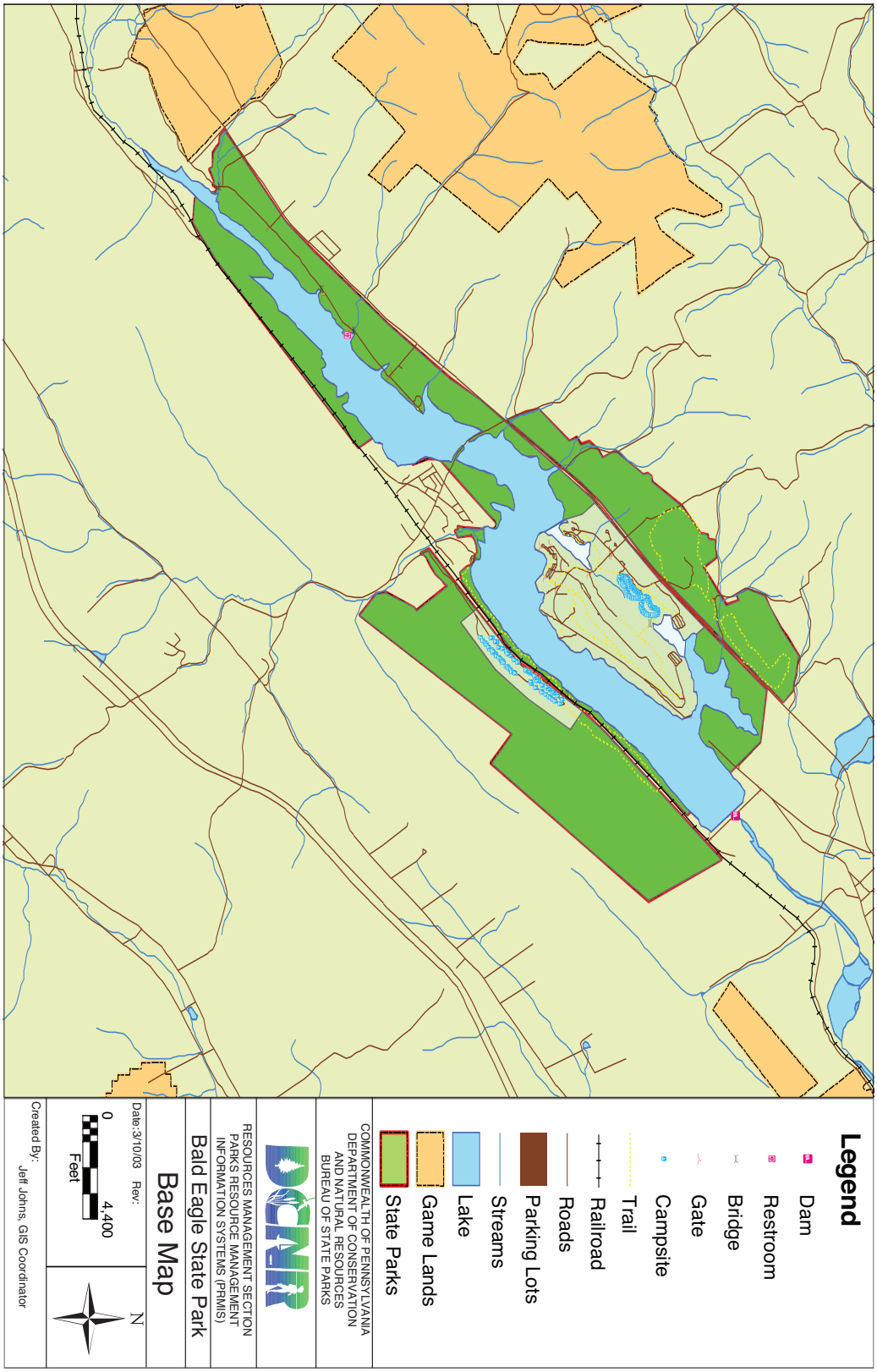
Name _____

This assessment was developed for school project use.

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

Activity 5: *Map of Bald Eagle State Park*

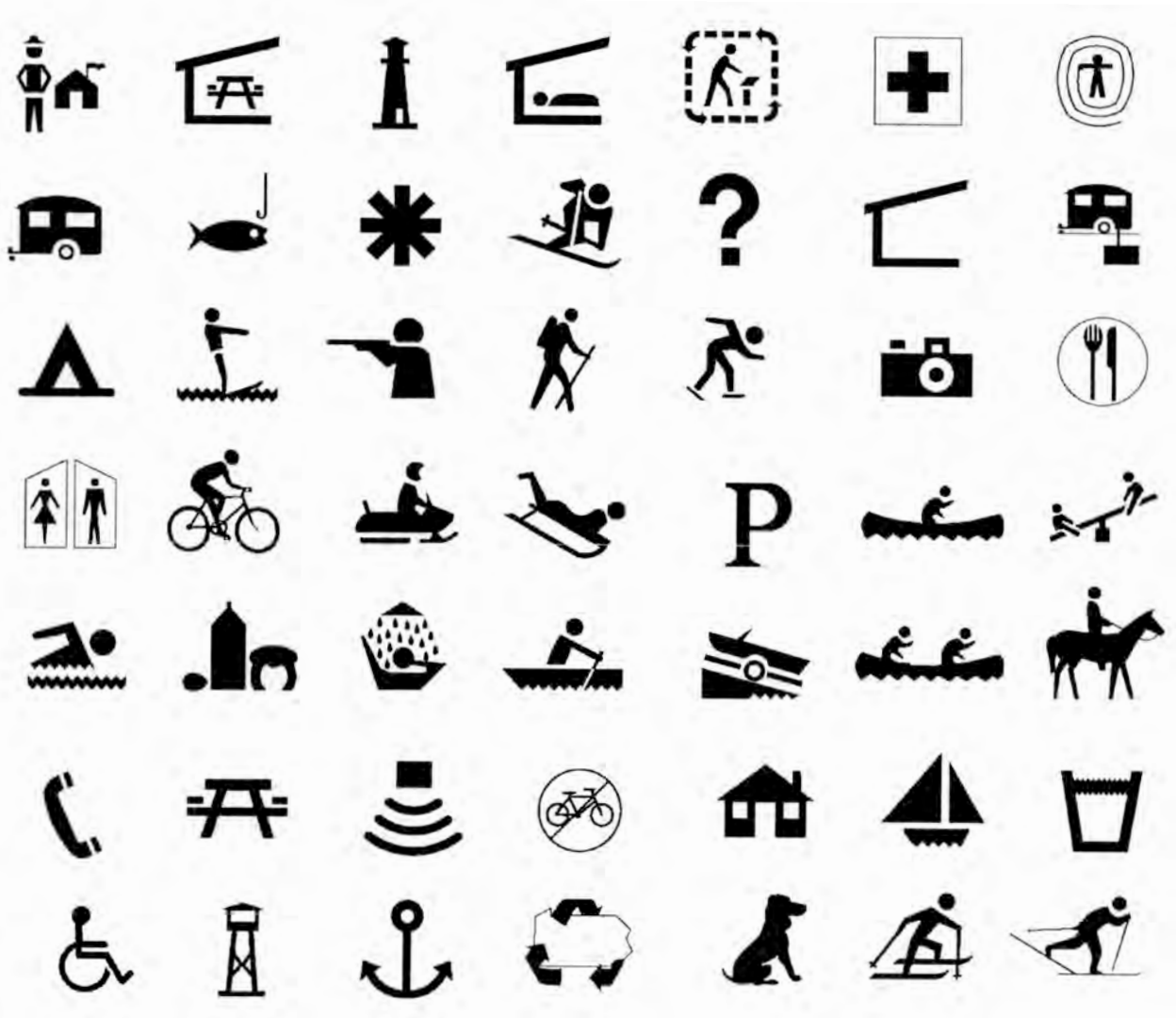


A larger version of this map is located in back pocket.

Activity 5: *Map Icons - Page 1 (1/2)*

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.

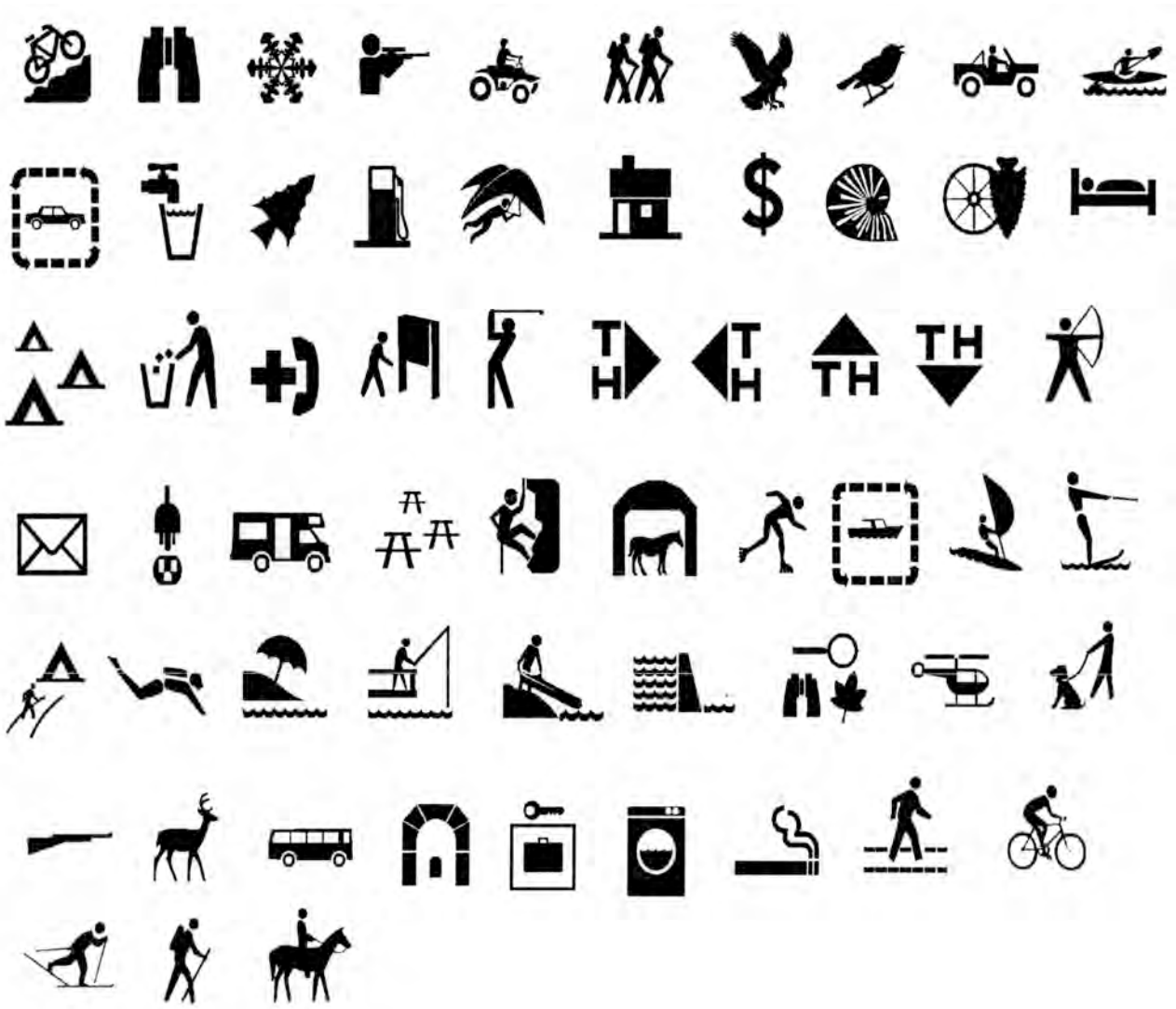
When determining placement of activities, consider protection of special natural and historic features, number of services that the park can handle, the impact on the natural resources, visitor needs and conveniences, proximity to roads and other services and infrastructure such as electricity, water, heat.



Activity 5: *Map Icons – Page 2 (2/2)*

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.

Resource Inventory	Brief Description
1. ***Wetlands and Their Buffers.*** Wetlands and their buffers are important for filtering storm water runoff, removing pollutants and providing critical habitat and wildlife corridors.	
2. ***Floodways and Floodplains.*** 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.	
3. ***Moderate and Steep Slopes.*** Slopes with gradients over 25 percent should be avoided for construction.	
4. ***Groundwater Resources.*** Recharge areas are important to allow surface water to seep downward through coarse deposits or where wetlands frequently occur.	
5. ***Woodlands.*** Woodlands provide valuable habitat. Woodlands forming tracts of interconnected habitats are valuable resources.	
6. ***Farmland Preservation.*** 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.	
7. ***Natural Resources.*** 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.	
8. ***Historic, Archaeological and Cultural Features.*** Local historians and historic groups provide valuable information.	
9. ***Scenic Viewsheds.*** Scenic road inventories are valuable references for supporting other land protection purposes.	

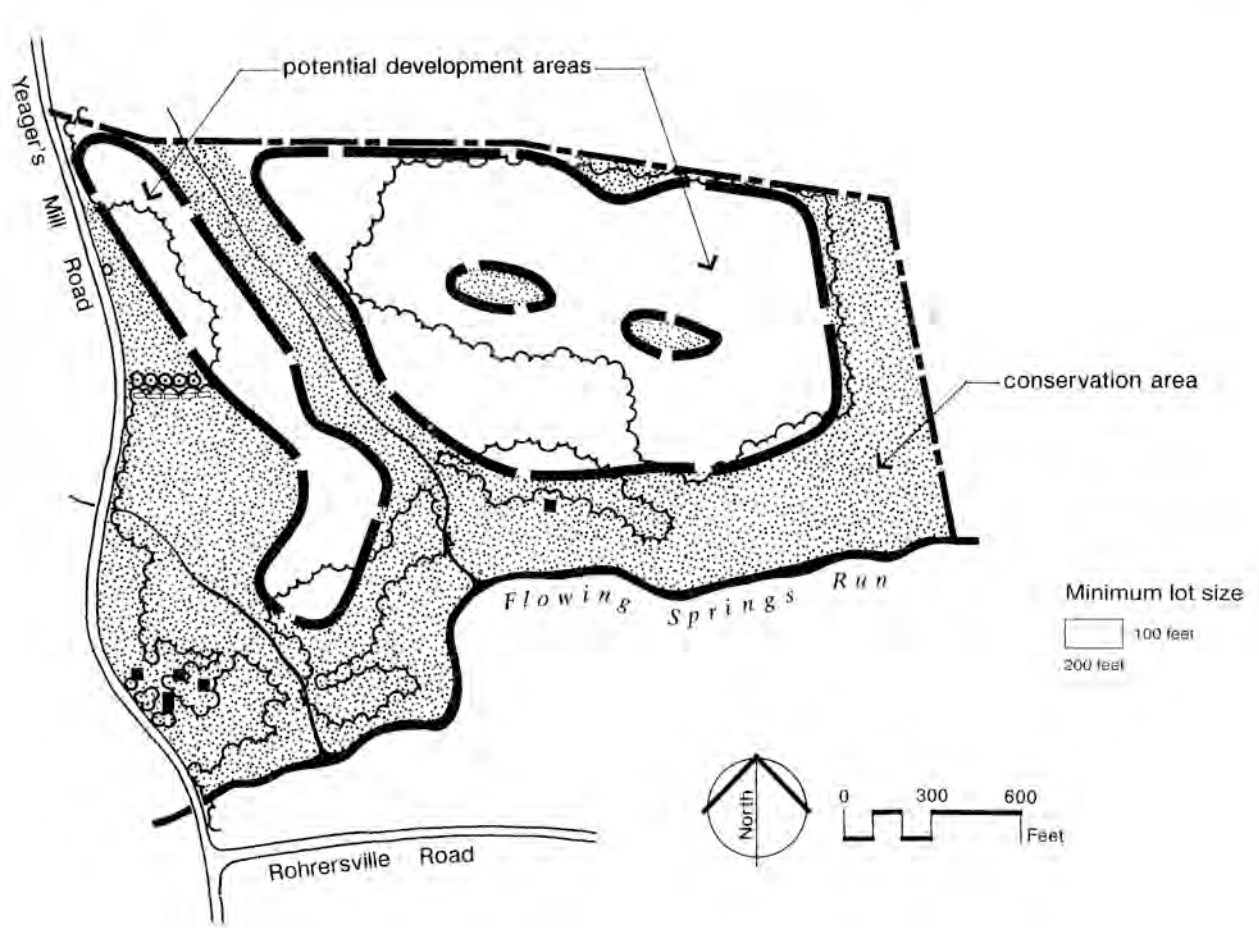
Activity 5: *Park and Community Land Choices Project Review – Page 1 (1/2)*

Elements to include in your final project.	100 points total
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.	10 points maximum
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.	10 points maximum
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.	15 points maximum
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.	10 points maximum

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 **Understanding of Land Use Concepts** **Extra Credit:** *Teamwork*	5 points maximum 5 points maximum 5 points maximum

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.