Suggested Audiences
- Citizens
- Community Leaders
- Educators
- Students

Standard Categories
- Reading, Writing, Speaking and Listening
- Environment and Ecology
- Civics and Government
- Geography

Standard Statements
1.6 Speaking and Listening
4.2 Renewable and Nonrenewable Resources
4.8 Humans and the Environment
4.9 Environmental Laws and Regulations
5.2 Rights and Responsibilities of Citizens
7.4 Interactions Between People and Places

Content Objectives
- Describe the difference between public and private land
- Compare and explain public agencies involved in land ownership and their services
- Explain activities and services provided by state parks
- Explain and analyze the impacts public recreation has on natural resources
- Explain the controversy between protecting natural resources and the public demands for recreation
- Design and present a state park and community model incorporating sound management practices while meeting the demands of the public
- Demonstrate land use decisions on private lands that impact public lands
- Demonstrate smart growth policies in planning designs
- Analyze the role of citizens at the local and state levels regarding land decisions and initiatives

Instructional Strategies
- Discussion
- Survey analysis
- Group problem solving
- Presentations
- Demonstration

Assessment Strategies
- Small group and large group participation
- Design and presentation of a state park and community plan
- Evaluation rubrics
- Written evaluation

Materials
Included:
- Agencies Information Sheet
- Mission of DCNR
- Photos of Recreation Activities
- Photos of Infrastructure
- Map of Bald Eagle State Park
- Public Lands Worksheet
- Sample Map Icons
- Assessment Sheet
- Resource Inventory
- Project Review sheet
- Dilemmas (cut out)

Additional Materials:
- DCNR Park Visitor Welcome Kit
- Poster Board and Markers for Each Group
- State Park Mini Maps
- PA Tourism and Transportation Map
- Yellow Stickers or Post-it Notes

Time
- 3.0 hours
**Public lands are part of our heritage.** There are public lands that are owned and managed by community, county, state and national governments. Public lands can be set aside for public recreation, resource protection and resource management. Public ownership means public responsibility. Each citizen has a responsibility to provide recommendations and participate in planning and managing public lands.

Pennsylvania state parks and forests are under the administration of the Department of Conservation and Natural Resources. DCNR boasts one of the largest state park systems in the country. The Bureau of Forestry manages the largest tract of certified forests in the country. These public lands are conserved to provide access to scenic beauty, natural treasures, learning experiences and countless recreational opportunities.

Other state and federal agencies manage public lands along with local communities and counties. Citizens are encouraged to know their public lands and their rights and responsibilities as citizens to provide recommendations on local, state or federal levels.

---

**No Park Is An Island**

This lesson provides background information on participating and protecting public lands. The title “No Park is An Island” speaks to the connections between communities, natural resources and public lands. There are no isolated lands or isolated communities. Each should enhance and benefit the other.
Overview

No Park is An Island includes five activities:

Activity 1: Public Lands: Our Civic Responsibility
Activity 2: Enjoying Pennsylvania’s Public Lands
Activity 3: Activities versus Resources
Activity 4: Who is Your Audience?
Activity 5: Developing a Public Park Project

Summary: “No Park is An Island” expresses the connections of public lands to the surrounding communities, the natural resources, the state and the people. Public lands are the responsibility of each citizen. This lesson provides discussion about government responsibility and the encouragement of public input. Through the activities, participants will determine the role of government agencies and define the characteristics between public and private land. Participants will work in groups to make recommendations about the development of public lands for park, recreation and resource management.

Groups will research information, applying skills learned in previous lessons, and develop park and recreation plans for public land. The group will present their plans in a public forum.

Questions: Where are public lands located in Pennsylvania? Who owns public lands? What activities can be conducted in state public parks and forests, state game lands and on national lands located in Pennsylvania?

Preparation

• Reproduce a copy of the DCNR Mission Statement (p 189) and Action Plan (available online at www.dcnr.state.pa.us/info/shapefuture/actionplan.aspx) to display to the entire group.

• Copy and cut the Government Agency Worksheet (p 190) for pairs of students.

Procedure

Question: What public agencies are involved with protecting natural resources through land ownership?

1. Discuss the meaning of the words “public” and “private” land ownership. In Pennsylvania, DCNR is the primary organization responsible for the protection and stewardship of natural resources. Although DCNR owns only a small percentage of Pennsylvania’s lands, 2.4 million acres of Pennsylvania’s 29 million acres, it establishes a
model for the long-term sustainability of our natural resources. DCNR also provides funding incentives to private owners and communities to protect land such as greenways for natural resources and open space and to improve outdoor recreation activities.

2. **Review DCNR’s mission and explore and discuss DCNR’s 2004 Action Plan.** What are the highlights of the action plan that reflect a focus on land use issues?

3. **There are other state and federal agencies involved in protecting public lands and protecting aspects of the environment.** We will examine and compare the responsibilities of different state and federal agencies in relationship to land use.

Distribute the Government Agency Worksheet. Assign one box to pairs of participants to read. Pairs are to discuss the role of the assigned agency and provide examples. If time permits, pairs of participants could visit the web site and research information about the agencies. Discuss in a large group. How do the responsibilities of each agency compare with the other agencies?

4. **Since DCNR owns only a small percentage of land in Pennsylvania, the long term sustainability of our natural resources rests with local communities, nonprofit conservation organizations and private landowners.** What land in your community is owned by the municipality or conservation organization? What are some of the non-government land conservation organizations in your area? Distribute list of agencies that includes the Nature Conservancy, Natural Lands Trust and local conservancies. How are these organizations involved in land use decisions? How can DCNR help support municipalities and nonprofits on land use issues? (Through education and funding.)

5. **The Department of Conservation and Natural Resources was created to advocate for Pennsylvania’s state parks and forests and to promote public recreation and resource protection.** DCNR is responsible for managing our ecological heritage, geologic resources, waterways, greenways and for providing support and funding for community open space, conservation and recreation projects. DCNR promotes responsible decision making and stewardship for all natural resources in Pennsylvania and is involved with land choices on a daily basis. It maintains, protects, preserves, constructs facilities and administers policies for 2.4 million acres of public land.

The lesson will address the importance of public lands and the role of each person in protecting our “common wealth.” Public land is land owned for the common good or “commonwealth” of the citizens from the public domain. Pennsylvania’s public woodlands, wetlands, streams and other natural resources in the public domain can be thought of as our “commons” of today. Public lands are part of our state and national heritage. Such lands are administered and managed through local, state or federal government agencies.

There are opportunities for citizens to help make decisions on management and development of public lands.

It is our responsibility to be involved with decisions about public lands. There are opportunities to attend public meetings or to submit comments about management plans. Contact the nearest state park to find out when they are reviewing their management plan.

It is also important for people living in adjacent communities to make land use decisions on private lands that are compatible with protecting and enhancing public lands. It is important to encourage compatible gateway communities and protect natural resources beyond state park borders through education and participation in the planning process.

Individuals who own land own the rights to the land and they decide what to build on it, who can visit it and when to sell it. Places like a McDonalds or
Walmart are private places even though they are open to the public at certain times. Private land ownership places many rights in the hands of the owner. These rights can be exercised to the limit governed by municipal codes, if codes and regulations exist. These rights can be separated and sold individually such as in a conservation easement or mineral rights.

Government and environmental organizations can educate private landowners about options for their ecologically valuable land. Government can provide incentives such as tax incentives to protect forest land and funding for land acquisitions and easements that make wise land use decisions more desirable for the private landowners.

### Activity 2:

**Enjoying Pennsylvania’s Public Lands**

**Summary:** Participants will examine maps and information on Pennsylvania’s state parks and forests and identify activities they can enjoy at the various places.

**Questions:** Where are state parks and forests? What can you do there? Why is it important to manage public lands for public enjoyment? Which parks have you visited? Which would you be interested in visiting?

**Preparation**

- Divide participants into groups and discuss procedures for group work.

- Provide each group with a Pennsylvania Tourism and Transportation Map (available through www.visitpa.com).

- Provide each group with a Pennsylvania Public Lands Worksheet (p 191).

**Procedure**

**Question:** Where are the public lands located in Pennsylvania and where do I find information about public lands?

1. **Divide participants into groups.** Establish groups of five or six. We are going to “take a journey to our public lands” using the PA Tourism ad Transportation Map. Provide a map for each group. Distribute the Public Lands Worksheet for each team. Open the maps and locate the key. Discuss the key. Overview the location of various information on the map.

2. **Each group is to complete the worksheet by using the front and back of the map.** Additional paper may be needed to write answers. Allow about 10–15 minutes for groups to complete the map activity. Review the answers when completed. (Facilitator Note: The Appalachian National Scenic Trail runs from Maine to Georgia and is 2,167 miles of which 232 miles are in Pennsylvania.) Discuss participant experiences. Place a map in front of the room. Using yellow stickers, participants identify their favorite place on public land by placing their name on the map. Share their experiences. After hearing their experiences, place a red sticker on the place you want to visit.

Discuss the following question: How can participants be involved with public lands? List and discuss the following:

- Conservation Volunteer Program
- Forest Stewardship Program
- Park Management Plans
- Clean-up programs
- Advisory or Friends Groups
- PA Cavity Nesting Trails Program
- Watershed Education and stream watch programs
- Visit and Enjoy: Hiking, Hunting, Fishing, Camping, Kayaking, Horseback Riding, Birding
Activity 3:
Activities versus Resources

Summary: Participants will discuss the history of state parks and focus on the types of recreation activities available through state parks. They will define the network of people and communities impacted by recreational choices. They will discuss how the communities impact the public lands. They will discuss the impacts of activities to the natural resources and develop strategies to help balance between the use of the land, the character of the community and the protection of the resource.

Questions: How does Pennsylvania manage public recreation and the conservation of natural resources on public lands? How do recreational activities impact natural resources? How do communities enhance recreational experiences? What choices could enhance experiences while protecting resources?

Preparation
• Develop groups.
• Provide a collection of mini maps, greenway maps or watershed maps.
• Provide a copy of the Recreation Impact Worksheet (p 192) for each group along with photos of Recreation and Activities (pp 193-195).
• Provide writing paper and implements.

Procedure
1. What is the primary purpose of State Parks in Pennsylvania? The Bureau of State Parks is part of the Department of Conservation and Natural Resources. There are 117 state public parks in Pennsylvania (2008). The primary purpose of state parks is to provide opportunities for enjoying healthy outdoor recreation, to protect the natural, scenic, aesthetic and historical values of each park and to serve as outdoor classrooms.

Before 1883 there were no state parks in Pennsylvania. Industrialization in the 19th century was booming. The appetite for natural resources threatened to overwhelm and destroy natural areas. Forests were harvested by lumbering companies without reforestation. Mountains of mining refuse overshadowed coal towns. By the 1880s it was clear that to save our natural heritage, we had to find ways to protect it. First it was a national movement that grew slowly into a state movement encouraged by Dr. Joseph T. Rothrock and Gifford Pinchot (governor from 1923 to 1927 and 1931 to 1935).

By the early 1920s, 29 of the 48 states had no state parks. The first state park in Pennsylvania was established at Valley Forge in 1883. Now there are 117 state parks located in every region of the state so that every Pennsylvanian is within 25 miles of a state park.

2. Find the state parks nearest your home. Write down the directions from your home to the state parks using the roads on the map.

3. What type of activities can you and your families and friends enjoy while visiting this park?

Decisions on how to manage and develop a state park involve knowledge and sensitivity to our natural resources and knowledge of the best management practices for developing the park for public visitation. Many of the skills and concerns needed to develop a park can be applied to community planning. Today we are going to develop a state park model.

4. How does a state park manage land for public recreation and the protection of natural resources? Distribute different state park mini maps or recreation guides so that each group is responsible for examining one mini map or
guide. Have each group examine their mini map or recreation guide. Using markers, locate and circle natural features such as streams, fields, forests, wetlands and create a list of natural habitats that appear to be protected by the state park. Discuss animals and plants that might inhabit those habitats. Write the habitats on a flip chart. Discuss why it is important to protect the habitats.

5. Distribute Recreation Impact worksheet: "What do people enjoy doing in our state parks?" The task is to work in groups and make a list of recreational activities.

Distribute photos of different recreational activities to each group to use as a reference. Have participants complete the first column of the worksheet. Have participants discuss their list of activities.

Discuss how every action can impact the natural environment. Review an example such as camping and discuss what is needed to support the activity. Discuss how the activity and infrastructure impact the natural resources.

6. How do activities affect others in the community and region? Identify the nearby communities and townships. How do they impact the park? How does the park impact the community?

Each group selects one or two of the activities in state parks (e.g. camping). Have each group select a different activity. Using a concept map design, write the activity in the center of the page and think of the services and infrastructure needed to maintain that activity in the park. Include the support, resources and materials needed outside the park.

Add additional connections to demonstrate the infrastructure needed to support each item. Remind participants to include signage, brochures, mapping and other elements that may be taken for granted. Include the elements provided by surrounding communities.

Discuss ideas on what communities can do to enhance the experiences of park visitors.

Optional: Participants could investigate careers and jobs associated with each aspect of parks and recreation management.

7. Discuss the concept maps with the whole group.

Participants could complete the worksheet as groups present. Have participants discuss the impact of each activity and its support structures (infrastructures) on the environment and the consequences of that activity on natural resources. What new recreation activities do people want to do in state parks? What changes might be implemented to meet these needs? What pressures do these activities have on the natural resources such as wildlife...birds, amphibians, wildflowers?

Challenge participants to look at their concept map and consider ways to conserve and lessen the impact to the environment. Select aspects of the concept maps to discuss such as water conservation devices to lessen water use. Parking surfaces could be turf parking to provide better runoff and recharge. Restrict camping to certain areas to protect sensitive areas.

8. Review the activity by discussing important reasons to have a park or greenspace.

Solicit answers from the participants and write them on a flip chart to include the following:

- Protect natural resources and ecological health
- Provide healthy recreational opportunities
- Conserve land for the future
- Preserve and protect open space
- Educate about nature, history and environmental issues
- Protect scenic beauty
- Protect areas of historical significance
- Connecting trails
• Economic development
• Tourism
• Raise land values in surrounding communities

Which are important to communities? Which are important to users of the park? Which are important for communities far away from a park? Which are important to people in other states?

Activity 4:
Who is Your Audience?

Summary: It is important to identify the “users” and “potential users” of public lands and to assess their profile and needs. Knowing your audience is imperative before developing services. This activity involves the development of surveys and researching the needs and wishes of the audiences. It provides a basis for the types of services that parks could provide for present and future generations while managing for the conservation of the natural resources.

Question: Who are the visitors to public lands? What services do they want? What services will they use? How can public lands better meet the needs of the audiences?

Preparation
• Develop groups.
• Provide examples of survey questions.
• Provide clipboards, writing materials, surveys.

Procedure
1. How can we determine the audience and their needs?
Your group will be a team of “Park Planners” involved in developing a park and recommending land use suggestions for adjacent communities. Your first task will be to develop a survey (questionnaire and an opinionnaire) to gather firsthand information about your site. By developing surveys, participants will gather information from people who use the park and compile the data so that it becomes useful to make decisions. People who work at the park, people who use the park and people living near the park have important perceptions that will help to define actions.

2. There are different types of surveys. According to Dr. Harold Hungerford, a questionnaire is a special kind of survey which collects factual information through a carefully written set of questions about a subject that is given to a selected population. The questions in a questionnaire collect facts. (How many people in your family hike this trail?) The questions in an opinionnaire collect perspectives on beliefs or opinions. (Where should the bike path be developed to avoid sensitive areas of the park?) Participants will work in groups and develop questions that will help them design their park based on input from users, neighbors and employees of the park. They could develop one type or a mixture of both.

3. The task is to develop a survey with about 12 questions that will gather information and opinions from people to guide you in park development decisions. You will compile the data so that it is summarized in a useable, visual format.

Here are some rules to follow when developing and administering the survey:

1. Keep questions simple, direct and useful to your goal.
2. Introduce yourself and be polite.
3. Do not argue or disagree.
4. Record accurately.
Sample Survey Questions:

Assess if the interviewee is a

- Visitor
- Employee
- Neighbor

1. How far do you travel to get here and if visiting, how often do you come to the park?

2. Why do you come to this park? Did you have a history of coming here as a child or with family? How often did you visit? What nearby facilities or services do you use when visiting the park (e.g. retail store, restaurant, gas station, etc.)?

3. What are the important natural resources and natural features in the park that are important to you and why? What historic resources are in the park?

4. How should the park protect the natural resources that are important to you? The historic resources?

5. What recreational activities do you do when you are here?

6. What activities would you like to see developed at the park and where should they be located?

7. What facilities in the park need to be improved?

8. What facilities would you like to see added and where?

9. How should lands surrounding the state park be protected or developed?

10. How could the communities adjacent to state parks improve or enhance the state park?

11. How does the state park enhance the community?

12. What is the relationship of state parks to local municipalities?

13. How can municipalities enhance their resources to be compatible as a gateway to a state park?

4. After participants develop their survey, they are to administer the survey. They are to summarize the data so that it is visually presented in written and/or graph form. They are to develop concluding statements that summarize the information. Groups will assess the information and present their findings to the class. They will demonstrate how the survey will be applied to the development project.

Activity 5:
Developing a Public Park Project

Summary: Your task is to apply the information learned in the program and develop a public park or greenway. Using the example provided, participants develop planning strategies for the development of a state park. Participants will utilize information to make decisions about its recreational uses and impacts to the natural resources. Participants will provide recommendations to the community to enhance the visitor experience to the park.

Questions: What are the main concepts that emerged in the design of the project? What factors are involved in successfully applying your design?

Preparation

- Develop teams for group activity and review the procedures for working in groups.

- Provide a base map and information for the park or greenway.

- Provide participants with markers and oak tag, distribute available maps to each group.

- Make copies and be prepared to distribute the following:
  - Assessment Worksheet (p 196)
  - Bald Eagle Map (p 197) and Map Icons (pp 198-199)
Procedure

Your task is to apply the information learned in the course to develop a state park and provide land recommendations to the surrounding communities.

1. Review the following information:

A. How does land become public land? When land is purchased or donated directly from a private landowner, acquiring fee simple title to land, it is defined as the acquisition of complete title to the land with no restrictions. The title of the land is transferred to the buyer or buying agency such as the state government, municipal government or a land trust.

The seller may wish to make a charitable deduction or a donation for all or part of their land. Sometimes they will donate or sell the land but are able to live there until they die. Sometimes the seller refuses to sell. If the property is needed for a very important reason such as construction of a lake or reservoir, the state has the right to exercise the power of eminent domain. This legal action requires the owner to sell the land for the common good.

A conservation easement is a flexible planning tool that protects land from maximum development while leaving it in private ownership. The easement is a legal document which protects the future use of the land regardless of ownership. Easements (conservation, agricultural, forest or recreation easements) are intended to permanently protect the land from development. Conservation easements help improve the value of land in a community.

B. How does money become available to purchase easements? In the past, federal money played a major role in purchasing land for state parks. Federal money is available for certain projects such as national trail development. Land trusts try to obtain funding through donations and grants to purchase land.

Funding through state and federal government is becoming more readily available channeled through county, municipal and land trust organizations. Communities and counties may request their residents to vote on issuing bonds for the purpose of buying open space. The state administration has proposed bond referenda (Growing Greener I and II) to establish funding sources for open space initiatives including conservation and forest easements.

A very important aspect of protecting land is to protect interconnected networks of permanent open space. The greenways become corridors that connect communities and parks. These corridors could provide walking and biking pathways which connect to destinations and improve the quality of life for the residents of the communities. Greenways can also protect natural habitats, watersheds and forests in communities. Some are managed exclusively for this purpose.

C. How can communities provide protection of the natural resources as development continues to grow? Review the following examples.

The Official Map: Communities are authorized under the Municipalities Planning Code to establish the Official Map. Its purpose is to provide notice to landowners and intending developers that the municipality has identified certain areas or corridors for future acquisition to serve public needs.
such as streets and parkland. Land can be identified on Official Maps many years before its intended acquisition. Municipalities are legally obliged to purchase that land at fair market value within 12 months if the landowner notifies them of his/her intent to develop the land. If the municipality fails to initiate a sale agreement, the designation is deemed null and void.

The Map of Potential Conservation Lands: This is a new approach loosely related to the Official Map. Unlike its more formal counterpart, the Map of Potential Conservation Lands does not identify land earmarked for public acquisition but is a tool that informs local officials of natural resources on property proposed for development. It is used by a municipality to identify parts of undeveloped properties that need protection so that there could exist an interconnected network of conservation land. Green space such as land along streams, blocks of mature woodland, wetlands, prime farming soil, and other natural and historic features are outlined prior to new development. This approach does not involve condemnation or public acquisition but instead relies upon creative ways of accommodating development while protecting interconnected open space.

Conservation by Design: Communities adjoining your state park could become aware of adopting conservation zoning ordinances and conservation subdivision designs for new development which would require protection of natural features.

Conservation by Design is an approach to development that encourages protection and conservation of green infrastructure. Developers may be offered incentives if they conserve a significant percentage of land. A conservation subdivision design devotes half (50 percent) or more of the buildable land area within a residential development as permanent open space. An example of an incentive is the offering of a 25 percent density bonus for preserving 60 percent of the unconstrained land or offering a higher density bonus for preserving 75 percent of the unconstrained land.

By “greenlining” conservation elements to be conserved such as tree groups, wildlife habitats, historic sites and viewsheds, the developer avoids building in these areas and locates sites for development that minimize impact. Using a community-wide Map of Potential Conservation Lands as a template for the layout and design of conservation areas within new subdivisions, the green space in developments should help to create an interconnected network of open space.

2. Design a map of a park or community project. Follow the outline as a guide to complete your project. Be prepared to present your recommendations.

Based on the knowledge and the visitors survey developed in the course, participants, acting as Park Planners, will design a map that will include the state park and surrounding communities. Participants may use the icons provided or design their own symbols for their map. Participants will provide recommendations to the adjoining communities on conservation planning that will enhance the natural resources and benefit the park and the surrounding communities. Participants will respond to situations and provide recommendations for solutions.

3. Review project assessment. Groups will be judged on the following criteria: (Distribute the Assessment Worksheet and review the following.) Participants will:

- Demonstrate awareness and sensitivity toward natural resources: special habitats, watersheds, forest continuity, groundwater recharge and needs of special species.
• Demonstrate awareness to the needs of diverse visitors (including visitors with disabilities) and improving the quality of life for the communities.

• Demonstrate awareness of present and future education and recreation demands and trends.

• Demonstrate connectivity to communities and natural resources through greenways and partnerships.

• Demonstrate awareness of budget constraints and economic potential.

• Demonstrate knowledge of planning tools and conservation concepts for design and construction.

4. Gather Resources. Participants are encouraged to use state or local community parks for this activity. The activity involves Bald Eagle State Park as an example, and the sample maps of Bald Eagle State Park were developed by DCNR State Parks.

It is important to collect resources and information on your site. Obtain maps and references on natural resources, historic information and community data.

Individual park maps could be used in combination with the PA Tourism and Transportation Map. Review the maps and map keys. Distribute the Project Review Sheet. Groups will work together through the eight steps of the project. Review each step briefly.

Step 1: Sketch your state park and communities, enlarging your map on poster board. Use the map icons that are provided or develop your own icons to develop a map key. Use symbols, colors and words to label information. Identify natural areas including wetlands, forests, streams and other natural features. Identify and color code surrounding communities and label boroughs and townships. Identify and color code quarries, abandoned industrial land, railroads, roads and significant man-made features. Color code agricultural lands.

Step 2: Develop a land use vision statement. Write a land use vision statement for the park and surrounding community on paper or on the poster board. Write your vision in a two-line statement that will guide future development in your park and community. The vision statement should reflect health and well-being of users and protection of natural resources.

Step 3: Develop inventory of resources and develop land management strategies. Inventory the natural, cultural and historic resources within the park and the surrounding area using the nine elements recommended on the Park and Community Resource Inventory Worksheet. Label them on your map.

Display a minimum of four strategies for managing land in the park that demonstrates your awareness and concern for natural resources. Strategies could include recommendations for protecting headwaters, streams, water resources, sensitive natural areas, groundwater (e.g. type of paving for parking lots), removing invasive species, planting native species, deer management, elk reintroduction, mosquito abatement and erosion control.

Step 4: Develop your park design and sketch the facilities for education and recreation activities that will meet your vision and serve a diversity of visitors and meeting requests from the survey. The facilitator may direct participants to enhance existing facilities based on what we have learned from the visitor survey.

Groups should decide the location of roads, camp sites, swimming pool and other visitor services they would like to have at the park. Design and develop the infrastructure to support visitor services in locations that have the least impact on sensitive natural resources. Participants will explain their design and reasons for their choices to the entire group during the oral presentation. It is important to demonstrate
your awareness of the impacts to the natural resources while meeting current visitor trends and expectations.

Step 5: Develop recommendations for “green” planning strategies for the surrounding communities. Focus on land use strategies for adjacent lands and surrounding communities. Locate watersheds, forests, farms, and sensitive natural habitats outside of the park boundaries. Recommend implementation of a minimum of three planning strategies that will help communities protect the green infrastructure in communities surrounding the park. This could include recommended areas for conservation easements, farmland preservation, brownfields development, watershed protection areas, riparian buffer zones and rails to trails. Locate actual and/or hypothetical areas to demonstrate your understanding of the green infrastructure concepts.

Step 6: Design a conservation subdivision. Address a development proposal for 85-acres of mixed woods and fields located along a stream for a maximum of 42 houses. Read the description of the land and review the illustrations. If there is space, draw the development on the map or on a separate posterboard. Groups must demonstrate an understanding of “Conservation by Design,” ensuring that a least 50 percent of the land is protected as open space. Demonstrate how the subdivision could be connected to the state park and other features through proposed greenways.

Step 7: Recommend improvements to enhance the community to serve the visitor experience. Display a minimum of three recommendations for the existing community to improve ways it can be more livable and appealing to residents and visitors. Demonstrate a greenway connection from your project to other places to enhance experiences for visitors and community members. Identify and label your ideas on the map.

Step 8: Respond to a community dilemma. Each group will receive a scenario about a community situation dealing with land in or around a state park. Participants will have 15 minutes to discuss the community situation and develop recommendations for solutions. Groups will present their recommendations in group discussion. Groups will discuss how to address the community situation demonstrating the best practices for protecting resources and serving visitor needs.

Step 9: Participants will present their maps and planning suggestions to the group. Discussions will further enhance knowledge and understanding of conservation planning.

Step 10: Participants could be more involved in helping their communities. Describe examples of actions that will help implement successful land choices in their community:

- Become involved in neighborhood improvement projects.
- Form or join an Environmental Advisory Council.
- Attend and participate in public planning meetings.
- Become aware of and involved with a land trust, conservancy or similar organization.
- Educate public, teachers and leaders about land choices.
- Partner with organizations that can assist in protecting open space. (e.g. inventory natural resources, land acquisition and support.)
- Support bond issues for land acquisitions.
- Participate in conservation volunteer activities. (e.g. planting native plants, removing invasive species, inventory of species, litter cleanup, water quality assessment, etc.)
- Document changes in the community.
The legislation that created DCNR in 1995, outlined the following mission:

“The primary mission of the Department of Conservation and Natural Resources is to maintain, improve and preserve state parks; to manage state forest lands to assure their long-term health, sustainability and economic use; to provide information on Pennsylvania’s ecological and geologic resources; and to administer grant and technical assistance programs that will benefit rivers conservation, trails and greenways, local recreation, regional heritage conservation and environmental education programs across Pennsylvania.”

DCNR’s current mission states: “We conserve and sustain Pennsylvania’s natural resources for present and future generations’ use and enjoyment.”

The core mission remains a cornerstone of DCNR’s services. The DCNR Action Plan lays out the future of the agency, one in which DCNR is viewed as a leading steward and advocate for the natural resources of the state, an expansion of the mandated mission.

**Improve Stewardship of State Parks and Forests:** In order to sustain the many uses of lands for generations, DCNR encourages the best science, research and technology to guide management of the lands. DCNR supports economic development through wise use of natural resources and increased tourism. DCNR is dedicated to the acquisition of lands and conservation easements to protect ecologically valuable areas.

**Promote Statewide Land Conservation:** DCNR owns only a small percentage of land and water. DCNR helps communities manage growth, protect special lands and reduce the loss of open space through education, grants and land easements. DCNR will help landowners understand the conservation values of their properties and protect forests on private lands.

**Build and Maintain Sustainable and Attractive Communities:** Using financial and technical assistance, DCNR helps foster regional and county-level planning that conserves natural and heritage resources and promotes recreation. DCNR targets assistance to projects that invest in older communities, build green infrastructure and greenway connections.

**Create Outdoor Experiences for Citizens and Visitors:** DCNR creates recreational connections with the outdoors by improving visitor experiences and increasing awareness of what is available. DCNR expands and targets educational messages to help people make lifestyle decisions to protect natural resources.
**Pennsylvania Department of Conservation and Natural Resources (DCNR)** is charged with managing 2.4 million acres which includes 117 state parks and 2.1 million acres of state forest land. DCNR provides information on the state's ecological and geologic resources and establishes community conservation partnerships. The department provides technical assistance and funding for private forest management, urban forestry initiatives, river conservation and building sustainable communities by supporting trails, greenways, local parks, outdoor recreation, and natural areas. DCNR is responsible for managing the state forests, the largest publicly owned habitat for plants and animals and supporting private forest ownership. DCNR is the coordinating agency for protecting biodiversity. DCNR provides healthy outdoor recreational experiences and interpretive programming.

**Pennsylvania Game Commission (PGC)** and the **Pennsylvania Fish and Boat Commission (PFBC)** are independent state agencies funded largely by sports license sales and federal excise taxes. The PGC is responsible for Pennsylvania’s wild birds and mammals, managing 1.4 million acres and coordinating public access programs which avail 4.5 million acres of private property to public hunting and trapping. The PFBC protects and conserves the aquatic resources and provides fishing and boating opportunities. PFBC manages fish, reptiles, amphibians and aquatic insects. Both agencies establish laws and regulations, improve habitats and educate the public. The **Pennsylvania Historic and Museum Commission** manages state historic sites and associated land resources. They promote protection and preservation of architectural and archaeological resources of the state and its communities.

The **Pennsylvania Department of Environmental Protection (DEP)** is the state agency largely responsible for administering environmental laws and regulations which impact local and state decisions. DEP issues permits which impact community growth and development including permits for sewage treatment and water supply facilities. DEP responsibilities include reducing air pollution, protecting drinking water, protecting water quality, regulating wetlands, waste management, recycling, coordinating the state energy initiatives, providing mining regulations and coordinating related funding and grants.

**Pennsylvania Department of Transportation (PennDOT)** is responsible for highway plans and mass transit. The Pennsylvania highway system includes 120,298 miles of public roads, of which 43,634 miles are state-owned and 76,664 miles are owned by other public entities such as counties and municipalities. PennDOT is directly responsible for the development and maintenance of 39,906 miles of state public roads. Other agencies, such as DCNR, are responsible for 3,199 miles of state roads. PennDOT channels funds for county and municipal roads and establishes standards for public roads. Public involvement is important.

**Federal Lands in Pennsylvania:** The U.S. Department of Agriculture—**U.S. Forest Service** manages 200 million acres of national forests and grasslands throughout the U.S., of which the Allegheny National Forest consists of 23,100 acres in northwestern Pennsylvania. The **U.S. Department of the Interior (DOI)** manages 500 million acres of America’s public lands (1/5th of the U.S.) under a variety of agencies including the **U.S. Fish and Wildlife Service** which in Pennsylvania is responsible for the Erie NWR (8,777 acres), John Heinz NWR at Tinicum (932 acres) and the Cherry Valley NWR. The DOI **National Park Service** manages 29 sites in Pennsylvania including the Appalachian National Scenic Trail, Valley Forge and Johnstown Flood National Memorial.

**Pennsylvania Department of Community and Economic Development** Governor’s Center for Local Government Services serves as a resource for local government officials, developers and citizens interested in community planning - providing valuable tools for economic development and building strong communities. They provide funding for planning and technical assistance and access to numerous planning publications. **PA Department of Agriculture** administers several programs for agricultural preservation and best management practices. **County Conservation Districts**, each led by a volunteer board of directors, studies county natural resource issues and makes decisions which enhance and protect their communities. They address issues dealing with erosion, sediment control and floodplain monitoring.
Using the Pennsylvania Tourism and Transportation Map answer the following questions:

1. What is the color and symbol for state park lands?

2. List the state parks located within a two-hour driving radius of your home.

3. What is the color for state forest land?

4. What are the closest state forest lands to your home? (look for forest area names)

5. What recreation activities can you do at Sproul but can't do at Weiser?

6. What is the color for state game lands?

7. What are the game lands closest to your home? (look for the numbers)

8. What is the color for national land?

9. In which counties is the Allegheny National Forest located?

10. What does yellow represent?

11. What does orange represent?

12. List from largest to smallest six of the selected built up areas.

13. Locate and list historic sites within 60 miles of your home.

14. Locate the Appalachian Trail. Where does it enter and leave the state? Where does it go? What agency owns lands adjacent to the trail?

15. What is the color and symbol for rail-trails? Locate several rail-trails. Locate the closest rails-trails to your school or home.

16. What are some important aspects of rail-trails?

17. Locate Bald Eagle State Park. Provide directions from your house to Bald Eagle State Park following main routes. Using the scale, determine how many miles it is.
### Activity 3: Recreation Impact Worksheet

<table>
<thead>
<tr>
<th>Activity</th>
<th>What Do You Need?</th>
<th>How Does It Impact Natural Resources?</th>
<th>How Can We Manage to Reduce The Impact?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Activity 3: Photos of Recreational Activities – Page 1 (1/3)
Activity 3: Photos of Recreational Activities – Page 3 (3/3)
### Activity 5: Park Assessment Worksheet and Community Project

**This assessment** was developed for school project use.

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Great Plan</th>
<th>Good Plan</th>
<th>Average Plan</th>
<th>Need To Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrate awareness and sensitivity toward natural resources: special habitats, watersheds, forest continuity, groundwater recharge and needs of special species.</td>
<td>Provides 4 or more examples (20 points)</td>
<td>Provides 3 examples (15 points)</td>
<td>Provides 2 examples (10 points)</td>
<td>Provides 1 example (5 points)</td>
</tr>
<tr>
<td>Demonstrate awareness to the needs of diverse visitors (including visitors with disabilities) and improving the quality of life for the communities.</td>
<td>Provides 4 or more examples (20 points)</td>
<td>Provides 3 examples (15 points)</td>
<td>Provides 2 examples (10 points)</td>
<td>Provides 1 example (5 points)</td>
</tr>
<tr>
<td>Demonstrate awareness of present and future education and recreation demands and trends.</td>
<td>Provides 4 or more examples (20 points)</td>
<td>Provides 3 examples (15 points)</td>
<td>Provides 2 examples (10 points)</td>
<td>Provides 1 example (5 points)</td>
</tr>
<tr>
<td>Demonstrate connectivity to communities and natural resources through greenways and partnerships.</td>
<td>Provides 4 or more examples (20 points)</td>
<td>Provides 3 examples (15 points)</td>
<td>Provides 2 examples (10 points)</td>
<td>Provides 1 example (5 points)</td>
</tr>
<tr>
<td>Demonstrate awareness of budget constraints and economic potential.</td>
<td>Provides 4 or more examples (20 points)</td>
<td>Provides 3 examples (15 points)</td>
<td>Provides 2 example (10 points)</td>
<td>Provides 1 example (5 points)</td>
</tr>
<tr>
<td>Demonstrate knowledge of planning tools and conservation concepts for design and construction.</td>
<td>Provides 4 or more examples (20 points)</td>
<td>Provides 3 examples (15 points)</td>
<td>Provides 2 examples (10 points)</td>
<td>Provides 1 example (5 points)</td>
</tr>
</tbody>
</table>

**Score**

(total sum of points)
Activity 5: Map of Bald Eagle State Park

A larger version of this map is located in back pocket.
The following are map symbols used by the Bureau of State Parks and the National Park Service. Use the map symbols or create your own icons and draw them on your map to indicate trails, services and recreational activities.

When determining placement of activities, consider protection of special natural and historic features, number of services that the park can handle, the impact on the natural resources, visitor needs and conveniences, proximity to roads and other services and infrastructure such as electricity, water, heat.
The following are additional map symbols used by the Bureau of State Parks and the National Park Service. Use the map symbols or create your own icons and draw them on your map to indicate trails, services and recreational activities.

When determining placement of activities, consider protection of special natural and historic features, number of services that the park can handle, the impact on the natural resources, visitor needs and conveniences, proximity to roads and other services and infrastructure such as electricity, water, heat.
Every municipal Comprehensive Plan should contain a basic resource inventory. The resource features should be linear or part of a larger system which eventually could be joined together. The inventory provides information for developing a Map of Potential Conservation Lands.

<table>
<thead>
<tr>
<th>Resource Inventory</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <em>Wetlands and Their Buffers.</em></td>
<td>Wetlands and their buffers are important for filtering storm water runoff, removing pollutants and providing critical habitat and wildlife corridors.</td>
</tr>
<tr>
<td>2. <em>Floodways and Floodplains.</em></td>
<td>The Federal Emergency Management Agency publishes a map of these areas. Floodways are located along rivers and creeks. Floodplains are areas expected to be inundated with two or more feet of water at least once in 100 years. Building is limited in these areas.</td>
</tr>
<tr>
<td>3. <em>Moderate and Steep Slopes.</em></td>
<td>Slopes with gradients over 25 percent should be avoided for construction.</td>
</tr>
<tr>
<td>4. <em>Groundwater Resources.</em></td>
<td>Recharge areas are important to allow surface water to seep downward through coarse deposits or where wetlands frequently occur.</td>
</tr>
<tr>
<td>5. <em>Woodlands.</em></td>
<td>Woodlands provide valuable habitat. Woodlands forming tracts of interconnected habitats are valuable resources.</td>
</tr>
<tr>
<td>6. <em>Farmland Preservation.</em></td>
<td>Farmland preservation varies across the state. Forest areas on farmlands are a priority for protection. Former fields can also be converted to wildlife meadows and protected. Soils are a valuable resource. Identifying the type of soils is important for determining land use. For example, when on-site sewage is proposed, the most favorable soils are those where the high water table or impervious layers are four or more feet from the surface.</td>
</tr>
<tr>
<td>7. <em>Natural Resources.</em></td>
<td>Identify significant environmental elements such as species of special concern, geologic features and special natural communities. Natural diversity inventory and county natural heritage inventories help locate general areas for protection.</td>
</tr>
<tr>
<td>8. <em>Historic, Archaeological and Cultural Features.</em></td>
<td>Local historians and historic groups provide valuable information.</td>
</tr>
<tr>
<td>9. <em>Scenic Viewsheds.</em></td>
<td>Scenic road inventories are valuable references for supporting other land protection purposes.</td>
</tr>
</tbody>
</table>
**Elements to include in your final project.**

<table>
<thead>
<tr>
<th>Step 1: Draw your state park and communities, enlarging your map on poster board. Develop a map key. Use symbols, colors and words to label information. Identify natural areas including wetlands, forests, streams and other natural features. Identify and color code surrounding communities and label towns and townships. Identify and color code quarries, abandoned industrial land, railroads, roads and significant man made features. Color code agricultural lands.</th>
<th>10 points maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2: Land Use Vision Statement. Write a land use vision statement for the state park and surrounding community that guides the future development in your park and community. Write your vision in a two-line statement that will describe a direction for land choices in the park and community.</td>
<td>10 points maximum</td>
</tr>
<tr>
<td>Step 3: Inventory and Land Management Strategies. Inventory the natural, cultural and historic resources within the park and the surrounding area using the nine elements recommended (Park and Community Resource Inventory Worksheet). Using symbols or colors, identify them on your map. Identify a minimum of three strategies for managing land in the park. Strategies could include recommendations for protecting headwaters, streams, water resources, sensitive natural features, groundwater (e.g. type of paving for parking lots), slope, invasive species, deer management, mosquito abatement and erosion control. Label areas on your map.</td>
<td>15 points maximum</td>
</tr>
<tr>
<td>Step 4: Develop Your Park. Design and sketch the education and recreation facilities needed for the activities you want to develop and/or improve in your park. Design and develop the infrastructure to support your visitor services in locations that have the least impact on sensitive natural resources. Demonstrate your awareness of impacts to the natural resources while meeting current visitor trends and expectations.</td>
<td>10 points maximum</td>
</tr>
</tbody>
</table>
### Step 5: Green Planning Strategies for the Surrounding Communities
Focus on land use strategies for adjacent lands and surrounding communities. Locate watersheds, forests, farms and sensitive natural habitats. Recommend and identify a minimum of three planning strategies that will help communities protect the green infrastructure in communities surrounding the park. This could include recommended areas for conservation easements, farmland preservation, brownfields development, watershed protection areas, riparian buffer zones and rails to trails. Locate actual and/or hypothetical areas to demonstrate your understanding of the green infrastructure concepts.

15 points maximum

### Step 6: Design a Conservation Subdivision
Address a development proposal for 85 acres of mixed woods and fields located along a stream adjacent to the park for a maximum of 42 houses. Groups must demonstrate an understanding of Conservation by Design, ensuring that a least 50 percent of the land is protected as open space. Demonstrate how the subdivision could be connected to the state park and other features through proposed greenways. Draw and label your subdivision on the map.

10 points maximum

### Step 7: Recommend Improvements for an Existing Gateway Community
Demonstrate a minimum of three recommendations that will improve the community as a gateway to the park, making it more livable and appealing to residents and visitors. Develop a greenway connection to destination places for visitors and community members. Draw and label your recommendations.

10 points maximum

### Step 8: Respond to a Dilemma
Demonstrate knowledge of land use issues and sensitivity to park, community and natural resources when recommending solutions to the community dilemma.

5 points maximum

### Step 9: Oral Presentation
Demonstrate positive communication and organizational skills, as well as knowledge of land use concepts.

5 points maximum

### Step 10: Discussion
Discuss and list examples of how people can be involved with land choices in your community.

5 points maximum

### Visual and Oral Presentation

<table>
<thead>
<tr>
<th>Understanding of Land Use Concepts</th>
<th>5 points maximum</th>
</tr>
</thead>
</table>

**Extra Credit: Teamwork**
A developer purchased 85 acres of upland mixed woodlands and fields along Clean Stream, adjacent to the state park. The stream has been designated as having exceptional water quality by DEP. There are gentle and steep slopes falling generally to the south. The land has a mix of mature hardwoods and smaller areas of young hemlock forest. An unusual old stone farmhouse built in 1830 is situated on the southeast corner of the property with outbuildings, believed to be eligible for the National Register of Historic Places. (1 acre = 43,560 square feet, 85 acres = 3,702,600 square feet)

The developer is proposing this conventional development with 42 housing units with a minimum lot size of 80,000 square feet. It could look like the following:

Conservation Subdivision Recommendation

What are your recommendations for a conservation subdivision? Sketch the property and demonstrate recommendations for a conservation subdivision. Minimum lot size could be 32,000 square feet to accommodate septic fields and wells. The developer wants 42 or more housing units.
New Acquisition Park Land

The state park recently acquired 150 acres of land. It is adjacent to the boundary of the park. This newly acquired land includes the upper reaches of the stream that feeds the lake. It contains wetlands and upland forest. There are rare plants and animals in the wetland area and the stream is designated as Exceptional Value. The area is undeveloped but there is pressure from the state and the community to develop the area for recreational activities. Many options have been presented for consideration. Different people want the area used for different activities. Some want to preserve it as a natural area. Many suggestions have been submitted from the community which include: leave it as a natural area with a few hiking trails, build a large area for camping and family cabins, create ATV trails, construct boardwalks through the wetland for education programs, build a park office, and/or build a large water park. Your group must design a model to show what you propose to do with the land. Your model should demonstrate concern for the sensitive natural areas, a limited budget and ways to serve community and visitor needs.

Town Land

The township planning commission has received a proposal for revising a rundown residential section and shopping area. The area is located on the west side of the town adjacent to the state park on a road that leads to the park entrance. The developer would like to remove the old homes and place 20 new housing units on 50 acres of land. The owner wants to build a shopping mall on the remaining 10 acres along the road into the park. The township invited you to offer recommendations to the plan. You are concerned that the plan maintain the natural viewshed and enhance the entranceway to the park making it more appealing to visitors. You are invited to share your ideas that will allow housing construction in a way that protects larger areas of natural resources and is appealing to home buyers. You are encouraged to offer suggestions for development and alternatives to a strip mall that are more compatible with the natural resources and proximity to the state park. Your group must design a model to show how the 20 housing units could be developed while protecting natural areas. You must address sewage, water, electricity, parking and roadways. Your group must recommend a user-friendly commercial area for the road to the park that would enhance the experience for the state park visitors.
Farm Land

Your family has had a farm for the last 100 years. Your land borders the south side of the state park. Recently you joined a group that is trying to conserve farmland and open space in your community. They asked if you would like to put your farm into an agricultural preservation program. If it is placed in this program your land must always be used as farmland. Even if you sell your land, it could only be sold to someone who would continue to farm it. You want to farm your land while protecting the natural resources. You would like to keep part of the farm as a conservation easement. This means that an area would be protected for the conservation of the natural resources and would not be farmed or developed. By doing this you also are granted a cut in taxes. Your land includes a hillside with streams. You also have a pond, two barns and three houses on your property. Which areas of the farm will you place in a conservation easement? Design a model to show which land you will designate in the conservation easement, how you will utilize the easement for connections to the state park and demonstrate ways you will protect the natural resources on your farm.

Forest Land

Some of the state forest land in your township will soon be open for ATVs (all terrain vehicles) and other recreational activities. The northern section of the land is on steep slopes. The center section has gentle hills and the southern end is flat. There is a stream that runs north to south. This land is located north of the town. The stream feeds the town's water reservoir and flows into a lake. This land has dirt roads and trails since it is heavily timbered. The deer are abundant and damage small saplings and understory plants.

The state wants to promote the area for tourism and encourage ATV use, hunting, hiking, biking and primitive camping. Your group must design a model to show how you propose to improve the forest land and add ATV trails and supporting facilities while minimizing the impact to resources and other users. You are to address the community concerns which include erosion, noise, crowds, impact to wildlife and multi-use especially during hunting season. You are to recommend deer management strategies and suggest additional services and planning for the community to meet the increased needs of visitors.


Commercial Land

A trucking company wants to expand their business by adding parking lots, a motel, tourist services, gas station and restaurant. They are located near the interstate highway along a creek that leads to the state park. This land is upstream of the state park land and includes a wetland and forest area as well as the headwaters of the stream that feeds the park lake.

You have been asked by the planning commission to provide recommendations to the trucking company by designing an area that would have the least amount of impact on the resources and enhance the use of the state park. The community is concerned about the traffic, light pollution, noise, fumes and water pollution. They are concerned that the large paved area could create flooding, heated runoff in the summer and poor groundwater recharge. Some community members hope that the business will provide tourist services to encourage visitors who will stay overnight to view wildlife, ride bicycles and canoe. Consider designing a complex that would enhance natural resources, connect to the state park, address the public concerns and could include trade-offs for the company.