormwater runs off impervious surfaces such as roofs, roads, parking lots and driveways, contributing to more flooding and reduced groundwater recharge.

The state regulations also require development applicants to incorporate stormwater management strategies for controlling runoff volumes and to incorporate "nonstructural" or "low impact development" measures to protect water quality.

When reviewing a development project, the environmental commission should make sure that stormwater is infiltrated as much as possible and as close to the source as possible. Infiltration helps to reduce runoff for smaller storm events; lessen runoff volumes for all storm events; improve groundwater recharge and sustain stream base flows. These measures all significantly contribute to better water quality in streams, rivers and reservoirs that provide drinking water.

### *Asking the Right Questions in Stormwater Review*

*Environmental commissions can review the online tool "Asking the Right Questions in Stormwater Review'" developed by ANJEC and the Rutgers Cooperative Extension Water Resources Program.*

*Find the tool at: http://anjec.org/StormwaterWhatEnvCommCanDo.htm*

The state standards also require that Category One streams have a 300 foot buffer on both sides. Category One streams are mapped on NJDEP's Geo Web site. Category One waters are to be protected from all changes in water quality, "including calculable or measureable changes." (NJDEP surface water quality standards)

### *Best Management Practices (BMPs)*

*Development proposals must consider use of the following nonstructural Best Management Practices:*

- *Protect areas that provide water quality benefits such as wetlands, recharge areas, floodplains, woodlands, and stream and wetland buffers.*
- *Maximize protection of natural drainage features and vegetation.*
- *Minimize impervious cover and break up or disconnect runoff.*
- *Minimize reduction in "time of concentration" from pre- to post-construction.*
- *Minimize land disturbance including clearing and grading.*
- *Minimize soil compaction.*
- *Provide low-maintenance native plant landscaping and minimize lawns.*
- *Provide vegetated open channel conveyance systems.*
- *Provide other "source controls."*

## Streams and Rivers

New Jersey's rich abundance of surface water feeds our drinking water reservoirs, provides wildlife habitat, enhances scenic beauty and creates recreational opportunities such as swimming, fishing and boating. The state's Flood Hazard Area rules (NJAC 7:13) regulate activities in designated flood hazard areas. As of 2007, the rules require permits only for activities that encroach within 25 feet of streams, or 50 feet of trout production streams. Proposed amendments seek to enlarge those regulated areas to 300 feet along Category One streams, 150 feet for trout maintenance streams and 50 feet for all others.

These regulations were intended to protect riparian areas (buffer zones). They establish maximum areas of vegetative disturbance for various projects and limited the scale of activities that were allowed to take place. For projects that meet regulations, the rules also require no-net increase of fill in flood hazard areas to protect flood storage volumes.

Municipal flood-hazard ordinances that reference NJAC 7:13 should be reviewed to assure continued protection. Municipalities are authorized by statute to treat the NJDEP rules as "minimum standards" and are permitted to have more stringent rules by local ordinance.

Although NJDEP stormwater rules retain the riparian zone protections, they are only triggered by fairly large projects of more than one acre of disturbance and more than 1/4 acre of new impervious surface. Municipalities may want to amend their stormwater ordinance to reduce these thresholds to better reflect the type of projects typical of their community.

## Protecting Water Resources – Putting It All Together

Municipal master plans and ordinances that control the way land is developed can protect water resources and prevent water pollution. Careful site development can prevent increases in stormwater runoff and reduce the potential for erosion and sedimentation problems for our wetlands and waterways. Prohibiting disturbance of land adjacent to streams can

prevent erosion and loss of important filtration functions. Protection of these areas is far more economic – preventing pollution rather than paying for treatment of polluted water. Strong septic system requirements that require regular maintenance and inspection can help protect both groundwater and surface water.

**For more information**

- ANJEC; (973) 539-7547
  *www.anjec.org/waterresources.htm*
- Freshwater Wetlands Protection in New Jersey – A Manual for Local Officials," ANJEC
- "Protecting Our Streams," ANJEC

## SUSTAINABILITY AND ENERGY CONSERVATION

Sustainability is a term used to describe practices that meet the needs of the present without compromising the ability of future generations to meet their own needs. The worldwide movement toward sustainability is motivated by a variety of environmental, social and ethical issues. Continued global warming and the ongoing depletion of natural resources threaten the possibility of a sustainable future.

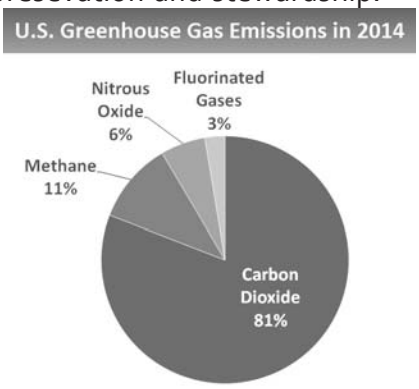
Discussions about climate change (or global warming) focus on the amount of certain gases present in the atmostphere. These gases prevent the release of the sun's energy back into the space, leading to increased temperatures globally.

Although some greenhouse gases exist naturally in the atmosphere, human activities that consume fossil fuels are largely responsible for increasing greenhouse gases to abnormal concentrations that contribute to climate change. Reducing the dependence on energy generated by fossil fuels-such as oil, gasoline, coal and natural gas (methane) will help reverse global warming and conserve these resources.

The Municipal Land Use Law has been amended to include an optional Master Plan Element: (40:55D, -28-16) It's important to note that the municipal land use law gives municipalities broad discretion about what areas of sustainability planning to pursue and that, in many cases, these actions have historically been recognized as good environmental management or simply, good planning.

While it may seem overwhelming to think about global climate change from a municipal perspective, environmental commissions can do a number of things at the local level to foster greater sustainability and improve air quality. For example, a commission can provide information and encourage individuals, businesses, schools and municipal bodies to conserve energy.

Environmental commissions can encourage the governing body and planning board to plan and zone for "smart growth" development patterns (compact housing, cluster development and "mixed use") that use less land and reduce the burden on natural resources caused by commuting, land clearing, building construction, road building and maintenance. It is also important to advocate for and plan for open space presevation and stewardship.




U.S. Environmental Protection Agency (2014). *U.S. Greenhouse Gas Inventory Report: 1990-2014.*

Protecting trees and vegetated open spaces also helps to counter greenhouse gas emissions because plants absorb carbon dioxide from the air and emit oxygen as part of photosynthesis. Commissions can encourage residents to preserve and protect their large specimen trees, sponsor tree planting events and work with their governing body to pass a tree ordinance that restricts removal of trees.

Local farmers' markets also encourage fuel conservation by giving residents a way to purchase locally grown produce that doesn't have to be transported long distances to market.

Finally, an environmental commission can encourage the governing body to adopt comprehensive programs to measure and reduce the municipality's "carbon footprint."

**Some strategies include:**

- performing an energy audit;
- modifying municipal buildings to reduce energy consumption based on the audit findings;
- installing high efficiency lighting and LED traffic signals;
- replacing fleet vehicles with hybrid or other low emission vehicles; and
- requiring developers to adhere to the Leadership in Energy and Environmental Design (LEED) Green Building Rating standards for energy efficiency.

Cranford, Montclair and Highland Park are among the New Jersey municipalities whose early adoption of sustainable building ordinances serve as a model for commissions wishing to encourage energy conservation.

**For more information:**

- ANJEC; (973) 539-7547 *www.anjec.org*
- "Municipal Planning and Clean Air," ANJEC
- New Jersey Board of Public Utilities (BPU); (800) 624-0241 *www.state.nj.us/bpu*
- New Jersey's Clean Energy Program; (609) 777-3306 *www.njcleanenergy.com*
- NJDEP Division of Air Enforcement; (609) 633-7288 *www.nj.gov/dep/enforcement/dahme.html*
- NJDEP Bureau of Mobile Sources, Stop the Soot; (609) 633-0610 *www.stopthesoot.org*
- Sierra Club Cool Cities program; (609) 656-7612 *www.coolcities.us*
- NJ Sustainable Business Initiative; (609) 633-1336; www.nj.gov/dep/aqes/sustain_bus.html
- State of New Jersey Energy Master Plan; Two Gateway Plaza, 8th Floor, Newark, NJ 07102 *www.nj.gov/emp*
- U.S. Green Building Council LEED rating system; (202) 828-7422 *www.usgbc.org*

# OPEN SPACE PROTECTION

Open space serves a wide range of vital functions that contribute significantly to the quality of life:

- recreation (active and passive);
- water storage and flood retention;
- groundwater recharge;
- wildlife habitat;
- carbon sequestration;
- aesthetic and scenic values;
- farmland presevation;
- air and water purification;
- vegetation and species preservation; and
- microclimate control.

**Examples of Open Space**

- federal, state, county, and municipal parks;
- municipal recreation areas;
- historic areas;
- privately owned properties such as:camps, watersheds, clubs, cemeteries, and golf courses;
- dedicated open space; and
- permanently preserved land.

In addition, preservation of open space can help avoid costs associated with development. Studies show that residential development costs the municipality more in educational and public services than it generates in tax revenue. Over time, even commercial ratables may not provide anticipated tax relief. In the long term, municipal investment in open space and farmland is usually less costly than allowing development.

## Open space inventory

The enabling legislation states that the commission has the power to "conduct research into the use and possible use of the open land areas...It may from time to time recommend plans and programs for inclusion in a municipal master plan and the development of such areas..."

The open space inventory is the starting point for open space planning in the community. An open space inventory should include all vacant land, both publicly and privately owned, and any easements on private parcels. The commission's inventory and the municipality's Recreation and Open Space Inventory (ROSI) are usually the town's only sources of this information.

With an open space inventory, the commission can set priorities for open space acquisition, considering environmentally sensitive areas, recreation potential, historic significance, possible greenways to connect existing protected areas, and contiguous areas of woodlands or forests. Next, the open space should be mapped, so that preservation projects can move ahead.

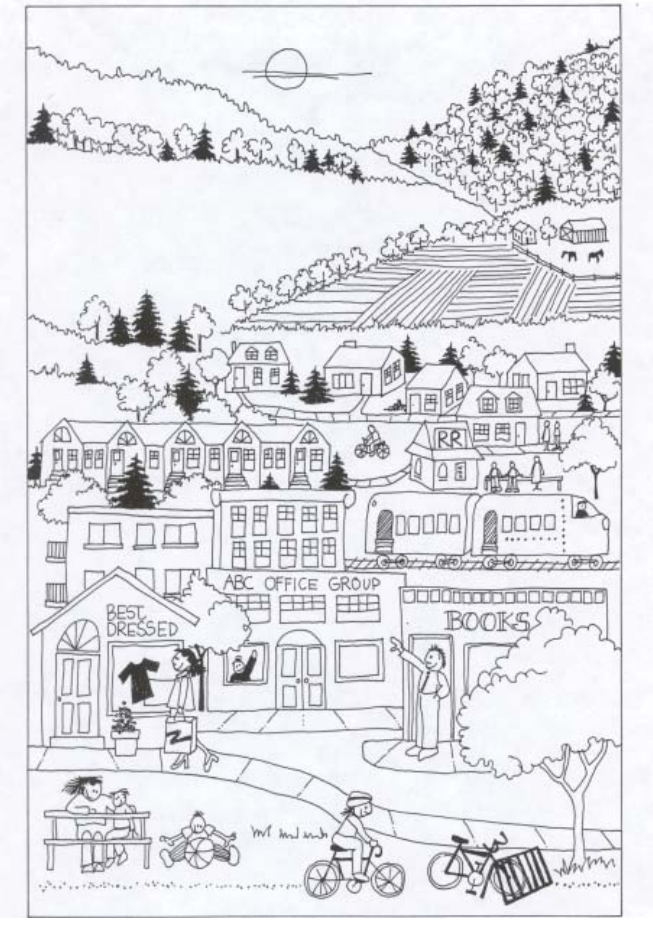
A commission may acquire property, both real and personal, on behalf of the municipality. This may be in the form of easements or development rights, or outright ownership. If the commission holds property, it must administer it according to conservation purposes and the terms of any grant or donation.

**Conservation easements**

Conservation easements are typically acquired through purchase or donation. (Sometimes donors of land give an easement to a land trust to assure the land's preservation before donating the remainder interest to a government agency.)

The easement "runs with the land," which means that future landowners are bound by the easement.

Some conservation easements allow use of the owner's property for particular purposes, such as rights of way for trails and bikes. Other easements prevent the landowner from using his property in certain ways. For example, an easement may prevent a landowner from building on the land (development rights), mining (mineral rights), cutting trees (stumpage rights), altering the landscape (scenic rights) or building more than a certain height (air rights). The landowner retains the right to sell his land, leave it to heirs or lease it, as long as he does not use the land in a way inconsistent with the terms of the easement.




Courtesy of Barbara Pretz

### *The Haddon Township Experience*

*In 2004, the Haddon Township Environmental Commission accepted stewardship responsibility for a 25acre wooded property with ties to the Underground Railroad. Named after a freed slave who placed a deed restriction on it, the tract known as Saddler's Woods has remained in its natural state for centuries.*

*To protect the site from continuous development pressure, the municipality applied to the Camden County Open Space Preservation Trust Fund and the Green Acres program and purchased the front 15 acres, and soon began negotiating with a second owner to buy the remaining acreage. A ferocious debate ensued over proposals to build athletic fields there.*

- *The Environmental Commission drafted a conservation easement to permanently protect the tract, and the governing body adopted it after a 5-hour public meeting and much debate.*
- *The Commission developed a 60-page management plan addressing existing disturbances on the site, permitting, tracking and monitoring procedures, public education, and signage.*
- *Grants from the County and the US Department of Fish and Wildlife funded the creation of a walking trail and a project to address invasive species.*
- *In 2014/2015 alone, Conservation Association volunteers tracked 974 restoration hours removing invasive plants, stabilizing stream banks and habitat enhancements.*

**Stewardship and Maintenance**

The environmental commission's role in open space preservation does not end with the acquisition by the municipality or land conservancy. Commissions can act as local guardians of the land. They can make sure no unauthorized clearing or building take place on the land. If the land has been donated for a particular purpose, the commission can make sure the purpose is upheld.

For example, some commissions have an inventory of conservation easements that they inspect on a yearly basis. The key to enforcement is good records and regular, systematic and well documented inspections. The municipality can maintain a computer database to keep track of municipal conservation ease-

ments. The property owner and municipal official should inspect the easement together to help keep communications open and to remind the owner of easement obligations.

A documentation of baseline data at the time the easement is granted is the foundation for the monitoring process. When property changes hands, new owners must be made aware of the easement provisions and of the importance of maintaining the agreement. The easement restriction is only as good as the commitment to enforce its terms.

Established land conservancy organizations can provide assistance to towns in setting up easement monitoring programs.

### *Easement Management*

*Since the 1960s, Mendham Townhip had aquired about 70 conservation easements on environmentally sensitive portions of properties under development, but no program was in place to oversee and maintain the easements. With the help of an NJDEP grant, the Environmental Commission completed an inventory of the easements, working with a forester to inspect each site and with the Upper Raritan Watershed Assocation (now part of Raritan Headwaters Assocation) to create a GIS database and digited maps.*

*In the process, the Commission sent a letter to 167 residents on whose properties the easements were located to notify them of the inspection. The letter also included a map of the owner's property with the easement highlighted and a brochure explaining conservation easements and restrictions that apply. Follow-up letters let owners know the inspections had been completed and advised them of any problems. Out of 167 properties, only 19 had some type of disturbance within the easement, such as dumped yard waste.*

*Now when new conservation easements are granted in subdivisions, the Commission performs a baseline inspection and places markers delineating the easement borders. A folder on the new easement is then added to the database, including a copy of the deed and a map with the easement highlighted. The Commission has also undertaken an ongoing easement monitoring system.*

## Regulatory Strategies

Regulatory approaches coupled with long range planning can also result in preservation of open space. Environmentally sensitive areas such as wetlands can be maintained in a relatively undeveloped condition through stringent regulation. The Freshwater Wetlands Protection Act requires permits for any development in wetlands.

The commission can monitor the permitting process to make sure that the developer


***Southampton EC members celebrate completion of the new rural sustainability plan***
**Photo courtesy of the Southampton Environmental Commission**

follows the provisions of the law and obtains and complies with necessary permits.

Municipalities also have enacted ordinances that help protect sensitive areas, such as steep slopes and stream corridors. (See Chapter 9, page 62.) These help provide pockets of green in a community.

Other land use regulations provide for the preservation of some open space by placing greater concentration of development in designated areas. These include clustering and transfer of development rights (TDR). Municipalities and developers often can save costs of infrastructure and municipal services by using a compact rather than a sprawling development pattern and preserving surrounding open space. (See Chapter 4, page 28, for more information)

These techniques are often used to protect areas such as steep slopes, wetlands and stream corridors, and to preserve agricultural lands. A covenant, such as an easement, should be placed on the open area of a cluster development or a TDR sending area so that it can not be developed at some later date.

### *The Franklin Experience*

*In Franklin Township (Somerset) the environmental commission worked with the planning board, township committee, local watershed association, a private forest preserve, the state and a major developer to put together a cluster ordinance designed to protect the municipality's valuable forests, stream corridors, farmlands, wetlands, scenic areas and historic structures. Franklin's Natural Resources Preservation Cluster Ordinance option (NRPC) was first applied to a massive housing development on a 1,700 acre site. It requires that 40 percent of the site be preserved through conservation easements on farmland, forests, hedgerows and stream corridors.*

# HISTORIC PRESERVATION

Historic sites can be buildings, landmarks, districts, scenic valleys or other significantly historic areas, such as battlefields, landscaping plans or archaeological sites. They provide this and future generations with a living presence of New Jersey's heritage.

The National Historic Preservation Act of 1966 and subsequent amendments define the National Register of Historic Places to include "districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering and culture." The Act provides matching funds for state and local preservation surveys, plans and activities through NJDEP's Historic Preservation Office.

Listing on or a determination of eligibility for the National Register provides a site with a degree of protection from alteration or destruction by a federal agency or by a federally licensed or supported action. Federal agencies must consult the state Historic Preservation Office and the President's Advisory Council to minimize the project's effects on historic resources. Listing or a determination of eligibility does not protect the site from action by the private owner. A historic site can be protected from private action on the local level only through planning board decisions, historic preservation ordinances or acquisition by the municipality.

New Jersey also has a State Historic Register Law, which provides for the establishment of a New Jersey Register of Historic Places in NJDEP. The importance of inclusion on the State Register is twofold:

- State funds cannot be used to aid, acquire, preserve, or restore a historic place unless it is listed.
- The state or local governments may not undertake or approve any project that would encroach on, alter or destroy any registered historic resource without review by the Historic Sites Council and written approval of the Commissioner of NJDEP.

## Historic sites survey

A historic sites survey identifies, documents and evaluates historic, architectural and sometimes archaeological sites in a community. The survey should be part of the local master plan's community facilities element or historic preservation plan element to ensure that valuable structures and areas are considered in the planning process. In addition, this information should be used in the site plan review process.

### Historic Preservation Commission

The Municipal Land Use Law enables municipalities to establish Historic Preservation Commissions to advise the planning board or to make decisions independently on historic preservation. Historic Preservation Commissions provide the means to designate historic sites and historic districts, regulate exterior architectural design and explore alternatives to demolition of historic properties. The environmental commission and the historic commission should share expertise in the planning process and incorporate historic survey information into the environmental resource inventory. (See Chapter 3, page 17.)

In municipalities without historic commissions, environmental commissions have often taken the responsibility for overseeing the protection of historic sites and have completed historic surveys. For example, the Stanhope (Sussex) Commission prepared a map of over 130 historic sites as part of its ERI. Using this information, it can comment on development plans that involve historic sites.

Other commissions have helped educate the public on the need for historic preservation by giving tours of historic sites. The Leonia (Bergen) Environmental Commission sponsored an archaeological dig on the site of an 18th century house that was to be demolished. They found pieces of pottery and a corncob pipe and were also able to retrieve beams and a banister for use in other historic sites.

### Certified Local Governments

Communities that have adopted local preservation ordinances and created historic preservation commissions can apply to the Historic Preservation Office for Certified Local Government (CLG) status.

As a CLG, a municipality can participate more directly in state and federal historic preservation programs. CLGs are eligible for special Historic Preservation Fund grants. They receive technical assistance and training, participate in nominating properties to the National Register, and develop local historic preservation expertise recognized by state and federal agencies.

### For more information:

- ANJEC's website: *www.anjec.org/ConservationEasements.htm*
- American Farmland Trust; (202) 331-7300 *www.farmland.org*
- ANJEC Resource Center; (973) 539-7547 *www.anjec.org*
- NJDEP Green Acres, Green Trust;
- (609) 984-0500 *www.nj.gov/dep/greenacres/plan.html*
- NJDEP Natural Lands Trust; *http://www.nj.gov/dep/njnlt/* 609-984-1339 Land Trust Alliance;
- Land Trust Alliance; (202) 638-4730 *www.lta.org*
- Nature Conservancy;
- (908) 879-7262 *www.nature.org*
- N.J. Audubon Society; (908) 204-8998 *www.njaudubon.org*
- N.J. Conservation Foundation; (908) 234-1225 *www.njconservation.org*
- Trust for Public Land; (973) 292-1100 *www.tpl.org*
- "Keeping the Garden State Green: A Local Government Guide for Greenway and Open Space Planning," ANJEC
- "Open Space Is a Good Investment," ANJEC
- "Open Space Plan," ANJEC
- The Municipal Land Use Law, NJSA 40:55 D1 et seq
- New Jersey Historic Preservation Office; (609) 984-0176 *http://www.nj.gov/dep/hpo/index.shtml*
- Preservation New Jersey, (609) 392-6409 *www.preservationnj.org*

Chapter 8
# Pollution Control

When the legislature amended the environmental commission enabling legislation in 1972, it put all aspects of pollution control – solid waste, water, air and hazardous substances – within the commission's purview. Working on local and regional levels, the commission does more than respond to problems. It advocates environmental protection, participates in hands on projects, and informs and involves residents in natural resources protection and pollution prevention.

## SOLID WASTE AND RECYCLING

Environmental commissions have taken an active role in solid waste management planning. They have monitored the counties' development of waste disposal strategies, including the selection of technology, siting and permitting for landfills and incinerators.

Commissions have long been active in recycling and supported passage of the 1987 Statewide Source Separation and Recycling Act. This Act and its amendments have many local requirements of which the Commission should be aware.

The recycling law requires separation for recycling of 50 percent of the total municipal solid waste, including vegetative and yard waste. Counties must designate at least three materials and demonstrate that they have secured markets for them. Although the Act sets no recycling rate for leaves, it bans dumping them at landfills.

The Act also requires service stations that are reinspection stations or are able to store used oil to accept used motor oil for recycling and to advertise this service.

The Recycling Act puts the responsibility for enforcement on the local level. The municipalities must:

- pass a recycling ordinance, naming at least three materials to be separated from residential, commercial and institutional solid waste and requiring the separation of leaves from solid waste;
- name a recycling coordinator;
- design a program for the collection of recyclables;
- design a program for the collection of leaves;
- advertise the recycling program at least once every six months;
- submit an annual tonnage report to NJDEP Solid and Hazardous Waste Management Program, documenting the amount of materials recycled; and
- review and revise the master plan and land use ordinances to meet the Act's provisions.

### The commission's role in recycling

With the passage of the Recycling Act, the environmental commission's responsibility in local recycling changed from management to a supporting role. Before the Act, commissions often ran recycling programs in their towns, setting up collection and marketing systems, keeping records and even volunteering to smash glass, crush cans and stack newspapers. The Act mandates that local governments take responsibility for the recycling program, which the recycling coordinator administers. Sometimes the coordinator is an environmental commissioner, but often the coordinator is a department of public works director, town manager or another municipal employee.

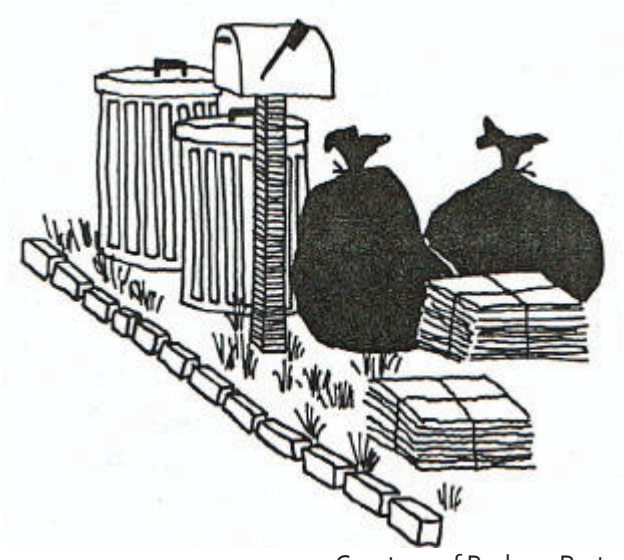
Environmental commissions can reach out to the county recycling office to coordinate efforts and help municipal recycling coordinators

in communicating with residents and improving existing programs. They can publicize the program by preparing brochures, issuing press releases or speaking in schools. Commissions also can investigate adding new materials, such as polystyrene or rigid plastics and estimating collection costs, possible amounts of materials to be generated and the revenues or costs to market. For items that are not available through regular county recycling such as polystyrene, the commission can hold collection events and recycle them.

Commissions can work with specific groups in the community to help design a program and locate markets for the materials generated. Multifamily housing, businesses and institutions may need extra encouragement and information for their recycling programs. Commissions also can help collect the data for the municipal tonnage grant report to be filed with the NJDEP.

## Pay as you throw

Many municipalities have garbage collection systems where charges are based on the amount of solid waste that residents throw out. Called a per container fee, or unit pricing, this system charges for each can or bag set out, rather than imposing a flat fee that covers any amount of garbage. Per container fees give residents an incentive to reduce their waste and recycle more. Several environmental commissions have worked with their towns to gain acceptance for this process and to inform residents of the reasons for doing it.



Courtesy of Barbara Pretz

With traditional flat rate fees, residents who generate a small amount of waste subsidize their neighbors' greater generation rates. When residents pay per container, they pay for the amount of waste they generate, a user fee similar to that charged for water, electricity or telephones.

Per container rates result in waste reductions of 25 to 45 percent, corresponding declines in solid waste management costs for the municipality, changes in residents' purchasing and consumption patterns to reduce waste, and increases in composting and recycling.

Many municipalities with per container pricing have a flat charge to cover the cost of pickup service. Residents then buy special stickers or bags to pay for disposing of the waste. The municipality determines the per bag cost based on the tipping fee charged at the landfill, incinerator or transfer station.

Some perceived barriers to per container charges include the belief that people will dump illegally if forced to pay per bag. But most communities with unit pricing programs have reported that illegal dumping is less of a concern than anticipated. An effective public outreach campaign can show the current costs and the potential reductions offered by unit pricing.

The EPA estimates that 40 percent of the food in the US goes to waste and over 97 percent of food waste generated ends up in a landfill. Commissions can help educate residents about the benefits of reducing food waste and backyard composting.

## Litter prevention

The Clean Communities Act gives commissions another opportunity to work on a solid waste problem – litter. The Act provides state aid to municipalities and counties for litter cleanup. Passed as an alternative to beverage container legislation ("bottle bill"), the Clean Communities Act imposes a small tax on litter generating products.

Municipalities receive Clean Communities funds for litter reduction, including pickup and removal, enforcement and education. The state allocates funds according to the relative number of housing units and relative road mileage in each municipality.

The environmental commission can recommend litter prevention and cleanup activities for the community. It can help set priorities for where and what litter will be picked up and provide for recycling as much of the collected litter as possible. Several commissions have helped develop a public information program on litter prevention and have organized town cleanup days.

**For more information:**
ANJEC Resource Center; (973) 539-7547 www.anjec.org
NJDEP Recycling and Planning; (609) 984-3438 http://www.state.nj.us/dep/dshw/recycling/
NJDEP Clean Communities, Division of Financial Management; (609) 989-5900 www.njclean.org
Association of New Jersey Recyclers; (908) 722-7575 www.anjr.com

# PROTECTING WATER QUALITY

Many commissions have organized programs to protect local water bodies. Their goals include protecting drinking water quality and quantity, maintaining recreational assets including water access and protecting the ecosystem.

## Stream monitoring

Often, regional water quality programs oversee river headwaters such as springs and brooks, small streams, lakes and wetlands. The commission can fill the gap, supplying baseline information from which to evaluate all future changes in the water body.

### *Lake Restoration*

*The Mountain Lakes Centennial Cove Restoration Legacy Committee was formed by the Borough with members from the community and township including environmental commission member to restore the Mountain Lakes Cove. By utilizing multiple techniques such as removal of invasive species and planting indigenous aquatic plant buffer, Canada geese population declined and erosion was reduced. The committee also developed access walks, boat launch, and education materials for the community about benefits of "Go Native".*

Activities include mapping existing land use and drainage systems, and evaluating these for potential impacts from development.

Commissions can do visual surveys by "stream walking" to determine the stream's condition, including point sources of pollution, water width and depth, water conditions, aquatic vegetation, land and water uses, animal life and fish kills. Before a stream walk, they can obtain information from NJDEP on all New Jersey Pollution Discharge Elimination System (NJPDES) permit holders along the waterway. As commission members walk the stream, they can map all discharges. Then they can compare the permits to the observed discharges and identify any that lack a permit.

The commission can test the water above and below areas of impact, with continued downstream testing to show the assimilative capability of the stream. Commissions may seek local sources of aid in chemical testing of water samples. Often the board of health can help with the costs of laboratory testing; some boards have their own laboratories. Some commissions have relied on high school or college classes to take water samples and analyze them. Hopewell (Mercer), for example, has a historical record of the water quality in local streams and a lake because a science teacher used water testing as a teaching tool. Commissions should keep a file of the data gathered, so that they can monitor changes in water quality.

### *Biological Stream Monitoring*

*The Kingwood Township (Hunterdon) Environmental Commission has done a stream monitoring study of Lockatong Creek, a tributary of the Delaware. Using equipment and supplies from the South Branch Watershed Association, the Commission analyzed the water for the presence or absence of macroinvertebrates.*

*The Commission took samples from sites, mostly with public access such as bridges, and supplemented with additional samples below suspicious outfalls.*

*The Commission pinpointed the sampling sites through the satellite-based Global Positioning System (GPS), so that it could return in future years and measure the difference in water quality. Members noted other significant circumstances, such as weather conditions, recent storms or dry spells, and water color and odor.*

### *How to Maintain Your Septic System*

By the Hopewell Township (Mercer) Environmental Commission

*The septic tank should be inspected at least once every one or two years and cleaned when necessary. Yearly inspection is inexpensive insurance that can prevent more expensive repairs later. When the tank needs to be pumped, have as much of the contents removed as possible. Most problems with septic systems result from either infrequent cleaning or no cleaning at all.*

*Limit water use. Run full loads of laundry; have leaky faucets fixed. Be especially cautious of water use when heavy rains or melting snows saturate the ground. These conditions reduce the septic system's ability to drain away waste water.*

*Don't connect sump pump lines to the septic system.*

*Empty salt solution from water softeners into seepage pit. Salt will shorten the life of a drainage field.*

*Keep nonbiodegradable and bulky waste out of the system. Cat litter, disposable diapers, plastic, and cigarette filters will fill a tank and could clog pipes.*

*Keep harmful chemicals, grease, and oils out of the system.*

Using the EPA's standardized monitoring protocol, trained volunteers also can identify the macroinvertebrates – insects, worms, clams, snails and other tiny animals – that are abundant in most healthy streams. Macroinvertebrates are a good indicator of water quality because of their limited migration pattern, which makes them sensitive to transient pollution. Biological monitoring is less expensive and time consuming than chemical testing.

Several watershed associations provide information and technical guidance in water sampling for environmental commission members and interested citizens. Many areas have watershed associations, whose territory is the area feeding larger streams, rivers and other water bodies.

## Public information on water

Many commissions have worked to inform their communities on water pollution prevention and water conservation. In unsewered communities, the commissions have distributed information on the proper maintenance of septic systems to prevent groundwater pollution.

Because the state does not monitor private wells, some commissions have encouraged testing by homeowners. The Stanhope (Sussex) Environmental Commission sponsored a test study of local private wells. The commission publicized the study, arranged the tests with a private consulting firm and provided a central point to pick up sterile bottles and drop off water samples. The owners paid for their testing.

Other commissions have let residents of their communities know about the importance of water conservation. Some have distributed inexpensive, flow restricting attachments for faucets and shower heads. Others have let the public know of easily implemented measures for water conservation.

## Nonpoint Source Pollution

Nonpoint Source Pollution (NPS) comes from many diffused or scattered sources, rather than from a concentrated "point" source like a pipe line. As precipitation strikes the ground and flows across it, the water picks up particles of pollution. These include contaminants like sediment, toxins, fertilizers, pesticides, acids and bacteria. The nonpoint source pollution degrades the surface and ground water, threatening aquatic and marine life, recreation activities and drinking water.

Municipalities must adopt at least minimum standards for handling runoff under the New Jersey Stormwater Management Regulations (See Chapter 7, page 47.) Commissions can do many other things to decrease nonpoint source pollution. For example, to reduce contamination from animal feces, they can be sure that their towns have "pooper scooper" ordinances and prohibit the feeding of waterfowl so that they do not overpopulate, leading to contaminated water bodies. Commissions also can inform residents on ways to reduce nonpoint source pollution through measures such as proper lawn care, car maintenance and disposal of household hazardous waste.

# HAZARDOUS SUBSTANCES

Hazardous substances can be one or more of the following: toxic, flammable, corrosive, reactive, explosive, infectious or radioactive.

**For more information:**

- ANJEC Resource Center; (973) 539-7547 *www.anjec.org*
- U.S. EPA Office of Water; (202) 564-3750 *https://www.epa.gov/aboutepa/about-office-water#ground*
- NJDEP Bureau of Water Monitoring; (609) 292-1623 *www.state.nj.us/dep/wms*
- Rutgers Water Resources Program; (848) 932-5711 *www.water.rutgers.edu*

Watershed associations:

- "The Clean Water Book," NJDEP *www.nj.gov/dep/watershedrestoration/waterbook_tble.html*
- "Protecting Our Streams," ANJEC 2009 *www.anjec.org/PubsWater.htm*

Several federal and state laws control the use and disposal of hazardous products. The federal Resource Conservation and Recovery Act (RCRA) regulates the management of hazardous waste. Under RCRA, the EPA developed regulations for tracking and controlling hazardous wastes from their origin to disposal. EPA also defined with what characteristics and in what amounts a waste becomes hazardous. In addition, the agency publishes a list of specific wastes to be regulated.

The federal Clean Air and Clean Water Acts govern discharges of hazardous substances and other pollutants into the air and water. The Superfund Act and its amendments provide for cleanup of existing toxic waste disposal sites.

## Right to Know

Both the federal and state legislatures have enacted laws granting governments and citizens the right to know about hazardous chemicals that are produced, stored, used or released in their communities. The Superfund Amendments and Reauthorization Act (SARA) of 1986, Title III, and the 1983 New Jersey Worker and Community Right to Know Act offer opportunities for obtaining information that a commission can use to help protect the local population and environment.

Under SARA, Title III, the Governor required all 566 municipalities and 21 counties to appoint Local Emergency Planning Committees (LEPCs) to develop plans to deal with accidents within their borders. Representatives of the environmental commission can serve on the LEPC. The LEPC's prime responsibility is to develop contingency plans to handle incidents involving hazardous substances. These plans must:

- identify available emergency response resources;
- identify facilities and transportation routes that handle extremely hazardous substances;
- establish procedures to respond to an accident;
- designate a community emergency coordinator;
- set up evacuation plans; and
- develop training programs.

Under SARA and the state's Right to Know law, manufacturers and nonmanufacturers that use designated minimum amounts of certain hazardous substances must report to NJDEP the name of the material, the hazardous ingredients and handling precautions, and an estimate of the amount present at the facility. Certain manufacturers also must report if any toxics are released into the environment on a routine basis.

EPA annually compiles a toxic release inventory (TRI) from information submitted by manufacturers. In addition, the EPA provides information about chemical recycling and other measures to reduce toxic releases.

## Using the information

The information reported by an industrial facility is available to the public from NJDEP's Bureau of Chemical Release Information and Prevention or from your county Right to Know Coordinator. The state Department of Health's Right to Know Program provides Hazardous Substance fact sheets on specific substances. The commission may need some help from professionals to interpret the technical data obtained from these sources.

With the information, the LEPC and environmental commission can work to prevent accidents and prepare emergency plans to be used if an accident should occur. The information will help to identify facilities that use, store and produce hazardous substances, and the types of substances, their quantities and their risks. The commission can identify town areas at risk and establish programs to minimize the risk, such as emergency response training drills that test whether people know what procedures to follow in case of an accident.

The commission also can use Right to Know information in land use planning. An incident in Berkeley Heights (Union) illustrates why planners should keep chemical industries and residential population centers separate. An ex-

plosion at a laboratory that analyzed hazardous chemicals required the evacuation of residents from a 120 bed nursing home next door. Better planning would have required a greater distance between the nursing home and laboratory.

In addition, a general statement in the master plan explaining the importance of protecting public health and the environment from hazardous chemicals establishes a legal basis for more specific zoning or conditional permitting. The zoning ordinances should restrict facilities to an area of town where public health and environmental risks are minimized. The ordinances also should have proper definitions of hazardous substances, allow for adequate buffering between industry and residential zones, and require an approved emergency plan before a site plan receives final approval.

The toxic release information reported under Title III can help in the development of a community safety plan to protect residents from known sources of chemical releases. The information will show whether the discharges comply with air and water discharge permits and can help set standards for toxics reduction and waste audits.

## Contaminated sites

Throughout New Jersey, industrial practices, old landfills or leaking underground storage tanks for oil and gasoline have contaminated soil and groundwater. The state Industrial Site Recovery Act mandates that the responsible party clean up such areas. Often, finding the "responsible party" is difficult. The cleanup process is costly and delays are often considerable. The NJDEP Site Remediation Program tracks contaminated sites, giving them case numbers and assigning them a status according to the progress of the cleanup.

The environmental commission can monitor the status of a contaminated site by contacting the Site Remediation Program. The commission can alert the NJDEP if it is aware of any threats to public health or safety posed by the contaminated site.

## Household hazardous waste

Many products commonly used in the home are hazardous, including: pesticides, household cleaners, antifreeze, refrigerant, mothballs, batteries, mercury thermostats and thermometers, fluorescent light bulbs and smoke detectors. These products can be harmful if handled improperly and will pollute if disposed of in a landfill, incinerator, sewage treatment plant or septic system. Some commissions have undertaken public education programs on safe alternatives to hazardous household products.

Many counties have sponsored household hazardous waste collection days. Usually these are held once or twice a year and sometimes require preregistration so the county can prepare for the volume and type of material it will get. Commissions have helped publicize these collection days in their communities, alerting residents to the importance of safe disposal of hazardous wastes.


***The Newark Environmental Commission shows off a Rocket Composter***
**Photo courtesy of Newark Environmental Commission**

# PROTECTING AIR QUALITY

Air pollution exposure occurs throughout New Jersey. Airborne pollutants are created by industry, utilities, manufacturing and commercial facilities, vehicles and residential activities (such as home heating, cooking and electrical appliances) and many other sources. Most of the air pollution in the state comes to us from external sources. In all but the coastal regions prevailing winds in New Jersey are from the southwest in summer (when pollution levels are higher) and from the northwest in winter. Thus, much of our air pollution blows from the Washington, Baltimore and Philadelphia metropolitan areas to New Jersey.

After the passage of the Clean Air Act in 1970, the USEPA set National Ambient Air Quality Standards (NAAQS) for

six "criteria" pollutants regulated under the Clean Air Act: ozone ($O_3$), sulfur dioxide ($SO_2$), carbon monoxide (CO), nitrogen dioxide ($NO_2$) lead (Pb) and particulate matter (PM). Since then concentrations of these pollutants in air have been monitored for compliance with the air quality standards and those concentrations have been significantly reduced in New Jersey. Ambient Air Quality is used as the baseline for evaluating the effect of the construction of new emission sources or of modification to existing sources. New stationary sources of air contamination require permit forms from the NJDEP, Bureau of Air Quality. See *www.nj.gov/dep/daq/aqppprogram.html*

The EPA developed the Air Quality Index (AQI). It is based on the five NAAQS. Generally the index value of 100 is equal to the maximum level of concentration of a given pollutant that is ranked acceptable for human safety. There are nine air quality index reporting regions in New Jersey. The AQI rating for any reporting region is equal to the highest (i.e. worst) rating recorded for any pollutant monitored by that region. The AQI is available in real-time on the internet for many monitoring sites.

AQI information for specific municipality can be found by visiting the EPA site, www.airnow.gov and entering a relevant zip code.

### *Idle Free Verona*

*The Verona Environmental Commission began a campaign to increase awareness and reduce idling in their community. They worked with the Board of Education to get "no idling" signs posted at the schools and they also installed signs in other areas of the town. In addition to implementing a comprehensive education program that included a power point presentation, newspaper coverage, posters, flyers, speaking engagements and an elementary school poster contest, the Commission collaborated with students and parents to produce a two minute video,"Go Idle Free Verona." The EC received a 2012 ANJEC Environmental Achievement Award for this campaign.*

*For more information:*www.veronaec.org

Most of the criteria pollutants come from sources external to a municipality. However, that is not the case for $CO_2$, the pollutant generated by our automobiles. Over ninety per cent of auto emissions are $CO_2$, which has been regulated by the EPA under the Clean Air Act since 2001. Reducing those emissions is a worthy goal for municipalities.

Several New Jersey municipalities and Environmental Commissions have been successful implementing anti-idling campaigns (See Verona EC in boxed text.) Idling occurs when a motor vehicle with an internal combustion engine is running but the car is not in motion. It has been estimated that every ten minutes of idling that is eliminated prevent one pound of $CO_2$ from being released into the air. In addition, idling also allows fine particulates and toxins into the air. An anti-idling program requires that a community identify prime idling locations (such as school pick up areas) in which to focus the program, post no-idling signs at those locations, distribute educational materials to the community and work with the police to develop an enforcement plan.

For a fuller description on how to implement a plan, see Sustainable Jersey's action description of its Anti-Idling Education & Enforcement Program (*http://www.sustainablejersey.com/actions-certification/actions/#open/action/38*).

Another way to encourage residents to reduce $CO_2$ emissions is to create a green challenge, which includes challenges such as reducing the number of personal miles driven; driving more efficiently; and cutting highway speed.

### For more information:

- ANJEC Resource Center; (973) 539-7547, www.*anjec.org*
- NJDEP Department of Compliance and Enforcement, Bureau of Release Prevention, (609) 943-4989, *www.nj.gov/dep/enforcement/brp.htm*
- NJDEP Office of Community Relations, Site Remediation and Waste Management Program; (609) 984-3081 www.*nj.gov/dep/srp/community*
- N.J. Department of Health, Right to Know Program; (609) 984-2202 *www.nj.gov/health/workplacehealthandsafety/right-to-know*
- EPA Emergency Planning and Community Right to Know; (800) 424-9346 *www.epa.gov/epcra*

Chapter 9
# Ordinances

## BACKGROUND

The State Constitution grants the state legislature the power to delegate responsibility for land use regulation to local government and to pass laws governing local conditions. Local legislation cannot conflict with state or federal legislation on the same subject; however, in most instances a municipality can pass a stricter version of a federal or state law. In some cases federal or state laws preempt local jurisdiction (for example, the New Jersey Freshwater Wetlands Act).

Municipalities legislate through resolutions and ordinances. A resolution is any act or regulation of the governing body that can be introduced, approved and enacted during one session. The governing body usually uses a resolution when the subject is of impermanent nature and is not significant enough to solicit public input. The New Jersey courts have ruled that any action by the governing body that is neither an ordinance nor a parliamentary question is a resolution.

An ordinance is the means by which a municipality implements its master plan. Ordinances represent major policy decisions of the municipality and are meant to endure beyond the life of the governing body that passed them. An ordinance can be revised only through the same extensive process by which it was adopted. The governing body uses ordinances for subjects that substantially affect rights of property or municipal activities.

Before an ordinance can be passed, it must be read at more than one meeting and have a public hearing. The governing body must publish the ordinance by title and give notice of the hearing in a local newspaper. It also must make copies of the ordinance available to the public through the town clerk.

To pass an ordinance at the public hearing, the governing body can make only minor amendments to the text passed at first reading, with changes that do not greatly alter its substance.

If the amendments are significant, the ordinance must be re-introduced and advertised and given another public hearing a week or more after the first.

After the governing body passes an ordinance, it must publish it in a local newspaper. The exception to this requirement is for land use ordinances, which are lengthy and expensive to advertise. Only the title of these ordinances must be published, with the notice that two copies are on file at the clerk's office for public inspection.

This process allows citizens the opportunity to voice opinions and participate in the lawmaking that directly affects them. For ordinances that have environmental significance, the commission should lend its expertise to help develop sound legislation.

### Commission recommendations for ordinances

Each municipality has its own procedure for drafting ordinances for consideration by the local government. The commission should know its town's procedure, so that it can contribute to the development of environmental ordinances at this formative stage.

Various boards reporting to the local government often recommend provisions to be included in ordinances. Zoning and land use ordinances usually come from the planning board. Fire and police departments can also make recommendations for new ordinances or changes in existing ones. An autonomous board of health

may pass ordinances on health issues, while an advisory board will make recommendations to the governing body or regional board of health.

Often the planning board or board of health will schedule work sessions to gather factual data in support of a proposed ordinance and to draft its provisions. If the ordinance deals with environmental matters, the commission should try to participate. In addition, the commission can send its own recommendations to the planning board, board of health, or on strictly environmental issues, such as tree removal, directly to the governing body.

The environmental commission should first review its municipality's environmental ordinances to find out what is covered by existing laws and which of these may need amendments. Sometimes a problem is cured not by a new ordinance but by enforcement of an ordinance already on the books or by strengthening an existing ordinance. If the commission has identified a problem that is NOT covered by an existing ordinance or by a state or federal statute, it can recommend passage of an ordinance to address the problem.

## Ordinance structure

Ordinances are usually structured similarly, with sections being designated by letters and numbers:

- **Title** is the legal name by which the ordinance can be cited. It includes the scope and the number of the ordinance and the name of the municipality.
- **Purpose** – Ordinances usually begin with a statement of purpose, giving the reasons for the ordinance. More than just inspiring rhetoric, the purpose should be carefully worded. If the ordinance is challenged, the purpose will justify its existence. The ordinance should relate directly to the objectives stated in the purpose.
- **Definitions** are given for terms used in the ordinance.
- **Applicability** tells who and what is governed by the ordinance.
- **Standards** guide the enforcing officer or agency in making decisions on how the ordinance should be enforced.
- **The Ordinance** states conditions for the specified activities, the information required from applicants, and procedural regulations.
- **Penalties** and fees are given for violation of the ordinance.

# SAMPLE ORDINANCES

Commissions use sample ordinances to help develop ordinances for their municipalities. While referred to as "models," these ordinances should not be adopted wholesale but tailored to meet the objectives of each municipality.

Additional information on municipal ordinances can be obtained from planning boards, municipal clerks, health departments and watershed associations. The ANJEC Resource Center maintains an extensive file of sample environmental ordinances on a wide variety of subjects.

The following is a representative list of environmental ordinances and provisions contained in them. It covers the most commonly addressed subjects. Other sample ordinances to meet local needs are available through the ANJEC Resource Center.

## Environmental commission operations

Ordinances on environmental commission operations establish the environmental commission as outlined in the enabling legislation. (See Appendix A, page 67, for a sample commission ordinance.) Ordinances may also create new classifications of membership, establish the position of environmental officer, and enumerate responsibilities of the commission.

**Environmental Commission** – Establishes municipal environmental commission, specifying membership, powers, responsibilities.

**Environmental Officer** – Job description; staff employee directly responsible to Environmental Commission.

## Land use

Land use ordinances allow certain types of development and prohibit others. They can protect open space and sensitive areas and ensure the land is developed in a manner that protects environmental features. The commission can work with the planning board in recommending provisions for land use ordinances. Ordinances include:

**All terrain vehicles** – Typical ATV ordinances prohibit their operation on public property

and on private property without written permission. The ordinance can establish fines and penalties for using ATVs in a reckless manner or in a way that disturbs animals or cropland.

**Aquifer protection** – Regulates development, construction, uses, and excavation above an aquifer and requires all development plans be reviewed by the municipal geologist; requires planning board approval of projects that will result in disturbance and/or development of lands lying wholly or in part over the formations where the prime groundwater producing aquifers support public and domestic wells.

**Cluster zoning** – Sets up density redistribution provisions and standards to achieve preservation of open space, parkland and woodland.

**Community impact statement** – Requires major subdivisions of more than 10 lots and all major site plans to analyze impacts on existing municipal facilities and services.

**Critical areas** – Protects sensitive areas. Establishes standards for development on steep slopes, floodplains, stream corridors and lakes. (See also ordinance categories: Floodplain, Steep Slopes, and Wetlands.)

**Dune protection** – Regulates, preserves and protects the beaches and dunes within the municipality.

**Environmental impact statements** – Requires data regarding existing conditions, proposed development impacts and measures to be used to mitigate adverse impacts. Checklists serve as commission guidelines when reviewing EIS statements.

**Environmental Justice and Cumulative Impacts** – Requires additional information to the environmental commission, planning and zoning boards from development applicants regarding health and sustainability. Its aim is to reduce the amount of pollution impacting residents' health and create sound environmental and land use policy.

**Escrow accounts** – Requires non-refundable application fees for development to cover cost of services needed to review and analyze development applications. Costs may include fees for professional services by town engineer, planner, attorneys and consultants.

**Farmland preservation** – Includes right to farm, cluster zoning to preserve farmland, agricultural zoning and transfer of development rights.

**Floodplain** – Delineates floodplains and regulates encroachments in floodways, flood hazard areas and riparian yards. Regulates dredging, filling, deposition or removal of materials, diversion or obstruction of water flow, placement of structures and other uses in water courses, coastal wetlands, tidal marshes, floodplain lands, watersheds, water recharge areas and natural drainage systems.

**Floor Area Ratio (FAR)** – The ratio between the amount of floor area permitted to be constructed on a building lot and the size of the lot. The FAR regulates the mass of the building on the lot.

**Historic site zoning** – Establishes historic district zones, following the provisions in the MLUL.

**Lot size averaging** – Provides flexibility by allowing some lots in a subdivision to be less than the standard minimum lot size, provided that other lots are larger than the minimum and all conform to the intent of the zoning.

**Mixed use** – Often a part of redevelopment plans, this ordinance allows the use of structures for combined retail and residential purposes, often while preserving the historic character, scale and features of the buildings and the streetscape in the zone.

**Pedestrian overlay district** – Specifies a mix of uses within an area that make it easier for people to walk to and from their destination. For example, the ordinance might prohibit setbacks of principal buildings and include standards for the installation of canopies over building entrances and the inset of entrances in order to protect pedestrian movement.

**Shared parking** – Shared parking is commonly used in mixed-use developments where commercial and office tenants have varying hours of operation or when land uses within an area have different parking demand patterns, and are able to use the same parking spaces or lots throughout a day.

**Soil erosion and sediment control** – Sets standards to control erosion, sediment and related environmental damage during and after construction.

**Soil removal** – Regulates excavation, moving, relocating and removal of soil, with small volumes of soil usually exempt.

**Steep slopes** – Sets standards for development on steep slopes by requiring minimums for usable yard area and reducing maximum impervious coverage.

**Stormwater and stream corridor management** – The state's Stormwater Management Regulations (NJAC 7:8 et seq.) and Flood Hazard Control Act (NJAC 7:13) require a 300-foot buffer along water bodies with special ecological significance (Category 1) and their tributaries. They also emphasize the use of non-structural stormwater management techniques and impose requirements for groundwater recharge, and control of stormwater runoff quantity and quality. Municipalities must develop and adopt stormwater management plans and ordinances to meet the mininum standards for new development and to control litter, pet waste, wildlife feeding and yard waste disposal. NJDEP has put together model stormwater management and stream buffer ordinances that are available through ANJEC.

**Sustainable Building** – Supports the use of green building practices and adopts the use of Leadership in Energy Design (LEED) standards for design and construction of new township buildings, major renovations and additions. Redevelopers can be required to name a LEED-accredited professional as part of project team and to submit a LEED scorecard as part of plans.

**Transfer of development rights/credits** – Provides system for limiting the right to develop one parcel of land, while increasing the density on another tract.

**Transit overlay district** – (Also known as a "Transit Village") A TOD ordinance establishes a half-mile area around a transit facility in order to encourage growth and vitality, reduce traffic congestion and improve air quality by promoting increased transit ridership, pedestrian activity and bicycle use.

**Tree removal, harvesting and replacement** – Regulates cutting and destruction of trees; controls harvesting of trees from woodlands or forests. Requires replacement of trees. (NJDEP Bureau of Forestry model.)

**Usable yard area** – Ensures that newly created lots will have yard areas of specified size where residents' use is not limited by wetlands, steep slopes or other environmentally sensitive features.

**Wetlands** – The New Jersey Freshwater Wetlands Act does not permit municipalities to regulate activities in wetlands. However, municipal zoning ordinances may designate wetlands areas, shown in the master plan, for low intensity use.

## Pollution control

Pollution control ordinances deal with issues like water quality, solid waste management, noise and hazardous substances. Often the commission will work with the local health agency in recommending these ordinances.

**Biotechnology** – Regulates genetically engineered micro-organisms and bacteria.

**Drinking water** – Sets certain potability standards for private wells before the water can be used for human consumption; requires well testing when there is a change of ownership or every three years.

**Hazardous substances** – Regulates the reporting, use, handling and storage of hazardous substances, and transportation and disposal of potentially dangerous substances. Regulates and licenses the maintenance, installation, abandonment and testing of underground storage tanks containing toxic substances hazardous to the public water supply. Creates a hazardous chemical control board and prescribes rules, regulations, fees and penalties.

**Noise** – Controls noise from stationary and mobile sources. (NJDEP and U.S. EPA models

are available through ANJEC.)

**Pesticides** – Controls the use of chemical defoliants and spraying pesticides in non-agricultural residential areas. Transfers regulatory responsibility from the state to the municipality. Regulates and licenses the pest control and exterminating business and, using NJDEP guidelines, requires notification when pesticides are used.

**Property maintenance** – Regulates litter, refuse, garbage, and junked vehicles.

**Recycling** – Requires residents to separate designated materials for recycling. Establishes a collection procedure and contains an anti-scavenging clause.

**Septic system** – Regulates location, construction, use and maintenance of individual septic systems.

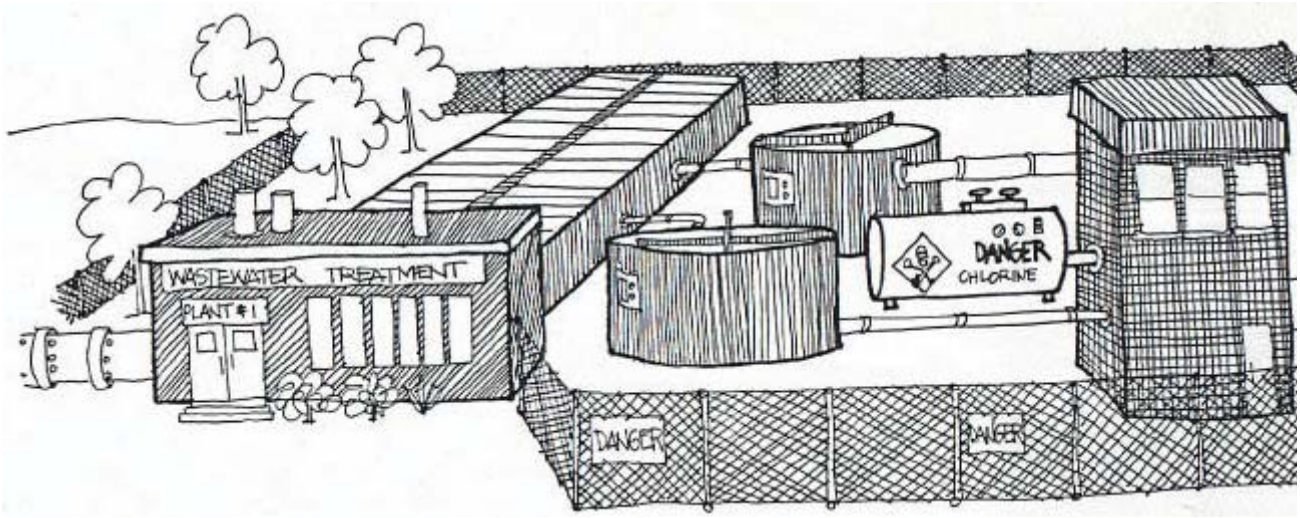
**Septic system management districts** – Establishes districts for on-site and alternative wastewater disposal.

**Single Use Bag** -- Places a fee on all single-use bags (plastic and paper) to help reduce plastic pollution.


Courtesy of Barbara Pretz

## For further information:

- ANJEC Resource Center, (973) 539-7547, *www.anjec.org*




Courtesy of Barbara Pretz

Appendix A

# Environmental Commission Enabling Legislation

## STATE LEGISLATION

NJSA 40:56A; originally passed 1968; amended 1972, 1975, 1989

**Section**



### 40:56A-1 Commission; appointment; term; vacancies

The governing body of any municipality may by ordinance establish an environmental commission for the protection, development or use of natural resources, including water resources, located within its territorial limits. The commission shall consist of not less than five nor more than seven members, appointed by the mayor of the municipality, one of whom shall be a member of the municipal planning board and all of whom shall be residents of the municipality; the members shall serve without compensation except as hereafter provided.

The mayor of the municipality shall designate one of the members to serve as chairman and presiding officer of the commission. The terms of office for the first commissioners shall be for 1, 2 or 3 years, to be designated by the mayor in making his appointments so that the terms of approximately 1/3 of the members will expire each year, and their successors shall be appointed for terms of 3 years and until the appointment and qualification of their successors.

The mayor or governing body of the municipality may remove any member of the commission for cause, on written charges served upon the member and after a hearing thereon at which the member shall be entitled to be heard in person or by counsel. A vacancy on the commission occurring otherwise than by expiration of a term shall be filled for the unexpired term in the same manner as an original appointment.

Notwithstanding any other provision of the law to the contrary, the powers of appointment and removal hereby accorded to the mayor of a municipality shall be vested in the elected official so designated or, where there is a vacancy in the office of mayor, on the duly designated acting mayor.

The governing body may, by ordinance, provide for the appointment of not more than

two alternate members. Notwithstanding the provisions of any other law or charter heretofore adopted, the ordinance shall provide the methods of appointment of alternate members. Alternate members shall be designated at the time of appointment by the authority appointing them as "Alternate No. 1" and "Alternate No. 2."

The terms of the alternate members shall be for two years, except the terms of the alternate members first appointed shall be two years for Alternate No. 1 and one year for Alternate No. 2 so that the term of not more than one alternate member shall expire in any one year. A vacancy occurring otherwise than by expiration of term shall be filled by the appointing authority for the unexpired term only.

An alternate member shall not be permitted to act on any matter in which he has either directly or indirectly any personal or financial interest.

An alternate member may, after public hearing if he requests one, be removed by the governing body for cause. An alternate member may participate in discussions of the proceedings but may not vote except in the absence or disqualification of a regular member. A vote shall not be delayed in order that a regular member may vote instead of an alternate member. In the event that a choice must be made as to which alternate member is to vote, Alternate No. 1 shall vote first.

**40:56A-2 Powers of commission**

An environmental commission organized under this act shall have power to conduct research into the use and possible use of the open land areas of the municipality and may coordinate the activities of unofficial bodies organized for similar purposes, and may advertise, prepare, print and distribute books, maps, charts, plans and pamphlets which in its judgment it deems necessary for its purposes. It shall keep an index of all open areas, publicly or privately owned, including open marshland, swamps and other wetlands, in order to obtain information on the proper use of such areas, and may from time to time recommend to the planning board or, if none, to the mayor and governing body of the municipality plans and programs for inclusion in a municipal master plan and the development and use of such areas.

**40:56A-3 Acquisitions by commission**

An environmental commission may, subject to the approval of the governing body, acquire property, both real and personal, in the name of the municipality by gift, purchase, grant, bequest, devise or lease for any of its purposes and shall administer the same for such purposes subject to the terms of the conveyance or gift. Such an acquisition may be to acquire the fee or any lesser interest, development right, easement (including conservation easement), covenant or other contractual right (including a conveyance on conditions or with limitations or reversions), as may be necessary to acquire, maintain, improve, protect, limit the future use of, or otherwise conserve and properly utilize open spaces and other land and water areas in the municipality.

**40:56A-4 Records and annual report**

An environmental commission shall keep records of its meetings and activities and shall make an annual report to the governing body of the municipality.

**40:56A-5 Appropriations**

The governing body of a municipality may appropriate funds for the expenses incurred by the environmental commission. The commission may appoint such clerks and other employees as it may from time to time require and as shall be within the limits of funds appropriated to it.

**40:56A-6 Studies and recommendations**

An environmental commission shall have power to study and make recommendations concerning open space preservation, water resource management, air pollution control, solid waste management, noise control, soil and landscape protection, environmental appearance, marine resources and protection of flora and fauna.

**40:56A-7 Conservation commission as environmental commission**

Any conservation commission established pursuant to this act shall be an environmental commission.

**40:56A-8 Joint environmental commission; creation by ordinance; members; compensation**

**a.** The governing bodies of two or more municipalities may, by adoption of substantially similar ordinances, create a joint environmental commission for the protection, development or use of natural resources, including water resources located within their combined territorial limits.

**b.** The number and qualifications of the members of such joint environmental commission, and their terms and methods of appointment or removal shall be such as may be determined and agreed upon by said governing bodies and set forth in the ordinance creating such joint commission, except that

(1) when such joint commission is created by two municipalities only, there shall be at least three members from each municipality;
(2) when such joint commission is created by three or more municipalities, there shall be at least two members from each municipality;
(3) at least one member from each municipality shall be a member of the planning board (if any) of the municipality, and
(4) a majority of the members of the joint commission shall hold no other public office, except membership on a municipal or other planning board.

**c.** Members of the commission shall serve without compensation, but may receive reimbursement for actual expenses necessarily incurred in the performance of their duties as members of the commission.

**40:56A-9 Chairman; qualifications; term in office**

A joint environmental commission shall elect its chairman, who shall hold no other public office or position, except that he may be a member of a municipal or other planning board. The term of the chairman shall be one year, and he shall be eligible to succeed himself unless the ordinance creating the commission shall otherwise provide.

The ordinance creating such commission may provide that the chairmanship of the commission be rotated annually so that over each period of years corresponding to the number of participating municipalities it shall be held in each year by a member appointed from a different participating municipality.

**40:56A-10 Expenses; apportionment; appropriation**

The proportion of the expense of the joint environmental commission to be borne by each participating municipality shall be such as may be determined and agreed upon by the participating municipalities, and said municipalities are hereby authorized to appropriate their respective shares of such expenses. Within the limits thus agreed upon and duly appropriated the commission may employ such clerical and technical or other assistants and may incur such other expenses as it may deem necessary to carry out its functions.

**40:56A-11 Functions, duties and powers**

A commission created pursuant to this supplementary act shall have, with respect to all the participating municipalities, and to each of them, all the functions, duties and powers of an environmental commission established in a single municipality under section 2 and 3 of P.L.1968, c. 245 (C.40:56A-2 and 40:56A-3) and section 7 of P.L.1972, c. 35 (C.40:56A-6).

**40:56A-12 Succession of established commission by joint commission; transfers**

If any municipality which has heretofore established an environmental commission under the act to which this act is a supplement shall enter into participation in a joint environmental commission, such environmental commission heretofore established shall be abolished upon the taking effect of the ordinance establishing the joint environmental commission, and the terms of the members of such abolished environmental commission shall immediately cease and terminate.

Except as may otherwise be provided in the ordinance establishing such joint commission, all employees of such abolished environmental commission, and all the records, property and funds in its possession or under its control shall be transferred to the joint environmental commission, and its debts and other financial obligations shall be assumed by the joint environmental commission.

## Legislative Statement 1968 Enactment

This bill would enable a municipality to establish a conservation commission as a functioning unit of municipal government to promote the conservation and development of the municipality's natural resources. A conservation commission would be responsible for providing the impetus and taking the leadership in natural resources planning at a local level where no organized effort towards these ends has been noticeable in the past.

A commission's activities would be devoted to planning, implementing and informing the public about local conservation programs. It would produce natural resources inventories, plans and projects for development and recommend conservation measures to be included by planning boards in master plans for land use. It could accept gifts of land, interests therein or funds, or apply for grants to acquire land or interests therein, all on behalf of the municipality for conservation purposes. It could manage donated or purchased land for conservation purposes and operate conservation programs. It would act as the coordinating agency of the community on conservation matters and a liaison between local conservation needs and regional, state and federal agencies ministering to those needs.

Such enabling legislation has been adopted by several New England states and the record of accomplishment of those conservation commissions established under such laws has been outstanding. The experience of other states has been that a properly constituted conservation commission will complement, not overlap or conflict with, existing organizations.

This bill is vital in order to ensure more effectively the preservation of New Jersey's natural resources for the benefit and enjoyment of the citizens of our state now and in the future.

## Legislative Statement 1972 Enactment

In 1972, the legislature changed the name from conservation commission to environmental commission to reflects its increased powers and responsibilities and to allow the establishment of joint commissions by two or more municipalities. The act authorizes studies into all areas of environmental concerns such as pollution prevention and control, solid waste management and noise control and for the commission to advise elected governing bodies. Today, over 300 environmental commissions have been created to support local environmental matters.

# ENVIRONMENTAL COMMISSION MODEL ORDINANCE

An ordinance to establish an Environmental Commission in the (municipality), County of (county) and state of New Jersey.

**SECTION 1. Creation:** The municipality of _____ Environmental Commission is hereby established pursuant to Chapter 245 of the Laws of 1968 (NJSA 40:56A-1 to 40:56A-12), as amended by Chapter 35, P.L. 1972.

**SECTION 2. Members:** A Commission shall consist of seven (7) members appointed by the Mayor, one of whom shall also be a member of the Planning Board and all of whom shall be residents of the municipality of _____; the members shall serve without compensation except as hereinafter provided. The Mayor shall designate one of the members to serve as Chairperson and presiding officer of the Commission. The terms of the office of the first commissioners shall be for 1, 2 or 3 years, to be designated by the Mayor in making his appointments and their successors shall be appointed for terms of 3 years and until the appointment and qualification of their successors.

The first members of the Commission shall be appointed for the following terms:
2 members for the 1-year term expiring December 31, (year),
2 members for the 2-year term expiring December 31, (year),
3 members for the 3-year term expiring December 31, (year).

The Mayor or governing body may remove any member of the Commission for cause, on written charges served upon the member and after the hearing thereon at which the member shall be entitled to be heard in person or by counsel. A vacancy on the Commission occurring otherwise than expiration of a term shall

be filled for the unexpired term in the same manner as an original appointment.

**SECTION 3. Powers of Commission:** The Commission is established for the protection, development or use of natural resources, including water resources, located within territorial limits of the municipality of _____. The Commission shall have power to conduct research into the use and possible use of the open land areas of the municipality and may coordinate the activities of unofficial bodies organized for similar purposes, and may advertise, prepare, print, and distribute books, maps, charts, plans and pamphlets, which in its judgment it deems necessary for its purposes. It shall keep an index of all open areas, publicly or privately owned, including open marshland, swamps and other wetlands, in order to obtain information on the proper use of such areas and may from time to time recommend to the Planning Board plans and programs for inclusion in the Master Plan and the development and use of such areas.

**SECTION 4. Acquisitions by Commission:** The Environmental Commission may, subject to the approval of the governing body, acquire property, both real and personal, in the name of the municipality by gift, purchase, grant, bequest, devise or lease for any of its purposes and shall administer the same for such purposes subject to the terms of the conveyance or gift. Such an acquisition may be to acquire the fee or any lesser interest, development right, easement (including conservation easement), covenant or other contractual right (including a conveyance on conditions or with limitations or reversions), as may be necessary to acquire, maintain, improve, protect, limit the future use of, or otherwise conserve and properly utilize open spaces and other land and water areas in the Municipality.

**SECTION 5. Records and Annual Reports:** The Environmental Commission shall keep records of its meetings and activities and make an annual report to the governing body.

**SECTION 6. Appropriations:** The Commission may appoint such clerks and other employees and incur such expenses as it may from time to time require, providing the same shall be within the limits of funds appropriated to it by the governing body or otherwise available to it.

**SECTION 7. Studies and Recommendations:** The Environmental Commission shall have power to study and make recommendations concerning open space preservation, water resources management, air pollution control, solid waste management, noise control, soil and landscape protection, environmental appearance, marine resources and protection of flora and fauna.

**SECTION 8.** This Ordinance shall take effect immediately upon its passage and publication according to law.

Appendix B

# Where to Go For More Information

## GOVERNMENT

### FEDERAL

U.S. Fish & Wildlife Service
New Jersey Field Office
Atlantic Professional Park
4 East Jimmie Leeds Road
Galloway, NJ 08205
(609) 646-9310
www.fws.gov/northeast/njfieldoffice

U.S. Army Corps of Engineers
North Atlantic Division, New York District
302 General Lee Avenue
Brooklyn, NY 11252
(347) 370-4550
www.nan.usace.army.mil

U.S. Army Corps of Engineers
Philadelphia District
The Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390
(215) 656-6515
www.nap.usace.army.mil

U.S. EPA, Region II
290 Broadway
New York, NY 10007-1866
(877) 251-4575
www.epa.gov/region02

### STATE

**Department of Agriculture Natural Resources Conservation Service**
220 Davidson Ave, 4th Floor
Somerset, New Jersey 08873
(732) 537-6040
www.nj.nrcs.usda.gov

**Department of Community Affairs**
101 South Broad Street
PO Box 204
Trenton, NJ 08625-0204
(609) 292-7156
www.state.nj.us/dca/osg

**NJ Department of State Smart Growth Areas**
PO Box 820
Trenton, NJ 08625-0820
(866) 534-7789
www.nj.gov/state/planning/spc-research-resources-sga.html

### Department of Environmental Protection

**Clean Communities Office**
222 West State Street
Trenton, New Jersey 08608
(609) 989-5900
www.njclean.org

**Division of Watershed Management**
Office of Outreach and Education
401 East State Street
P.O. Box 420
Trenton, NJ 08625-0420
(609) 777-4349
www.nj.gov/dep/watershed-restoration/outreach.html

**Environmental Regulation**
401 East State Street
PO Box 423
Trenton, NJ 08625-0423
(609) 292-2795
www.state.nj.gov/dep/rules

**Green Acres Program**
501 East State Street
P.O. Box 420
Trenton, NJ 08625-0420
(609) 984-0500
www.state.nj.gov/dep/greenacres/

**Endangered and Non-game Species Program**
NJ Division of Fish and Wildlife
401 East State Street
P.O. Box 420
Trenton, NJ 08625-0420
(609) 292-9400
www.nj.gov/dep/fgw/ensphome.htm

**New Jersey Geological Survey**
Office of the State Geologist
401 East State Street
P.O. Box 420
Trenton, NJ 08625-0420
(609) 292-1185
www.nj.gov/dep/njgs

**New Jersey Historic Trust**
Department of Community Affairs
101 South Broad Street
P.O. Box 457
Trenton, NJ 08625-0212
(609) 984-6017
www.njht.org

**Natural and Historic Resources**
Historic Preservation Office
401 East State Street
P.O. Box 404
Trenton, NJ 08625-0404
(609) 292-2023
www.nj.gov/dep/hpo

**Division of Land Use Regulation**
Land Use Regulation Program
501 East State Street
2nd Floor
P.O. Box 420
Trenton, NJ 08625
(609) 292-1235
www.nj.gov/dep/landuse

**Division of Science, Research and Technology and Environmental Health**
428 East State Street
First Floor
P.O. Box 409
Trenton, NJ 08625-0428
(609) 984-6070
www.nj.gov/dep/dsr/

**NJDEP Division of Water Supply and Geoscience**
PO Box 420
Trenton, NJ 08625-0420
(609) 292-1185
www.state.nj/us/dep/njgs

**New Jersey Natural Lands Trust**
22 S. Clinton Avenue
PO Box 420
Trenton, NJ 08625-0420
(609) 984-1339
http://www.state.nj.us/dep/parksandforests/natural/trust.html

**Department of Solid and Hazardous Waste**
Bureau of Recycling and Planning
401 East State Street
P.O. Box 20
Trenton. NJ 08625-0414
(609) 633-1418
www.state.nj.us/dep/dshw/recycling

**Division of Watershed Management**
Water Resources Management Coordination
401 East State Street
P.O. Box 420
Trenton, NJ 08625-0420
(609) 777-4349
www.nj.gov/dep/wrm

**N.J. Division of Fish and Wildlife**
501 E. State St., 3rd Floor
P.O. Box 420
Trenton, NJ 08625-0420
(609) 292-2965
www.njfishandwildlife.com

**Department of Health and Senior Services**
369 South Warren Street
P. O. Box 360
Trenton, NJ 08625-0360
(609) 292-6683
www.state.nj.us/health

## Planning Departments

**Atlantic County Planning Division**
P.O. Box 719
Rt. 9 and Dolphin Ave.
Northfield, NJ 08225
(609) 645-5898
www.aclink.org/planning/MainPages/Site_plan.asp

**Bergen County Planning and Engineering**
One Bergen County Plaza
4th Floor
Hackensack, NJ 07601-7076
(201) 336-6446
www.co.bergen.nj.us/planning

**Burlington County Resource Conservation**
PO Box 6000
Mount Holly, NJ 08060
(856) 642-3850
www.co.burlington.nj.us/165/Resource_Conservation/

**Camden County Planning Division**
Charles J. DePalma Public Works Complex
2311 Egg Harbor Road
Lindenwold, New Jersey 08021
(856) 566-2978
www.camdencounty.com/government/offices-departments/planning-division

**Cape May County Planning Department**
4 Moore Road
Cape May Courthouse, NJ 08210
(609) 465-1080
www.capemaycounty.gov/432/planning-department

**Cumberland County Dept. of Planning**
164 West Broad Street
Bridgeton, NJ 08302
(856) 453-2175
www.co.cumberland.nj.us/planning

**Essex County Division of Planning**
900 Bloomfield Avenue
Verona, NJ 07044
(973) 226-8500
www.ecdpw.org/division-of-planning.php

**Department of Public Works**
Gloucester County Planning Dept
1200 N. Delsea Drive
Clayton, NJ, 08312
(856) 307-6412
www.gloucestercountynj.gov/depts/p/pw/planning/

**Hudson County Division of Planning**
Bergen Square Center
830 Bergen Avenue, Suite A
Jersey City, NJ 07306
(201) 217-5137
www.hudsoncountynj.org/about-the-division-of-planning/

**Hunterdon County Planning Board**
12 County Complex Building #1
P.O. Box 2900
Flemington, NJ 08822-2900
(908) 788-1490
www.co.hunterdon.nj.us/planning.htm

**Mercer County Planning Division**
McDade Administration Building
640 South Broad Street
P.O. Box 8068
Trenton, NJ 08650-0068
(609) 989-6545
www.nj.gov/counties/mercer/departments/planning/

**Middlesex County Planning Board**
County Administration Building
75 Bayard Street
New Brunswick, NJ 08901
(732) 745-3062
www.middlesexcountynj.gov/Government/Departments/IM/Pages/Planning/Main/Office-of-Planning---Planning-Board.aspx

**Monmouth County Division of Planning**
Hall of Records Annex
1 East Main Street
Freehold, NJ 07748
(856) 453-2175
www.co.cumberland.nj.us/govtserv/departments/planning/

**Morris County Planning Dept.**
30 Schuyler Place
Morristown, NJ 07960
(973) 829-8120
www.morriscountynj.gov/planning/boards/planning

**Ocean County Department of Planning**
129 Hooper Avenue
P.O. Box 2191
Tom's River, NJ 08754-2191
(732) 929-2054
www.planning.co.ocean.nj.us/

**Passaic County Planning and Economic Development**
Passaic County Administration Building
401 Grand Street
Paterson, NJ 07505
(973) 881-4000
www.passaiccountynj.org/index.aspx?NID=277

**Salem County Planning Board**
110 Fifth Street, Suite 500
Salem, NJ 08079
(856) 935-7510 Ext. 8414
www.salemcountynj.gov/departments/planning-board/

**Somerset County Planning Division**
20 Grove Street
P.O. Box 3000
Somerville, NJ 08876
(908) 231-7021
www.co.somerset.nj.us/government/pubic-works/planning

**Sussex County Division of Planning**
One Spring Street
Newton, NJ 07860
(973) 579-0513
www.sussex.nj.us/Cite-Access/webpage.cfm?TID=7&TPID=857

**Union County Division of Planning and Community Development**
Union County Administration Building
10 Elizabethtown Plaza
Elizabeth, New Jersey 07207
(908) 527-4268
www.ucnj.org/union-county-planning-board/

**Warren County Planning Department**
Wayne Dumont, Jr. Administration Building
165 County Route 519 South
Belvidere, NJ 07823-1949
(908) 475-6537
www.co.warren.nj.us/planning/index.html

## Soil Conservation Districts

**Bergen County SCD**
700 Kinderkamack Road, Suit 106
Oradell, New Jersey 07649
(201) 261-4407
www.bergenscd.org

**Burlington County SCD**
Tiffany Square, Suite 100
1289 Route 38
Hainesport, NJ 08036
(609) 267-7410
www.bscd.org/

**Camden County SCD**
423 Commerce Lane, Suite 1
West Berlin, NJ 08091
(856) 767-6299
www.camdenscd.org

**Cape-Atlantic SCD**
6260 Old Harding Highway
Mays Landing, New Jersey 08330
(609) 625-3144
www.capeatlantic.org

**Cumberland-Salem Conservation District**
1516 Route 77
P.O. Box 68
Deerfield, NJ 08313
(856) 451-2422
www.cumberlandandsalemsoil.com

**Freehold SCD**
4000 Kozloski Road
P.O. Box 5033
Freehold, NJ 07728
(732) 683-8500
www.freeholdsoil.org

**Gloucester County SCD**
14 Parke Place Blvd.
Suite-B
Sewell, NJ 08080
(856) 589-5250
www.gloucesterscd.org

**Hudson, Essex and Passaic SCD**
80 Orchard Street
Bloomfield, NJ 07003
(862) 333-4505
www.hepsoilnj.org

**Hunterdon County SCD**
687 Pittstown Road
Frenchtown NJ 08825
(908) 788-9466
www.hcsd.weebly.com

**Mercer County SCD**
508 Hughes Drive
Hamilton Square, NJ 08690
(609) 586-9603
www.mercerscd.org

**Morris County SCD**
30 Schuyler Place
Morristown, NJ 07960
(973) 285-2953
www.mcscd.org

**Ocean County SCD**
714 Lacey Road
Forked River, NJ 08731
(609) 971-7002
www.soildistrict.org

**SomersetUnion County SCD**
308 Milltown Road
Bridgewater, NJ 08807
(908) 526-2701
www.co.somerset.nj.us/government/public-works/soil-conservation

**Sussex County SCD**
186 Halsey Road, Suite 2
Newton, New Jersey 07860
(973) 579-5074
www.sussexscd.org

**Warren County SCD**
224 West Stiger Street
Hackettstown, New Jersey 07840
(908) 852-2579
www.warrencountyscd.org

## County Environmental Commissions

**Bergen County Environmental Council**
700 Kinderkamack Road
Suite 106
Oradell, NJ 07649
(201) 261-4407
http://www.co.bergen.nj.us/index.aspx?NID=266

**Camden County Environmental Affairs Division**
1301 Park Blvd
Cherry Hill, NJ 08002
(856) 858-5241
www.camdencounty.com/government/offices-departments/division-environmental-affairs

**Essex County Office of Environmental Affairs and Environmental Commission**
900 Bloomfield Avenue
Verona, NJ 07044
(973) 228-8776
www.ecdpw.org/division_of_environmental_affairs.php

**Monmouth County Environmental Council**
Hall of Records Annex
1 East Main Street
Freehold NJ 07748
(732) 431- 7000
http://www.co.monmouth.nj.us/page.aspx?ID+3005

**Ocean County Environmental Agency and Environmental Municipal Commission**
175 Sunset Avenue
PO Box 2191
Toms River, NJ 08755-9720
(732) 505-3671
www.co.ocean.nj.us/OC/Engineering/frmENGHome.aspx

**Warren County Environmental Commission**
165 County Route 519 South
Belvidere, NJ 07823-1949
(908) 475-6500
www.co.warren.nj.us/Environmental/contact.html

## Directories

**Department of Environmental Protection**
**Easy Access Guide**
http://www.state.nj.us/dep/easyaccess/h.htm

**Municipal Directory**
**NJ State League of Municipalities**
407 West State Street
Trenton, NJ 08618
(609) 695-3481
www.cityconnections.com/NJ_municipalities.html

**Official Directory of the State of New Jersey**
**N.J. Department of State**
225 West State Street
Trenton, NJ 08625
(609)292-6260
www.state.nj.us/nj/gov/direct/

**State of New Jersey County and Municipal Websites**
www.state.nj.us/nj/govinfo/county/localgov.html

## Private and Non-Profit Organizations

**American Farmland Trust**
1150 Connecticut Ave. NW, Suite 600
Washington, DC 20036
(800) 431-1499
*www.farmland.org*

**American Littoral Society**
18 Hartshorne Drive, Suite #1
Highlands, NJ 07732
(732) 291-0055
*www.littoralsociety.org*

**Association of NJ Environmental Commissions**
P.O. Box 157
300 Mendham Road
Mendham, NJ 07945
(973) 539-7547
*www.anjec.org*

**Association of New Jersey Recyclers**
120 Finderne Avenue
Bridgewater, NJ 08807
(908) 722-7575
*www.anjr.com*

**Clean Ocean Action**
Building 18
Hartshorne Drive
PO Box 505
Sandy Hook, NJ 07732-0505
(732) 872-0111
*www.cleanoceanaction.org/index.php?id=56*

**Delaware & Raritan Canal Watch**
P.O. Box 2
Rocky Hill, NJ 08553-0002
(609) 924-2683
*www.canalwatch.org*

**Delaware & Raritan Greenway**
D&R Greenway Land Trust
One Preservation Place
Princeton, NJ 08540
(609) 924-4646
*www.drgreenway.org/contact_us.html*

**Delaware Riverkeeper Network**
300 Pond Street
Second Floor
Bristol, PA 19007
(215) 369-1188
*www.delawareriverkeeper.org*

**Great Swamp Watershed Association**
568 Tempe Wick Road
Morristown, NJ 07960
(973) 538-3500
*www.greatswamp.org*

**Land Trust Alliance**
1660 L Street, NW, Suite 1100
Washington, DC 20036
(202) 638-4725
*www.lta.org/contact.htm*

**Lower Raritan Watershed Partnership**
PO Box 446
New Brunswick, NJ 08901
(908) 349-0281
*www.lowerraritanwatershed.org*

**Passaic River Coalition**
330 Speedwell Ave.
Morristown, NJ 07960
(973) 532-9830
*www.passaicriver.org*

**Raritan Basin Watershed Alliance**
74 East Main Street
Somerville, NJ 08876-2312
(908) 685-0315
*www.raritanbasin.org*

**Nature Conservancy**
200 Pottersville Road
Chester, NJ 07930
(908) 879-7262
*www.nature.org/wherewework/northamerica/states/newjersey*

**New Jersey Audobon Society**
9 Hardscrabble Road
Bernardsville, New Jersey 07924
(908) 204-8998
*www.njaudubon.org*

**New Jersey Conservation Foundation**
Bamboo Brook
170 Longview Road
Far Hills, NJ 07931
(908) 234-1225
*www.njconservation.org*

**New Jersey Environmental Federation**
Clean Water Action
198 Brighton Avenue
Long Branch, NJ 07740
(732) 963-9714
*www.cleanwateraction.org/states/new-jersey*

**New Jersey Environmental Center**
Environmental Lobby
204 State Street
Trenton, NJ 08608
(609) 396-3774
*www.njenvironment.org*

**New Jersey Planning Officials**
31 Mountain Blvd.
Warren, NJ 07059
(908) 412-9592
*www.njpo.org*

**New Jersey Sierra Club**
145 West Hanover Street
Trenton, NJ 08618
(609) 656-7612
*www.newjersey.sierraclub.org*

**New Jersey Watershed Organizations**
http://njwrri.rutgers.edu/watershed_orgs.htm

**NY/NJ Baykeeper**
52 W. Front Street
Keyport, NJ 07735
(732) 888-9870
nynjbaykeeper.org

**NY-NJ Trail Conference**
600 Ramapo Valley Road
Mahwah, NJ 07430-1199
(201) 512-9348
*www.nynjtc.org*

**Pinelands Preservation Alliance**
17 Pemberton Road
Southhampton, NJ 08088
(609) 859-8860
*www.pinelandsalliance.org*

**Raritan Headwaters Assocation**
2121 Larger Cross Road
Bedminster, NJ 07921
(908) 234-1852
www.raritanheadwaters.org

**Stony Brook-Millstone Watershed Association**
31 Titus Mill Road
Pennington NJ 08534
(609) 737-3735
*www.thewatershed.org*

**Trust for Public Land**
20 Community Place, 2nd Floor
Morristown, NJ 07960
(973) 292-1100
*www.tpl.org*

**Rockaway River Watershed Cabinet**
c/o Morris 2000
2 Ridgedale Avenue
Cedar Knolls, NJ 07927
(973) 984-2000
Email: *mfs@morristomorrow.org*

Appendix C

# Glossary

**Abatement** Reduction in the degree or intensity of pollution.

**Ambient air** Outdoor air, in which pollution is influenced by natural forces, such as diffusion by the wind.

**Aquifer** Underground bed or layer of earth, gravel or porous stone that contains water in quantities significant enough to be useful as a water supply.

**Bedrock** Rock underlying the soil horizons of an area.

**Best management practices** A term for the best economic and technological solution for reducing nonpoint source pollution.

**Bill** A document in the form of a law, presented to the legislature for enactment.

**Build Out** A build-out analysis helps a community to envision what it could look like if all endeveloped land were built to the extent allowed under its existing zoning regulations. Through a build-out analysis, a municipality can determine the extent of future development and the resulting fiscal and environmental impacts that are likely to occur in the community and whether current policies are sustainable.

**CAFRA** NJ Coastal Area Facility Review Act, which requires state review of development proposals, including residential projects of over 24 units in the designated coastal zone.

**Carrying capacity** The capability of a system to absorb population and development with the parameters of an acceptable environment. For example, in recreation, the amount of use a recreation area can sustain without deterioration. In wildlife, the maximum number of animals an area can support during a given period of the year. In land use planning, the maximum development density an area can sustain without overtaxing water supplies or other critical resources.

**Cluster development** A subdivision design that permits building lots to be made smaller and grouped leaving the remaining land open for recreational or conservation purposes. Such a plan generally maintains the same overall density as the conventional subdivision design.

**Condemnation** The taking of private property for public use through the exercise of the power of eminent domain.

**Cost/benefit analysis** A comparison between dollar costs and benefit returns for comparison purposes.

**Cross-Acceptance** The process of comparing the provisions and maps of municipal, county and regional plans and regulations with the State Plan and the dialogue that occurs among participants during and after this process to achieve consistency among the plans. The three phases of cross-acceptance are comparison, negotiation and final review. The municipal reports are usually combined into County Cross-Acceptance Reports and are then negotiated by the county with the State Planning Commission. Cross-acceptance takes place every time the State Plan is updated.

**Critical area** An area of high environmental sensitivity, such as a wetland, steep slope, important wildlife habitat or floodplain. Designation requires a definition of the type of area to be regulated and the beneficial functions to be preserved, an inventory and map of the area. (NJDEP has mapped state water supply critical areas where water supplies are threatened due to overuse.)

**Detention basin** A man-made impoundment built to store temporarily excess stormwater runoff to reduce flood damage potential downstream.

**Easement** A right afforded a person or organization to make limited use of another's real property, as a right of way.

**Ecology** The relationships of living things to one another and to their environment, or the study of such relationships.

**Ecosystem** The interacting system of a biological community and its nonliving surroundings.

**Effluent** Sewage, water or other liquid, partially or completely treated, or in its natural state flowing out of a reservoir, basin, treatment plant or pipe.

**Environmental impact statement (EIS)** A detailed document outlining the environmental impacts expected from a proposed project and the mitigation an applicant will take to minimize these impacts.

**Environmental resource inventory (ERI)** An inventory of the baseline environmental factors in a community. Factors include geology, climate, soils, hydrology, vegetation and wildlife. Also known as Natural Resource Inventory or Index of Natural Resources.

**EPA** US Environmental Protection Agency

**Erosion** The wearing away of land surface by wind or water. Erosion occurs naturally from weather or runoff but can be intensified by land clearing practices.

**Fauna** The animal life of a region.

**Floodplain** The land areas adjacent to a river or stream that are flooded during storm events.

**Floodway** The stream channel and the immediately adjacent portions of the floodplain that carry the bulk of the flood flow during storm events.

**Floor area ratio** Ratio of area of all floors in a building to the total area of the building lot.

**Flora** The plant life of a region.

**Geology** The scientific study of the origin, history and structure of the earth.

**Groundwater** Water that occupies spaces in underground geological structures.

**Habitat** The environment in which the life needs of a plant or animal organism, population or community are supplied.

**Hazardous substance** Any substance that is toxic, flammable, corrosive, reactive, explosive, infectious and/or radioactive.

**Hydrologic cycle** The circuit of water movement from the atmosphere to the earth and back to the atmosphere through various stages or processes, as precipitation, interception, runoff, infiltration, percolation, storage, evaporation and transpiration.

**Infrastructure** Underlying physical systems and facilities needed for community development: highways, public transportation, sewer and water supply systems, drainage, parks, utilities, waste disposal.

**LEPC** Local Emergency Planning Committee

**Meteorology** The science dealing with atmospheric phenomena especially weather and weather conditions.

**MLUL** NJ Municipal Land Use Law governing subdivision and development of land; sets standards local master plans and zoning ordinances, timetables for applications.

**Natural resource inventory, natural resource index (NRI)** see Environmental Resource Inventory.

**NJDCA** NJ Department of Community Affairs

**NJDEP** NJ Department of Environmental Protection

**NJPDES** permit A permit issued by NJDEP to discharge pollutants into navigable waterways. (NJ Pollutant Discharge Elimination System)

**Nonpoint source pollution** A contributing factor to water pollution that cannot be traced

to a specific source, such as surface runoff from roadways and parking areas, farms suburban and urban development.

**NRCS** Natural Resources Conservation Service, formerly Soil Conservation Service

**Open space index** A listing of all open spaces of the community, whether publicly or privately held. Can be included in the Environmental Resource Inventory.

**Ordinance** A local law enacted by the governing body of a municipality or county, comparable to a statute enacted by the state Legislature but limited to such topics and actions and state law permits.

**Parliamentary procedure** The rules adopted by an organization to control the conduct of its meetings.

**Pesticide** Any substance used to control pests ranging from rats, weeds, and insects to algae and fungi.

**Plan endorsement** A process undertaken by municipalities, counties and regional agencies to have their master plans, municipal strategic revitalization plans, urban complex strategic revitalization plans and regional strategic plans endorsed by the State Planning Commission.

**Planned unit development (PUD)** A special zone that permits planning the development of a unit of land as a whole, to be used for a variety of uses and densities, with clustering to preserve usable open space and other natural features. The location of the zone is usually decided by the local governing body on a case-by-case basis.

**Potable water** Water that is safe for drinking and use in cooking.

**Quadrangle map** Map divided into rectangles of a set size. Related to land use, this usually refers to maps prepared by the USGS.

**Radioactive** Substances that emit radiation either naturally or as a result of scientific manipulation.

**RCRA** US Resource Conservation and Recovery Act

**Recharge** Process by which water is added to the zone of saturation, as recharge of an aquifer.

**Redevelopment** To restore buildings or neighborhoods to a better condition in order to increase their value, improve their utility and/or revitalize an area.

**Referendum** The process by which residents of a municipality can approve or reject at the polls any act of the municipal legislative body.

**Remediation** The physical remedy to correct a hazardous substance threat or release into the environment.

**Resolution** An expression of the opinion of a municipal council concerning some matter of administration and providing for its disposition, being less formal than an ordinance and requiring no set form of words.

**Reverter clause** A clause in a deed that restores the use of property to a donor or transfers ownership to a third party upon the termination of the use for which the property was dedicated.

**Riparian buffer** A vegetated area along stream or river banks that is protected from soil disturbance in order to slow and filter stormwater runoff in order to protect water quality.

**Runoff or stormwater runoff** Water from rain, snow melt or irrigation that flows over the ground surface and returns to streams; it can collect pollutants from air or land and carry them to the receiving waters.

**SARA** US Superfund Amendments and Reauthorization Act

**SCD** County Soil Conservation District.

**SDRP** State Development and Redevelopment Plan.

**Sediment** Solid material, both mineral and organic, that is in suspension, is being transported or has been moved from its site of origin by air, water, gravity or ice and has come to rest on the earth's surface either above or below sea level.

**Site plan** A scaled, visual representation of onsite conditions and proposed changes used to describe a development.

**Soil profile** A vertical section of the soil through all its horizons and extending into parent material.

**Statute** An act of the Legislature as an organized body.

**Steep slope** A slope generally in excess of 15 degrees.

**Stream corridor** The land area that directly impacts the quantity and quality of the water in a stream. It may include wetlands, steep slopes, forested areas or highly erodible areas adjacent to a stream.

**Stream encroachment** Any structure, alteration, filling, construction or other activity within the area that would be inundated by the 100-year flood of any non-delineated stream or within the flood hazard area of a delineated stream.

**Subdivision** The division or re-division of a lot of land into two or more smaller building lots.

**Surface water** The water in stream channels, lakes, marshes, glaciers and reservoirs.

**Topography** The relative positions and elevations of the natural or man-made features of an area that describe the configuration of its surface.

**Toxic** A characteristic of a chemical or mixture of chemicals that may present an unreasonable risk of injury to health or the environment.

**Transfer of development rights (TDR)** A regulatory concept that strictly limits development in certain areas (floodplains, steep slopes, farmland, etc.) by transferring development density to areas of the municipality better suited for development.

**USGS maps** A wide variety of topographic maps and other types of maps prepared by the US Geological Survey.

**Variance** An exemption from a zoning regulation granted by the zoning board of adjustment to relieve an applicant from practical difficulties and unnecessary hardships.

**Watershed** The land area that drains into a stream or other water body.

**Wetlands** A term for land areas that are sufficiently saturated by water as to be generally able to support vegetation or aquatic life requiring saturated soil conditions for at least part of the year.

Appendix D

# Environmental Laws Referred to in This Book

## STATE LAWS

**Brownfield Act** – NJSA 58: 10B-1 et seq.

**Clean Communities Act** – NJSA. 13:1E-92 et seq.

**County Environmental Health Act** – NJSA 26:3A2-1 et seq.

**Environmental Aid Act** – NJSA 13:1H-1 et seq.

**Environmental Commission Enabling Legislation** – NJSA 40:56A-1 et seq.

**Fair Housing Act** – NJAC5:93-8 et seq.

**Flood Hazard Area Control Act** – NJSA 58:16A-50 et seq.

**Freshwater Wetlands Protection Act** – NJSA 13:9B-1 et seq.

**Hackensack Meadowlands Reclamation and Development Act** --NJSA 13:17-1 ET SEQ.

**Highlands Water Protection and Planning Act** – NJSA 13:20-1 et seq.

**Historic Register Law** – NJSA 13:1B-15.128 et seq.

**Industrial Site Recovery Act** – NJSA 13:1K-6 et seq.

**Local Budget Law** – NJSA 40A:4

**Local Health Services Act** – NJSA 26:3A2-1 et seq.

**Municipal Land Use Law** – NJSA 40:55D-1 et seq.

**New Jersey Tort Claims Act** – NJSA 59:1-1 et seq.

**New Jersey Stormwater Management Regulations** – NJAC 7:8 et seq.

**Open Public Meetings Act** – NJSA 10:4-6

**Pinelands Protection Act** – NJSA 13:18A-1 et seq.

**Soil Erosion and Sediment Control Act** – NJSA 4:24-1 et seq.

**Solid Waste Management Act** – NJSA 13:E-1 et seq.

**State Planning Act** – NJSA 52:18A-196 et seq.

**State TDR Act** – NJSA 40:55D-137 et seq.

**Statewide Source Separation and Recycling Act** – NJSA 13:E-99.11 et seq.

**Storm Water Management Act** – PL 1981, Ch. 32

**Uniform Construction Code Act** – NJSA 52:27D-119 et seq.

**Worker and Community Right to Know Law** – NJSA 34:5A-1 et seq.

# FEDERAL LAWS

**Clean Air Act** – 42 USC 7401 et seq.

**Clean Water Act** – 33 USC 1251 et seq.

**National Historic Preservation Act** – 16 USC 461 et seq.

**National Parks and Recreation Act** – 16 USC (codified in scattered sections)

**Resource Conservation and Recovery Act** – 42 USC 6901 et seq.

**Superfund Amendments and Reauthorization Act** – 42 USC 9601 et seq.

**Toxic Substances Control Act** – 15 USC 2601 et seq.

Appendix E

# Tools for Commissioners

## SAMPLE AGENDA

**A. Call to Order. Roll Call. Public Meeting Statement.** (Statement indicates that this Regular/Special meeting is held under the provisions of the Open Public Meetings Law; that adequate notice has been provided by posting in the [township, city] and transmittal to the newspaper.)

**B. Approval of Minutes** of prior meeting, (month, day, year).

**C. Communications & Announcements** (List letters/phone calls received; announcements of other meetings, workshops, courses.)

**D. Old Business** (List headings for Planning Board Applications, Board of Adjustment Applications.)

**E. New Business** (List as above; include headings.)

**F. Other Business/Reports**

**G. Adjournment** Announcement of next meeting date, time and place.

## SAMPLE PRESS RELEASE

### For immediate release

**Contact:** (name) (date) (phone number)

**Busy Year for Environmental Commission**
ANYTOWN. Although only in its first year of existence, the Anytown Environmental Commission has already made significant strides in protecting the natural resources of the community, according to the group's 2006 Annual Report presented to the Township Council on (date). The all-volunteer Commission listed among its major achievements the passage of a battery recycling ordinance, a successful clean-up along the Clearwater River on Earth day, an educational program for middle school students on stormwater, and obtaining a Smart Growth Planning Grant to develop an Environmental Resource Inventory for the Township. The Commission also reviewed ten site plans for development applications before the Zoning Board of Adjustment in 2006, commenting on their environmental impact.

"Every member of the Commission has worked hard over the past year and we're proud of what we accomplished, but we still have a long way to go," said Commission Chair Barry Greentree. "With runaway development threatening to gobble up every available acre, we need to set better ground rules to protect our natural resources."

Greentree pointed to the recent flooding and chronic traffic jams near the newly developed Turkey Creek Mall on Route 41 as an example of how inadequate land use restrictions can lead to new development that overburdens existing storm sewers, roads and other infrastructure, causing serious environmental damage and economic hardship.

Mayor Rose Mulch praised the Commission for its hard work and promised support for an Environmental Resource Inventory that will help the governing body identify and protect Anytown's natural assets.

Greentree said the Commission is looking for volunteers to help with a variety of projects for the coming year, from conducting surveys to publishing an environmental commission e-newsletter to planting trees on Earth Day at the former Bigfoot Shoe Factory site, which the Township purchased as open space last year.

The Commission's seven members include: (List names). Meetings are held monthly on (day, time) and visitors are welcome, Greentree said.

## SOME FACTORS TO CONSIDER IN AN ERI

### Geography

1. Physiographic region and/or subregions
2. Slope, relief, elevation

### Geology

1. Bedrock type and characteristics (structure, type and age)
2. Depth to bedrock
3. Unconsolidated materials (loose rock, sands) and thickness
4. Mineral resources (e.g., sand and gravel)
5. Geologic cross sections

### Soils

1. Soil types, texture, stoniness, depth, hydrological types
2. Shrink-swell potential
3. Frost heave potential
4. Erodibility, potential soil loss in cubic feet per year
5. Percolation rates
6. Depth to groundwater
7. Surface runoff, permeability, perviousness
8. Fertility ( vegetative capability)
9. PH
10. Nutrient absorption (cation exchange capacity)

### Hydrology

1. Groundwater
   a. Aquifer outcrop; thickness, location, extent
   b. Direction and rate ( if known) of groundwater movement
   c. Groundwater recharge and discharge areas ( possibly outside municipality
   d. Depth to groundwater
   e. Well locations and gallons per minute (gpm)
   f. Quality of groundwater, pollutant sources

2. Surface water
   a. Types, location, names and direction of flow
   b. Watershed and subwatersheds (drainage units)
   c. Low flow of streams - mean 7 day/10 year recurrence interval
   d. Floodplains, wetlands, swamps, bogs
   e. Depth to groundwater ( water table )
   f. Water quality, limnology, dissolved and suspended solids
   g. Liquid waste disposal systems
   h. Designation/classification of surface water bodies and tributaries ( trout production, trout maintenance, non-trout, Category 1)
   i. Intakes, outfalls, dams

3. Flood plains
   Wetlands
   a. Vegetation
   b. Soils
   c. Hydrology

### Meteorology

1. Air quality, monitoring sites, static sources of air pollution
2. Prevailing air currents
3. Seasonal precipitation
4. Topographic protection (wind)
5. Maximum/minimum fluctuations in temperature
6. Fog-bound areas

### Vegetation

1. Types of vegetation
2. Fire hazard, history of wildfires
3. Pollution affected types
4. Vegetation of recreational and/or historic value
5. Vegetation of economic value
6. Rare or endangered species
7. Hydrophytes (wetlands)
8. Forest cover
9. Agricultural areas

### Land use

1. Existing
   a. Open space, public and private (including easements)
   b. Roads, railroads, pipelines, reservoirs
   c. Recreation, public and private
   d. Urban areas
   e. Agricultural areas
   f. Waste treatment and disposal facilities (sewage and solid)

2. Proposed
   a. Master plan

b. Zoning

Historic and Cultural Factors

1. Historic sites and areas
2. Possible or existing archaeological sites
3. Scenic qualities, viewsheds
4. Historic roads, bridges and trees

Noise factors

1. Noise sensitive areas
2. Equivalent sound level
3. Day/night sound level

Contaminated sites

## ENVIRONMENTAL IMPACT STATEMENT SUBJECTS

I. Comprehensive description of existing conditions
- a. Location, size of site
- b. Natural resources of the site and region
- c. Man-made, cultural and economic resources
- d. Environmental, demographic, economic and cultural problems

II. Comprehensive description of proposed development
- a. Identification of project, ownership and management
- b. Purpose of and need for project
- c. Describe development with complete site plan
- d. Manpower requirements
- e. Energy requirements
- f. Water supply requirements
- g. Drainage, stormwater runoff
- h. Liquid waste
- i. Solid waste
- j. Air pollution
- k. Noise
- l. Transportation
- m. Employee services
- n. Municipal services
- o. Aesthetics
- p. Land management
- q. Critical impact areas
- r. Listing of all required permits (federal, state, local)

III. Description of construction phase of project
- a. Construction schedule
- b. Workforce and equipment
- c. Traffic
- d. Site preparation
- e. Materials required from off site
- f. Storage of materials on site
- g. Temporary structures
- h. Measures for environmental protection

IV. Environmental impact if implemented
- a. Land use
- b. Water
- c. Air
- d. Aquatic and terrestrial wildlife
- e. Social and economic
- f. Noise
- g. Solid waste
- h. Cultural and aesthetics.
- i. Abnormal environmental impacts
- j. Cumulative and long-term effects of proposal
- k. Historic sites
- l. Scenic views

V. Evaluation of unavoidable impacts

VI. Methods of mitigating adverse environmental impacts

VII. Alternatives to the proposed project

This edition of the *Environmental Commissioners' Handbook* was made possible through the financial support of:

Geraldine R. Dodge Foundation
Fund for New Jersey
Victoria Foundation

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**Association of New Jersey Environmental Commissions (ANJEC)**

Jennifer M. Coffey, *Executive Director*
N. Dini Checko, *Editor*

ANJEC
Local Environment Matters
P.O. Box 157
Mendham, NJ 07945
Tel: 973-539-7547 • Fax: 973-539-7713
Website: www.anjec.org

3H0217