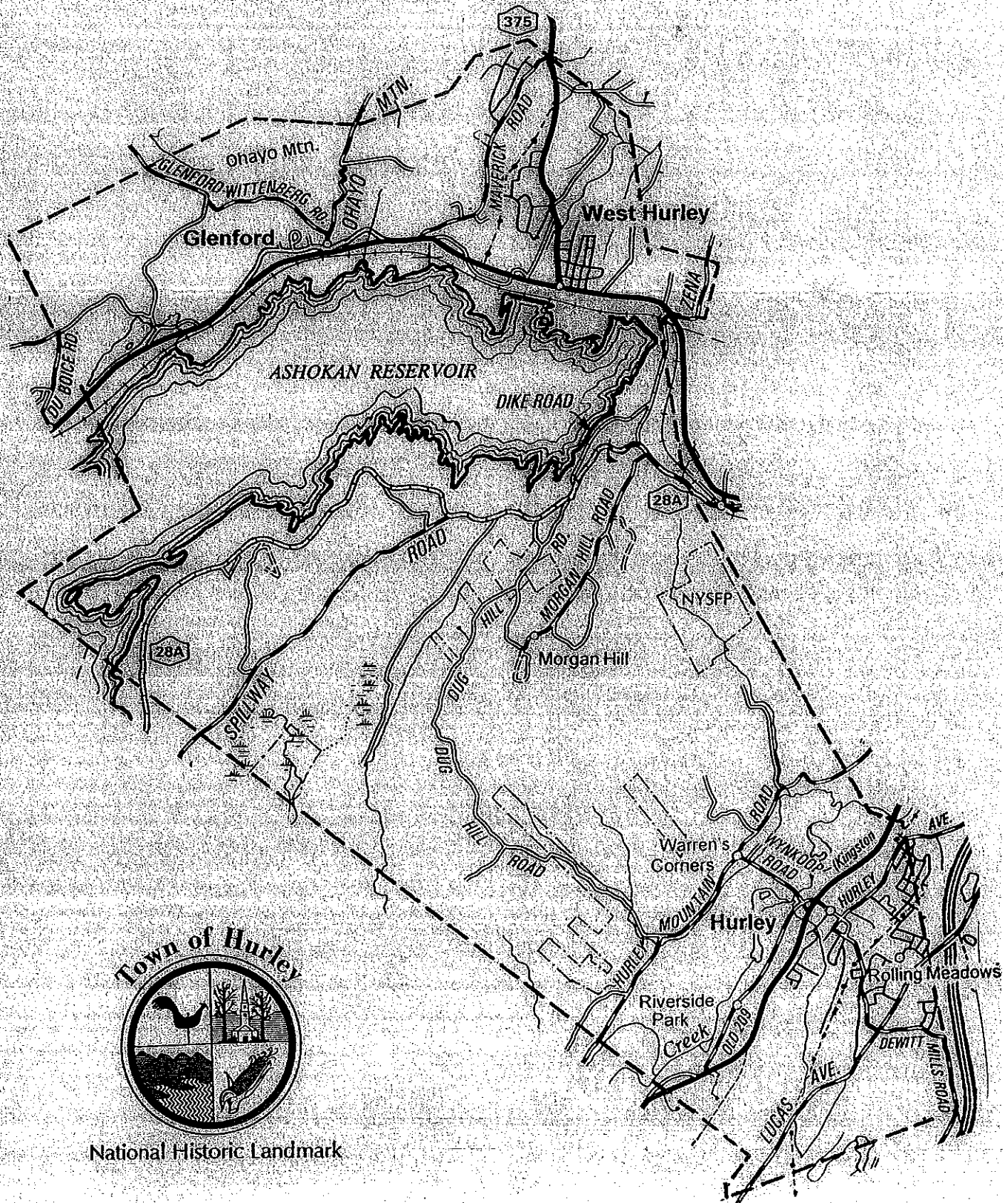


# OPEN SPACE PRESERVATION



# **OPEN SPACE PRESERVATION**

**for the**

**Town of Hurley**

**Prepared by the**

**Hurley Conservation Advisory Council**

**Shuster Associates  
Planning and Zoning Consultants  
January 2004**

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## Exhibits

## **I. BACKGROUND**

The Town of Hurley includes a unique mixture of open space resources. Its northwestern limits include the upper slopes of Ohayo and Tonshi Mountains, with a maximum elevation of 1,920 feet above sea level, which slope steeply down to New York City's Ashokan Reservoir, about 40% of which is within the Town. The large central portion of Town is an elevated upland plateau characterized by steep, wooded ravines which drop abruptly to the flatlands lying on either side of the Esopus Creek at an elevation of about 160 feet. These flats contain some of the most productive agricultural lands in Ulster County and are the source of New York State's major sweet corn growing areas. The southeast portion of Town consists of lower, rolling wooded lands. This area also includes the hamlet of Old Hurley, a national historic landmark listed on the National Register of Historic places due to its concentration of well-preserved 17<sup>th</sup> century stone houses. (18<sup>th</sup> (p.15))

The Town established the Conservation Advisory Council (CAC) to advise in the development, management and protection of the Town's natural resources. In the winter of 2000-2001 the CAC undertook an Open Space Survey. Of 186 responses regarding issues of importance, the three highest rated were open spaces for water conservation needs (147), watersheds (140) and aquifers (142). Two-thirds of the respondents indicated that it was most important for the Town to plan for the use and protection of its open spaces in order to maintain Hurley's rural character.

In 2002, the CAC applied for and received approval of two grants to initiate open space planning. The first grant, from the Hudson River Greenway Communities Council, was used to prepare an Open Space Resources Inventory for the Town of Hurley. The inventory has provided the background for work under the second grant to prepare this

Open Space Preservation Plan. The inventory produced five maps illustrating Hurley's open space resources, large scale copies of which are hung in the Town Hall.

This report identifies the various open space categories and their functions and suggests techniques by which each type of open space can be preserved. The CAC has identified specific sites in each category and assigned priority ratings to each.

In addition to the open space survey, the CAC held two public meetings at which the residents continued to express their interest in preserving the quality of the Town's water resources. As a result of the survey and the town meetings, the work program for the Open Space Preservation Plan was modified to include a separate, more detailed study intended to identify and evaluate groundwater resources in the Town and recommend appropriate protection techniques. Upon advice from the Town's consultant, Shuster Associates, the CAC hired respected hydrogeologist Dr. Katherine Beinkafner to study the Town's unconsolidated and bedrock aquifers, wetlands and surface waters and make recommendations for measures to protect them. (See Chapter VI)

The Hurley Town Board has called for this Open Space Preservation Plan to be an integral part of the new Comprehensive Town Plan which is currently being prepared. The goal of that Plan is also that of the Open Space Preservation Plan: Our challenge is to create a plan that honors and preserves the best of Hurley - its beauty, its history, its agricultural roots, respect for landowners' rights, its friendliness and its convenience - while acknowledging and preparing for the inevitable economic and demographic changes that come with time.

## **II OPEN SPACE INVENTORY**

The grant from the Greenway Communities Council identified various types of open space. Excellent maps depicting many of these open space categories were prepared by the Ulster County Planning Board as described below and attached.

### **A. BASE MAP AND TOPOGRAPHY MAP**

These maps provide an accurate depiction of the Town including property lines, streets, water bodies and topographic relief.

### **B. LAND USE FACTORS**

This map illustrates the use of all property in the Town and highlights the following:

- Public lands: NYS, DEC, Town, DEP
- Private open space: hunting/fishing clubs, recreation clubs, cemeteries
- Agricultural Districts and 480-a parcels (timber harvest)
- Developed lands: Residential (less than 10 acres)  
Commercial/industrial/quasi-public/institutional

### **C. DEVELOPMENT LIMITATIONS**

This map illustrates the sensitive features which limit development in the town, including:

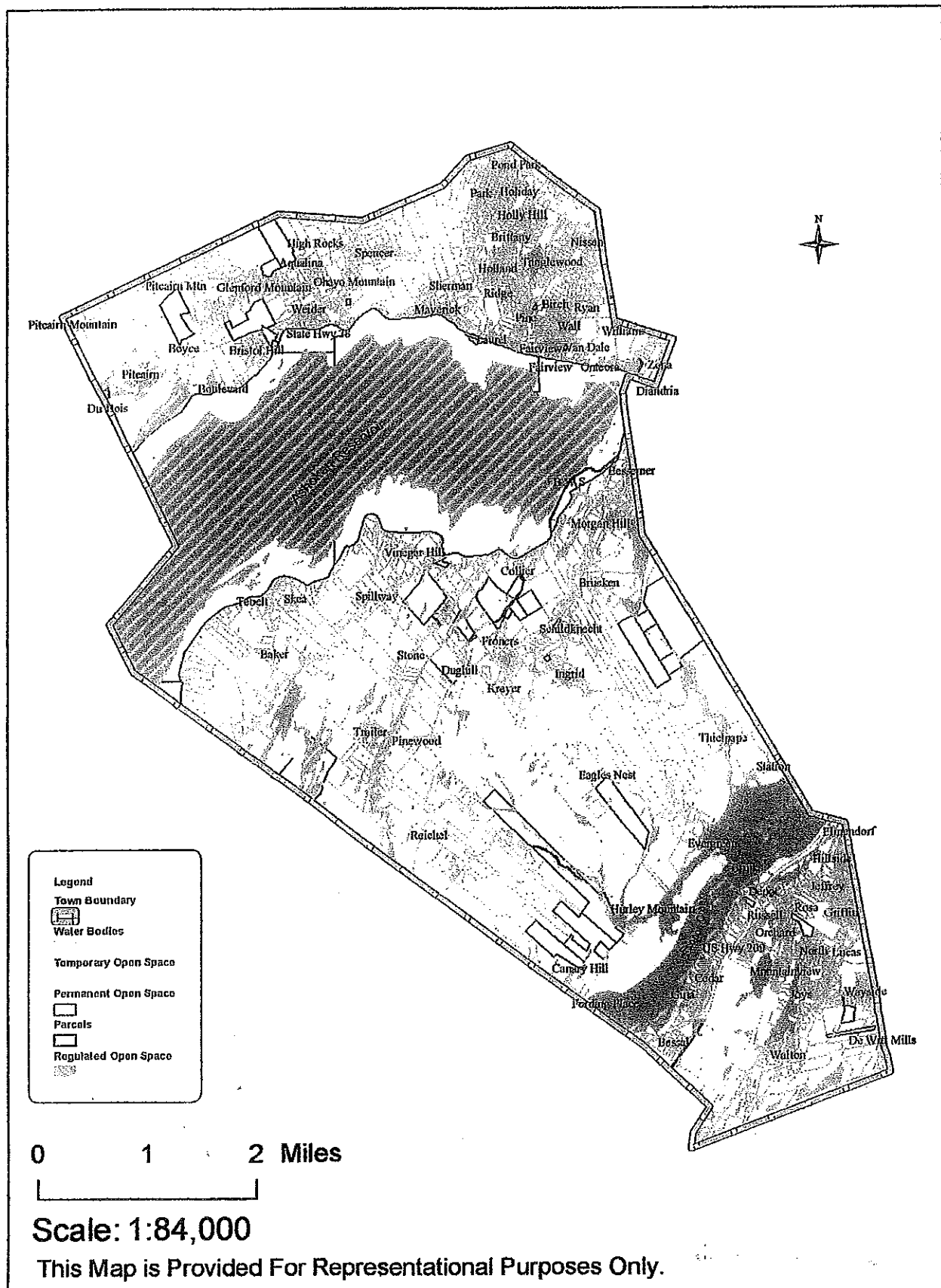
- Slopes (15-25%, 25%+)
- Wetlands: State and Federal
- Floodplain
- NYC Watershed

**D. COMPOSITE OPEN SPACE**

This map (following) depicts the following three categories of open space which are present in the Town as further discussed in Section III.

- Permanent Open Space (Publicly owned lands, cemeteries and conservation easements)
- Regulated Open Space (wetlands and floodplain)
- Temporary Open Space (lands preserved under agricultural district and 480-a exemptions)

## Town of Hurley - Composite Open Space





### **III. OPEN SPACE ALREADY PRESERVED**

#### **A. TOWN-WIDE LAND USE DISTRIBUTION**

Based on land use categories established by the Ulster County Real Property Tax Service Agency, land uses in the Town are distributed as shown in the following table:

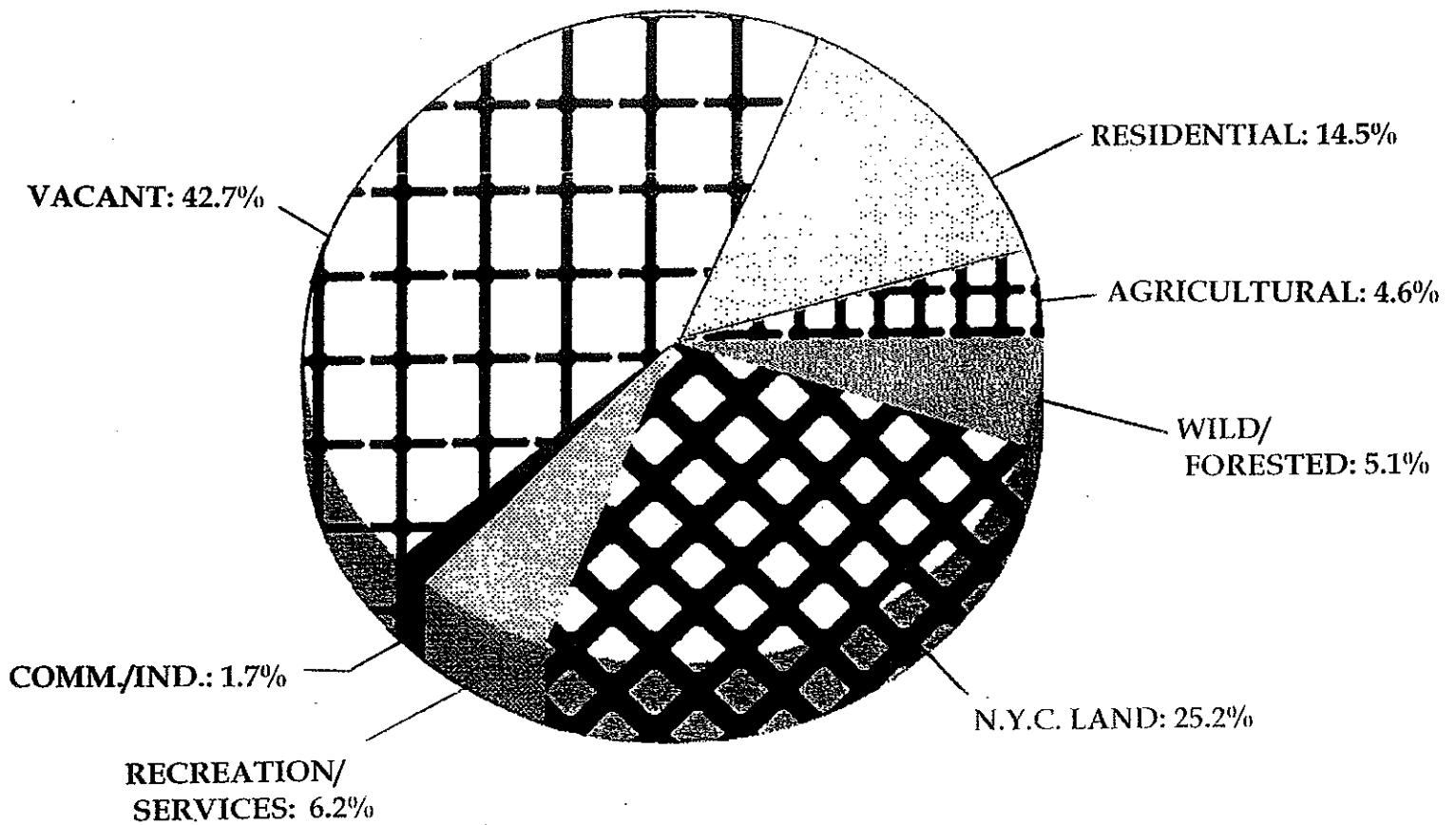
| <b><u>Land Use Category</u></b>                       | <b><u>Acres</u></b> | <b><u>% Of Total</u></b> |
|-------------------------------------------------------|---------------------|--------------------------|
| Agricultural                                          | 1,040               | 4.6%                     |
| Residential                                           | 3,271               | 14.5%                    |
| Vacant*                                               | 9,653               | 42.7%                    |
| Commercial and Industrial                             | 380                 | 1.7%                     |
| Recreation, Community<br>Services and Public Services | 1,400               | 6.2%                     |
| New York City Land                                    | 5,689               | 25.2%                    |
| Wild, Forested Conservation Lands                     | 1,154               | 5.1%                     |
| Total                                                 | 22,587              | 100.0%                   |

\* Since many lots categorized for tax purposes as residential are quite large in area and contain only one residence, one-half of this category has been added to the vacant land total.

As the table shows, the categories of agricultural, vacant, New York City lands and wild, forested, conservation lands total 17,521 acres, or 77% of the Town's total land and water area. Thus, over three-quarters of the Town, is presently in some form of open space, as illustrated on the following chart.

# LAND USE DISTRIBUTION

Town of Hurley



**B. OPEN SPACE PRESERVED FOREVER**

Two governmental agencies control substantial amounts of permanently protected open space. The City of New York owns the Ashokan Reservoir and its immediate buffer with a total of 5,689 acres plus additional lands and development rights it has acquired under its watershed protection program. NYSDEC owns various parcels in the Town, as part of the Catskill Forest Preserve, with a total of 934 acres.

In addition to the major holdings of these two agencies, other public agencies and non-profit bodies own a diverse mixture of properties scattered around the Town and used for schools, public facilities, cemeteries and churches.

**C. OPEN SPACE PRESERVED BY REGULATION**

State and federal regulations place severe restrictions on the development of certain types of land to protect public health and safety. In the process, the open space value of this land is also preserved. The two major categories of such land in Hurley are the flood plain lands along the Esopus Creek and various state designated freshwater wetlands scattered throughout the Town.

**D. TEMPORARY OPEN SPACE PRESERVATION**

In an effort to protect agricultural uses and timber resources, New York State has created two programs which provide reduced assessments for

property owners who agree to limit their land to agricultural production or timber harvesting for a specified period of time. If the owner sells the land for development during that period, all tax relief granted must be repaid. While these programs do not provide permanent preservation of open space, they do encourage it in the short run.

#### **IV. FUNCTIONAL VALUES OF OPEN SPACE**

Open space resources serve one or more functions as illustrated in the following matrix. As the matrix illustrates, each category of open space provides more than one function. The following section discusses various techniques available to address preservation of open space ranging from guidelines to encourage preservation to zoning mandates to actual acquisition.

## OPEN SPACE

| Functions and Values           |                      |                       |                        |               |                  |                     |                   |                    |                          |
|--------------------------------|----------------------|-----------------------|------------------------|---------------|------------------|---------------------|-------------------|--------------------|--------------------------|
| Type of Resource               | Potable Water Supply | Ground-water Recharge | Ground-water Discharge | Flood Control | Wildlife Habitat | Aesthetic or Scenic | Active Recreation | Passive Recreation | Maintain Rural Character |
| <b>Ground Water</b>            |                      |                       |                        |               |                  |                     |                   |                    |                          |
| Wellheads                      | ■                    |                       |                        |               |                  |                     |                   |                    |                          |
| Aquifers                       | ■                    | ■                     |                        |               |                  |                     |                   |                    |                          |
| <b>Surface Water</b>           |                      |                       |                        |               |                  |                     |                   |                    |                          |
| Streams/Rivers                 |                      | ■                     | ■                      |               | ■                | ■                   | ■                 | ■                  | ■                        |
| Lakes/Ponds                    |                      | ■                     | ■                      |               | ■                | ■                   | ■                 | ■                  | ■                        |
| Wetlands                       |                      | ■                     | ■                      | ■             | ■                | ■                   |                   | ■                  | ■                        |
| Flood Plains                   |                      |                       |                        | ■             | ■                |                     |                   |                    | ■                        |
| <b>Agricultural Lands</b>      |                      | ■                     |                        | ■             |                  | ■                   |                   |                    | ■                        |
| <b>Undeveloped Lands</b>       |                      |                       |                        |               |                  |                     |                   |                    |                          |
| Forests/Woodlands              |                      |                       |                        | ■             | ■                | ■                   | ■                 | ■                  | ■                        |
| Open Fields                    |                      |                       |                        | ■             | ■                | ■                   | ■                 | ■                  | ■                        |
| Ridgelines                     |                      |                       |                        |               | ■                | ■                   |                   | ■                  | ■                        |
| Steep Slopes/Rock Outcroppings |                      |                       |                        |               | ■                | ■                   | ■                 | ■                  | ■                        |
| <b>Scenic Vistas</b>           |                      |                       |                        |               |                  | ■                   |                   | ■                  | ■                        |
| <b>Scenic Roads/Gateways</b>   |                      |                       |                        |               |                  | ■                   |                   | ■                  | ■                        |
| <b>Recreational</b>            |                      |                       |                        |               |                  |                     |                   |                    |                          |
| Parks                          |                      |                       |                        |               | ■                |                     | ■                 | ■                  |                          |
| Hiking/Biking Trails           |                      |                       |                        |               | ■                |                     | ■                 | ■                  |                          |
| Historic Sites                 |                      |                       |                        |               |                  | ■                   |                   | ■                  | ■                        |

## V. OPEN SPACE PRIORITY AREAS

The CAC evaluated open space resources and established priorities as illustrated in Exhibit A and discussed below.

### A. WATER RESOURCES

#### 1. Groundwater. Wellheads and Aquifers.


Hurley residents get water from their own wells, some of which go back to colonial times. The major private company, Rolling Meadows Water Corporation, has 776 customers in Old Hurley and Ulster. Their water comes from several sources: Kent Springs off Hurley Avenue, a spring and well at Orchard Street, a well at Conifer Lane, a well at Griffin Drive, and three wells in an aquifer known as the Esopus Gravels on the Elmendorf Flats. There is one small private water district in West Hurley.

#### 2. Surface Water.

Esopus Creek flows from the Ashokan Reservoir through the Old Hurley hamlet from south to north, in good part beside the large Hurley Aquifer. Several streams flow into it from the west and one stream and several intermittent streams from the east. The Esopus is considered quite pollution-free by the Ulster County Environmental Management Council south of the Wynkoop Bridge and slightly less so after that, principally because of the shallowness of the water. The area just before the intersection with Mill Creek is being considered

for a town beach. The land surrounding most of the Esopus is used for agriculture, primarily sweet corn. The Esopus is classified by the DEC as a Class B protected fresh surface water, suitable for recreation purposes.

**Kenozia Lake**, the furthest west point of Hurley, is the only true lake in Town. It is surrounded by private land and Route 28 and provides the foreground for views of the Catskills.



**Preymaker Brook and the Waterfall** on Hurley Mountain Road is a unique, easily viewed feature.

**Twin Lakes** is part of the Binnewater Lakes System. The section in Hurley is a lovely, quiet lake surrounded by fir trees with a large swamp at the eastern end.

**Mill Creek and Hidden Lake**. Mill Creek flows past ancient stone fences, through picturesque woodlands and large wetland. Nearby are a number of enormous glacially deposited limestone boulders. The boundary between Hidden Lake and Mill Creek holds the remains of a 200-year old dam. The foundations of the mill responsible for the dam are near where the Creek flows into the Esopus.

**Saw Kill Watershed**. The Saw Kill is a picturesque stream running through the center of Woodstock. Part of its watershed is in West Hurley and was the subject of a special drainage study in 1988.



3. **Wetlands.** There are 18 New York State-designated wetlands in the Town with several of the largest near Joys Lane, Russell Road, and Stone Road. The area along Stone Road which includes Stony Creek, a NYS-designated wetland, and beaver ponds is particularly recommended by the hydrogeologist (see Section VI) as an especially good course of water. Under NYS Article 24, the Town of Hurley has the power to designate wetlands that are smaller than the State minimum of 12.4 acres, but as yet has not done so. Wetlands are particularly good areas for the preservation of wildlife habitat.
4. **Floodplains.** The U. S. Army Corps of Engineers has established a designated flood hazard area along the Esopus Creek in Hurley which is a 100-year floodplain. Most of the Hurley Flats, prime agricultural land, falls into this category. One-hundred year floods may be expected to occur more often than once per century in streams with watersheds that have been subjected to intensive land development.

**B. LARGE UNDEVELOPED TRACTS**

1. **Land along Hurley Ridge up to Morgan Hill** (zoned A-4). About a quarter of this land is New York State-owned land which is protected, but the rest of it, including the crucial area of the ridge itself from Dug Hill to the Town of Ulster line is not. The views of the ridge from Old Hurley as well as the views of the hamlet and the cornfields from the ridge are outstanding. There are historical remains, including many from pre-Civil War times such as the first black community in the area, as well as vast evergreen and mixed-wood forests in this area.

2. **The Mill Creek Woods** (zoned R-1) from the O&W Rail Trail to Lucas Avenue—contains Hidden Lake, Mill Creek, federal wetlands, seasonal streams and waterfalls, large hemlock forests, limestone ridge and outcroppings, glacially deposited boulders, and hiking trails. Two hundred years ago this area included the Hurley Commons. Thus, there are the remains of the town's mill dam, ancient stone fences and orchards and the original colonial road from Kingston to New Paltz as well as much wildlife including deer, bear, coyotes, beaver, and turkeys.
3. **Land from Walton Lane to Dewitt Mills Road** (zoned A-2.5) Most of this property is owned by the Twin Lakes Lodge, Hurley Recreation and a church group in New Jersey. It has lakes, swamps, streams, hills, a fern forest, pine groves and hiking trails.
4. **Land from Maverick Road to Tonche Mountain** (zoned A-2.5 from the Glenford-Wittenburg Road to Rt. 28; otherwise zoned A-4).
5. **Land from Stone Road to Spillway (or 28A)** (zoned A-2.5 except for the Department of Environmental Protection lands which are A-4)

C. **AGRICULTURAL LANDS**

**Hurley Flats.** (Zoned A-4) Some 1,600 acres are currently in cultivation on the Flats, primarily sweet corn, but also vegetables and flowers. This is some of the most productive farmland in New York State and has been under cultivation since long before the first Europeans settled in the area. An ear of corn is part of the Town logo

and most residents consider these fields to be what makes the Town unique. In other words, the corn fields are what makes Hurley, Hurley. Although a good part of this land is in both a floodplain and a certified Agricultural District, it is still zoned to permit residential development.

**D. SCENIC VISTAS**

1. Hurley Flats, especially the cornfields – the long vista from Wynkoop Road south towards Mohonk Mountain and the view from Route 209 north of town over the cornfields towards the Hurley Reformed Church.
2. The Catskills from Rt. 209 south of Old Hurley Center – this view of the east-facing Catskill front at the edge of the Allegheny Plateau is mentioned in Roadside Geology of New York by Bradford Van Diver.
3. Views from Glenford-Wittenberg Road and Ohayo Mountain Road – scenic views of the Ashokan reservoir and the Catskills.
4. Views of Hurley Ridge, west of the cornfields from Wynkoop Road – cornfields past old stone houses and farms to steep wooded slopes.
5. Kenozia Lake from Rt. 28 – scenic views of the lake with the mountain backdrop.

**E. SCENIC ROADS AND TOWN GATEWAYS**

1. Hurley Avenue from the Town line through Main Street – most of this is on the National Register of Historic Places. It contains 18<sup>th</sup> century stone houses, one of which was the temporary capital of New York State in 1777, the Hurley Historic Society museum, the 1853 Hurley Reformed Church, the Hurley Library, views of Hurley Ridge and the Catskills.
2. Wynkoop Road – although not even half a mile long, it passes the Hurley Mountain Inn and the 1690's Wynkoop House (both major settings for the movie Tootsie), the Esopus Creek, and provides views of the Hurley Ridge and over the cornfields all the way to Mohonk Mountain.
3. Hurley Mountain Road from Rt. 28 to Marbletown line – along Hurley Ridge past the waterfall, cornfields, stone houses, old Dutch barn.
4. Route 209 – views of the cornfields, the Hurley Church, the Catskills, the rail trail, limestone outcroppings. Route 209 north and south of Old Hurley is a major town gateway.
5. Ohayo Mountain and Glenford-Wittenburg Roads – winding mountain roads with views of the Ashokan Reservoir and the Catskills.

6. Dug Hill Road, Dike Road, Route 28A - closeup reservoir views, Town park, Englishman's Creek, evergreen and mixed woods forests, old homes, views to the east, historic quarries.
7. Kenozia Lake area - includes Pitcairn Road and a section of Rt. 28. This is the gateway to Hurley from the west.

The Hudson River Valley Greenway is in the process of creating a scenic road system that will highlight the natural, cultural and historic resources of the Hudson Valley. A number of roads in Hurley would meet the Greenway's criteria, but possibly the most representative Scenic Byway would be Hurley Avenue from the Ulster town line to Main Street to Wynkoop Road to Hurley Mountain Road to Dug Hill Road to Rt. 28A, right turn to Dike Road back on 28A to the Olive town line. Eventually the Town should work with the Town of Olive to continue this Scenic Byway. Gateways are the first and often, last, perception a visitor has of a community and should be as attractive as possible.

#### F. RECREATION AREAS

1. Town Park on Dug Hill road - it contains ball fields, a playground and a pavilion which can be rented for social occasions. A tennis court is under construction and an ice skating rink is proposed.
2. O & W Rail Trail - about half this trail is already developed and continues into Marbletown. It has been ceded by Ulster County to the Town of Hurley and is permanently protected. The other half is

D

currently being developed into Kingston by the Town under agreement with the State department of Transportation.

3. **Proposed beach along the Esopus** - This property, currently owned by Gill Farms, could include a beach and a boat launching area. The land includes the remains of a 200-year old mill and other historic entities. The Hurley Lions Club has proposed to construct a gazebo for the town and this would be an excellent location. The CAC is working on this with the Hudson River Valley Greenway.
4. **Trails from Rail Trail to Mountainview and Lucas Avenues** - (see Mill Creek Woods)
5. **Future Trails** - 1) along the Esopus, 2) from the Rail Trail to the Reservoir, 3) along New York State Department of Environmental Conservation land to the ruins of early Hurley residences and farms.
6. **Proposed passive recreation town park** in the center of Old Hurley, possibly behind the library. Currently there is no outdoor space in Old Hurley for resting, picnicking or meeting friends.

#### **G. CULTURAL RESOURCES - HISTORICAL AND ARCHEOLOGICAL**

The Hurley Preservation Commission is preparing information on this area for the Hurley Comprehensive Town Plan. We only mention here a few of the more notable resources.

1. Main Street ( Old Route 209) and Hurley Avenue within the

boundaries of the National Register Historic District.

2. Remains of pre-Reservoir Communities
3. Individual Old Stone Houses
4. Ruins near Dug Hill, Rosa Lane. Colonial Stone Fences.
5. Buildings housing such historic figures as Winslow Homer

## **VI. IDENTIFICATION AND PROTECTION OF SURFACE AND GROUNDWATER RESOURCES**

A special study to identify and evaluate ground water resources was conducted by Dr. Katherine J. Beinkafner to provide a basis for developing a groundwater protection program. The results of this study are summarized below. The complete study is attached as Appendix A.

### **A. DATA GATHERING.**

The study involved a compilation of detailed maps of federal and state-protected wetlands, soils, bedrock, surficial geologic materials, brittle structures, unconsolidated aquifers, bedrock aquifer conditions, toxic sites, and residential well data. Maps were printed on wall size sheets at a scale of 1 inch equals 13,200 feet and reduced to 8.5 x 11 inch page size for inclusion in the report.

Once all the maps were compiled, it was possible to interpret and synthesize the data into a conceptual model of hydrologic conditions to understand the interaction of surface and groundwater flow. For the 18 state-protected wetlands, identified and mapped by NYSDEC, hydrologic conditions were interpreted using topographic, wetland, and soils maps. Areas of groundwater recharge are shown on a separate map with permeability of soils. Surficial materials and soils were correlated with unconsolidated aquifers as mapped by the US Geological Survey. Data from 114 residential wells were plotted on maps and individual bedrock aquifer areas identified and characterized. A northwest-southeast cross section, showing surface



and subsurface conditions, was prepared to show topographic and flow conditions from Ohayo Mountain to Pink Hill. General areas of groundwater recharge and discharge are shown on the cross section. A generalized water budget was prepared to demonstrate the significance of the interplay of precipitation, evapotranspiration, surface water, and groundwater components.

**B. AREAS OF CONCERN AND RECOMMENDATIONS.**

Five general areas of concern were identified.

**The Esopus Creek Floodplain** is a significant agricultural area for cultivation of corn and field crops. The groundwater in this area must remain clean to sustain the agricultural use. Two potential threats to the water are associated with Route 209 and other roads in the floodplain. One threat is the use of road salt and the potential to turn the groundwater to brine which the crops may not be able to tolerate. Along the highway, another threat is the potential for a chemical spill, which could render a portion of the floodplain useless for agriculture. This concern should be discussed with local farmers and, if they think it is a valid issue, the State and County highway maintenance agencies should be approached to request that they use less or no salt on the roads adjacent to fields. In some towns, signs are put up to inform the motorists that the area is an aquifer area and salt is not used on the road.

**Contaminated Sites** are shown on a map from Toxic Targeting's website with symbols for the locations of solid waste (landfills), hazardous waste, hazardous substance, tank failure and MTBE spill sites. Documentation of

each of these sites should be reviewed at NYSDEC Region 3 Offices to evaluate whether the contamination has been removed or cleaned up. If not remediated, some action should be taken to warn current landowners, potential buyers and builders of the possibility of underground contamination at the site and under adjacent properties. Soil and groundwater testing should be required prior to building or development.

**High Permeability Recharge Soil Locations** are identified on the soil recharge map. These areas are vulnerable to rapidly conducting any spilled liquid contaminants directly into the groundwater. Septic systems in such soils may work too rapidly and release bacteria into the groundwater. Some provision should be made to address the vulnerability of these areas.

**Wells in the Carbonate Bedrock.** Because of the solubility of carbonate rock such as limestone and dolostone, these rock types present special conditions that require extra attention. First when wells are drilled in carbonate rocks, a rotary rig will grind the bedrock into fine powder. When water enters the borehole, the calcium carbonate and magnesium carbonate powder mixes with the water to form cement. The rotating motion of the drill bit can smear the cement into the bedrock fractures that provide the water and, even though the well seemed to produce water during drilling, a dry hole can result if the driller does not take care to keep the wellbore clean. When this happens, there are service companies who can open the fractures with various treatments. Second, the solubility of limestone and dolostone is the property that allows running water to create caves in such rocks. Groundwater moving through a crack or fracture can gradually dissolve away the walls and make a larger and larger opening. When a cave breaks through to the land surface, a sinkhole is formed. Similar to the high

permeability soils, when contaminants are introduced into carbonate bedrock terrain, the potential for rapid dispersal exists. Some provision should be made to address the vulnerability of these area.

**Potential Areas for New Water Supplies.** As a result of examining the individual well logs, bedrock aquifer areas, the wetland distribution, the soil properties, and topography, three areas have been identified with the potential to provide significant water supplies for future residential and commercial development. All three areas have unique surface features, but each water supply is in the groundwater within bedrock. These areas include the West Hurley area close to the eastern Town boundary in the vicinity of an unconsolidated aquifer on the USGS map, the Stony Creek wetland (AS-16 and AS-6) complex, and an area in the Onondago limestone outcrop bounded by the Town border on the south, the old railroad grade on the west, Lucas Avenue to the east and wetlands KW-8 and KW-9 to the north. These areas all show positive signs of good water yield. If municipal water systems are needed in the future, these are the potential sources. Provisions should be made to identify specific parcels and develop a well drilling and testing program to quantify the potential yield of these bedrock aquifers. To preserve these precious areas, protective mechanisms such as conservation easements or aquifer protection regulations should be established.

## VI. TECHNIQUES FOR OPEN SPACE PRESERVATION

The identified open space resources may be preserved using various techniques as illustrated in the following matrix and discussed below:

| Type of Resource    | Preservation Techniques |                   |                    |      |             |
|---------------------|-------------------------|-------------------|--------------------|------|-------------|
|                     | Design Guidelines       | Open Space Zoning | Water Related Leg. | PDR* | Acquisition |
| Groundwater         |                         |                   | ●                  |      | ●           |
| Surface Water       | ●                       | ●                 | ●                  | ●    |             |
| Agricultural Land   |                         | ●                 |                    | ●    |             |
| Undeveloped Land    | ●                       |                   |                    | ●    | ●           |
| Scenic Roads/Vistas | ●                       |                   |                    | ●    |             |
| Recreation Areas    |                         | ●                 |                    |      | ●           |

\*Purchase of development rights

### A. DESIGN GUIDELINES

State law allows communities to mandate development to comply with standards for open space preservation. In fact, § 210-38 of the Hurley Zoning Law allows the Planning Board to do so under certain circumstances. However, there is often resistance from both developers and neighbors to use a technique that has few precedents in the region. Therefore, it may be more feasible to encourage use of open space design techniques by education and example.

A number of measures can be taken to encourage open space design. A handbook of design guidelines and examples can be prepared and

provided to prospective developers. Developers can be required to prepare conceptual plans adhering to such guidelines in addition to the "preferred" conventional subdivision. In some cases, participating in such a process may persuade the developer, neighbors and the Planning Board of the merits of such an approach. Exhibit B illustrates an example of this approach.

## **B. OPEN SPACE ZONING**

As mentioned above, the Town of Hurley Zoning Law already allows the Planning Board to require open space subdivision plans under certain criteria. However, this provision has never been implemented for several possible reasons including the requirement of a minimum 25 acre parcel and unwillingness to impose an untested technique. In addition to the methods to encourage use of this technique suggested above, other methods may be considered. See Exhibit C for an article which elaborates on this technique.

An incentive may be provided by offering a density bonus for open space development. The increased number of lots, if properly designed, can be more than off-set by the benefits of the open space preserved. Some zoning laws establish a minimum percentage of the land area in a subdivision be set aside as open space. The most effective use of this technique is to prepare an open space network plan for the Town so that priority areas are designated in advance and can be incorporated in subdivision design. Other zoning techniques can be used to preserve sensitive environmental features such as steep slopes, ridge lines, and hilltops, lakes, wetlands, and streams.

### **C. WATER RESOURCES RELATED LEGISLATION**

State legislation already exists to protect wetlands of a certain size (12.4 acres) and many streams. However, protection of groundwater supplies is fairly limited. The analysis in Section VI can provide the basis for regulations to protect identified groundwater resources. One such technique is the establishment of an aquifer protection overlay district which limits the nature of subsurface discharges and the extent of withdrawal so as to protect the quantity and quality of groundwater supplies.

### **D. PRESERVATION OF SCENIC VISTAS**

A major attribute of a rural area such as Hurley is the natural character of the land and the varied views of open fields, ridge lines and mountain tops. A list of Scenic Vista Priorities compiled by the CAC is included in Exhibit B. This ambience can be disrupted by obstacles along the roadways which obstruct views and create an enclosed corridor or by structures which intrude upon views and scenic vistas. The design guidelines discussed above can address these issues as can other measures as well.

The visual impact of residential development in agricultural or other open lands varies depending on the actual location of home sites. A few houses set in the middle of large open fields have much greater impact than houses located on the edges of woodlands or hedgerows or screened by other physical features. In contrast, along roads in forested areas, houses close to the road detract from the rural setting which could be preserved by

establishing non-disturbance buffers along the roadside.

While there is a minimum setback for buildings established in the Zoning Law, fences up to six feet in height may be located along the street line. An open split rail or similar fence is not a visual barrier. However, an opaque, six foot high fence along the street line is a major visual intrusion which creates an enclosed corridor rather than open views. The Zoning Law could be amended to limit the height and/or opacity of fences placed between the set-back line and the street line.

The Zoning Law requires a visual assessment of structures in the A-4 District (§ 210-41.E.) to provide an opportunity for the Planning Board to evaluate the impact of structures on the visual character in this district and to establish standards to minimize such impacts. This same procedure can be amended and expanded to address other critical views and visual resources.

#### **E. ACQUISITION OF LAND OR DEVELOPMENT RIGHTS**

Acquisition of land in fee simple or purchase of development rights (PDR) may be accomplished by the Town or a non-profit agency by purchase or donation. For instance, the Rondout-Esopus Land conservancy has been established to receive such donations and presently holds conservation easements on approximately 1,000 acres in Marbletown. The first such easement was recently received in Hurley.

Under Section 247 of General Municipal Law, a community may acquire fee simple or development rights to land which is defined broadly

as "open space". A community may also acquire "conservation easements" under Sections 49-0301 to 49-0311 of the Environmental Conservation Law. The Conservation Law allows the community to delegate enforcement of a conservation easement to a third party (such as the Rondout-Esopus Land Conservancy) while Section 247 does not provide such an option.

A community may fund purchase of land or development rights by appropriations from current property taxes or by incurring indebtedness in the form of a bond. This latter method allows the community to obtain necessary funds "up front" while paying over a period as long as thirty years. A recent study in the Town of Marbletown demonstrated that a \$1,000,000 open space fund could be created at a cost to the average home owner of \$33 per year over a 20 year period. Grants available from various sources could reduce the cost to local residents further. A summary of various possible funding sources for open space preservation is included in Exhibit D.

Another technique that has been used is the transfer of development rights (TDR) program which allows the development rights permitted under the zoning of one parcel to be transferred to another parcel at a different location. The land that is to be protected from development, (the "sending property"), transfers its development rights to a "receiving property", thereby increasing the development density legally permitted on the receiving property. The rights can also be transferred to a municipality that has set up a "development bank" that will use the rights at a future date. Anyone can buy development rights; however they can only be used in receiving areas. The owner of the sending property is compensated for these rights based on the fair market value at the time of the transaction.



The TDR program can be difficult to administer and requires good long term record keeping. Most difficult to overcome, however, in a Town such as Hurley, is the increase in density necessary in the receiving zone to make the process work. Not only is there a general resistance to increased density but, also, the logical receiving zones - the hamlets - would require development of central water supply and sewage disposal systems in order to allow density to be increased much below the prevailing minimum lot size.

A community can temporarily preserve open space by leasing the development rights or providing preferential tax treatment if an owner agrees to limit development for a specified period of time. This latter method is similar to the program under which agricultural or forest lands are assessed at a reduced rate. The extent of the reduction in assessment can be increased in proportion to the length of the agreement. Penalties and back taxes are assessed against owners who break the agreement. Although of limited duration, these measures require less financial obligation by the community and can be used to "buy time" while permanent solutions are established.

#### **F. EXAMPLES OF SUCCESSFUL OPEN SPACE PRESERVATION EFFORTS**

##### **TOWN OF RED HOOK**

In 1988, the private nonprofit conservation organization, Scenic Hudson, announced that it had purchased conservation easements on seven farms in the Town of Red Hook, assuring that more than 1,000 acres of productive Hudson River Valley farmland would be safe from the pressures

of suburban sprawl. Grants from a private foundation funded the easement purchases that protect three cash crop operations and four orchards, including a sixth-generation bicentennial farm. The project created an affordable pool of land for farmers; immediately after the easement signings, three of the seven farms were transferred on to a new generation of younger farmers. Working with American Farmland Trust, Hudson Valley farmers, farmland protection board members and local land trusts, Scenic Hudson developed a flexible and innovative conservation easement document that accommodated the needs of present and future farming enterprises, while protecting agricultural and environmental resources. ("Call to Action", American Farmland Trust, 1998).

#### TOWN OF PITTSFORD

In 1993 the Town of Pittsford, outside Rochester, prepared a fiscal impact analysis which calculated that, due to the cost of services for new residential development, preservation of open space was more financially advantageous. The Town then developed an open space rating system and identified 2,000 acres as suitable for acquisition including both agricultural lands and valuable ecological resources. In 1996, the Town Board unanimously approved a \$9.9 million bond issue to purchase the development rights to permanently protect seven farms totaling 1,100 acres.

#### TOWN OF ESOPUS

In cooperation with Scenic Hudson, the Town of Esopus has preserved some 800 acres of open space. A spit of land at the junction of the Rondout Creek and the Hudson River was identified in the Town's Local

Waterfront Revitalization Program as a unique asset. The property was acquired by Scenic Hudson while the Town secured grants to purchase the property and develop a waterfront park. Scenic Hudson also purchased land and development rights to two other waterfront parcels and a 500 acre tract on the Shaupeneak Ridge, one of the highest points in Town. Not only are these lands preserved in perpetuity but, also, each is open to public use and enjoyment for passive recreation.

## VIII. RECOMMENDATIONS

Based on the analysis of resources and the priorities established by the CAC, the following actions are recommended to initiate implementation of this plan for open space preservation. The recommendations are divided into two categories: short term, which do not require significant funding and longer term, which require substantial funding and/or further study.

### A. Short Term Recommendations

1. Prepare design guidelines to supplement the Town's zoning law and subdivision regulations for use by the Planning Board when dealing with developers. At first, such guidelines would be advisory and serve as an educational tool to promote the use of open space development techniques.
2. Prepare aquifer protection overlay district regulations, based on the areas delineated in the hydrological study, to preserve the quantity and quality of identified groundwater resources.
3. Designate specific roads as scenic roads and prepare standards for development along such roads regarding fences, natural buffers, expanded set backs and lot widths and other measures to preserve the natural and historic character.
4. Amend the zoning law to confirm that the Town encourages agricultural uses so as to preserve open space and the rural character of the Town as well as to promote production of food and other

agricultural products. The amendment would clarify that the Town does not intend to unreasonably restrict or regulate farm operations and supports the "right to farm" provisions of state law.

5. Incorporate appropriate elements of this open space report into the Town's Comprehensive Plan.

**B. Longer Term Recommendations**

1. Establish local fund for acquisition of high priority open space parcels and/or development rights. This fund should be used as the local match for grants from other public and private agencies.
2. Acquire and develop swimming beach on the Esopus Creek offered by Gill Farms.
3. Expand trail system from the O&W rail trail by negotiating easements and/or utilizing lightly trafficked Town roads.
4. Initiate program to remove underground oil storage tanks.

## Water Protection and Recreation Priorities

11/19/03

| Item | Description of Place or Area                   | Function                                                                 | Type of Resource                                       | Overall Priority |
|------|------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------|------------------|
| 1    | Rail Trail Corridor                            | Unusual rock formations, pleasant hiking trails                          | Open Space, Water Protection, Recreation               | 3                |
| 2    | Wooded area near rail trail                    | Unusual rock formations, pleasant hiking trails                          | Scenic Vista, Open Space, Wildlife Habitat, Recreation | 4                |
| 3    | Kenozia Lake from Rt. 28                       | Scenic view of lake and mountain backdrop                                | Scenic Vista, Scenic Rd., Water Protection             | 5                |
| 4    | Hurley Mtn. Road Falls                         | Unique natural feature                                                   | Scenic Place, Water Protection                         | 6                |
| 5    | Buffer Zone along the Esopus                   | Inhibit runoff from chemicals                                            | Water Protection, Recreation                           | 8                |
| 6    | Twin Lakes and surrounding open area           | Lakes surrounded by woods and pleasant hiking trails                     | Scenic Vista, Open Space, Wildlife Habitat, Recreation | 10               |
| 7    | Views from Glenford-Wittenburg Mt., Ohayo Mtn. | Scenic views of reservoir and Catskills                                  | Scenic Vista, Scenic Rd., Water Protection             | 11               |
| 8    | Beach along the Esopus                         | Access to Esopus for public swimming, small boat launch                  | Open Space, Recreation                                 | 12               |
| 9    | City Land                                      | Potential of sell-off of land once filtration is mandated, Public Access | Scenic Vista, Open Space, Water Protection, Recreation |                  |

## Open Space Priorities

11/19/03

| Item | Description of Place or Area             | Function                                                                 | Type of Resource                                       | Overall Priority |
|------|------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------|------------------|
| 1    | Cornfields                               | Protect rural character of town, scenic views of plain and Hurley Ridge  | Scenic Vista, Open Space                               | 1                |
| 2    | Views of Hurley Ridge west of cornfields | Scenic views of cornfields, ridge, gateway to old Hurley                 | Scenic Vista, Open Space                               | 2                |
| 3    | Rail Trail Corridor                      | Unusual rock formations, pleasant hiking trails                          | Open Space, Water Protection, Recreation               | 3                |
| 4    | Wooded area near rail trail              | Unusual rock formations, pleasant hiking trails                          | Scenic Vista, Open Space, Wildlife Habitat, Recreation | 4                |
| 5    | Twin Lakes and surrounding open area     | Lakes surrounded by woods and pleasant hiking trails                     | Scenic Vista, Open Space, Wildlife Habitat, Recreation | 10               |
| 6    | Beach along Esopus                       | Access to Esopus for public swimming, small boat launch                  | Open Space, Recreation                                 | 12               |
| 7    | City Land                                | Potential of sell-off of land once filtration is mandated, Public Access | Scenic Vista, Open Space, Water Protection, Recreation |                  |

## Scenic Vista Priorities

11/19/03

| Item | Description of Place or Area                   | Function                                                                 | Type of Resource                                        | Overall Priority |
|------|------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------|------------------|
| 1    | Cornfields                                     | Protect rural character of town, scenic views of plain and Hurley Ridge  | Scenic Vista, Open Space                                | 1                |
| 2    | Views of Hurley Ridge west of cornfields       | Scenic views of cornfields, ridge, gateway to old Hurley                 | Scenic Vista, Open Space                                | 2                |
| 3    | Kenozia Lake from Rt. 28                       | Scenic view of lake and mountain backdrop                                | Scenic Vista, Scenic Rd., Water Protection              | 5                |
| 4    | Rt. 209 south of town center                   | Scenic views of Catskill ridges, gateway to old Hurley                   | Scenic Vista                                            | 7                |
| 5    | Hurley Mtn. Road                               | View of cornfields and farms, wooded slope                               | Scenic Vista                                            | 9                |
| 6    | Twin Lakes and surrounding open area           | Lakes surrounded by woods and pleasant hiking trails                     | Scenic Vista, Open Space, Wildlife Habitat, Recreation  | 10               |
| 7    | Views from Glenford-Wittenburg Mt., Ohayo Mtn. | Scenic views of reservoir and Catskills                                  | Scenic Vista, Scenic Rd. Water Protection               | 11               |
| 8    | Views of Ohayo Mtn. from reservoir             | Scenic view from frequently visited place outside of Hurley              | Scenic Vista                                            | 13               |
| 10   | City Land                                      | Potential of sell-off of land once filtration is mandated, Public Access | Scenic Vista, Open Space, Water Protection., Recreation |                  |



### Scenic Road Priorities

11/19/03

| Item | Description of Place or Area          | Function                                               | Type of Resource                           | Overall Priority |
|------|---------------------------------------|--------------------------------------------------------|--------------------------------------------|------------------|
| 1    | Kenozia Lake from Rt. 28              | Scenic view of lake and mountain backdrop              | Scenic Vista, Scenic Rd., Water Protection | 5                |
| 2    | Hurley Mtn. Road Falls                | Unique natural feature                                 | Scenic Place, Water Protection             | 6                |
| 3    | Rt. 209 south of town center          | Scenic views of Catskill ridges, gateway to old Hurley | Scenic Vista, Scenic Rd                    | 7                |
| 4    | Hurley Mtn. Road Views from Glenford- | View of cornfields and farms, wooded slope             | Scenic Vista, Scenic Rd                    | 9                |
| 5    | Wittenburg Mt., Ohayo Mtn.            | Scenic views of reservoir and Catskills                | Scenic Vista, Scenic Rd., Water Protection | 11               |

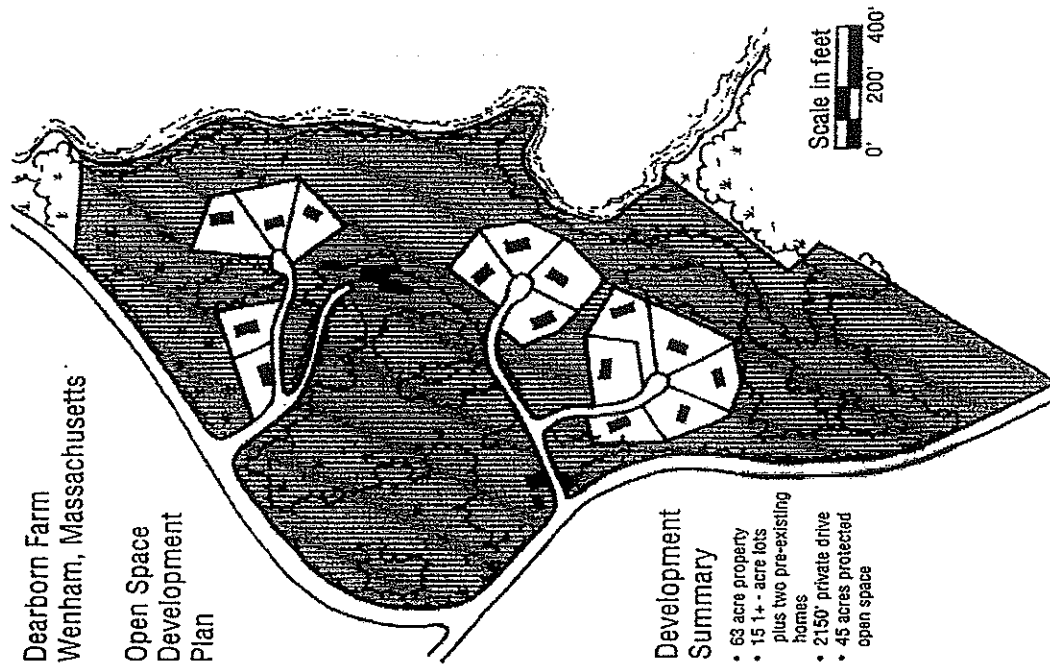
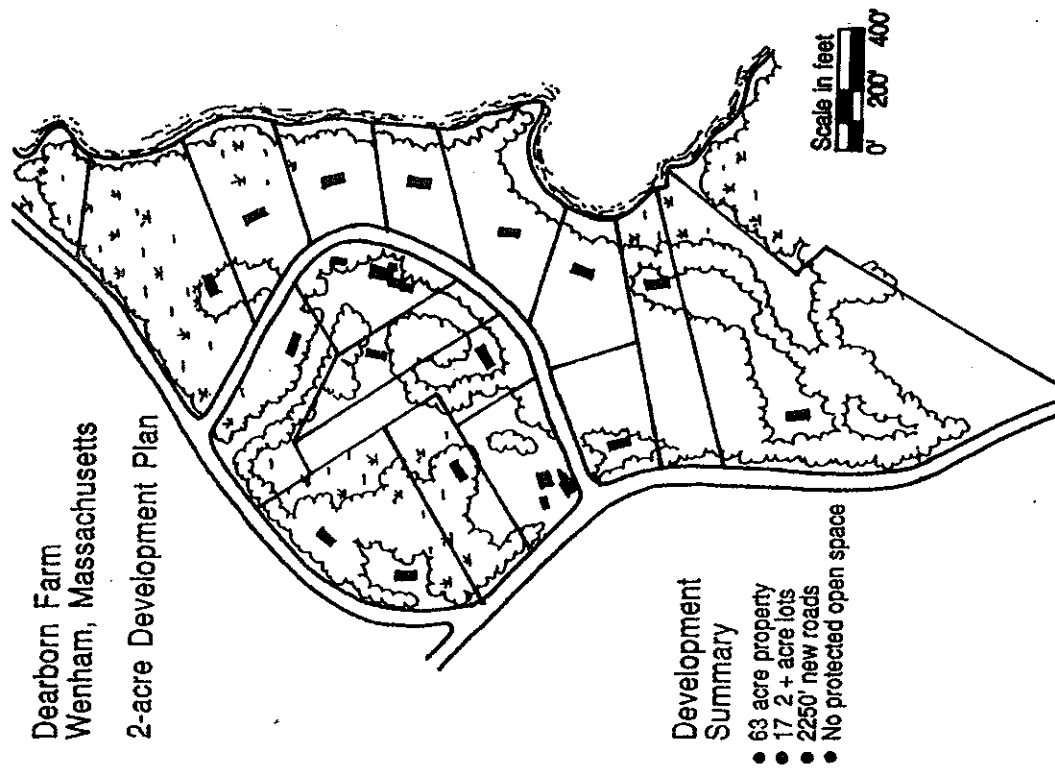


Figure 15-2. These two alternative designs for the Dearborn Farm in Wenham, Massachusetts, were prepared as part of an awareness raising project to help townspeople appreciate that, to a very considerable extent, the shape of their town's future lies largely within their own hands. Producing the same lot yield (15 new one-acre lots, plus the two preexisting homes on larger parcels), the creative design would also preserve two-thirds of the 63-acre site as open space. *Source:* Kopkowski, 1989.

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Other Articles Online

**"Open Space" Zoning:  
What It Is & Why It  
Works**  
*by Randall Arendt*

"Open Space Zoning" is also included in a printed collection of articles dealing with **Green Essentials**

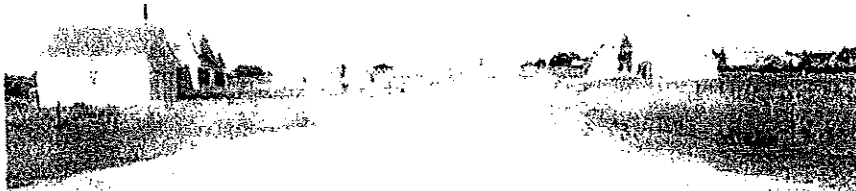
About the Author

[From Issue 5, page 4, of the PCJ, July/August 1992]

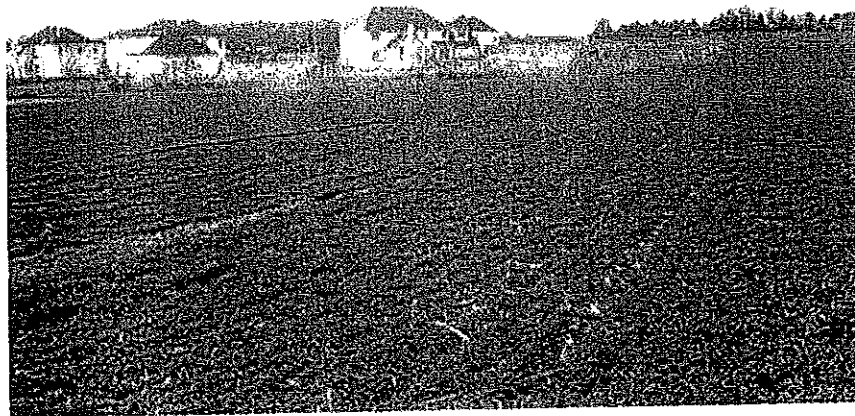
**L**ocal officials in most rural and suburbanizing areas have a long-term choice about which many are not fully aware. That is whether to continue implementing "conventional zoning", or whether to refine their existing land-use regulations to ensure the preservation of open space through creative development design.

**Conventional zoning is essentially a blueprint for development, and development alone.** Of course, zoning normally separates incompatible uses, and it does establish certain standards (such as maximum densities and minimum setbacks), but it typically does little to protect open space or to conserve rural character. The reason many subdivisions consist of nothing more than houselots and streets is because zoning and subdivision design standards usually require developers to provide nothing more. While many ordinances contain detailed standards for pavement thickness and culvert diameters, very few set any noteworthy standards for the quantity, quality and configuration of open space to be preserved.

Conventional zoning assigns a development designation to every acre of land, generally residential, commercial, or industrial. The only lands which are normally not designated for development are wetlands and floodplains. Conventional zoning has been accurately described as "planned sprawl," because every square foot of each development parcel is converted to front yards, back yards, streets, sidewalks, or driveways. Period. Nothing is left over to become open space, in this land-consumptive process.



Above photo is of conventional large lot zoning in Middletown, Rhode Island.



Above photo is of open space development in Lower Makefield Township, Pennsylvania, where over half of this 431 acre tract has been preserved as farmland (137 acres donated to a local farmland trust) or as woods and wetlands (100 acres). Houselots are about 1/2 acre in size. Buyer response has been very favorable, with sales outpacing similarly priced developments. The developer advertises the project as "a community that will be forever surrounded by acres of preserved farmland, open fields and woodlands."

[Editor's Note: The Center for Rural Massachusetts Web site contains excellent drawings comparing development under conventional zoning principles and development using open space/cluster principles].

### **A Better Solution**

Local officials who are interested in ensuring that their communities will not ultimately become a seamless web of subdivisions, shopping centers and office or industrial parks now have a practical and effective alternative: compulsory open space zoning. This technique has been successfully implemented by a number of municipalities in New England and the Mid-Atlantic states, and by several counties in Virginia, Washington State and California.

In order to avoid disturbing the equity held by existing landowners, **open space zoning allows the same overall amount of development that is already permitted.** The key difference is that this technique requires new construction to be located on only a portion -- typically half -- of the parcel. The remaining open space is permanently protected under a conservation easement co-signed by a local conservation commission or land trust, and recorded in the registry of deeds.

As "open space zoning" is based upon the technique of "clustering," these two terms are used interchangeably throughout the rest of this article. It should also be noted that the cluster concept can be restricted to detached, single-family homes, each on its own down-sized houselot, in communities or in specific zoning districts where this is politically desirable. In other words, cluster housing is by no means limited to townhouses, apartments, or condominiums, as is typical in many PUDs (planned unit developments) and PRDs (planned residential developments). In fact, the classic rural village settlement pattern is a superb example of single-family clustering, sometimes with a central green constituting the permanently preserved open space.

### **Cluster Design**

**The basic principle of cluster development is to group new homes onto part of the development parcel, so that the remainder can be preserved as unbuilt open space.** The degree to which this accomplishes a significant saving of land, while providing an attractive and comfortable living environment, depends largely on the quality of the zoning regulations and the expertise of the development designer (preferably someone experienced in landscape architecture).

Although the concept of clustering is fairly simple, this "new" form of development has raised concerns among some residents of rural or suburbanizing areas because it is quite different from the conventional, standardized subdivision pattern with which most of us are very familiar. Interestingly, the conventional suburban model, commonplace in many growing communities, is actually a pattern that is at odds with the otherwise traditional rural landscape. It looks "at home" only in our sprawling metropolitan post-war suburbs, where it has become the predominant building pattern.

The purpose of this article is to first briefly explain what I believe are the major advantages of requiring clustered (open space) development, and then to discuss several of the concerns typically expressed at local meetings where the open space planning concept has been discussed.

## The Advantages of Open Space Development

The conventional approach to development results in the entire parcel being covered with houselots and subdivision streets. Communities which have had a lot of experience with this type of development ultimately realize that, as one parcel after another is eventually developed, their formerly open landscape evolves into a network of "wall-to-wall" subdivisions. [See Sidebar, "Large Lot Zoning" at the end of this article].

The beauty of open space zoning is that it is easy to administer, does not penalize the rural landowner, does not take development potential away from the developer, and is extremely effective in permanently protecting a substantial proportion of every development tract. It does not require large public expenditures (to purchase development rights), and allows farmers and others to extract their rightful equity without seeing their entire land holding bulldozed for complete coverage by houselots.

This pattern of down-sized houselots and preserved open space offers distinct economic advantages to all parties. Developers can reduce the costs of building roads and, if applicable, water and sewer lines. Local governments save on snowplowing and on periodic road re-surfacing. And home buyers often pay less because of these cost savings.

Landowners who view their property as their "pension" no longer have to destroy their woods and fields in order to retire with a guaranteed income, as their equity is not diminished. Local governments do not have to raise property taxes to finance expensive open space acquisitions, and are not faced with the administrative complexities posed by TDR (transfer of development rights) systems. Developers are not placed under unreasonable constraints, and realtors gain a special marketing tool, in that views from the new houses will be guaranteed by conservation easements protecting the open space from future development.

### Why Require Cluster Design?

Perhaps the most controversial issue surrounding the cluster concept is the suggestion that this open space approach be made mandatory. The rationale is that there are certain types of irreplaceable natural resources which are extremely important to protect. Among these may be listed aquifers, riverfront land, fields and pastures. In addition, clustering allows flexibility in layout so that a developer can avoid impacting important wildlife habitat areas, such as deer yards, or scenic features of the rural landscape, such as large rock formations, hill crests, and mature tree-stands. It is a local decision whether to require the cluster approach when development is proposed on any or all of these resource lands.

There are several possible options to mandating open space. One is to require the cluster approach in only certain zoning districts, or when certain resources are present. Another alternative is to authorize the planning commission to require it only when the developer's conventional plan would destroy or remove more than a specified percentage of certain listed resources, leaving determination on a case-by-case basis. Whatever the choice, it is important -- in my view -- not to leave it to the developer to decide whether to opt for cluster development. [See Sidebars "Requiring Open Space Design" and "West Manchester Township" at the end of the article].

### Questions About Cluster Development:

**Will It Harmonize With Its Surroundings?** A concern I often hear is that cluster housing will not blend in with a town's rural character. It is true that some cluster developments done in the past have failed to harmonize with their surroundings. Recognizing this potential problem, a few communities are now requiring that new cluster plans consist of only detached, single family homes, each set on its own, down-sized individual lot, roughly resembling a traditional village pattern. This also ensures that everyone will have their own separate yard space, in addition to the larger "open space" which the cluster approach creates.

The related issue of "impact upon surrounding property values" is also often raised. Along any part of the parcel perimeter where down-sized lots would adjoin standard-sized lots, communities can require buffer strips. Along other edges, this may not be desirable or logical, as lots which border permanently protected open space almost always enjoy higher property values. Indeed, most realtors would attest to the fact that all lots within a well-designed cluster development usually gain enhanced value as a result of the protected open space. [See Sidebar, "Enhancing Property Values" at the end of this article].

**"Open Space" Maintenance.** Another issue is maintenance of the open space created by clustering. If this space is recreational (playing fields, jogging trails, tennis courts), upkeep is typically handled by a homeowners' association, to which everyone is contractually obligated to contribute when they purchase their home. Home buyers sign a legally enforceable agreement which enables the homeowners' association to collect any unpaid dues.

If the open space is agricultural, there are several options. The agricultural open space can be sold "in fee" to the homeowners' association, which can in turn lease it to local farmers. Alternatively, the original farmer can retain

ownership of it and sell only his "development rights." I favor the latter option, even if the farmer is planning to retire, because he could still sell the field to a younger farmer in the neighborhood at an affordable price reflecting the land's agricultural value -- not its potential building-lot value -- thus strengthening the local farming economy.

**Buffering Farm Operations.** In order to reduce potential conflicts between new residents and agricultural practices, communities are beginning to require that cluster lots be separated from the protected farmland by a "buffer" strip, typically 75 to 100 feet wide. Where it is not possible to use existing woodlands for this purpose, officials can require new buffer areas to be thickly planted with a variety of rapidly growing native trees and shrubs. A similar requirement should also be placed on conventional subdivisions when they abut working fields, but this is rarely done.

**Street Standards in Cluster Developments.** When cluster developments are designed with privately maintained road systems, planning boards are often asked to reduce their normal street construction standards. This has sometimes created substandard conditions, and is a practice which communities would be well-advised to resist. If subdivision street construction standards are excessive -- as they often are -- they should be revised for all types of new development, so that street width bears a reasonable relationship to the expected volume of traffic. [Editor's Note: On this point, see Joseph Molinaro's article, "Rethinking Residential Streets," in Issue 1 of the PCJ].

### **Sewerage and Septic Systems.**

Because of the shorter road system needed to serve lots in a cluster development, substantial savings are possible with respect to the construction of roads, sewers, and water lines. Where sewer service is unavailable, however, people have expressed concerns about siting septic systems on the smaller cluster lots. Recognizing this factor, officials are requiring such houselots to be located on that part of the parcel where soils are most favorable for leaching fields. The flexibility of cluster design allows this to happen. On the other hand, in a conventional subdivision, septic systems are located wherever the soils manage to pass minimum health requirements, even on marginal soils whose long-term suitability is questionable. In addition, it should be noted that septic systems can be located beyond one's lot lines, on an easement within the protected open space.

### **Summing Up:**

Whether continuous coverage by large-lot subdivisions is more desirable than a mixture of village-sized cluster lots surrounded by permanently protected fields and woodland is a decision for residents and officials in each town. As long as everyone is clear about the ultimate consequences of the various development types which are available to them, these decisions can be made on an informed basis.

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### **Sidebars:**

#### **Large Lot Zoning**

One of the "solutions" that many conventional zoning ordinances use for presumably maintaining open space and rural character is large lot zoning -- that is establishing large, five to ten acre, minimum lot sizes in rural zoning districts. Although large lot zoning does reduce the number of homes that can be built, it also spreads out the homes in such a way that none of the remaining land is useable for farming, forestry, or even recreational trails. Houselots become "too large to mow, but too small to plow," and the greater distance between homes effectively stifles the emergence of any sense of neighborhood.

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#### **Open Space: What Size and Shape?**

Unless local regulations require the open space to be at least a certain size with specific minimum dimensions, it can end up being a long narrow fringe abutting rear lot lines and the parcel's outer perimeter. This can be easily avoided by clarifying, in the ordinance, that lots and roads shall not cover more than, say, 50% of the parcel, and that at least half of this open space must be shaped so as to be useable for active recreation or agriculture, for example.

## Requiring Open Space Design

Experience has shown that when clustering and open space preservation are left optional, only a small percentage of developers choose to take advantage of this approach. Most simply continue to do as they have always done: creating checkerboards of house lots and streets. This means that even though the clustering option is in the zoning ordinance, it remains essentially unused. The community is still left with conventional development patterns repeated over fields and woodlands.

If a community is reluctant to require clustering, it might consider the approach taken by Clallam County, Washington. The County recently revised its zoning from a density of one unit per five acres (which was creating non-functional "farmettes") to a minimum of thirty acres. However, the original one unit per five acres density remains available if the houselots are downsized so as not to consume more than fifteen to twenty percent of the parcel. Applying this kind of stiff "density penalty" to discourage land-consumptive farmettes may be a far more effective technique than offering meager density bonuses to encourage clustering.

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## West Manchester Township, Pennsylvania

West Manchester Township, in south-central Pennsylvania, last year amended its zoning ordinance to require open space development within an undeveloped portion of the township. The area had been zoned for single-family detached residential homes, on half acre or smaller lots. Before amending the ordinance, the township had prepared build-out maps showing what the area might look like if developed under the existing conventional zoning. These maps vividly showed the potential loss of the existing farmland and open space. The township also mapped out the open space it hoped to preserve to show landowners and developers exactly what was envisioned: interconnected open spaces crossing parcel lines.

Under the township's open space zoning provision, a developer first prepares a sketch plan showing the number of units that could be built under a conventional development pattern. This determines the allowable density that can be used when the project is designed in a clustered manner. According to Jan Dell, Assistant Township Administrator, allowing the same density was important to allay the concerns of affected landowners. At the same time, preserving views of open space would make developments more attractive to home buyers. One other note, West Manchester's open space zoning requirement only applies to developments involving more than fifteen acres.

Editor's Note: Manchester Twp. also made use of the design manual and video cited in the Resources sidebar.

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## "Build-Out" Maps

One of the most understandable, inexpensive and effective tools for showing local residents and officials the long-term result of implementing existing zoning and subdivision regulations is the "build-out" map. This map shows the probable location of new roads and houses which could legally be constructed on the vacant and buildable land remaining within the municipality (or a portion of the municipality). Because so many people assume their town is adequately protected by existing zoning, a build-out map, by graphically showing what might occur, can be a real "eye opener" for members of the community. To ensure accuracy, build-out maps must not project development into areas where natural or regulatory constraints would prevent it. The *Center for Rural Massachusetts* has available "A Manual of Build-Out Analysis," a step-by-step guide to the preparation of build-out maps.

## Enhancing Property Values

A recent study, "An Examination of Market Appreciation for Clustered Housing with Permanent Open Space," by Jeff Lacy at the Center for Rural Massachusetts comparing conventional and open space developments in two Massachusetts towns over

long periods of time found that the value of homes in open space developments appreciated at a greater rate.

An interesting article by Philip Larsen, "Open Space That Sells." in *Land Development*, the publication of the National Association of Homebuilders, explores how well-planned open space can enhance a development's market value. As Larsen notes: "The key is to view the various open space requirements as opportunities rather than as liabilities. A look at the most successful projects in any region will reveal that open space has not been wasted. Projects that feature open space are projects that sell and, at the same time, provide environmental amenities and opportunities for recreation." *Land Development*, Summer 1992, p. 25.

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#### Resources:

A valuable resource on open space development is "Dealing With Change in the Connecticut River Valley: A Design Manual for Conservation and Development," available for \$25 from the Lincoln Institute of Land Policy: (800) 848-7236.

"Rural Design," a 60-minute video of Randall Arendt's slide show, provides a very useful visual introduction to cluster design and related topics. It can be ordered from the American Planning Association: (312) 955-9100.

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PLANNING COMMISSIONERS JOURNAL



# FACT SHEET

NEW YORK STATE

ASSISTANCE

PAYMENTS FOR

PURCHASE OF

DEVELOPMENT

RIGHTS

## DESCRIPTION

New York State's Agricultural and Farmland Protection Program, Article 25-AAA, was enacted in 1992 as part of the Agricultural Protection Act. The program encourages counties and towns to work with farmers to promote local initiatives that help maintain the economic viability of agriculture and protect the industry's land base.

Under this program, funds are available to develop county agricultural and farmland protection plans and implement farmland protection projects. Since the enactment of the Agricultural Protection Act, more than 30 counties have received planning grants through the state's Environmental Protection Fund to develop agricultural and farmland protection plans. In 1996, the state amended Article 25-AAA to provide counties that have approved plans, or eligible municipalities, with implementation grants to purchase development rights (PDR) to farmland. Funds for PDR are allocated from the state's Environmental Protection Fund and the Clean Water/Clean Air Bond Act.

Purchase of development rights (PDR) is a voluntary farmland protection technique that pays farmland owners for permanently protecting the land for agriculture.

In general, landowners possess a variety of rights to their property, including the rights to use water resources, harvest timber or build on the property consistent with local regulations. Each of these rights could be separated from the rest of the bundle of rights and sold or leased. When one right is restricted or removed from the land, all other rights and obligations of property ownership remain.

When farmland owners sell their development rights, they retain all other rights of ownership and can continue to farm their land as they did before. The land remains private and on the tax rolls; its taxable value should be based on the remaining rights.

The purchase of development rights to a piece of farmland places a deed restriction – known as a conservation easement – on the property, permanently protecting the land for agriculture. Conservation easements may be held only by a public body (the state or municipality) or a not-for-profit conservation organization under contract to the municipality. The holder is obligated to uphold and enforce the terms of the easement or development rights agreement.

## VALUATION

The value of an easement is the fair market value of the property minus its restricted value, as determined by a qualified appraiser. For example, if the market value of a parcel of farmland is \$200,000 when developable but worth only \$100,000 if used only for agriculture, then the farmer is paid the difference of \$100,000 for selling the development rights.

## AGRICULTURAL CONSERVATION EASEMENTS

Because agriculture is evolving, it needs a flexible conservation easement that is tailored to its ever-changing conditions. Agricultural conservation easements have been developed to meet these needs. Generally, they have the following features:

- Limit future uses of the land that are inconsistent with or damage the agricultural value or productivity of the land
- Specifically drafted to permit and encourage the business of farming
- Permit the construction of new farm buildings and farm employee housing
- Complement the right to farm provision in the Ag Districts Law (cont.)

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May 1999

EXHIBIT D

- Public access is not permitted unless agreed to
- Landowner retains full ownership of the farm subject to the easement restrictions

## HISTORY

Suffolk County first pioneered PDR in the mid-1970s. Maryland, Massachusetts and Connecticut followed Suffolk County's lead by establishing programs within one to two years later. Since then 18 states have established state or local PDR programs.

In New York, PDR was first funded in 1996 under the Pataki administration. Since 1996, three rounds of farmland protection grants totaling more than \$15.9 million have been awarded to counties and towns throughout the state. Eight applicants received \$3.7 million in grants in the first round and eleven applicants received approximately \$4.5 million in the second round. In each round, grant requests far exceeded the available funding. For example, in the third round in 1998, 12 applicants received grants of \$7.7 million in response to requests that totaled over \$40 million. Based on widespread interest in this program around the state, funding requests are expected to continue to increase.

## WHO CAN APPLY FOR PDR GRANTS

- A county Agricultural and Farmland Protection Board (AFPB) that has an approved county agricultural and farmland protection plan.
- A municipality that has adopted a local farmland protection plan (a comprehensive open space plan that considers agricultural uses and needs; the project must be endorsed by the county AFBP).
- Local land trusts and other non-profit conservation organizations interested in protecting agricultural land are not eligible to apply directly for implementation funds, but can work cooperatively with county or municipal governments in support of a project for which funding is requested. These organizations may provide funds to meet local matching requirements or may participate in a project's development at the discretion of the municipality.

## PDR APPLICATION PROCESS

Over the past three years, the NYS Department of Agriculture & Markets has issued a request for proposals (RFP) to seek applications from eligible municipalities or county AFBPs for purchase of development rights projects on selected farms.

Generally, municipalities interested in responding to the RFP solicit applications from farm landowners within their jurisdiction to create a pool of eligible farms. Many municipalities offer periodic sign-ups and attempt to attract interested farm owners through local newspapers, bulletins and word-of-mouth. Informational meetings are held to discuss the program, answer questions and request letters of interest. The municipal review body (AFPB, local planning board, or local farmland/open space committee) reviews letters of intent and gathers information on eligible farms. Once this information is collected, the review body may rank potential applicants based on a land evaluation and site assessment procedure and then submit an application to the state. Applications for funding must include a cover sheet, project summary, plan of work, list of key personnel and a budget identifying the source of the cash match.

Agriculture & Markets staff members perform on-site reviews of each of the eligible parcels submitted under the RFP. Farms are then scored and ranked using state criteria. Priority is given to projects that preserve viable agricultural land, are in areas facing significant development pressure and serve as buffers for a significant natural public resource. Additional criteria are the number of acres preserved, soil quality, percentage of total farm acreage available for agricultural production, proximity to other conserved farms, level of farm management demonstrated by current land-

## NEW YORK STATE

## ASSISTANCE

## PAYMENTS FOR

## PURCHASE OF

## DEVELOPMENT

## RIGHTS

*For more information about the process, or to request a copy of the most recent RFP, contact:*

*NYS Agriculture & Markets  
Agricultural Protection Unit  
1 Winners Circle*

*Albany, New York 12235*

*Tel: (518) 457-2713.*

owner and the likelihood of the property's succession as a farm if ownership changes.

Once a project is selected, the Department of Agriculture & Markets drafts a contract defining all project terms, conditions and responsibilities. An appraisal(s) must be conducted by a New York State Certified General Real Estate Appraiser to determine the easement value of the parcel. The farm family then decides whether to accept the terms of the contract. If they do, the easement is drafted, signed and recorded and the funds are transferred.

### FUNDING CRITERIA

State funds to a municipality cannot exceed 75% of the total project cost; municipalities are required to provide a cash match equal to at least 25%. An in-kind administrative credit of up to 80% of the cash match or \$25,000 (whichever is less) is allowed. A landowner may also help satisfy all or part of the required local match through a bargain sale or other reduction in the sale price of development rights for their property. Project expenses eligible for state assistance include transaction costs such as surveys, legal fees, baseline reports, title abstracts and insurance as well as stewardship endowments to cover future monitoring and enforcement obligations.

### EXAMPLES OF SUCCESSFUL PDR APPLICATIONS

- *Town of Amherst* – Widespread community and political support has led to several successful applications submitted by the town of Amherst, located just east of Buffalo in north-eastern Erie County. A multi-faceted partnership between the town, the Western New York Land Conservancy, the USDA Natural Resources Conservation Service and the Erie County Soil & Water Conservation District has resulted in grant awards for 1996, 1997 and 1998 that total nearly \$1 million.
- *Long Island* – Suffolk County and several towns on eastern Long Island have recognized that farmland protection efforts on the island require a level of conservation, tax, and land planning expertise that few local governments possess. Instead, these municipalities have hired the Peconic Land Trust to manage all aspects of their farmland protection programs – from project selection and design to negotiation to stewardship obligations after the deal is done.
- *Orange County* – When Warwick farmer Tunis Sweetman inquired about the state's new farmland protection program, he was advised that a local match was required and that such local funds were not available. Undaunted, Sweetman asked whether he could provide the "local" match by offering a bargain sale of his development rights. He would agree to accept the state match (75%) as full payment, in effect making a donation of the remaining value. After review, the Department of Agriculture & Markets decided to accept the bargain sale as fulfilling the local match requirement. As a result, a total of four farms in Orange County were awarded funding in the first round using the bargain sale as the local match.
- *Town of Ancram* – Following Tunis Sweetman's example, Judy Anderson of the Columbia County Land Conservancy asked the Department of Agriculture & Markets if an owner of contiguous farmland could supply the local match by donating a conservation easement on her property. They answered in the affirmative, and one Ancram landowner was financially able and willing to donate a conservation easement on her land in order to provide the local match requirement for the purchase of development rights on neighboring farms.

NEW YORK STATE  
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- *Essex County/Washington County* – In two rural counties in the upper reaches of the Hudson Valley, a public/private partnership has emerged between local land trusts and county governments. In an arrangement between Washington County and the Agricultural Stewardship Association – and in a similar one between Essex County and the Adirondack Land Trust – the county made the application to the Department of Agriculture & Markets for funding while the land trust agreed to hold and monitor the conservation easement. The land trust also took care of transaction details including drafting the agricultural conservation easement and establishing a monitoring and stewardship plan. In recognition of this permanent obligation and responsibility, project costs can include provision for stewardship expenses as part of the initial transaction for which state assistance payments are sought.
- *Onondaga County* – In the 1996 Farm Bill, Congress created a federal Farmland Protection Program to provide matching grants to state and local farmland protection programs. In 1996, several local municipalities received federal grants. In 1998, New York State received \$1.4 million in grant funding for its state farmland protection program. In Onondaga County, the federal grant money has been combined with state funds to purchase the development rights to the 400-acre Manorcrest Farm in the town of Camillus owned by Charles, Olin and Earl Hudson. Without this state and federal partnership, Manorcrest Farm would likely have been sold for development.

**Steps in Selling an Easement in New York**

- ⇒ Farmer finds out about the PDR program
- ⇒ Farmer informs AFPB and municipality of interest
- ⇒ Review body gathers information and selects potential applicants
- ⇒ Municipality or AFPB submits an application to Agriculture & Markets
- ⇒ Agriculture & Markets staff members perform on-site reviews
- ⇒ Farm is scored and ranked using state criteria
- ⇒ Farms are selected and Agriculture & Markets develops contracts
- ⇒ Appraisals are conducted to determine or confirm easement value
- ⇒ Farm family decides whether to accept terms
- ⇒ Easement is drafted and pre-approved by Agriculture & Markets
- ⇒ Landowner signs easement, which is then recorded after closing
- ⇒ Copy of easement, approval and other documents are provided to Agriculture & Markets
- ⇒ Agriculture & Markets determines that all documentation is in order and requests that the comptroller issue payment to the municipality
- ⇒ Municipality pays landowner at closing

  
**American Farmland Trust**

*American Farmland Trust works to stop the loss of productive farmland and to promote farming practices that lead to a healthy environment.*