

CHAPTER VIII

EVALUATION CRITERIA FOR OPEN SPACE SELECTION

Natural Environment: The Initial Evaluation

An important objective of open space planning is the identification of unique environmental features of the natural environment that are not suitable for development or which pose problems or limitations to development and to incorporate them into areas of dedicated open space. Due to their particular physical characteristics, these environmentally sensitive areas may be greatly impaired by development activities. This requires a very close relationship between land use planning and open space planning with the goal being to guide development to areas that will have the least impact on environmentally sensitive areas. Frequently, areas that are not suitable for development are appropriate for recreation and other open space uses.

For the purposes of open space planning, environmentally sensitive areas include all terrain in excess of fifteen percent slope, freshwater wetlands, stream corridors, aquifer recharge areas, wellhead protection zones, areas of endangered and threatened species, scenic vistas, lakes, and areas of special interest, including historic and scenic sites. These areas provide value to the region's economic, historic and recreation base, as well as provide identity to host communities. Map 3 (Composite of Environmental Features) is a composite of four major environmental features that are discussed, steep slopes, ridgelines, stream corridors and freshwater wetlands. The other environmental features, due to their complexity and overlapping with each other, are shown on individual maps, preceded by a written narrative. This composite map is used as the first screen in evaluating land areas for acquisition. Following each county map, is a map of each region depicting the following features.

Steep Slopes

Slope is defined as the amount of vertical change in altitude over a horizontal distance, usually expressed in percent. Steep slopes are areas with a fifteen percent grade or greater. They are generally covered with vegetative growth. The leaf cover and root system hold the soil to the slope and provide cover and food supply for many forms of native wildlife. These areas have severe limitations to development, including building and road construction and septic effluent disposal. Development on steep slopes disturbs vegetation, which increases storm water runoff causing soil erosion, stream and river pollution, siltation, and lowers groundwater filtration, that then increases the danger of flooding. Often, at the apex of steep slopes are scenic view sheds. Map 4 (Steep Slopes) shows the areas of the county with over 15 percent slope, and major ridgelines and watersheds.

Soils and Agriculture

The US Department of Agriculture, Natural Resources Conservation Service, Soil Survey of Warren County provides basic soils data to be used as a guide for planning and land use and management for the benefit of the county and its residents. Areas designated as having severe limits, based on development due to poorly suited soils can be considered for open space reserves. They are shown on Map 5 (Non-Agricultural Soils).

Sixty percent of Warren County is deep, non-stony soil, well suited for farming and community development etc. These areas also provide scenic vistas and watershed protection. Agricultural landowners should be encouraged to participate in the Farmland Preservation Program, to help ensure the viability of agriculture as a land use and economic activity while preserving them as open or undeveloped land areas. The remaining 40 percent is soil so stony, steep, shallow or wet that it is not suited for development.

The distribution of the soil is not uniform throughout the county. More than half of the deep,

non-stony soil, which is well suited for farming and development, is in the southern part of the county. The northern section of the county has less than half of the stony, steep and shallow soil. Map 5 also shows the location of non-agricultural soils.

Freshwater Wetlands, Lakes, and Streams

A freshwater wetland is described in the 1993 New Jersey Freshwater Wetlands Protection Act (N.J.A.C. 7:7A et seq.) as “an area inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation.” The freshwater wetland systems are shown in Map 6 (Freshwater Wetlands, Lakes, and Streams). Depending on the specific wetlands involved, the Act calls for buffers of 25 to 150 feet from the edge of the wetland. The buffer areas or greenways can meet a variety of community needs, including environmental and scenic protection, endangered and threatened species, open space and historic preservation while including some forms of passive recreation.

Stream Corridors

A stream corridor contains the stream channel and associated wetlands, floodplains, and forests. The establishment of buffers along stream corridors provides for the removal of sediment and pollutants in overland flow. Buffers help reduce stream bank erosion, prevent activities from occurring that may contribute to non point source pollution and, if forested, shade surface waters so that they are not excessively warmed. A large percentage of New Jersey’s endangered species rely on stream corridors and wetlands for survival. The associated wetlands and floodplains help recharge groundwater aquifers, help prevent flood damage by providing flood storage capacity, and help maintain surface water level during low rainfall periods.

Stream buffer areas should include a minimum of 100 feet beyond the 100 year floodplain.

If slopes greater than 15 percent correspond to the outer boundary of the stream corridor, the area of slopes should be included in the stream corridor buffer area. Stream corridors are shown on Map 7 (Stream Corridors).

Aquifers Recharge Areas and Wellhead Protection Zones

Aquifers are defined as geological formations containing sufficient saturated permeable material to yield significant quantities of water to wells and springs. Aquifers and the recharge areas are significant because of their water supply potential. The amount of development permitted upon recharge areas should be guided by soil conditions and threat of pollutants reaching the aquifer. Municipal planning for aquifer recharge areas should, therefore, encourage open space and clean development to occur at relatively low densities.

Wellhead protection zones involve delineating protection areas around public community water supply wells. These areas represent the land around a well from which infiltrating rainwater and runoff water may come in contact with any water born contaminants thus polluting the well. Designated protected zones of open space is an effective means of reducing the risk of groundwater contamination. Known aquifers, recharge areas, and wellhead protection areas are shown in Map 8 (Aquifers and Community Wellhead Buffer Zones).

Endangered and Threatened Species

Endangered and threatened species are plants and animals which have been designated by the New Jersey Non-Game and Endangered Species Act (N.J.S.A. 23:2A-1 et seq.) or the Federal Endangered Species Act (16 U.S.C.A. 1531043) to be in a jeopardized state of existence.

Undisturbed Forest Tracts

Additionally, large undisturbed forested tracts often support biodiversity and should be

considered for preservation as well. Forested areas are shown on Map 9 (Forested Land). The presence and variety of wildlife and plants are excellent indicators of the overall health of the environment, while the disappearance of endangered species can act as an indicator of habitat loss and the instability of the environment. Identifying and locating these species is necessary to ensure protection for their environments. This necessitates environmentally sound development standards and land use decisions to secure a high quality environment. These decisions will, by nature, promote open space.

Scenic Vistas

Passive recreation can take many forms. The roads of Warren County can give the pleasure driver many scenic views. Steps should be taken by the county and municipalities to protect the view, as well as the points along all roads, which afford optimal views of these areas. Roadside development of these areas should be discouraged in order not to obstruct views. Ordinances can be enacted to control adjacent land use and insure property setbacks, buffers, signs, and billboard control. Where practical, small pull-off parking areas can be built where a panoramic view can be driven to and enjoyed safely. Watching migrating birds, the changing color of leaves in the fall, or the sunset can be enjoyable passive events.

Additional Criteria for Open Space Site Selection

- **Located Away from Other Large Reserves of Open Space**

Open space should be acquired in regions of the county lacking large reserves of open space or in areas of environmental sensitivity with the goal of preserving unique natural features. Using the open space regions contained in this plan, conservation should be given to projects located in the southern region where very little open space has been acquired by any governmental entity.

- **Facilitate Linkage with Other Open Spaces**

Lands adjacent to or in close proximity to existing parkland and public open spaces that facilitate the linkage of open space parcels should be considered for acquisition.

- **Open Space Reserves Should Be at Least 75 Acres in Size**

County-owned open space should be large enough to fill the needs of residents that smaller municipal parks do not meet.

This size criteria will afford the county residents large reserves of open space that they may not find in their municipality without the inconvenience of travelling longer distances to state or federal open space. Open space sites should be conveniently located throughout the county, thus providing the user the opportunity to enjoy the area in less than a full day.

The exceptions are stream corridors, ridgelines, the Morris Canal, inter- and intra- county trails, areas of unique features (both manmade or natural) and abandoned railroad rights-of- way. They may not be over 75 acres in size, but they do provide ideal opportunities for passive recreation while providing environmental protection and linkage to larger parcels of open space.

- **Associated with Streams, Lakes, and Ridge Tops**

Open space sighting should consider the unique natural features, which will make the area a more desirable place to visit. Stream corridors are ideal for hiking/walking trails and fishing. Lakes are also ideal for passive recreation, as well as for boating, fishing, and swimming. Areas surrounding lakes also provide an ideal area for trails. A trail system and picnic areas can be developed along ridge tops, in association with scenic vistas.

- **Near Population Centers**

Sighting open space should take into consideration the users and how far they will travel to the open space facility. The potential number of users from an area should influence the type and

location of open space facilities. Easy access by foot, bicycle, car, and public transportation is essential so people can enjoy the park as often as possible. Consideration should be given to sighting open space areas around centers as designated in the New Jersey State Development and Redevelopment Plan and in the County General Development Plan. The open space areas will serve as natural buffers, as well as provide the line of transition from a center to the environs surrounding the center.

- **Correlated with Historic and Cultural Resources**

Historic and cultural resources significant or unique to the development of Warren County should be preserved. The Warren County Historic Resources Survey of 1990-1991 and the National/State Registers of Historic Places should be consulted to determine a site's historic significance. Warren County's National and State Registers of Historic Places are shown on Map 10 (Historic and Cultural Resources).

- **Located where Future Growth Anticipated**

With municipal assistance, the County should identify the areas where development is likely to occur and plan sufficient open space reserves accordingly. These areas should be consistent with the County General Development Plan and municipal master plans.

- **Complement Farmland Preservation**

The county should identify undeveloped, non-agricultural areas adjacent to properties in the farmland preservation program. These areas should be examined for their potential to be acquired as open space which will complement the adjacent farmland or provide buffers to separate a farming operation from incompatible development, such as residential, commercial, and industrial.

- **Associated with Aquifers**

Aquifers, which supply potable water, should be protected from contamination. By

selectively acquiring these areas as open space, the aquifer can be protected from pollutants associated with development.

Historic and Cultural Resources Inventory

County Id	NAME	TYPE	County Id	NAME	TYPE
3	Morris Canal	District	41	Beattystown Historic District	District
4	Central Railroad of NJ - Main	District	42	Miller Farmstead	Site
5	Hamlen Historic District	District	44	Mount Bethel Methodist Church	Site
6	Still Valley District	District	45	Penwell Lime Kiln	Site
7	Belvidere Historic District	District	46	Port Murray Historic District	District
8	Blair Academy	Site	47	Oxford Industrial District	District
9	DL&W Railroad Cutoff	District	48	Oxford Furnace	Site
10	Roy's Theatre	Site	49	Oxford Historic District	District
11	Asbury Historic District	District	50	Shippen Manor	Site
14	Johnsonburg Historic District	District	51	Appalachian Trail	District
15	Allshouse/Oberly Property	Site	52	Old Mine Road Historic Dist.	District
18	North Bloomsbury Historic Dist	District	53	Andover Iron Furnace	Site
19	Stewartsville Historic Dist.	District	55	P. Coal Site	Site
21	Voorhees/Shimer Property	Site	56	Dormida House	Site
22	Kennedy House & Mill	Site	57	Doughty House	Site
25	Clarendon Hotel	Site	58	Main Street Historic District	District
26	Hackettstown Historic District	District	60	John Roseberry Homestead	Site
27	H'town Main St. Comm. Dist.	District	61	U.S. Post Office	Site
28	Hackettstown Iron	Site	62	Vargo House	Site
30	Seay Hall	Site	65	Hixson - Skinner Mill Complex	Site
31	Spring Valley Christian Chruch	Site	66	George Hunt House	Site
32	Scotts Mt. Historic District	District	67	Seigle Homestead	Site
33	Hope Historic District	District	70	162 East Washington Ave.	Site
34	Great Meadows Railroad Station	District	73	Bowerstown Historic District	District
35	Camp Weygadt	Site	74	Carhart Farmstead	Site
36	Delaware Village Historic Dist.	District	75	Imlaydale Historic District	District
38	Fairview Schoolhouse	Site	77	New Hampton Bridge	Site
39	Warrington Bridge	Site	78	Pleasant Valley Historic Dist.	District
			79	Port Colden Historic District	District

- **Associated with Trails**

Railroad Corridors

Abandoned or inactive railroad corridors offer citizens an excellent way of enjoying open space without having to purchase large blocks of land. Several railroads in Warren County are inactive and cross some of the county's most scenic regions. Since railroad corridors are flat, they are ideal for many uses, such as bicycling, walking, jogging, horseback riding, cross-country skiing, and wheelchair recreation. Preserving these corridors also creates agricultural and wildlife habitat buffers.

Rail-to-Trail programs link parks and create greenways through developed areas. It should be pointed out, however, that all railroad corridors cannot or should not be acquired for various reasons, such as economic, safety, and functional reasons.

As corridors, or portions of corridors, become available, additional analysis should be completed.

Morris Canal

The Warren County Morris Canal Committee was created in 1981 as an extension of the Warren County Planning Department. The goals of the Committee are preservation and protection of the Morris Canal, as well as increasing the awareness of its great historical significance. The greatest single accomplishment was that the Morris Canal overcame more elevation than any other canal constructed in the world. Through a grant from the State of New Jersey, Green Acres Program, the County has purchased 57 ± acres of the canal throughout the county.

Highlands Trail

This trail highlights the natural beauty of the New Jersey and New York Highlands Trail region, and draws the public 's attention to this endangered resource. It is a cooperative effort of the New York-New Jersey Trail Conference, conservation organizations, state and local governments, and local businesses. When completed, it will extend over 150 miles from Storm King Mountain on the Hudson River in New York south to Phillipsburg, New Jersey, on the Delaware River. This route will connect major scenic attractions in both states. Ultimately, a network of trails, including alternate routes and multi-use paths, is envisioned.

Ridge and Valley Trail

Although still in the planning stage, The Ridge and Valley Trail will offer a unique opportunity for the weekend hikers. This trail will connect the State of New Jersey, Paulinskill Trail with the Appalachian Trail, traversing the White Lake Natural Resource Area, the adjoining Division of Fish, Game and Wildlife property, Ridge and Valley Conservancy property and finally connecting at the Ralph Mason YMCA camp.

Delaware River Greenway Trail

The Delaware River Greenway Trail will connect both the Delaware and Raritan Canal on the New Jersey side with the Delaware Canal on the Pennsylvania side, both reaching their apexes at the Delaware Water Gap.

Sites Identified by Municipalities, Non-Profit and Private Groups

In the 1994, County Open Space Plan, the County Planning Board identified twenty-two sites for acquisition after a series of meetings with the public, private, non-profit, and governing agencies. This plan was updated by contacting each municipality and asking if any sites should be added to or

deleted from the plan. Six municipalities, one non-profit and one private firm responded recommending 12 additional sites and one deletion. They are discussed in Section X and are shown on Map 11 (Special Interest Sites).