

**“The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and aesthetic values of the environment.**

**Pennsylvania’s public natural resources are the common property of all the people, including generations yet to come. As trustees of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.”**

*-Article 1, Section 27 of the Pennsylvania Constitution*

**Activity 3: *Development vs. Preservation***

**Case Study** of the Upper Perkiomen School District from “Saving Land Saves Money” (view publication at [www.conserveland.org/lpr/library](http://www.conserveland.org/lpr/library))—Montgomery County Lands Trust, 2002. Compare the one time purchase price cost of the easement to the shortfall per year. To determine the break-even period, divide the purchase price of the easement by the shortfall.

**Development of the “100 Acre Farm.”**

A farmer is selling his 100 acre farm. A developer will buy the property and build houses on 1.42 acre lots with land set aside for roads, drainage area, and commons.

*There will be 0.66 homes per acre.* How many houses can be built on 100 acres? \_\_\_\_\_  
(100 acres  $\times$  0.66 homes per acre = total homes per acre)

*It is estimated that there are 0.8265 school-age children per home.* How many children would be in the subdivision? \_\_\_\_\_  
(Number of homes  $\times$  0.8265 = total children in the subdivision)

*\$7,995 is the cost of public school for each participant.* How much does it cost to send the children of the subdivision to school? \_\_\_\_\_  
( $\$7,995 \times$  number of children = public school costs/subdivision)

*In this community, the average school-tax revenue per home is \$1,779. Each home in the new subdivision must pay an average school tax of \$1,779 a year.* How much public school revenue will be collected from the homes in the subdivision each year? \_\_\_\_\_  
( $\$1,779 \times$  number of homes = public school revenues/year)

What is the cost to the community for allowing the farm to be developed? \_\_\_\_\_  
(Dollars of revenue/year – public school costs = dollars of shortfall)

**Preservation of the “100 Acre Farm” by purchase of the Conservation Easement.**

The average cost per acre for the easement purchase is \$4,349. How much is the total purchase price of the easement? \_\_\_\_\_  
(100 acres  $\times$  \$4,349 = one time purchase price cost of easement)

Activity 3: *The Last Straw* by Bruce Johnson ([www.bjohnsonltd.com](http://www.bjohnsonltd.com))



*The Last Straw* has been provided by Bruce Johnson solely for educational purposes in connection with PA Land Choices.

**A larger version of this photo is located in back pocket.**

**Activity 3:** *Lancaster County Farms*



**Activity 3:** *Last Straw Worksheet*

**While looking at the *The Last Straw* artwork** by Bruce Johnson, answer the following questions.

1. What message is the artist, Bruce Johnson, expressing in this poster?
2. Why did the artist color the farm and not the rest of the poster?
3. Describe the emotional, social and political contrasts between the farm and the rest of the poster.
4. Make a list of the things people are doing in the poster.
5. What are the dominant types of services depicted throughout the poster?
6. Does this reflect aspects of real life in your community?
7. How do you think the artist feels about what is happening in “real life?”
8. Find 5 signs, slogans, words, and/or place names discuss the message behind their meaning.
9. What messages are repeated throughout the poster?
10. Find drawings (outside of the farm) that are connected to farm life.
11. Find items that demonstrate things that are potentially harmful.
12. Find some trees? What is happening to them?
13. Why is there a group of people lined up on the border of the farm?
14. Why did the artist name the painting “The Last Straw?”
15. What could the community have done to change the situation?

**Activity 3: Natural Areas Information Sheet – Page 1 (1/2)****How much open space is needed?**

Every environment has a carrying capacity for specific organisms that live there. The carrying capacity is a point at which it can no longer support additional members of species with the natural resources they need to survive.

Carrying capacity for each animal species depends upon the amount of natural resources available on a given area of land. For example, to raise one cow, you would need one acre (about the size of a football field) of very rich pastureland, or ten acres of rangeland, or 100 acres of scrub land.

How many acres of land do you think each wild animal requires to meet their needs for an entire life span? Remember an acre is about the size of a football field and the animal must get all of its needs from its habitat.

- How much does a cottontail rabbit need? (1 acre)
- How much does a chipmunk need? (1.2 acres)
- How much does a black bear need? (38,400 acres or 60 square miles if it is a male and 3,200- 12,800 acres or 5-20 square miles, if it is a female).

Each animal has different needs. Many species need large natural woodlands and wooded corridors for survival.

- Tree species need 10 acres (300 feet minimum width)
- Forest dwelling birds need 50–1,000 acres
- Owls and raptors need 600—1,000 acres
- Large mammals need 100 acres and up

*From: Guiding Growth, Compiled by CH2M Hill*

If you are asked how much land a human needs for survival, we don't often realize how much land is needed to provide food, fuel, shelter and textiles. How many acres of land would one person need to provide basic needs?

That is difficult to answer since different lifestyles would determine how much land a human requires. American society creates demands on more land than any other society to meet its standard for consumer goods. Some societies need much less. According to Dr. Edward Passerini of the University of Alabama, a human needs 2.5 acres of land to basically survive.

Widely diversified ecosystems are much more likely to survive periods of environmental stress than are ecosystems with little diversification. Smaller isolated areas are more vulnerable than larger ones to extinctions due to disease, inbreeding and chronic disturbances of habitat. When wooded areas are fragmented into pieces, it is difficult for organisms to move from one habitat fragment to another.

According to Guiding Growth, habitats will lose between 30-50 percent of their species for each 90 percent reduction in area. Areas of less than 10 acres have little value for maintaining species diversity while areas of 50 –1,000 acres, may be very helpful in maintaining diversity. Areas less than 35 acres have significantly fewer species than areas of over 175 acres.

Depth is a consideration. A wooded area must be at least 300 feet wide if it is to provide a deep forest habitat. The extent of natural boundaries or edges between ecosystems is another consideration such as edges between forests and fields creating a diverse area which benefits some game animals and some common non-game animals such as raccoons and opossums.

Current strategies must recognize the need to protect regional ecosystem patterns and processes. One large forest is better than a medium forest but a medium forest is better than four adjacent forests, four adjacent forests are better than four separate smaller forests and a compact forest is better than a linear forest.

**Activity 3:** *Natural Areas Information Sheet – Page 2 (2/2)*

How do we protect large natural areas? Land is protected in Pennsylvania by a variety of entities, including state agencies like DCNR and the PA Game Commission; federal agencies like the National Parks Service and the United States Department of Agriculture; local and county governments and private organizations such as land trusts and trail organizations.

Our state conservation agencies add an average of 10,000 acres every year to a 4-million acre system of public lands. The Bureau of Forestry manages 2.1 million acres of state forests. The Pennsylvania Game Commission manages 1.4 million acres of state game lands.

Another method of permanently protecting land involves acquiring the property or property rights through a land trust or conservancy. Landowners who wish to preserve a beloved place, make the decision to sell or donate their property rights or entire property to a land trust, which in turn ensures the safeguard of the property in perpetuity. As of the end of 2007, 476,550 acres of Pennsylvania have been protected by Pennsylvania land trusts.

Most land trusts are private charitable corporations. Some are governmental or quasi-governmental agencies that operate with much of the flexibility and freedom of a private land trust. Some land trusts own and operate preserves and recreation areas open to the public. Others own no land at all but hold conservation easements, which protect certain natural values on properties. Others work to acquire and then transfer critical land to government for use as parks, game lands, etc. Learn more by reading the fact sheet on land trusts or by visiting [www.conserveland.org](http://www.conserveland.org).

***Municipal Tools:*** Municipalities are given some flexibility and control in determining where development is placed and which lands should be protected through zoning and planning tools.

Additional municipal tools may be found on the Land Recycling Fact Sheet. Visit [www.conservationtools.org](http://www.conservationtools.org) to learn more about additional resources available.

***Conservation Subdivision Design:*** Conservation subdivision design allows communities to implement a subdivision and land development ordinance that requires a developer to dedicate a significant portion of land to permanent open space uses. This strategy allows developers to create open space buffers along boundaries of protected properties (e.g. a state park or forest) thus expanding the natural space.

***Transfer of Development Rights:*** Transfer of development rights is a program set up either in a community or across several communities where a sending zone for development is established and a receiving zone for a development is established. Landowners in one area sell their development rights to landowners so developers may build in another area. Land from which development rights are sold is permanently protected while land where the sold rights are applied is enhanced in development value.

***Open Space Plan:*** Open space plan identifies the critical lands and resources within a community that are worthy of protection. These areas may be comprised of farmland, water resources, wildlife habitat, scenic areas and may include cultural or historic resources. It is part of the comprehensive plan and is usually necessary for grant funding.

***Open Space Referendum:*** Municipalities are authorized by PA Act 153 (“Open Space lands, Acquisition and Preservation”) to purchase land or easements for the purpose of conservation. “Local governments may levy a tax on real estate or earned income above the existing limits of the Commonwealth’s laws, but only if they first receive referendum approval from the voters. A plan to protect these resources is required prior to expenditures of open space tax revenue.

**Activity 3: Farmlands Information Sheet – Page 1 (1/2)****What is happening to farmlands?**

Development is more likely to take place on farmland than on any other type of land. A study in the Philadelphia area indicates that of all developed land between 1970 and 1980, 67 percent had been used for farming before it was developed. Since 1954, the area of cropland in Pennsylvania has dropped from 7.3 million acres to about 5.4 million acres. Counties such as Adams, Cumberland, Northampton and Lancaster have faced the dilemma similar to York where in just 30 years, almost 30 percent of York County’s farmland was lost to suburban development. Pennsylvania loses between one and six acres of agricultural land for each new household created. Once developed, the valuable soils are lost along with the entire service and character that agriculture provides to communities.

Despite the loss of farmland, the agricultural industry remains sizable and vigorous. Well managed farmland protects soil and water resources and can prevent flooding. Many farmers support conservation measures such as conservation tillage in their fields, building manure storage facilities and constructing stream bank fencing to protect water quality. Many farmers set aside land to return to its natural state.

The issue of farmland preservation has many aspects. It is an important economic industry for Pennsylvania. Farmers and their families are not the only ones benefiting from a successful agricultural industry. A multitude of industries are stabilized by a strong agricultural economy. It is part of the Pennsylvania culture, drawing tourists worldwide and providing a pastoral countryside for residents and visitors.

Agriculture is Pennsylvania’s single largest industry. Farming costs municipal governments far less than

other forms of development and pays more in property taxes than it receives back in services. Such low density development demands far fewer governmental services, placing fewer children in local schools, few roads, no sewers and usually no public water.

Today, Pennsylvania leads the nation in the total number of farms and acres preserved for agriculture. Pennsylvania is preserving more farmland than any other state.

**What tools are available to protect farmland?**

*Agricultural Conservation Easements:* Agricultural conservation easements are legal agreements that permanently protect farms from development. Landowners sell conservation easements to a government entity or land trust. The buyer pays the farmer for the value of the land for agricultural use and the value of the land for its “highest and best use” (which is usually a development). Farmers continue to own and manage the land. If they sell their land, it must remain agricultural. The first easement was purchased in December 1989 and to date, approximately 3,745 farms were approved for easement purchases totaling over 210,000 acres.

Farmers apply for selection and farms must meet several criteria to be accepted. They must have a minimum of 50 acres. Parcels as small as ten acres may be preserved if next to other preserved farmland. They must be part of an Agricultural Security Area.

*Agricultural Security Area:* An agricultural security area is a designation given by local government to at least 250 acres of farmland (owned by one or more farmers). It provides protection from local ordinances that restrict farm practices and nuisance ordinances. It limits taking of land by eminent domain.



**Activity 3: Farmlands Information Sheet – Page 2 (2/2)**

*Agriculture Protection Zoning (APZ):* APZ ordinances designate areas where farming is the primary land use. It limits non-farm uses such as high-density development and restricts subdivision of land into parcels that are too small to farm. This stabilizes the land base by keeping large tracts of land free of development and reduces conflicts between farmers and their non-farming neighbors.

*Transferable Development Rights (TDRs) and Purchase of Development Rights (PDRs):* TDRs is a zoning tool that allows conservation and development to coexist within a municipality. Growth is directed to preferred locations through the sale and purchase of development rights. Development rights can be separated from the title of a property. These rights can be transferred to another location where development is desirable. A landowner can transfer the right to develop one parcel of land to a different parcel of land to protect farmland or open space. The farmer keeps possession of the land and right to farm it. It allows the purchaser of the development rights to develop another parcel more intensively than would otherwise be permitted, ideally in an area that is more suitable for intense development.

The PDRs are the zoning tool that allows a person or an entity to buy the right to develop land from the landowner. A municipality could pass a bond issue to buy the rights and “bank” them. A developer may purchase the development rights from the municipality when he wishes to develop an area with high density. TDRs give substantial control to the municipality since it is the municipality that owns all the development rights. Municipalities need to locate revenues to purchase the development rights. TDR programs can only be used by a single municipality or among municipalities with a joint ordinance.

*Clean and Green:* PA Act 319 is called Clean and Green. It is designed to provide tax incentives to voluntary landowners who preserve land in agricultural use and/or forest reserve. It allows agricultural land to be taxed at its value for agriculture instead of its market value. It provides land protection by penalizing the farmer with rollback taxes and penalties if the farmer decides to sell and develop the land instead of maintaining it as farmland.

**Land Trusts**

The surest methods for permanently protecting land involve acquisition of property rights by land trusts. It is the use of conservation easements that most clearly defines a conservation organization as a land trust. Land trust efforts revolve around working cooperatively with landowners and crafting projects with win-win outcomes for communities.

As of the end of 2007, 476,550 acres of Pennsylvania have been protected by Pennsylvania land trusts.

Land trusts vary in character and priorities. Most land trusts are private charitable corporations. Some are governmental or quasi-governmental agencies that operate with much of the flexibility and freedom of a private land trust. Some land trusts are quite small, run entirely by volunteers, doing their work in just one municipality or small watershed. Some utilize large staffs of professionals and work region or nationwide.

Some land trusts own and operate preserves and recreation areas open to the public. Others own no land at all but hold conservation easements, which protect certain natural values on properties. Others work to acquire and then transfer critical land to government for use as parks, game lands, etc.

Land trusts may have one or more conservation priorities. They may conserve land to protect our rivers, streams and groundwater. They may protect community open space for new parks, scenic views, wildlife preserves or neighborhood gardens. They may conserve productive farmland or working forests. Some focus on protecting biodiversity while others preserve traditional hunting grounds.

More than 1,200 land trusts work in all fifty states, conserving land using a variety of techniques. Eighty of these organizations work to protect Pennsylvania's special places. Regardless of size, methods and priorities, land trusts share a commitment to conserving important lands for future generations. Land trusts can also work on land use planning, nature education, trail development, and other areas.

The three methods that land trusts protect land are conservation easement, fee simple ownership and reconveyance.

*A Conservation Easement:* A conservation easement is a legal agreement between a landowner and a conservation organization that limits certain specified uses on all or a portion of a property for conservation purposes while leaving the property in the landowner's ownership. Easements are almost without exception of perpetual duration. They are recorded at the county office where all deeds are recorded, and the easement's terms are binding on all future owners of the eased parcel.

Through the use of a conservation easement, landowners may still retain the right to use their property for many different purposes, subject to local zoning and public health and safety requirements. For example, an owner can plant trees or cut them down, build buildings or demolish them, grow crops or dig holes, allow public access or prohibit it, subdivide the property, etc. To understand the conservation easement concept, it is helpful to think of these rights as a bundle of rights. A landowner may donate or sell the whole bundle, or just one or two of the rights in the form of a conservation easement.

A conservation easement is a legal and permanent agreement between a landowner and a conservation organization that limits certain specified uses on all or a

**Activity 3: Land Trusts and Environmental Advisory Councils Information Sheet – Page 2 (2/4)**

portion of a property for conservation purposes while leaving the property in the landowner's ownership. Easements are recorded at the county office where all deeds are recorded, and the easement's terms are binding on all future owners of the eased parcel.

Every conservation easement is unique, the terms of the easement tailored to the particular property and to the particular needs and goals of the landowner and conservation organization. An easement might state, for example, that no building or road may be placed within 200 feet of a stream passing through a property but allow for a house to be built on another portion of the same property. Another easement might permit farming on a property but forbid residential, retail and industrial development. Yet another easement may prohibit all activities except for sustainable forestry and recreation. The flexibility and applicability of conservation easements is nearly endless.

A variety of model easements have been developed through DCNR and the Pennsylvania Land Trust Association for various types of conservation goals – these documents may be downloaded at [conserveland.org](http://conserveland.org) and include:

*Conservation Easement:* Provides for a comprehensive level of protection with flexibility to customize for specific conservation needs.

*Trail Easement:* Provides specific language for developing a right of way agreement for public access of a linear tract of land for recreational purpose.

*Riparian Forest Buffer Protection Agreement:* A single-purpose document, designed for protecting a narrow ribbon of land along a waterway. The model could be used in combination with or independent of CREP.

*Fishing Access Agreement:* Model easement provides a framework for conservation organizations and governmental entities to build cooperative relationships with private landowners to ensure responsible fishing opportunities for the public while keeping properties in the control of the owners.

*Water Quality Improvement Easement:* Help secure long-term access through and to property for the purpose of remediating the effects of abandoned mine drainage.

*Fee Simple Title Ownership:* Fee ownership involves full acquisition of the land and enables the land trust to control all aspects of use and management of the property and its resources. With Fee simple ownership, a land trust may provide the strongest guarantee of long-term conservation. However, because fee ownership may be costly or require additional resources, it is not always the best option or even a viable one.

*Reconveyance:* At times a land trust may operate as a third party, first acquiring the land from the original owner and then transferring the ownership of the property to another entity for the sole purpose of conservation. Usually this entity is a governmental unit such as a state agency or municipality but sometimes it is another land trust.

According to the 2007 census data collected from the Pennsylvania Land Trust Association, 2,233 conservation easements are held by 62 land trusts across the state. Sixty percent of Pennsylvania's land trusts are operated entirely by volunteers. Half of the Pennsylvania land trusts that exist today were formed after 1989.

For additional information regarding land conservation, including current data on conserved lands in Pennsylvania, visit the Pennsylvania Land Trust Association's website at [www.conserveland.org](http://www.conserveland.org).

**What is an Environmental Advisory Council?**

An Environmental Advisory Council is a group of 3-7 community residents, appointed by local elected officials, that advises the local planning commission, park and recreation board and elected officials on the protection, conservation, management, promotion and use of natural resources within its territorial limits.

Municipalities are authorized to establish EACs through Act 177 of 1996, originally Act 148 of 1973.

EAC members devote time and energy to assist elected and appointed officials in protecting the environment. They can act on a municipal or multi-municipal level.

For more information, review the EAC Handbook available at [www.eacnetwork.org](http://www.eacnetwork.org).

**Why are EACs a priority for Pennsylvania?**

Through the legislature, Pennsylvania has chosen to delegate much of its power to regulate land to the local government. As a result, the Commonwealth of Pennsylvania has over 2,560 local governing bodies. The decisions these governing bodies make on a variety of issues, from land use designations to stream corridor protection, have direct impacts on natural resources within individual municipalities and beyond. EACs, as part of local government, work directly with municipal officials to help them make environmentally sound decisions - and protect the health and quality of life of our communities.

**Where are there other EACs in Pennsylvania?**

As of 2008, there are over one hundred EACs in Pennsylvania and they are continuously being formed. To locate EAC's across the state, use the interactive map at [www.eacnetwork.org/map.asp](http://www.eacnetwork.org/map.asp).

**What do EACs do?**

In accordance with Act 177, EACs are authorized to:

- Identify environmental problems and recommend plans and programs to protect and improve the quality of the environment;
- Make recommendations about the use of open land;
- Promote a community environmental program;
- Keep an index of all open space areas to determine the proper use of such areas;
- Review plans, conduct site visits, and prepare reports for municipal officials; and
- Advise local government agencies about the acquisition of property.

**What don't EACs do?**

- EACs do not regulate; they are advisory only.
- EACs do not take the place of or compete with planning commissions or park and recreation boards; they augment and work closely with them.
- EACs are not activist or extremist environmental groups—they are part of the local government and accomplish the most when they work well with local officials.
- EACs do not compete with local grass-roots organizations, such as watershed associations.
- They are contact points and local government liaisons for these groups.
- EACs do not add bureaucracy to the local government- they have an organized procedure for participating in land use decisions.

**Activity 3:** *Land Trusts and Environmental Advisory Councils Information Sheet – Page 4 (2/4)***Why start an EAC?**

- While municipal officials have a high demand for their time and attention, an EAC can devote their full attention to environmental protection. EACs help municipal officials make environmentally sound decisions.
- EACs serve as liaisons to represent both the community and decision makers.
- EACs are a focal point for funding and raise money for projects.
- EACs engage residents, community volunteers, and the private sector in natural resource protection.
- EACs work on a multi-municipal level to reflect natural rather than artificial municipal boundaries.

Source: [www.eacnetwork.org](http://www.eacnetwork.org)

**Activity 3: Greenways Information Sheet - Page 1 (1/3)****What is a greenway?**

A greenway is a corridor of green space. It could be a narrow ribbon of woods in an urban or rural area or a wide corridor of diverse natural features.

It could be a railroad right of way converted to recreational use or a scenic road or a canal. It could function as a recreation area or function exclusively as a corridor for wildlife and environmental protection, linking parks and natural areas.

The PA Greenways Action Plan (2001) promotes establishing a statewide network of greenways. It advocates a greenway in every community by 2020. One of the primary goals is to identify a statewide network of greenway “hubs” (local/state parks, forest, communities) and establish connecting corridors of local and regional greenways called “spokes.”

Learn more about greenways by visiting [www.pagreenways.org](http://www.pagreenways.org).

**What are the benefits?**

If we think of the greenway system as infrastructure, the same way we think of roads, utilities and schools, we see many payoffs.

*There are many benefits of greenways:*

- To protect water resources by buffering non-point sources of pollution, reduce floods, and purify water
- Provide opportunities to protect and manage wildlife, forests and ecological systems
- Recharging and purifying underground aquifers that supply ground and surface waters including drinking water
- To provide recreational opportunities for people fostering health and wellness

- Alternative to automotive transportation
- Add to the economic value of the area
- Accentuate scenic beauty

**What are some examples?**

- A regional coordinated system of green space plays a critical role in managing water for the benefit of humans and wildlife. A riparian corridor is land adjacent to a stream or other waterway which supports a band of vegetation. Buffers can be either forested or herbaceous although forested buffers are preferable.
- A scenic corridor is associated with a highway, waterway or major hiking/biking trail that has a view of significant scenic value.
- A linear heritage area like the Schuylkill River Heritage Corridor is a multi-county region designated at the state and federal level to plan, conserve, develop and market the natural, historic and cultural resources of an area.

**What tools help you to create greenways?**

*Greenway Planning:* DCNR established the County Greenways and Open Space Network Planning Program to provide funding and technical assistance to counties to plan for a countywide greenway network.

One of the primary goals of this program is to establish a statewide greenways network of hubs/destinations and connecting linear corridors. Working in cooperation with their municipalities, each county is encouraged to develop a County Greenways and Open Space Plan which provides an inventory of existing natural and manmade resources, a vision for their county greenway network, and an action plan for realization that vision.

**Activity 3: Greenways Information Sheet – Page 2 (2/3)**

These plans are then adopted as a component of the County’s Comprehensive Plan. Greenways are an important strategy for achieving land use management, recreation, open space protection and community revitalization goals. The plan should be used to guide greenway development within the county as well as provide a framework municipal greenway planning efforts.

View planning resources, including DCNR’s guidelines for county and municipal Greenway Plans, at [www.pagreenways.org/toolboxdocuments.htm](http://www.pagreenways.org/toolboxdocuments.htm), and all completed County Plans at [www.dcnr.state.pa.us/brc/greenways/CountyGreenways.aspx](http://www.dcnr.state.pa.us/brc/greenways/CountyGreenways.aspx).

**Official Map:** An ordinance that notifies the public and property owners of lands that the local government has designated for possible future acquisition for a public purpose and that gives the government a year to acquire the land for public grounds once a property owner expresses the written intent to develop that area.

Lands could be designated on the Official Map for potential use as future public streets; parks and playgrounds; schools, libraries, community centers, and open space; pedestrian/bicycle ways; public easements; floodways, floodplains and stream-courses, etc.

By showing the area on the Official Map, the local government puts the property owner on notice that the property has been designated for possible future acquisition for a public facility or purpose. Only those areas where the municipality is able and willing to purchase, or on which it can acquire an easement, should be entered into the Official Map.

Municipalities in Pennsylvania are granted the power to create Official Maps through the

Pennsylvania Municipalities Planning Code (MPC). Additional information on this topic can be found at: [www.conservationtools.org](http://www.conservationtools.org).

**Public Dedication:** Pennsylvania municipalities have the power under the state’s Municipalities Planning Code (“MPC”) to require developers to dedicate land to the municipality for public parks and recreation purposes. Called “public dedication” in the MPC, this tool is often referred to as “mandatory dedication” by those in the land use planning field.

Public dedication is based on the concept of impact fees: Development creates increased demand for municipal services or facilities. Requiring developers to provide amenities or funding for expanded or enhanced public amenities is an efficient and equitable way to offset some of the impacts of new development.

Before taking advantage of a public dedication provision, a municipality must first adopt a recreation plan and then pass a Subdivision & Land Development Ordinance (SALDO), which was discussed in the Planning Toolbox section of this book.

A collection of public dedication ordinances are available at the [www.conserveland.org](http://www.conserveland.org) Library. Additional information on this topic is available at [www.conservationtools.org](http://www.conservationtools.org).

**Additional Resources:**

**Greenways Toolbox:** An online resource at [www.pagreenways.org/greenwaystoolbox.htm](http://www.pagreenways.org/greenwaystoolbox.htm) that provides a variety of guides, publications, sample materials to assist in the development and implementation of a statewide greenways network.

**How-To Manual: Creating Connections: The Pennsylvania Greenways and Trails How-To Manual,**

**Activity 3:** *Greenways Information Sheet - Page 3 (3/3)*

is a valuable resource that describes the process for creating, acquiring, constructing, and managing Pennsylvania Greenways. A copy can be found in the Greenways Toolbox.

*Trail and Path Planning: A Guide for Municipalities*, a publication by Chester County, is an excellent resource which describes how local governments can encourage the development of trails through planning and land use regulations. This can also be a resource for trail enthusiasts to better understand how they can urge their municipalities to advance trail development.

[www.dsf.chesco.org/planning/cwp/view.asp?a=3&q=631389](http://www.dsf.chesco.org/planning/cwp/view.asp?a=3&q=631389).

*A Resource Inventory Analysis Map:* A community needs to map and inventory the natural, historical and scenic resources, building a geographic information system base map that identifies existing features. It should be coordinated with other municipalities, cooperating together for protecting the resources. A Resource Inventory Analysis map is an important tool. Every municipal comprehensive plan should contain a basic resource inventory to help protect the community's special resources.

*Conservation Design:* Conservation design is implemented through a municipality's subdivision and land development ordinance. The purpose is to preserve a larger amount of land for conservation use while still allowing development. Under this technique, subdivisions are required to dedicate a portion of their land to permanent open space uses. The open space or greenway is owned and managed by a homeowners association, land trust or municipality. Easements are placed on the land to ensure it will not be further developed. The open space in each new subdivision should ultimately join together to form interconnected systems. For more information on Conservation Subdivision Design, visit

the Natural Lands Trust Growing Greener: Conservation by Design site at [www.natlands.org/categories/subcategory.asp?fldSubCategoryId=26](http://www.natlands.org/categories/subcategory.asp?fldSubCategoryId=26).

*Conservation Easement:* A conservation easement is a legal agreement between a landowner and a conservation organization that limits certain specified uses on all or a portion of a property for conservation purposes while leaving the property in the landowner's ownership. Easements are almost without exception of perpetual duration.

A variety of conservation easements exist for specific types of conservation goals, including creating greenways. Some of the easements that are beneficial for developing greenways include the Trail Easement, the Riparian Forest Buffer Protection Agreement and the Fishing Access Agreement. The Pennsylvania Land Trust Association and DCNR has developed samples or model documents of these easements and they are available at [www.conserveland.org](http://www.conserveland.org).

*Acquisition or Reconveyance:* Conservation organizations or government entities may decide to acquire the parcel of land that is being considered for the greenway and either maintain ownership or transfer ownership to another entity. More information on easements, and other tools used by land trusts are available on the land trust information sheet or online at [conserveland.org](http://conserveland.org).

*Conservation Funding:* There are a variety of funding sources available for conservation of greenways and other conservation properties. State and federal agencies provide grant funding for both private and public entities to protect natural resources. Conservation organizations may rely on additional private sources of funding, including foundations, individual donors and/or membership dues. Government entities may also choose to establish funding sources by seeking tax increases or bond issues specifically for land conservation efforts.



**Activity 3: Land Recycling Information Sheet – Page 1 (1/2)****Land Recycling and Other Specialized Techniques**

Industrial development left wastelands in almost every community throughout Pennsylvania. These areas of abandoned industrial sites are called brownfields. Usually located along rivers and transportation corridors, these sites are a testimony to a rich industrial heritage. There are estimated 400,000 brownfield sites across the nation.

Selling land that had been contaminated and polluted by previous owners became a liability issue. Purchase of such property was avoided due to cleanup requirements and lack of funding. Such lands remained a challenge for redevelopment. The Land Recycling Program (Brownfields Law – Act 2) clarified liability issues and established health standards that made redevelopment of brownfield sites more attractive. It provided unprecedented opportunities to recycle abandoned and old industrial sites into productive properties that could strengthen the economic viability of our cities and towns and provide new areas for parks and green space.

The Land Recycling Program promotes redevelopment in sustainable communities. These communities feature a mixture of uses, provide a variety of housing choices, are pedestrian friendly, have access to public transportation and greenways.

By incorporating these qualities, the program acts as an incentive to improve cities and towns, making them more desirable places to live.

Brownfields reduce sprawl by reusing sites and focusing development where existing infrastructure exist instead of developing farmland or open space. It also cleans up hazardous sites. Sites can be obtained for \$1.00 just to have them redeveloped. They are situated in prime locations near business districts, waterfronts and existing neighborhoods.

Once a brownfield is assessed, it must still be remediated before used. This is costly but state funds are available for assessment and implementation of a cleanup plan. Certain design strategies can be applied in dealing with contamination. For example, if contamination is localized to one portion of the site, this portion could be capped and used for parking.

Enterprise Zones are areas where property taxes are adapted for a specific period of time to encourage economic development. Keystone Opportunity Zones are examples of enterprise zones which are active in Pennsylvania from 1998 to 2010. Areas are usually depressed but infrastructure is available or nearby. Improving these areas for residential, recreation and commercial use allows development to occur on previously developed land thus protecting existing natural resources.

**Compact Development:** Design philosophy where the space needs of a population can be satisfied with less land area. Compact development can take various forms. From a regional perspective, it may limit development of land in cities and towns so that it does not extend into rural areas. The following are types of compact development:

**Conservation Subdivision Design:** A technique that provides the developer flexibility in newly developed areas by clustering the development into concentrated areas that can protect natural habitat. Square footage of buildings may remain the same but compact clusters reduce dimensions of lot sizes and shorten road lengths. The open space protected could be more than half of the development and may be owned by a homeowner association or conservation organization. By building houses on smaller lot sizes and having the open space usable and visible, homeowners seem to be attracted to this concept. They not only preserve natural and cultural landscapes, they reduce construction costs and long-term maintenance due to the shorter streets.

**Activity 3:** *Land Recycling Information Sheet – Page 2 (2/2)*

**Mixed Use Development:** A development that contains at least three different uses including residential. Mixed use development integrates the concept that a community is a place for people to live, shop and walk. Stores, homes, offices and public transportation are pedestrian oriented. Conventional zoning actually discourages this and segregates land uses. Conservation design features a balanced mix of land uses and compact development reminiscent of traditional Pennsylvania cities and towns. Traditional Neighborhood Development (TND) is a compact form of new development used to create a small town character as its primary goal. This is achieved by a number of aspects of community design such as sidewalks and narrow streets. It has a mixed-use core of community facilities, retail businesses and a variety of housing types. It requires a municipality to amend local zoning and subdivision ordinances.

**Infill Development:** Occurs in locations where some development has already taken place and the infra-

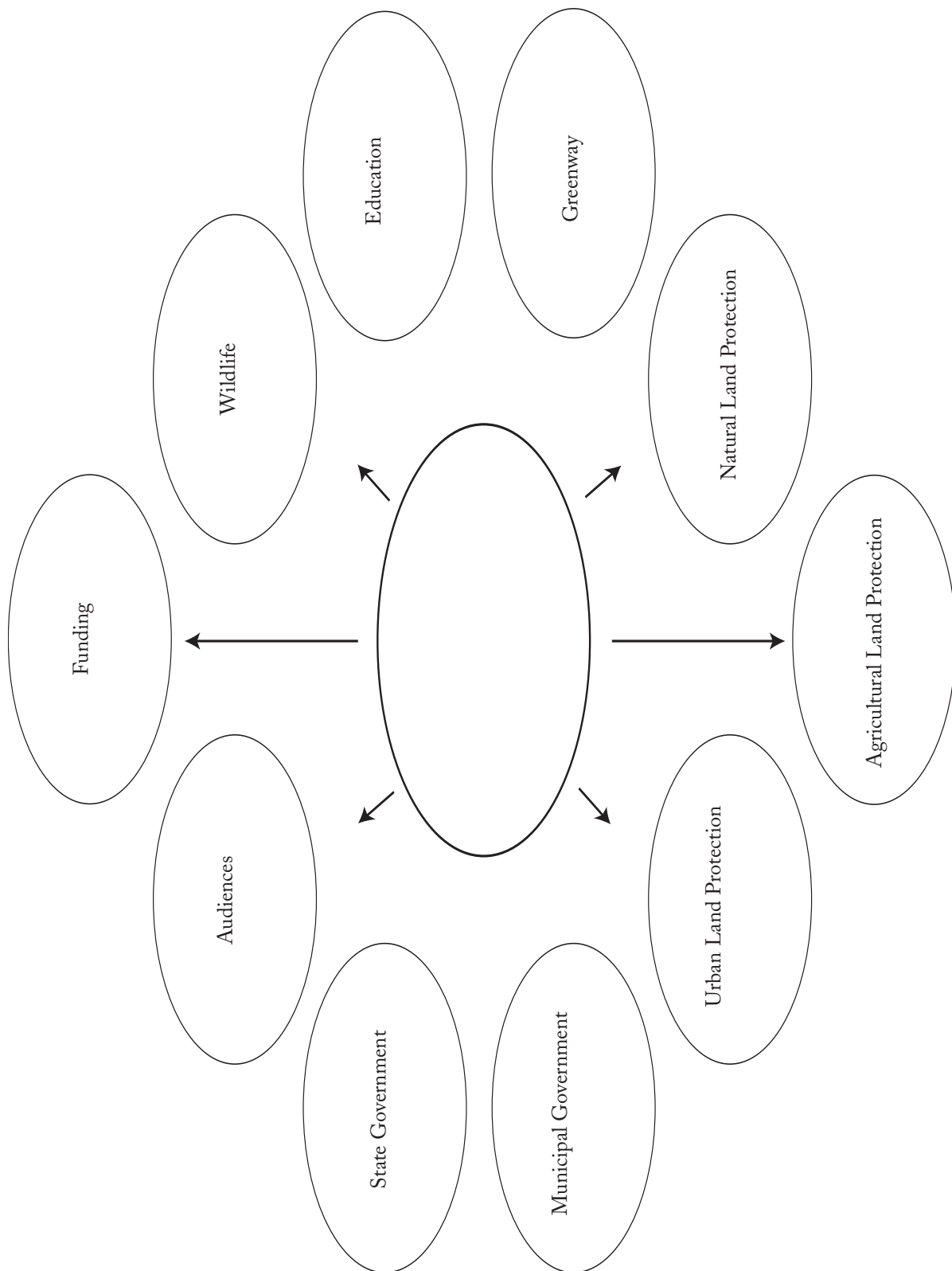
structure is already there. In urban areas, infill development refers to the conversion of old buildings such as schools into new uses or by filling the space with new development. Abandoned lots could be replaced by housing or parks.

**Urban Growth Boundary:** A planning strategy by which a planning agency establishes a boundary line around a community within which urban infrastructure and development are to be encouraged. Outside the boundary, development would be discouraged and set as low density, open space and agricultural easements.

**Reduce Impervious Surfaces:** Groundwater recharge and surface water runoff are impacted by paved surfaces. A one-acre parking lot was found to produce a runoff 16 times as large as the runoff produced by a meadow. Reducing overall paved surfaces and utilizing pervious materials for paving will help reduce the problem.

**Activity 3:** *Community Planning Worksheet*

**Develop a “map”** of all the community/regional resources, tools and appropriate partners or contacts that would apply to each of the headings. Write the name of the region or community in the center circle. Surrounding the center circle make ovals with these names in each oval.



**Activity 3:** *Protecting Land Bingo*

<b>Greenways</b>	<b>Open Space Zoning/Conservation Design</b>	<b>Conservation By Design</b>	<b>Environmental Advisory Council</b>
<b>Riparian Corridor</b>	<b>Conservation Easement</b>	<b>Agricultural Conservation Easements</b>	<b>Infill Development</b>
<b>Scenic Corridor</b>	<b>Fee Simple Title</b>	<b>Agricultural Security Area</b>	<b>Brownfields</b>
<b>Heritage Park</b>	<b>Carrying Capacity</b>	<b>Agriculture Protection Zoning (APZ)</b>	<b>Urban Growth Boundary</b>
<b>Resource Inventory Analysis Map</b>	<b>Land Trusts</b>	<b>Transferable Development Rights (TDR's)</b>	<b>Traditional Neighborhood Development (TND)</b>