

THE TOWN OF CLINTON

OPEN SPACE
PROTECTION PLAN



Prepared for:

The Town of Clinton Town Board

Prepared by:

The Town of Clinton Open Space Committee

With assistance from: **GREENPLAN INC.**

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CHAPTER 1 - INTRODUCTION

OPEN SPACE DEFINED

Open space is generally defined¹ as land not intensively developed for residential, commercial, industrial or institutional uses. It includes forest and farm lands, scenic areas, historic places, public parks and preserves and waterbodies. At the local level, open space is ultimately defined by the community itself. In the process of crafting this plan, the following definition of open space was developed based upon a definition provided in New York State General Municipal Law § 247²:

The Town of Clinton defines open space as any space or area characterized by natural scenic beauty or, whose existing openness, natural condition, or present state of use (including working and historic landscapes), if retained, would enhance the present or potential value of abutting or surrounding development, or would maintain or enhance the conservation of natural, agricultural, cultural, or scenic resources.

Open space plays a critical role in the quality and character of the community. In addition to providing habitat areas and a variety of other ecological functions (such as filtration for water quality or absorption of flood waters), open space provides economic, social and cultural benefits. For example, many areas offer eco-tourism destinations such as camping, birdwatching or hiking. In some places, like Dutchess County with its relatively easy access to the New York City metropolitan area, agri-tourism is a major factor in the economy. Socially, open space provides people with places to picnic, swim or enjoy a beautiful sunset. Culturally, open space is often associated with historic sites, such as historic farms, churches, and mill sites.

The importance a community places on open space is expressed through the planning process. In this process, the value of open space is captured in a community survey and then translated into goals and objectives. These goals and objectives form the basis for recommendations in an open space plan or other planning document. The plan serves as the foundation for designing and implementing land use controls and/or programs which will effectively protect the value open space was assigned by the community. Furthermore, in doing an open space plan, a community is also in many ways formulating a plan which identifies areas suitable for development. These complementary actions should result in tools and programs which ultimately implement the community's broader vision of its future.

THE BENEFITS OF OPEN SPACE

Open space provides environmental, economic and social benefits to the community. Wetlands and floodplains are critical components of watersheds which filter water before it makes its way to receiving areas including streams and aquifers. This naturally occurring filtration comes at no cost to the taxpayer making it not only an environmental benefit but an economical one as well. Forested

¹NYS Department of Agriculture & Markets, and NYS Office of Parks, Recreation and Historic Preservation, Reprint 2007. Local Open Space Planning Guide., NYS DEC, Hudson Valley Greenway.

² NYS General Municipal Law § 247 defines open space as: *Any space or area characterized by (1) natural scenic beauty or, (2) whose existing openness, natural condition, or present state of use, if retained, would enhance the present or potential value of abutting or surrounding urban development, or would maintain or enhance the conservation of natural or scenic resources.*

areas remove carbon dioxide from the atmosphere and are considered an effective mitigation measure against global warming. Forests are essential for healthy watershed functioning; they capture rainfall and replenish and cleanse water supply. Healthy and intact habitats and ecosystems provide important biological and ecological services. These habitat areas sustain many species and contribute to biological diversity, which is in turn essential for the health and well being of human communities. The connection of healthy natural systems to human health occurs in many ways, from the provision of clean water and clean air to the production of food and fiber.

A landscape that is biologically diverse is more resilient to changes, and this stability helps to ensure that ecological services and benefits will continue into the future. Many of these benefits also have economic value to the town, especially within the watershed context. As stated in “Economic Benefits of Open Space Preservation” by the NYS Office of the State Comptroller, 2010, “Decision-making that explicitly considers and values the positive economic effects of open space, as well as environmental and quality-of-life implications, will best serve a community’s long-term interests.” Some of these economic benefits, noted in the report, include the control of stormwater runoff, flood control and storage, erosion control, preservation of surface water quality and stream flows, and groundwater recharge.

A common misperception is that open space protection translates into a loss of revenues for municipalities. While replacement of farming or forestry land with residential, commercial or industrial uses can produce an increase of gross revenues, that increase can be more than offset by an increase in the demand for services. Studies have shown that open space demands fewer municipal services than lands in other use. Consequently, open space tends to generate greater municipal tax revenue than the value of services required by these lands. In comparison, lands in residential use typically consume services of greater value than the property tax revenues they generate.

Economically, natural resources add value to a community in terms of related eco-tourism, agri-tourism and travel industries. It is estimated that New York State parks and historic sites alone generate \$500 million in sales to local business and contribute \$20 million in tax revenues³. In 2008, four million visitors came to Dutchess County and spent \$490 million, generating \$31 million in sales tax for the county in tourism related dollars^{4,5}. Additionally, it is estimated that timber harvesting produces \$230 million per year to landowners, both public and private.

While not necessarily quantifiable, the social benefits of open space are numerous. From the peaceful enjoyment of a hike in a scenic area to the opportunities to connect with our past, the social aspects are often the ones which endear the memories of a special place or community to the people who live, work or visit. Open space adds to the perceived quality of a community and is frequently referenced as desirable trait in community surveys.

³ NYS Department of Agriculture & Markets, and NYS Office of Parks, Recreation and Historic Preservation, Reprint 2007. Local Open Space Planning Guide., NYS DEC, Hudson Valley Greenway.

⁴ According to correspondence with Dutchess County Tourism.

⁵ 2007 Dutchess County Agricultural Statistics prepared by the New York State Agricultural Statistic Service.

This combination of environmental, economic and social benefits makes a compelling argument for the preservation of natural, scenic, historic and agricultural resources in communities like the Town of Clinton. Clinton, as you will see in the remaining chapters of this document, contains a wealth of resources deemed worthy of consideration for preservation or conservation.

THE PLANNING PROCESS

In 2007, the town secured \$10,000 from the New York State Hudson River Valley Greenway for an open space plan. Additionally, the town secured \$25,000 from the New York State Department of Agriculture and Markets for a farmland protection plan. With the availability of funding, the town appointed an Open Space and Farmland Protection Committee, which began working on the plan in April 2007. The Committee prepared two documents; this *Open Space Protection Plan* (OSP) and a *Farmland Protection Plan* (FPP) which was adopted by the Clinton Town Board on December 14, 2010.

The goals of the Open Space and Farmland Protection Committee were to:

- Encourage conservation
- Preserve and protect open space and farmland
- Enable and encourage farming
- Propose guidelines and alternatives for future development

In addition to working on the Open Space Protection Plan and the Farmland Protection Plan, the town is also in the process of updating its Comprehensive Plan.

COMMUNITY VALUES AND SURVEY RESULTS

As part of the Comprehensive Planning process, a survey of Clinton residents was conducted and information from that survey has informed the Open Space and Farmland Protection Committee.

It is clear from the survey that Clinton's greatest assets are its natural beauty and rural atmosphere with more than 97% of the respondents reporting favorably. In addition, 95% of the respondents felt the hamlet areas are important to the character of Clinton. There was strong support (93%+) for regulations to protect prime agricultural soils, steep slopes, wildlife, wetlands, and water resources. There was slightly less, but still significant support (89%) for controlling logging.

To accommodate future growth, respondents were in favor (94%) of arranging homes in a way which maintains rural character and 92% wanted to avoid strip development. Ninety-four percent of the respondents also supported the concept of the developer preserving open space in large projects. More than three-quarters of the respondents (77%) supported conservation easements to protect land. Refer to Chapter 1 of the Town of Clinton Comprehensive Plan for complete survey results.

VISION STATEMENT

A vision statement is a long term view that defines the desired or intended future state of the community. The vision statement serves as a guide for evaluating goals, objectives and strategies which will achieve this long term view. The Town of Clinton's vision statement for this Open Space

Protection Plan is:

The Town of Clinton desires to maintain its rural character consisting of natural landscapes, native ecosystems, working farms, hamlet-scale development and historic structures to preserve its scenic quality, promote our small town atmosphere and protect our quality of life.

The Open Space and Farmland Protection Committee believes this statement reflects the values of Clinton's residents as expressed both formally and informally through the Community Value Survey conducted as part of the Comprehensive Plan update process and the numerous public farm and open space tours which occurred throughout this planning process.

CHAPTER 2 – OPEN SPACE INVENTORY OVERVIEW

This open space inventory is based on review of community input and surveys, information contained in the town's Comprehensive Plan, and pertinent maps and reports. The town's open space resources are depicted on a series of four maps that are included in this plan: Aerial Overview, Natural Resources, Cultural Resources, and Agricultural Resources. A brief review of Comprehensive Plan information is presented here, along with a summary of the process that was used to evaluate the town's open space and priorities. The following two chapters provide a more detailed discussion of the information portrayed by the maps.

NATURAL RESOURCES

The town's 2011 Comprehensive Plan Update provides an extensive analysis of Clinton's abundant natural resources. This section of the Open Space Protection Plan provides an overview of the information contained in the Natural Resources chapter of the Comprehensive Plan.

Clinton lies in the hilly area between the lowlands along the Hudson River and the ridges of higher land in central and eastern Dutchess County. Most of the town is characterized by a multitude of small irregular hills with streams, ponds and wetlands in the low-lying pockets. Scattered areas of steep slopes appear throughout Clinton, but are most common along the ridgelines to the east of Crum Elbow Creek, just to the west of the three large lakes in northern Clinton, and flanking the Little Wappinger Creek south of Schultzville (see Comprehensive Plan Figure 3.2 *Steep Slopes*). Areas of particularly steep ground include Leroy Mountain and Cookingham Hill near Frost Mills, the Little Wappinger Creek gorge approaching the Pleasant Valley border, Schultz Hill, and along the ridge in the extreme northwest portion of the town. The pattern of alternating rocky hills and valleys, steep slopes and wetlands, contributes greatly to the beauty of Clinton.

The Town of Clinton is located completely within the Hudson River watershed, which drains approximately 13,400 square miles of eastern New York and northern New Jersey. This huge watershed is divided into smaller watersheds and subwatersheds as shown in Comprehensive Plan Figure 3.9 Water Resources Map, which depicts the approximate boundaries of these watersheds in the town. The town's Comprehensive Plan contains detailed descriptions of the watershed areas including their associated stream, lakes and wetlands. The Wappinger Creek and its tributaries drain approximately one quarter of Dutchess County, with a total watershed area of approximately 210 square miles. 70% of the Town of Clinton lies within the Wappinger Creek watershed. This represents 13% of the watershed's total area. The Wappinger Creek watershed has been further divided into subwatersheds. In the Town of Clinton these subwatersheds are the Little Wappinger Creek, Great Spring Creek and Upton Lake.

The Town of Clinton contains four large lakes and numerous smaller lakes and ponds which are scattered throughout the town as shown in Comprehensive Plan Figure 3.9 *Water Resources*. Three lakes within the Town of Clinton lie in the Milan Window valley (an area recognized by State and Federal agencies as geologically unique and biologically diverse). From north to south these are: Silver Lake, Mud Pond (Twin Island Lake), and Long Pond. The lakes and associated wetlands and streams within this "window" are characterized by a unique combination of features that produce

habitat for an unusually high number of plants and animals of conservation concern. Wetland types within this area include lakeshores, circumneutral bog lakes, tussock marshes, acidic shrub bogs, buttonbush-dominated vernal pools, red maple swamps, fens and wet meadow. The fourth large lake is Brown's Pond, located in the Crum Elbow watershed.

The town contains 25 habitats as shown on the Habitat Map (Comprehensive Plan Figure 3.14). Collectively, these habitats support a variety of plants and animals including numerous species of conservation concern. The significance of these species lies in their contribution to the overall function of ecosystems within the town, specific attributes of particular plants and animals with value for recreation, and attention to the fact that if the habitats that support these species and allow them to thrive are not protected and populations decline, these could become candidates for the threatened and endangered species lists in future, at which time their preservation is likely to become more costly and difficult to achieve. As documented by the tables found in the comprehensive plan, these species include: 88 birds, 16 amphibians, 13 reptiles, 15 mammals, and 129 plants. This represents only a portion of the town's biological diversity, as numerous species of plants and animals that are more common thrive in the town's habitats as well.

The Little Wappinger Creek subwatershed contains an extensive sand and gravel aquifer along most of the Creek's run through the town, from the north town boundary to Fiddler's Bridge Road. A narrower but still extensive aquifer extends from just east of Breezy Hill Road, along both sides of the creek almost to the town's south boundary. Also within this watershed are the hamlets of Schultzville and Clinton Hollow, and intensive development in close proximity to the south side of Silver Lake. There is also a large sand and gravel aquifer in the southeast corner of the town, beneath some of the more intensively developed areas from Clinton Corners to Hibernia and a large sand and gravel aquifer is located near the town boundary at Fiddler's Bridge and Hollow roads, with other sand and gravel aquifers along Crum Elbow Creek, especially in the area from Primrose Hill road extending along the creek beyond the town boundary and into Hyde Park.

Clinton's 100-year floodplains are especially evident along the three primary waterways--the Wappinger Creek, Little Wappinger Creek and Crum Elbow Creek. Particularly wide flood prone areas are along the Wappinger Creek west of the Taconic Parkway, the northern half of Little Wappinger Creek, and north and south of Mud Pond. Also, several low-lying pockets in the southwestern section of the town contain small streams that tend to flood. Please refer to Comprehensive Plan Figure 3.9 *Water Resources*.

There are 33 soil types or series found in the Town of Clinton, the three most prevalent are Dutchess-Cardigan complex (about 22 % of the town's area), Nassau-Cardigan complex (about 28%); and Sun silt loam (about 9%). Please see the section on Agricultural Resources for information about prime farmland and soils of statewide significance.

CULTURAL RESOURCES

Clinton has a rich historical past spanning over 200 years since European settlement. Much of Clinton's unique architectural legacy is concentrated in the seven hamlet areas, but there are many intact farm houses and barns along the rural road network. Protection of the town's historic heritage and scenic rural qualities received high levels of support in the Community Values Survey. Specifically, in the 1988 survey, 88 percent of responding residents felt that the historic character of existing hamlets should be protected from incompatible development and 80 percent favored the

creation of historic districts. In the 2007 survey, the percentages had increased to 92 percent and 87 percent, respectively.

The process of systematically identifying all Clinton's historic resources has begun through the countywide historic survey. Additional efforts made at the Town level include the comprehensive mapping of historic resources as part of the 2011 Comprehensive Plan Update – see Comprehensive Plan Figure 2.1. Local efforts to recognize the importance of Clinton's heritage include the designation of 36 local landmarks by the Clinton Historical Society, the granting of Critical Environmental Area status to the seven historic hamlets, and the designation of 49 historic roads by the Town Board.

Historic sites are often linked to the cultural landscape of a community and complement the existing open space character of the town. For example, Clinton's seven hamlet areas represent the traditional settlement pattern in Dutchess County where the hamlets were the hub of activity. These activities included general stores and other service-oriented businesses along with value-added production for agricultural products such as mills for grinding wheat, milling lumber and making apple cider. Outside the hamlets were the farms which dominated the landscape.

The historic structures, whether home, barn, store or mill, provide information about Clinton's past. The landscape surrounding the structure offers important context for understanding Clinton's past and planning for its future.

EVALUATION OF OPEN SPACE PARCELS

Understanding the value of open space can be complicated given that communities are comprised of residents with differing value systems. In an effort to reflect community consensus, the Open Space and Farmland Protection Committee utilized the information from the Community Values Survey. Originally the committee decided to evaluate open space in the community based on identified attributes of natural and cultural resources (including potential for the land to be developed, habitat diversity and connectivity) and a parcel size of 20 acres and greater. A site prioritization methodology was developed and is described in the Appendix. However, upon review of the mapped resources and related pertinent information, it became apparent to the committee that this method would omit many of the town's important resources, and so an alternative method was developed. This process is described below.

Upon review of open space maps, with the intent to select priority open space parcels, the committee found that although several areas of prime ecological importance emerged during this process, some like the Milan Window were larger than any one parcel and others like the heron rookery were found on parcels smaller than 20 acres. It became evident that the town's significant open space resources are not confined to the larger parcels, but rather they are distributed across the town via large and small connected parcels that create community and rural character and reflect natural resource abundance on a landscape scale.

An additional consideration was the fact that in terms of natural resources, many of the functions that provide benefits to human communities are dependent on healthy intact systems that are likely to span several parcels, such as streams and riparian corridors. Due to the presence of these resources throughout the town, it was deemed nearly impossible to protect them by designating a set of large priority parcels, although large parcels with significant resources may be identified by using

the maps and text in this plan for purposes of land acquisition.

The committee adopted a twofold approach: mapping and site review. The aerial photo, Map 1, provides an overview of the town's open and developed areas. This 2011 photo is from Dutchess County Department of Planning and Development. Starting with the county's Centers and Greenspace map in the Comprehensive Plan (which indicates that the town supports a large area of connected important habitat), the committee identified several special areas of known importance. These areas are indicated on Map 2, along with a townwide overview of basic natural resources of importance: forested areas, open meadow and field, water resources including streams, wetlands, lakes and ponds, aquifers and floodplains. These areas are indicated on a base map that divides the town into its five major subwatershed areas, thus enabling easy cross-reference to the information contained in the Wappingers watershed study, and reflecting the town's commitment to water resources as a primary focus for open space protection. Map 3 contains cultural resource information for open space protection. Historic sites, protected lands (including conservation easements), parks, trails, formally designated critical environmental areas, and gateways and scenic views are all included on this map. Important agricultural lands, because they are so widespread, are included on a separate Map 4, which is a duplication of the Important Farmland Areas map in the town's Farmland Protection Plan.

The maps are accompanied by a set of five tables that depict general land cover acreage categories by watershed.

Recognizing that many parcels in the town (too many to map) contain important natural and open space resources, the committee evaluated methods for reviewing and identifying these resources on a site by site basis as the town receives future project applications. One of these methods, Habitat Assessment Guidelines, is appended to this report. The use of such guidelines enables the town to recognize important resources, especially on smaller parcels, that are too numerous to map at this time, but that may contribute significantly to the town's open space resource base. Another is the town's water resources protection ordinance, which authorizes the identification and protection of important wetlands and streams on a site by site basis. Additional potential methods are described in Chapter 6. The following chapters describe the town's open space resources and priorities as shown on Maps 1 and 2, in greater detail.

CHAPTER 3 – INVENTORY AND ANALYSIS: ECOLOGICAL RESOURCES

The Town of Clinton is characterized by a rich natural heritage. Forests, fields, lakes and streams create the town's rural character. As described in the town's Comprehensive Plan, abundant water resources comprise five major watersheds within the town. These watersheds also include a variety of plants and animals and the terrestrial, wetland and aquatic habitats that sustain them. Because of the presence of significant watershed features throughout the town, the widespread distribution of significant habitat and wildlife resources, and their shared open space values, this discussion of biological resources and open space will be framed within the town's watersheds.

Healthy watersheds depend on a network of wetlands, streams, lakes and ponds. Watershed health also depends on forested land and vegetation that captures and filters water, and stabilizes soil. All of these watershed features also provide a variety of habitats that support the town's array of plants and animals. Just as streams connect the town's surface waters, they also provide important habitats, corridors and connections that are used by plants and animals. All species depend on water resources to some degree. This includes aquatic habitat for all or some life cycles stages; water's edge habitat including wetland, floodplain, riparian, streambank; sources of food and drinking water; or travel corridors between habitat patches. Some of these species are particularly affected by land use changes that may degrade or change the habitat features they depend on.

Collectively, all species, whether common or rare, make up the town's biodiversity. This diversity is also reflected in the number of habitats and ecosystems found in the town. Ecosystems provide numerous services that benefit human communities; similar benefits are provided by maintaining high biological diversity. These benefits include a clean and abundant water supply, rural character and human health. A landscape that is biologically diverse is more resilient to changes, and this stability helps to ensure that ecological services and benefits will continue into the future.

Overall important criteria for prioritization of open space for protection of biological and water resources include the following listed features. Some of these can be readily evaluated by reviewing existing maps and other information, while others are more appropriately evaluated on a site specific basis. For example, the presence of species of conservation concern may require seasonally specific field surveys.⁶ The following table illustrates the relationship between natural resources (ecological, biological and water), priority characteristics, and benefits provided by these resources.

⁶ For additional details on planning and evaluating buffers and habitat: Bentrup, G. 2008. Conservation buffers: design guidelines for buffers, corridors and greenways. Gen Tech, Rep. SRS-109. Asheville, NC: Department of Agriculture, Forest Service, Southern Research Station.

Biological, Ecological and Water Resources	Important Characteristics	Benefits
Diverse habitats	High quality habitat complex which supports high biodiversity: acreage and specific habitats; habitat patches that are circular or broad shaped; with minimum edge	Biodiversity; supports variety of species; rural character; pollination; human health; education; control of non-native invasive species
Unfragmented habitat	Supports high biodiversity: acreage and specific habitats; habitat patches that are circular or broadly shaped with minimum edge	Character, pollination, human health, control of non-native species
Corridors and connections between habitats	Should be of sufficient width for wildlife habitat depending on species; undeveloped streams or ridgelines used as corridors; few road crossings; stepping stone patches; broad corridors wide enough to accommodate target species; stream corridor at least 1000 ft.	Enables wildlife to move between habitat patches and types as needed during seasons and life cycles; biodiversity; protection of species of conservation concern
Habitat for threatened or endangered animal or plant species and Habitat known to support species of conservation concern including but not limited to: Species of Greatest Conservation Need, PIF listed birds, rare species as identified by NYS Natural Heritage Program; Rare Plants Atlas	High quality habitat; adequate connections and corridors	Biodiversity
Large forested area	Larger patch size: 200 acres or more most valuable for interior forest species; mature forest; patches of 100-200 acres also valuable for interior forest species	Habitat for species of conservation concern; biodiversity; air quality; watershed quality; water quality and supply
Grassland, open field habitat	Large habitat patch size necessary for open land species: 50-100 acres or more are best; 25-50 acres also very important	Pollination; habitat for species of conservation concern; biodiversity
Rare or unusual habitat (cool ravine, fen, kettle shrub pool)	High quality	Biodiversity; education; habitat for species of concern
Vernal pool or associated critical terrestrial habitat	High quality vernal pool with undisturbed terrestrial habitat (at least 75% undisturbed)	Biodiversity, species of conservation concern that require vernal pools for breeding
River or stream	Good water quality, stable vegetated banks, woody vegetation, adequate stream flow, adequate buffers (recommended 1000 ft riparian corridor width), water temperature protection, habitat for species of conservation concern	Rural character, recreation, watershed protection, flood protection, education, biodiversity

Wetlands (NWI, DEC, hydric soils)	High quality; wetland complex; watershed value; DEC wetland class I or II; unfragmented; no intrusive development; adequate buffers; good water quality; habitat for species of conservation concern	Biodiversity, rural character, flood protection, streamflow, education, drinking water protection, groundwater recharge/discharge, food chain support, nutrient cycling, sediment control
High quality buffers for wetlands, streams	Minimum 100 ft. vegetated buffer for water quality protection; 100-300+ ft. for habitat; low percent impervious surface within contributing drainage area; high percent forest within contributing drainage area	Water quality protection, drinking water protection; habitat protection, biodiversity; groundwater recharge,
Trout stream	Banks, buffer in excellent condition with woody vegetation; good water quality; cool water temperature	Recreation, education, biodiversity
Pond or lake	Good water quality, vegetated buffer at least 100 ft. for water quality protection	Recreation, human health, aesthetics
Wetlands associated with the headwaters of a stream or river	Forested area; low percent impervious surface; no intrusive development; good quality hydrologic connections	Protection of downstream water quality and supply; biodiversity; habitat for species of conservation concern
Priority aquifer, groundwater recharge area, wellhead protection area	Good quality vegetated cover, low percentage impervious cover, absence of toxics in stormwater runoff	Drinking water protection
Floodplain: 100 yr. or 500 yr.	Floodplain with little or no impervious surface or intrusive development; well-vegetated; buffer between floodplain and adjacent development	Flood control, groundwater recharge, maintenance of streamflow, water quality protection; erosion control; rural character; habitat; recreation
Watershed	More than 35 % of watershed in forested cover; intact vegetated water resource buffers; low percent impervious surfaces; protected wetlands and small streams	Water quality and supply protection; flood control

Many of these benefits also have economic value to the town, especially within the watershed context. As stated in “Economic Benefits of Open Space Preservation” by the NYS Office of the State Comptroller, 2010, “Decision-making that explicitly considers and values the positive economic effects of open space, as well as environmental and quality-of-life implications, will best serve a community’s long-term interests.” Some of these economic benefits, noted in the report, include the control of stormwater runoff, flood control and storage, erosion control, preservation of surface water quality and stream flows, and groundwater recharge. These benefits are affected by land cover, i.e. whether it is vegetated or impervious surface. According to the U.S. Government Accountability Office, on lands with natural ground cover, 90% of precipitation infiltrates into the ground, and only 10 % becomes runoff. However, when 75 percent of the site is covered with impervious surfaces, 55% of the precipitation becomes runoff, and on paved parking lots, 98 percent of precipitation becomes runoff. This increased stormwater runoff must be managed,

resulting in higher costs for stormwater facilities and infrastructure. Water managed via stormwater basins is also more likely to pollute subsurface water than is runoff from forested open space.

A wetland may filter pollution from water, improving its quality for use as drinking water downstream; recharge an aquifer that supplies drinking water; or store stormwater, preventing downstream flooding. This same wetland may also provide important habitat for species of conservation concern. When lands are converted from open space (and habitat) to other uses, natural benefits often must be replaced through the construction of water treatment facilities, levies to control flooding or other infrastructure to control storm water.

The protection of watersheds also requires protection of habitats within the watershed- particularly forested land, riparian buffers for water quality and wildlife protection, and wetland and buffer protections. The Environmental Law Institute recommends that "land use planners should strive to establish 100 meter wide riparian buffers to enhance water quality and wildlife protection" and that watershed protection efforts should prioritize the establishment of continuous buffer strips along the maximum reach of a stream, and protect headwater (the originating source) streams as well as broad downstream floodplains⁷. For example, a Maryland study found that streams rated in excellent health had at least 65% of their length in forested cover (within 100 feet of the stream); those in good health had 45% cover⁸. Similar studies have found that the percent of forested land within a watershed is significant for watershed health. Forested cover is also essential for wildlife; some birds, for example, require large patches of forested habitat and won't nest successfully in patches of forest that are too small.

The town's Comprehensive Plan lists 25 habitats found in Clinton, and includes a map that illustrates the variety of aquatic, terrestrial and wetland habitats within the town. Fifteen of these habitats are water-based. These habitats support a variety of plants and animals of conservation concern that are listed in the Comprehensive Plan. These include aquatic habitats such as perennial and intermittent streams, lakes, and ponds. Please refer to Comprehensive Plan Figure 3.14: *Habitats* to view various habitat locations in the town. In 2011, Hudsonia will begin habitat mapping for the entire town to update and verify previous habitat mapping in portions of the town.

Each of these habitats supports one or more communities of plants and animals. The ability of the habitat to support and sustain particular species of plants and animals depends in part on its condition, and its proximity to other habitats. The latter is especially important for animals that need habitat complexes for survival, i.e. they depend on different adjacent habitats at different stages of their life cycle or at different seasons of the year. This includes habitat for breeding, nursery habitat, foraging, seasonal movements, nesting, overwintering, and population dispersal. An example of this is the spotted turtle, which moves seasonally between vernal pools, nesting habitat, semi-permanent ponds, upland forest and red maple swamps.

The Comprehensive Plan contains tables that list species of conservation concern in the Town of Clinton. In summary, these tables identify 252 species of plants and animals that are of conservation concern that have either been observed in the town or are likely to be present based on habitats

⁷ Environmental Law Institute. 2003. Conservation thresholds for land use planners. Washington, D.C.

⁸ Watershed forestry research guide: a partnership of the Center for Watershed Protection and the U.S. Forest Service (www.forestsforwatersheds.org).

present within the town. The tables only represent a portion of the great diversity of species present in the town- many common species are also present.

These species of conservation concern are found in a variety of habitats; many of them depend on water-based habitats at some stage of their life cycle. Of the 129 plant species in the table, 50 are strongly associated with wetlands. Of the 79 species of birds listed, 24 are wood warblers, generally associated with woodlands, forests, and shrubland; nine are wading birds, shorebirds or ducks; 13 are hawks and owls. A variety of at least 11 species depend solely on open uplands, and at least 12 are directly associated with water-based habitat. The tables identify 16 species of amphibians; 11 of these are salamanders, and 5 are frogs and toads. All of them depend on water-based habitat for at least a portion of their life cycle. Of the town's 13 reptile species, six are turtles and most of them depend on water-based habitat for a portion of their life cycle. Fifteen species of mammals of conservation concern are listed on the table; six are bats, and of these, five are tree bats.

Certain species play special roles in the overall health of ecosystems, and are important to the town for a variety of reasons. Flagship species, like the great blue heron, are the ones that grab our attention, regardless of their role in the overall system. These species are readily seen and add to quality of life and recreational experiences. Species that are very sensitive to habitat changes and pollution are indicators: their presence or absence is associated with specific environmental conditions, and like the 'canary in the coal mine' they provide us with information about the quality of human habitat. Other species are essential for ecosystem functioning, and instrumental in maintaining the aesthetics of open space.

These resources are discussed in greater detail in the Comprehensive Plan, under the general heading 'Biodiversity'. This chapter will examine habitats by watershed, and identify some priority areas for protection or conservation- i.e. habitats that are important for species of conservation concern and for maintaining the town's biodiversity. Diversity of wildlife is one direct measure of the health of ecosystems, and of the ability of ecosystems to function optimally and provide important services and benefits. Therefore it is in the best interests of the town to assess the biological resource value of its open space and incorporate this into prioritization of open space protection goals.

The protection of large parcels alone is not sufficient for biodiversity conservation. While larger unfragmented habitats found on larger parcels will tend to support a higher diversity of plants and animals, and may serve as 'biodiversity hubs', the effective conservation of biodiversity will also require a network of smaller connected habitat patches throughout the town, including residential areas where possible. Many animals need to move between habitats and require suitable habitat corridors for this; optimum width depends on the needs of the different species. Often stream corridors and networks serve this purpose, allowing animals to move throughout a larger area. For example the two large forested ridges west of the Milan Window harbor species that may move into other habitat patches via stream corridors at different stages in their life cycle. In designating smaller open space areas it is still important to consider the criteria listed above. While it is easier to target larger parcels (20+ acres) for purchase, protection, conservation easements, etc. and map and manage them as open space throughout the town, it is equally important to protect open space on a smaller scale, on small parcels that may individually or collectively contain important natural resources and have significant biodiversity and watershed protection value. Since it is not possible to map all significant open space at this smaller scale, it is important to have in place the means for evaluating resources on a site or parcel specific level. The habitat map, species lists, watershed

information provided in the Comprehensive Plan, and the biodiversity assessment guidelines appended to the Open Space Plan will provide a starting point for this evaluation.

The following discussion of priority areas is based on a compilation of various data sources and maps in the town’s Comprehensive Plan, habitat mapping by the town’s Conservation Advisory Committee (CAC), criteria listed in this chapter, and the "Natural Resource Management Plan for the Wappinger Creek Watershed" which also identifies priority concerns within each watershed.

Mapping of priority areas remains a challenge because of the wide distribution of significant water resources, habitats, and species of concern throughout the town. As a result, Map 2 depicts general areas of habitat, all mapped wetlands and streams, and aquifers, rather than a parcel by parcel analysis. For parcel-level biological resource information, refer to the town’s water resources protection law, habitat map and list, and lists of species of conservation concern.

An overview of the town’s significant natural resources is depicted in Map 2.

These resources are described by watershed, corresponding to the map, and priority areas for protection or conservation are identified. Recommendations on how that protection may be accomplished are discussed in Chapter 6 of this plan. The use of watershed areas to describe the town’s resources places the focus on water. The protection of watersheds also involves protection of habitats within the watershed- for example, riparian buffers for both water quality and wildlife protection.

The following table summarizes basic habitat types within each of the six subwatersheds located in the Town of Clinton (refer to Map 2).

General Habitat Areas: Town of Clinton Subwatersheds

Watershed	Cover Type	Acres	Percent of total watershed acreage
Little Wappingers Creek	Upland forest	5330	45%
Total area: 11,942 acres	Open upland	2220	19%
	Wetlands and water resources	2188	18%
Crum Elbow and Landsmankill	Upland forest	2954	55%
Total area: 5371 acres	Open upland	700	13%
	Wetlands and water resources	826	15%
Upton Lake	Upland forest	910	30%
Total area: 3073 acres	Open upland	823	27%
	Wetlands and water resources	433	14%

Fallkill	Upland forest	835	46%
Total area: 1814 acres	Open upland	313	17%
	Wetlands and water resources	372	20
Great Spring Creek	Upland forest	527	36%
Total area: 1470 acres	Open upland	340	23%
	Wetlands and water resources	360	25%
East Branch Wappingers Creek	Upland forest	230	19%
Total area: 1195 acres	Open upland	256	21%
	Wetlands and water resources	185	16%

Map 2 depicts ten areas that are important habitat or significant ecosystems. These are summarized below within the description of each watershed. There may be other areas where species of conservation concern are found. For example, it is suspected that areas between the Hyde Park Important Area, Crum Elbow Creek Wetlands and the Route 9G Wetlands contain Blanding's turtles. They serve as corridors between known areas of importance and provide quality habitat such as streams and shallow wetlands which are commonly utilized by species such as Blanding's turtles.

Little Wappinger Creek Watershed

This is the town's largest watershed, with 11,942 acres. Important habitat and significant ecosystems include:

- The Milan Window boundaries (#1 on Map2) include the Silver Lake, Mud Pond, Long Pond chain of lakes and associated wetlands, the outwash plain matrix, and buffer zones to protect the lakes and to accommodate known turtle nesting areas. These boundaries encompass the portions of the Milan Window currently known to support rare native species; the boundaries may need expansion northward, possibly as far as Route 199, with continued biological surveys. The Natural Resources Management Plan for the Wappinger Creek Watershed (NRMP) also identifies these lakes as important wetlands within the Little Wappinger Creek subwatershed; in addition to providing significant critical habitat they are in an important aquifer recharge area, help maintain water quality and provide flood control. Milan Window lakes are described as circumneutral bog lakes because of their relatively neutral pH which supports unusual vegetation including floating mats. They are associated with a variety of wetlands -- wooded swamps, cattail and swamp loosestrife (*Lysimachia terrestris*) on floating mats, tussocky marshes, and acidic shrub bogs in coves and behind islands. There are also areas of waterlilies (*Nymphaea* spp. and *Nuphar* spp.) and submerged vegetation. There are also wetlands that are isolated from the lakes; these include buttonbush (*Cephalanthus occidentalis*)-dominated vernal pools, red maple (*Acer rubrum*) swamps, and a fen-like meadow. Hardwood swamps border Little Wappinger Creek in places. Uplands include hardwood forests, old fields, and farmland. These lakes support rare plants and are breeding and foraging areas for numerous amphibian, reptile, bird and mammal species, some of which are threatened and endangered. It includes important breeding habitat for both Blanding's turtles and northern cricket frogs, and a variety of other species of conservation concern.

Private residences, institutions, and a recreational vehicle campground border the lakes. Impairments to habitat quality within the critical habitat and adjacent buffer areas include shoreline development along Silver Lake and Long Pond, and the habitat fragmenting effects of Long Pond Road, Slate Quarry Road and Lake Drive.

- Another area that could be considered as a potential addition to the Milan Window site is the extensive, ledged, forested upland on the west side of the lakes noted above.
- A great blue heron rookery, a significant habitat, is located between the Mud Pond Wetlands and the Hyde Park Important Area, SP-2 NYSDEC wetland at north end.
- The NRMP identifies a 25-acre class II wetland (#6 on Map 2) north of Hollow Road on a tributary of Wappinger Creek as potentially significant pending additional information.
- Based on the town's CAC work with Hudsonia, additional habitats of significance are noted by the CAC as follows. South of Mud Pond is a complex of wetlands (#8 on Map2); two are kettle shrub pools underlain by poorly drained organic soil. These wetlands have a moat of water with the center vegetated, characteristically by buttonbush. These unusual wetlands are known breeding and foraging areas for species of conservation concern. The connecting waterways allow movement of many species. Nearby upland areas are often "excessively drained" gravel, (Hoosic-Channery loam) creating excellent nesting habitat for conservation concern animals.
- North of Mud Pond and south of Slate Quarry Road there are several circumneutral wet meadows (#10 on Map 2) which are located on carbonaceous soils and may support rare plants and woody swamps.
- In the southern portion of this watershed is the Hyde Park Important Area (NYNHP) portion of the Dutchess County Wetlands complex (#5 on Map 2) which is a larger area designated by the USFWS. These wetlands contain many habitats that are unusual or scarce in the area, some of which support rare plants and animals. Corridors that link this important area with other important habitat patches (including but not limited to those numbered on Map 2) may be used by a variety of common and rare species.
- The Little Wappinger Creek provides significant wildlife habitat and a corridor for wildlife movement in Clinton. Its riparian zone is largely forested. Perennial and intermittent streams were noted on the west side of Long Pond, some continuing east into the pond. Intermittent streams cross the power line right-of-way, some streams flowing east toward the Little Wappinger Creek and others west toward the Crum Elbow Creek. Ephemeral streams were noted on the west side of Silver Lake.
- Significant vernal pools were identified on the slopes west of Silver Lake. These temporary pools had large breeding populations of wood frogs. Other vernal pools were identified west of Mud Pond and Long Pond.
- East of the lakes is a mix of shrubby old field habitat, farmland which is classified as upland meadow and rocky mixed woodland. This area has historically been the location of successful farms in Clinton. A large horse training facility is also located in this area. Many plant and animal species

use these habitats, as inactive farmland reverts to woodland or other land use.

- On the slopes west of the chain of lakes and extending into the Crum Elbow watershed, there are rocky mixed woodlands that total approximately 918 acres of contiguous forest (#9 on Map 2). These woodlands are a mixture of deciduous and coniferous trees, with some stands of hemlocks. Most trees are not of large size although there are a few 12" diameter at breast height. Indication of good habitat quality was noted by the presence of pileated woodpeckers in some areas. Other similar areas in Clinton support breeding populations of red-shouldered hawk and barred owl.

Aquifer discharge supplies all of the water in Wappinger Creek during times of drought. The Little Wappinger Creek subwatershed contains an extensive sand and gravel aquifer along most of the creek's run through the town, from the north town boundary to Fiddler's Bridge Road. A narrower but still extensive aquifer extends from just west of Center Road along both sides of the creek almost to the Town's south boundary.

An example of the relationship between human consumption of groundwater and streamflow is described in the NRMP Wappinger Creek (pg. 19) as follows:

During dry periods, water in the Wappinger Creek consists solely of groundwater discharging from aquifers in the watershed. Under 10-year drought conditions Wappinger Creek flow measured at Wappingers Falls decreases to 4.9 million gallons per day (gpd) (Aquifer discharge during wetter periods is much higher). The Watershed above Wappingers Falls contains 181 square miles, or 115,840 acres. This means each acre contributes approximately 42 gallons per day during droughts. Since the average person consumes 20 or more gallons per day, wherever population equals 2 persons per acre groundwater no longer reaches the Wappinger Creek during droughts. And wherever population exceeds 2 persons per acre, deficit withdrawals are occurring and stream flow is reduced, affecting fish survival, wildlife habitat, swimming, boating, and water quality. *Consumption is the difference between water entering the home and water returned to nature through septic systems or sewage treatment plants. Per capita water consumption for individuals using septic systems is probably higher than 20 gpd due to evapotranspiration losses off leaching fields.*

Unfragmented upland forest is important for both watershed protection and habitat. This watershed contains about 5,330 acres of forested land (45%), some of it unfragmented. About 19% (2,220 acres) of the watershed area is open upland.

This watershed supports approximately 2188 acres (18% of its area) of water resources. At least sixteen tributaries (from small intermittent streams to larger perennial streams) flow into the Little Wappinger Creek; most of these are located south of Fiddler's Bridge Road, and originate in small ponds or wetlands. The most extensive is a tributary system with several branches that converge in two places, flowing into the Creek near Nine Partners Road and to the north near Pumpkin Lane. Another larger tributary originates in the wetlands on both sides of Horseshoe Trail and along Hollow Road and flows into the Creek north of Woodlea Road. According to the NRMP for Wappinger Creek, this region is experiencing moderate wetland loss. This can increase the threat of flood damage and increase the level of nutrients and sediment in streams and lakes. Nutrient and sediment loading from adjacent residential and agricultural land use were identified in the NRMP Wappinger Creek as primary water quality impairments within the watershed.

Upton Lake Creek

This watershed lies in the southeast corner of the town, including the Taconic Parkway corridor and the hamlet of Clinton Corners.

Upton Lake Creek will support fish propagation and survival including trout as long as high quality habitat is maintained. However, impacts on water quality have resulted in relatively high nitrate concentrations, an increase in water temperatures, and threats to aquatic life (including trout).

The NRMP identifies: (1) a wetland of 11 acres that is within the Upton Lake subwatershed and is designated by the DEC as wetland of Unusual Local Importance (#7 on Map 2).

A large sand and gravel aquifer is found in the southeast corner of the town, beneath some of the more intensively developed areas from Clinton Corners to Hibernia.

About 30% (910 acres) of the watershed area in Clinton is forested. A similar portion, 27% (823 acres) is open upland.

Fourteen percent (433 acres) of this watershed is comprised of water resources. In the Town of Clinton, this subwatershed includes a highly branched network of tributaries that originate in intermittent streams and wetlands in several locations. This includes areas in the vicinity of Spruce Lane, northeast of the intersection of Willow Lane and Schultzville road, west of the Taconic and east of Woodlands Trail. Upton Lake Creek has high nitrate levels identified in NRMP Wappinger Creek, probably due to residential fertilizer applications, agricultural operations, and the rapid groundwater transport of nitrate from local septic systems. In several places within the Upton Lake Creek drainage destruction of the stream vegetative buffer zone has led to increased sediment and nutrient loading to the stream

Crum Elbow Creek

Approximately a third of the watershed (which includes a significant portion of the headwaters) lies within the northwestern section of the Town of Clinton.

More than half the area of this watershed in the Town of Clinton contains important habitat and significant ecosystems: The Hyde Park Important Area, designated by the NYNHP, covers the mid- and southwest portions of the town (#5 on Map 2). This area is of importance since it contains numerous wetlands, diverse habitats, and limited development; it is part of a larger area designated as the Dutchess County wetlands complex by the USFWS.

Directly west of the Hyde Park area is the Crum Elbow Creek Wetlands (#4 on Map 2), also designated by the NYNHP. This area provides quality habitat due to limited development, density of streams and wetlands, and limited fragmentation and includes suitable habitat for Blanding's turtles.

North of the Crum Elbow Creek Wetlands are the Route 9G Wetlands (#3 on Map 2) which provide good habitat consisting of streams, wetlands, and upland areas, as well as limited fragmentation and development. As with the other areas in this watershed, it is recognized as an important area by the NYNHP.

The Nature Conservancy's Zipfelberg Bog (#2 on Map 2) is a preserve on the western edge of that upland. This dwarf shrub bog is a kettle-like formation with steep slopes on its eastern edge. The open bog in the center consists of a deep saturated peat mat. The area provides habitat for many species of conservation concern.

There may be other areas where species of conservation concern are found. For example, it is suspected that areas between the Hyde Park Area, Crum Elbow Creek Wetlands and the Route 9G Wetlands contain Blanding's turtles. They serve as corridors between known areas of importance and provide quality habitat such as streams and shallow wetlands which are commonly utilized by species such as Blanding's turtles. This area, as well as the heron rookery mentioned above, should be considered natural resources of high importance.

Forested upland (#9 on Map 2) adjacent to Milan Window is an extensive ledged, forested upland that contains rocky mixed woodlands that total approximately 918 acres of contiguous forest. These woodlands are a mixture of deciduous and coniferous trees, with some stands of hemlocks. Most trees are not of large size although there are a few 12" diameter at breast height. Other similar areas in Clinton support breeding populations of red-shouldered hawk and barred owl.

A large sand and gravel aquifer is located near the town boundary at Fiddler's Bridge and Hollow Roads, with other sand and gravel aquifers along the creek, especially in the area from Primrose Hill Road extending along the creek beyond the town boundary and into Hyde Park. The residential hamlets of Pleasant Plains and Frost Mills are also located in the southern portion of the watershed near the town's boundary with Hyde Park.

This watershed contains the highest proportion of forested land- 55% or 2,954 acres. It also contains the lowest percentage of open upland of all watersheds in the town: 13% or 700 acres. Proportionally, water resources comprise about 15% (826 acres) of this watershed area. The Davis Swamp area just east of Mountain View Road receives water from several small streams that converge at its north end, and wetlands and ponds at its east side (Stonehouse Road and Kansas Road intersection). This large area drains to the Crum Elbow via a series of wetland and streams near the Schultz Hill Road and Mountain View Road intersection. A smaller group of streams and wetlands drain into the Crum Elbow north of this tributary. South, another tributary flows into the Crum Elbow from Brown's Pond, which receives water from another tributary and associated wetlands extending to Seelbach Road. Hilly terrain throughout this watershed is interspersed with wetland/stream complexes and a large number of scattered small wetlands.

Fallkill Creek Watershed

Though small, the portion of this watershed within the town is a significant headwaters area that is relatively undisturbed, with large wetlands and forested areas. These play an important role in maintaining the health of the watershed, and support a high diversity of plant and animal species. The watershed contains a large portion of the Hyde Park Important Area within the larger Dutchess County wetlands complex (#5 on Map 2) described in the Little Wappinger Creek watershed section.

This watershed supports about 835 acres of forested land, or 46% of its area within the town. The watershed's 313 acres of open upland comprises about 17% of its area within the town. One-fifth of

the area of this watershed is taken up by water resources. A large wetland and stream complex is found just south of Fallkill Road; this drains to the Fallkill across the southwest boundary of the Town of Clinton. Farther east, an even larger branch of the same complex extends from Hollow Road to the southern boundary of the town, draining to the Fallkill near the Hyde Park boundary.

Great Spring Creek Watershed

The Great Spring Creek subwatershed lies between the Fallkill and Little Wappinger Creek watersheds, and extends south beyond Clinton's boundary and into Pleasant Valley. Only a small portion (headwaters) of this subwatershed lies within the Town of Clinton, and most of it also lies within the Hyde Park Important Area (NYNHP) and Dutchess County wetlands complex (USFWS), #5 on Map 2.

More than a third of this watershed is forested land (36% or 527 acres). Open upland comprises 23% (340 acres) of this watershed's area.

One fourth of the area of this watershed is in water resources; this is the highest percentage compared to all other watersheds within the town. The somewhat narrow headwaters area of the watershed begins in a narrow wetland/stream complex just north of Fiddlers Bridge Road. An interconnected series of wetlands and streams extends on both sides of Walnut lane and Sodom Road, to the south boundary of the town; the watershed doubles its width along the town's boundary with Pleasant Valley. There is a very large wetland complex between Ruskey Lane and Hollow Road, and another just south of Browning Road. In general, the portion of this subwatershed within the Town of Clinton supports a high proportion of wetlands.

East Branch Watershed

This watershed supports 230 acres of forested land, or 19% of its area within the town. This is the lowest proportion of any watershed within the town. Just over a fifth (21% or 256 acres) of this watershed is comprised of open uplands.

Water resources comprise about 16% (185 acres) of this watershed within the Town of Clinton. Small portions of the East Branch Wappinger Creek is located in the extreme southeast corner of the Town of Clinton, where the residential hamlet of Hibernia is also found. The East Branch Wappinger Creek flows north into the town and joins with Wappinger Creek near Hibernia. A very small area of the Willow Brook watershed lies along the town's east boundary, where the Taconic parkway enters the Town of Clinton. A very small headwaters portion of the Landsman Kill watershed extends into the Town of Clinton along the town's north boundary; most of this watershed lies within the Town of Rhinebeck. In the Town of Clinton this watershed does not contain significant water features, but provides forested cover from which water flows into a large wetland complex just north of the town boundary.

CHAPTER 4 – INVENTORY AND ANALYSIS: CULTURAL RESOURCES

Map 3 provides an overview of the town’s cultural resources, including historic sites, trails, parks, conservation easements (depicted as privately protected land on the map), and scenic views. It also includes the town’s designated Critical Environmental Areas. As is true for the town’s natural resources, cultural resources are distributed throughout the town, with some concentrations within each of the seven hamlets. These resources are described below.

PUBLIC PARKS AND TRAILS

A town’s recreation resources are those places where a variety of recreational activities such as walking, hiking, biking, paddling, playing baseball, basketball or soccer, hunting or fishing occur. The *New York Statewide Comprehensive Recreation Plan* recommends a minimum of 10 acres per 1,000 people. With a population of 4,312 and total parkland acreage of 76.5, the town’s parkland more than meets this recommendation. The Recreation Commission provided input to the *Comprehensive Plan Update* indicating they are satisfied with the amount of parkland in Clinton, however, they have been discussing improvements to the parks such as additional ball fields, swimming area, hiking trails and pavilions.

There are no state, county or federal parks located within Clinton. However, there are several located in the region. These include Wilcox Park (county owned) in the neighboring Town of Milan, Baird State Park in LaGrange, Mills-Norrie State Park in Hyde Park, Lake Taghkanic State Park in southern Columbia County and Franklin D. Roosevelt National Historic Site in Hyde Park. Other parks within the region are owned and operated by land trusts. Examples of these include Burger Hill in Rhinebeck and Poets Walk in Red Hook.

In Clinton, public recreation resources include Frances J. Mark Park, a town recreation area of 39 acres between Little Wappinger Creek and County Route 18, south of Halstead Road. The park contains a ballfield, play apparatus, pavilion picnic area, restrooms and swimming facilities. The Clinton Nature Trail is located next to Town Hall. It was renovated in 2010 as an Eagle Scout service project by David Foote of Troop 37 of Hyde Park. With the help of Troop 37 and adult volunteers, Foote organized the trail’s cleanup, performed maintenance, and created a new entrance sign and numbered trail signs marking features of the trail. These features, of which there are twelve in total, include a stream, wetlands, and many tree species.

Friends’ Park, a 14.5 acre site on Salt Point Turnpike at the southern edge of Clinton Corners, contains a Little League field, tennis court, basketball courts, play equipment and restrooms.

PRIVATE RECREATION RESOURCES

The town has a number of private resources including the Casperkill Gun Club, a membership organization with 536 acres of land for hunting.

The Stone Valley Trail Riding Association (SVTRA) was formed in 2003 and promotes horsemanship by organizing several trail rides throughout the year. According to their website, the purpose of SVTRA is: to promote and encourage riding and to foster an interest in horses and horsemanship; to maintain and protect bridle paths for the benefit of landowners and riders; to

cultivate and foster an interest in equestrian pursuits and to bring together in an association people interested in riding and other horse related activities for their mutual benefit and pleasure. Membership is open to the public and owning a horse is not required. Additional information about the organization can be obtained from their website at <http://www.stonevalley.org/index.html>.

The survey results indicate strong support for increased access to lakes and fishing areas. The control of ATV riders on public or protected land is an issue of local concern, especially as it may result in land disturbance, increased erosion and stormwater runoff that can potentially degrade water quality and habitats, and disruption of other human recreational use.

The Omega Institute, a nonprofit organization dedicated to wellness and personal growth, occupies the former grounds of [Camp Boiberik](#) adjacent to Long Pond. The campus has grown to nearly 200 acres and more than 100 buildings, including the Sanctuary, the Ram Dass Library, and the new [Omega Center for Sustainable Living](#), providing workshops, conferences, and retreats in Rhinebeck and at locations around the world. The Institute permits Clinton residents to register to use facilities including lake access. The Dutchess County Sportsman's Federation owns a small public access on Long Pond as well.

HISTORIC SITES

While many of Clinton's historic buildings are concentrated in the seven hamlet areas, there are many intact farm houses and barns along rural roads throughout the town. Protection of the town's historic heritage and scenic rural qualities received high levels of support in the Community Values Survey. Specifically, in the 1988 survey, 88 percent of responding residents felt that the historic character of existing hamlets should be protected from incompatible development and 80 percent favored the creation of historic districts. In the 2008 survey, the percentages had increased to 92 percent and 87 percent, respectively.

A list and map of historic structures and locations were created by consulting the map and notes created in 1988 by Stephanie Mauri, consultant from the Dutchess County Planning Department and Dutchess County Historical Society. The documented 163 structures or historic locations were checked on the Beers Atlas map of 1867 and 1876 map showing school districts. Each structure or location was then identified by driving the roads and verifying the placement.

Additional structures were added to the list by verifying their location by sight and on the historic maps. Names of owners of the properties were added as noted on the maps of 1867 and 1876. A total of 296 historic structures or locations were noted on the final list and map. Finally, each parcel was located using the Dutchess County Geographic Information System maps and the current owner, street address and Dutchess County parcel number was added to the list. For full documentation of these sites refer to the Comprehensive Plan, Chapter 2. The locations of these historic sites are shown on Map 3, Cultural Resources. They include the following designations.

National Register Sites

Five buildings in the town are listed on the National Register of Historic Places. The Creek Meeting House and cemetery, as well as the Hicksite Friends Church across the road in Clinton Corners were listed under a Quaker meeting house theme. The Windswept Farm on Sunset Trail, The Willows in Clinton Corners, and the Mason Lodge in Schultzville have been listed on the State and National Registers.

Clinton Historical Society Sites

The 36 buildings designated local landmarks by the Clinton Historical Society are described in Chapter 2 of the Comprehensive Plan.

Dutchess County Survey

In addition, Dutchess County conducted a countywide historic resources survey to identify and document all areas of the county that had not been comprehensively surveyed, using New York State Historic Preservation Office (SHPO) protocol. In the Town of Clinton 163 individual sites were identified as potentially significant and worthy of serious consideration during the planning process. Concentrations of relatively intact historic structures in Frost Mills, Pleasant Plains, Schultsville, Hibernia, and Clinton Corners made these hamlets likely candidates for historic districts. Eight former mill sites were also identified for future archeological research. Expansion of this list to 296 sites includes structures which have local significance to Clinton, such as the Clinton Town Hall built in 1920.

Historic Roads

In 1988 the Town Board passed a resolution declaring all currently existing roads which appear on the 1867 town map as "Historic Roads of the Town of Clinton." Forty-nine separate roads were so designated. The Town Board also appointed the Clinton Scenic and Historic Road Committee, comprised of the Highway Superintendent and six interested residents, to recommend policies and practices that will maintain the historic, rustic, and rural nature of the town's road system. Such roadside features as stone walls, trees and shrubbery, and historic structures are to be given special consideration in decisions to widen and straighten roads or repair bridges and culverts. Along with the previously describe historic structures, these roads add to the overall richness of the town's historic legacy.

CRITICAL ENVIRONMENTAL AREAS

Under the State Environmental Quality Review Act (SEQRA), local governments can designate areas having exceptional social, cultural, historic, archeological, recreational, or educational value as Critical Environmental Areas (CEA). A CEA designation requires more comprehensive background information and an extra level of scrutiny in the environmental review process.

All seven hamlets in the town--Frost Mills, Pleasant Plains, Clinton Hollow, Hibernia, Clinton Corners, Schultsville, and Old Bulls Head have been designated as CEAs. Critical Environmental Area status does not guarantee protection against incompatible changes, but it does recognize and justify the unique qualities of these hamlets and provide for special consideration during discretionary permit decisions.

CONSERVATION EASEMENTS

The Town of Clinton contains a number of parcels that are protected by land trusts. These are depicted on Map 3 and are summarized in the table below.

Land in the Town of Clinton Protected by Land Trusts or Environmental Organizations

	2008	June, 2009	April, 2010
Dutchess Land Conservancy	1255 acres	1367 acres	1367 acres
Winnakee Land Trust	295 acres	295 acres	424.6 acres
The Nature Conservancy	58 acres	58 acres	58 acres
Cary Institute of Ecosystem Studies	55 acres	55 acres	55 acres
Town of Clinton	87 acres	87 acres	87 acres
Total	1705 acres	1862 acres	1991.6 acres

SCENIC VIEWS

Scenic resource is the term used to describe the perceived beauty of the natural scenery of an area. Research into this area reveals that there are shared values among people in regards to scenic resources. For example, the perceived beauty of a waterfall is shared by many people indicating these values are not arbitrary or random. In fact, the DEC, based upon research in this subject, has developed a policy on evaluation of scenic and aesthetic resources which is utilized in its role in evaluating environmental reviews⁹. Scenic resources in Clinton are distributed throughout the town. They generally fall into three categories: scenic views, agricultural/historic sites, and natural resources (including scenic roads). The following photos illustrate these examples.

The Open Space and Farmland Protection Committee evaluated scenic resources in the town using criterion based upon New York State's rating system for the Scenic Areas of Statewide Significance adapted for local use. This system helped the committee to assess scenic resources using a methodic approach with defined terms so that residents could understand the thought process by which these resources were identified. A link to the scenic resources inventory is presented in the Appendix.

⁹ NYSDEC. 2000. Assessing and Mitigating Visual Impacts.



CHAPTER 5 – POLICY ANALYSIS

The importance a community places on open space is expressed through the planning process. In this process, the value of open space is captured in a community survey and then translated into goals and objectives. These goals and objectives form the basis for recommendations in an open space plan or other planning document. The plan serves as the foundation for designing and implementing land use controls and/or programs which will effectively protect the value of open space resources identified by the community. In preparing an open space plan, a community is also formulating a development plan which identifies areas that are suitable for development. These complementary actions should result in tools and programs which ultimately implement the community's broader vision.

A policy and code audit allows a community to objectively evaluate whether its community vision, as expressed in the goals and objectives articulated in the Comprehensive Plan and other planning documents, is being implemented through its land use regulations. Often, there is a lack of connection between the community's policies and its implementation measures. The goal of a code audit is to identify the areas where conflict may be occurring. The audit evaluates the policies and existing land use regulations against generally accepted planning principles for open space and environmental protection.

Frequently, a community will audit not only its land use regulations, but also its Comprehensive Plan. The Town of Clinton Open Space Committee has reviewed the Town of Clinton's proposed Comprehensive Plan and has found that the goals and recommendations of the *Plan* are generally consistent with the results of the Community Values Survey. For example, the main goal or vision of the Comprehensive Plan is to promote a “centers and greenspaces” land use approach that directs new development towards existing centers while preserving significant open spaces in the remainder of the town. This is consistent with planning audit principals to favor an inward direction of growth toward existing developed areas (like the hamlets), instead of promoting or favoring new development in “greenfield” areas of the town. Similarly, the proposed Comprehensive Plan acknowledges the intrinsic economic value of open space for the natural functions it performs, such as the values of wetlands and floodplains for stormwater quality and quantity control, consistent with the goals of the Open Space Plan. Since the town’s proposed Comprehensive Plan includes goals consistent with the objective of preserving open space, an audit of the *Plan* was not undertaken.

The ultimate goal of a policy and code audit is to change a community’s existing plans and regulations so that they promote accepted principles for open space and environmental protection. It is with these goals in mind, and using recommended audit procedures recommended by the American Planning Association and the Smart Growth Leadership Institute,¹⁰ that the town’s existing Zoning Law and Subdivision Regulations were examined.

¹⁰ Smart Growth Audits, American Planning Association Planning Advisory Service Report Number 512, Jerry Weitz and Lenora Susan Waldner. Smart Growth Policy Audit and Smart Growth Code and Zoning Audit, Smart Growth Leadership Institute, December 2007.

COMMUNITY VALUES

A critical step in the planning process was the development of a Community Values Survey. This survey was written using the 1988 Survey as a base. Subsequently it was distributed by mail to every household on the tax roll in Clinton and was also made available in the Town Hall and on the town's web site. The survey was designed to solicit opinions and comments from residents about the town and its future.

The 486 returned surveys produced a fair and representative sample of Clinton's residents. An analysis of the returned surveys highlighted many clear preferences on individual issues, including the preservation of the town's historic character and natural features, the desire for only limited growth, and the willingness to advocate land control measures. On the basis of the survey and follow-up discussions with the Comprehensive Plan Committee, preliminary goals and objectives were identified under the following headings:

- Preserve the town's natural beauty and rural character.
- Protect historic elements and character, particularly in the hamlets.
- Protect the natural environment.
- Encourage agricultural activities.
- Allow selected economic opportunities.
- Provide for additional options in housing types in appropriate locations.
- Encourage community facilities and services that meet the needs of town residents.
- Provide a safe and efficient transportation system, while preserving the town's scenic and historic roadside features.
- Encourage land uses that support the foregoing objectives.

THE ZONING LAW

The Town of Clinton's Zoning Law was adopted by the Town Board on August 19, 1991. The Law has been amended numerous times since 1991 including the adoption of the Commercial Communication Facilities and Ridgeline, Scenic and Historic Protection Overlay District in 2000. The town adopted a Freshwater Wetlands law in 2008. The text of that law has been utilized in this review. The original Law and all amendments to date have been analyzed as follows. This is the table format from the smart growth audit procedure recommended by the American Planning Association.

Town of Clinton Zoning Law (as amended)

Topic	Yes	No	Analysis
Land Use			
Do minimum lot sizes allow for traditional neighborhood size lots in areas within and immediately adjacent to existing centers?		√	Zoning districts in and around existing centers include the Hamlet, Residential Hamlet and Clustered Residential. The minimum lot size for these districts is 1 acre which is generally considered to be larger than a TND lot size. The complicating factor in Clinton is the lack of central facilities in existing centers which could promote the smaller TND lot sizes.
Is at least some of the residential land in the Town planned and zoned for densities between eight and 15 dwelling units per acre, either as right or thru incentive zoning or transfer of development rights?		√	Please see response directly above.
Is fringe land zoned as exclusively agricultural (i.e. a holding category), or does the Zoning Law include a substantial minimum lot size that discourages single-family tract housing and preserves large sites for viable farm or other open space use (for uses such as forestry or recreation)?		√	Largest minimum lot size is 5 acres in the Conservation Agriculture and the Very Low Density Agricultural Districts. Principal permitted uses include agriculture and single family residences. See also attached document entitled "Are Clinton's Land Use Regulations Farm Friendly?" for additional information.
Does the Law allow farmers to engage in non-farm economic activities that allow them to maintain farming operations?	√		Uses include dude ranch, kennel, public stable or riding academy, sawmill, veterinarian, home occupation, roadside stands, bed and breakfast and craftsperson studio. The town may want to consider more diversified options and a broader definition of agriculture. See also attached document entitled "Are Clinton's Land Use Regulations Farm Friendly?" for additional information.
Does the Zoning Law require approvals for certain farming activities?	√		Requiring additional approvals, such as special use or full site plan is not considered farmer-friendly. The current Law requires special permits for a nursery, public stable or riding academy, dude ranch and bed and breakfast. See also attached document entitled "Are Clinton's Land Use Regulations Farm Friendly?" for additional information.

Does the Law make it easy to maintain open lands with economically viable uses such as agriculture, forestry, and recreation?	√		Ag & forestry are permitted uses in all districts.
Does the Zoning Law include provisions for cluster (conservation) subdivisions?	√		§ 5.16 allows for cluster subdivisions. We recommend the committee explore incorporating the 4 step conservation subdivision design into the Zoning. We note there is an interesting provision allowing for partial subdivision providing either future lot lines are identified and/or conservation of the open space.
Is there a standard set for the minimum amount of open space in a cluster?	√		60% open space is required in the Conservation and AR5 districts. 40% is required in the AR3, MR1, CR1, RH and H.
Is there public open space required?		√	This is typical.
Is there private open space required?	√		
Do density calculations exclude environmentally constrained land such as wetlands, steep slopes, floodplains, prime agricultural soils?		√	Discuss which unbuildable features must be deducted.
Do applications require the submission of an existing conditions map which identifies environmentally sensitive lands and/or other lands of conservation concern (historic, archeological)?	√		Some of these features are required as part of Site Plan review. Recommendation would be to have a separate map submitted, without development proposal, for evaluation.
Are there special rehabilitation codes that encourage the re-use of historic, old or abandoned buildings?		√	
Environment			
Do land use regulations prohibit development within, and the filling of, floodways and floodplains?	√		An amendment to § 5.51 Freshwater Wetlands, Watercourses, Lakes, Ponds and Floodplains includes a list of activities which require a permit and a list of exempt activities. These are generally consistent with state wetland regulations. There are a limited number of uses permitted in the Floodplain District primarily associated with farming, forestry or recreation. We do note a number of "accessory" type uses, such as swimming pools and sheds are permitted within the Zone.
Are there regulations governing development in/near wetlands and watercourses?	√		An amendment to § 5.51 Freshwater Wetlands, Watercourses, Lakes, Ponds and Floodplains includes a list of activities which require a permit and a list of exempt activities. These are generally consistent with state wetland regulations.
Are there regulations governing development on steep slopes (slopes greater than 15%)?	√		§ 5.45 governs steep slopes and defines two categories – moderately steep (15-25%) and extremely steep (>25%). The Planning Board can require a performance bond to ensure measures to minimize negative effects are carried out. Disturbance to steep slopes requires a special permit approval.
Are there regulations governing development over an aquifer?		√	
Are there regulations governing the		√	Cluster subdivisions regulations encourage the

development of prime and statewide agricultural soils?			preservation.
Are there regulations governing scenic areas and ridgeline protection?	√		Lands 500'+ above mean sea level, lands within 3000' feet of the Taconic, hamlets and the 7 critical environmental areas. Provisions cover height, design, lighting, clearing, buffer, setbacks and signs.
Does the Law provide guidance on development along designated scenic roads?		√	Confirm scenic roads have been designated in the Comp Plan.
Does the Law require the planting of trees, shrubs and generous landscaping within and surrounding parking lots?	√		
Does the Law require developers to consider connecting open spaces and greenways to existing destinations and open space reservations?		√	
Do all (or most) zoning districts require a minimum open space ratio (i.e., percentage of land area for each development that must be open space)?		√	Only cluster subdivisions require open space preservation.
Are there special regulations that govern/encourage adaptive reuse of historic structures?		√	
Are there special regulations that govern/encourage adaptive reuse of non-residential agricultural structures?		√	
Has the entire Law been examined to make it "farmer friendly" and "forester-friendly" thereby consistent with NYS Agriculture and Markets and Environmental Conservation laws?			See also attached document entitled "Are Clinton's Land Use Regulations Farm Friendly?" for additional information.
Is protection of agricultural land a basic purpose of the Zoning Law?	√		
Are design standards or guidelines for the types of desired development in town adopted and in use by appropriate boards?		√	There are Hamlet Design Guidelines included as a appendix to the Subdivision regulations. The town may wish to consider them as a part of Zoning as well.
Can the town be a recipient of conservation easements?			It could happen, but is it desirable? Confirm that Clinton is participating with Winnakee Land Trust so that Winnakee holds any development related easements.
Does the Law require a habitat analysis to ensure the protection of threatened, endangered, rare or species of conservation concern?		√	
Does the Law include provisions for sustainable logging practices?		√	
Transportation			
Do policies or standards exist that prevent unnecessary widening of existing town roads?		√	

THE LAND SUBDIVISION REGULATIONS

The Town of Clinton Subdivision Regulations were adopted by the Planning Board on September 19, 2000 and enacted by Local Law (#4 of 2000) by Town Board on November 14, 2000. Again, this table format is from the smart growth audit procedure recommended by the American Planning Association.

Topic	Yes	No	Analysis
Environment			
Do the Regulations require applicants to show a natural and cultural resources analysis plan as a first step on a site and surrounding areas before a subdivision plan is presented?	√		There is general language in the Sketch Plan submission requirements. The town may wish to consider outlining a more comprehensive list of features to be depicted. For example, there is no mention of showing prime agricultural soils or soils of statewide importance.
Do the Regulations provide for conservation subdivisions as a matter of right?	√		
Do the Regulations require the planting of street trees along new subdivision roads?		√	

CHAPTER 6 – RECOMMENDATIONS AND IMPLEMENTATION STRATEGIES

The Town of Clinton desires to maintain its rural character consisting of natural landscapes, native ecosystems, working farms, hamlet-scale development and historic structures to preserve its scenic quality, promote our small town atmosphere and protect our quality of life.

Open space is valuable because it protects a number of different attributes including water resources, wildlife and habitat, historic and scenic resources, agricultural land, and recreation areas. The recommendations in this chapter were developed to address these attributes as the culmination of the process that began with the community visioning process and survey. This process identified the town's strengths and weaknesses, and provided useful information for the development of goals and objectives for open space protection.

Clinton is characterized by a largely rural landscape, with numerous scenic pastoral views, historic sites, a high biological diversity, and abundant water resources. A need for additional recreation land and access to recreational resources was articulated. Protection of water quality (e.g. aquifer recharge areas) and the encouragement of growth within the existing hamlet areas were also mentioned. This is a challenge where existing hamlets already sit on top of significant recharge areas. The town is participating in a study of the biodiversity of Clinton sponsored by Hudsonia and supported by a grant by the New York State Department of Environmental Conservation. This study and ongoing biodiversity assessment will identify priority properties for protection, including creation of a map of priority corridors

The following recommendations seek to address the town's vision in light of all other information presented in this Plan. These recommendations also consider ideas presented in the new Comprehensive Plan, Farmland Protection Plan, and the Clinton Open Space and Land Stewardship Plan of November 2001. Tools and techniques are further described in the table at the end of the chapter.

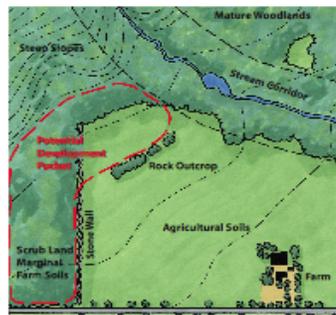
Overall Open Space Protection

1. Establish an Open Space Committee to implement these recommendations.
2. Establish a list of qualified natural resource professionals to assist the town in site plan evaluation.
3. Require the applicant to retain the services of a natural resources professional from this list as necessary to
 - (a) evaluate the natural resource features of a site plan;
 - (b) consider the larger context of a site plan to ensure that the site plan is in line with the goals of the Open Space Plan and the town's Comprehensive Plan; and
 - (c) perform other related services as necessary.

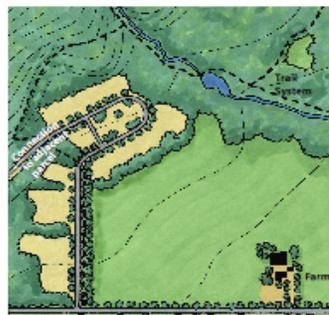
4. Develop a process to pursue conservation easements with willing landowners to protect open space and critical habitat. This includes promoting such techniques as the use of conservation subdivision design, incentive zoning, conservation easements, purchase of development rights, and tax incentives (e.g., leasing of development rights) for the maintenance of open space. Refer to the table at the end of this chapter for more information on these tools and techniques.
5. Encourage town residents who qualify to preserve forests through use of Forest Land Taxation Section 480-a to reduce property tax burdens.
6. Adopt a Logging Ordinance to address issues of stormwater management (e.g. erosion control), water quality and habitat protection.
7. Adopt a Clearing and Grading Ordinance that allows limited clearing of land for new development prior to site plan approval. The ordinance would require approval for excavation, vegetation clearing and grading of any land area $\frac{1}{4}$ acre and greater in size, with the intent to protect aquifers and wildlife habitat corridors, and to prevent erosion.
8. Adopt conservation subdivision design as a process that is required throughout the town to preserve open space and agricultural land. Include:
 - a) description of the percent open space required;
 - b) protection of large continuous areas and connections between habitat patches, rather than small fragmented areas of natural habitat;
 - c) a management plan for that open space through conservation easement.

List specific criteria to trigger a requirement for conservation subdivisions, and include a minimum percent of the parcel's area that must be left as open space. All areas set aside as open space should contain the most important features of conservation value, such as water resources, biodiversity, contiguous habitats on the site, and prime and statewide important agricultural soils.

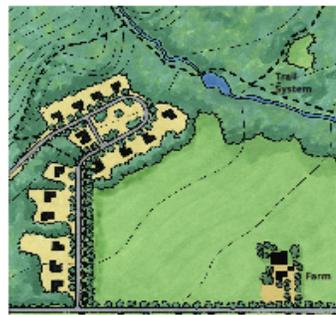
Conservation Subdivision Design -- Four Step Process



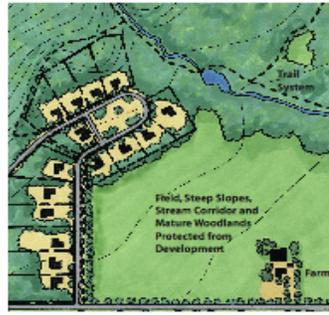
Step 1: Identify primary and secondary conservation areas



Step 2: Locate streets and trails



Step 3: Locate house sites



Step 4: Draw in lot lines



Yield Plan

Illustrations courtesy of Dutchess County Department of Planning and Development

Conservation subdivision is a four-step process; the order of the steps is essential.¹¹

1. Identify Conservation Areas¹² Step 1a: Locate Unbuildable Lands. Identify important natural and cultural resources on a parcel, referred to as Primary Conservation Areas, by identifying preservation lands where development is to be avoided. These include wetlands, streams, floodplains, vernal pools, aquifers. Step 1b: Identify natural and cultural features that may not necessarily be unbuildable but, if protected, add value and character to the subdivision. These include steep slopes, mature woodlands, agricultural land, meadows, significant wildlife habitat, historical and archaeological features, and scenic views.

2. Identify potential development areas. Identify potential areas to site house lots, including wells and septic, if no public services are available

3. Locate House Sites Within the Potential Development Areas, identify logical locations for each dwelling, based upon the number determined during an analysis of permitted density on the parcel

4. Align streets and roads for efficient access the house lots and to minimize impacts to the conservation areas. Also lay out new trails to create connections among houses, conservation areas, streets, trails and green spaces. Draw in the lot lines and delineate common open space.

¹¹ Illustrations from www.thecedars.ca/who.html

¹² Text from Conservation Subdivision Training Brochure, Greenplan, Inc.

Water Resources

1. Designate zoning area “C” Conservation Zone (Milan Window) as a future central water supply for Clinton and adopt an Overlay District for protection of this area. Review existing land use controls for potential long term protection. Work to ensure equivalent protection in Milan.
2. Adopt an Aquifer Protection Overlay District for each of the town's aquifers, taking into account existing land use conditions and differences. Refer to the town’s Comprehensive Plan, Chapter 3: Natural Resources for additional information about aquifers.
3. Amend the existing Water Resources Protection Ordinance to include protection of the following resources: riparian buffers, vernal pools, intermittent and ephemeral streams. Refer to the town’s Comprehensive Plan, Chapter 3: Natural Resources for additional information about these water resources.

Habitats

1. Develop habitat assessment guidelines modeled on the Town of Milan’s Habitat Assessment Guidelines. Use Hudsonia’s biodiversity mapping, and the same definition for species of conservation concern that is presented in Clinton’s Comprehensive Plan.¹³
2. Adopt habitat assessment guidelines as policy for use during site plan and SEQRA reviews.
3. Educate landowners to protect species of conservation concern, high biodiversity and contiguous habitat.

Historic and Scenic

1. Amend the existing Ridgeline Protection Ordinance to include residential development.
2. Encourage the clustering of new development in the hamlets, considering aquifer protection, while allowing outlying land to remain open forest or farm. Further develop “plans for growth” for hamlet areas, referring to the Centers and Greenspaces Plan (See Dutchess County Centers and Greenspaces map in Comprehensive Plan.)
3. Support applications for grants for a professional inventory and documentation of the town’s historic properties. This will facilitate future application for State Historic Register status for hamlets or historic farms.
4. Develop educational materials and produce a brochure, map or other informative guide to historic sites.

¹³ Refer to the Species of Conservation Concern tables in the Comprehensive Plan for wildlife, and the New York State Plant Atlas for plants. newyork.plantatlas.usf.edu

5. Support the protection of scenic and historic roads as identified by the Scenic and Historic Roads Protection Ordinance.

Recreation

1. Expand walking and hiking trails beginning with building onto existing trails, using the Town Hall property and The Omega Institute as a base.

2. Work on a plan to gain limited access to Long Pond and Silver Lake for town residents.

3. Identify and map on-road bike trails. The Town of Clinton has a high potential for extensive bike trails along single and 2-lane roads, both paved and unpaved. In addition, opportunities for extensive connections exists, for example the potential on-road trail connections with The Omega Institute. Refer to the Appendix of this plan for two maps that illustrate possible bike routes, as developed by the Open Space Committee.

Agriculture

The town's Farmland Protection Plan provides information and maps regarding agricultural resources.

Techniques and Tools Table

The following table summarizes some techniques and tools for open space protection and provides additional information on their benefits to the Town of Clinton.

Tool/Technique for Open Space Protection	Description	Benefits
Leasing of Development Rights (LDR)	<ul style="list-style-type: none"> - Provides tax abatements to landowners who agree to keep their land undeveloped for a specified number of years. - Calculated on a sliding scale with a larger abatement for a longer commitment 	<ul style="list-style-type: none"> - Buys time for a municipality to develop more permanent measures - Good for landowners with small acreage who are likely not eligible for PDR programs
Purchase of Development Rights (PDR)	<ul style="list-style-type: none"> - Landowners are paid to voluntarily extinguish their rights to develop their land. - A conservation easement is placed on the property - Landowner maintains ownership of land 	<ul style="list-style-type: none"> - Permanently protect farmland & land with conservation value from future development - Allows landowners (particularly farmers) to transfer land assets into liquid assets - Stabilizes the tax base - Allows municipality to leverage preservation funds
Community Preservation Fund (CPF)	<ul style="list-style-type: none"> - Real estate transfer fee on sales--NYS caps the maximum fee at 2% - Exemptions are made for purchases in the "affordable" price range - Requires a public referendum 	<ul style="list-style-type: none"> - Provides a long term funding stream for open space preservation - Program must follow state guidelines - Allows for leveraging of preservation funds
Agricultural Zoning	<p>A zoning district where agricultural uses are permitted as-of-right and non-farm land uses are either prohibited or allowed subject to limitations or conditions imposed to protect the business of agriculture.</p>	<ul style="list-style-type: none"> - Protects valuable productive soils for current and future generations - Protects a critical mass of farmland to allow efficient farming & support services - Simple and inexpensive - Potential to reduce farm and non-farm neighbor conflicts
Transfer of Development Rights (TDR)	<ul style="list-style-type: none"> - The separation of development rights from a property and their transfer to another parcel. - Sending and Receiving zones are identified - Parcels which send development rights get a conservation easement - Owner of receiving parcel buy development rights to build more than is allowed by the base zoning 	<ul style="list-style-type: none"> - Protect sensitive areas from development - Compensates landowners in the sending zones (i.e. areas not well suited for development) - Development rights do not need to be sold all at one time - Supports traditional development patterns

Incentive Zoning	<ul style="list-style-type: none"> - A flexible technique for a system of exchanging bonuses for community amenities. - Bonuses for the developer may include adjustments to permissible number of dwellings, floor area, height, use or other zoning provisions. - Amenities for the community include parks, affordable housing, infrastructure, or cash payments that can be used for protection of open space 	<ul style="list-style-type: none"> - Can be used for a wide variety of benefits, including permanently protecting farmland while keeping it in private ownership - Allows landowners to retain their equity without developing their land - Private parties pay to protect farmland
Habitat Assessment Guidelines	<ul style="list-style-type: none"> - Required on lands where a development is proposed - An analysis of on-site habitats and species of conservation concern are conducted as part of the approval process - Applicant follows a specific set of guidelines which use regionally appropriate standard references to identify habitats 	<ul style="list-style-type: none"> - Identifies significant habitats early in the process before a final plan is developed minimizing delays and allowing for consistent review across projects. - Allows the town and applicants to work together to conserve natural resources - Facilitates compliance with SEQR regulations
Conservation Subdivision	A four step process for site planning that evaluates a site's natural resources and open space resources first, before houses, roads, etc. are drawn.	<ul style="list-style-type: none"> - Allows for identification of important natural resources before site plan is developed, allowing for improved resources protection - Identifies open space that benefits the attributes described in this Plan - Saves the developer time and the cost of drawing up site plans before natural resources are reviewed.
Conservation Area Overlay District	Overlay zones are imposed over existing zoning districts and contain provisions that are applicable to preserve identified resources and features in need of conservation or preservation	<ul style="list-style-type: none"> - Comprehensive zoning approach - Targets specific areas and resources and can be targeted to address specific issues or problems
Local Ordinances: Clearing and Grading; Logging	Developed to address specific concerns regarding land use that affects significant resources; aids watershed protection and management of stormwater runoff; limits vegetation loss	Provides proactive approach to protecting natural resources and is specifically tailored to fit the town's needs
Conservation Easements	Set aside land to remain as open space, and includes a management plan for those lands	Protects valuable town resources and open space amenities

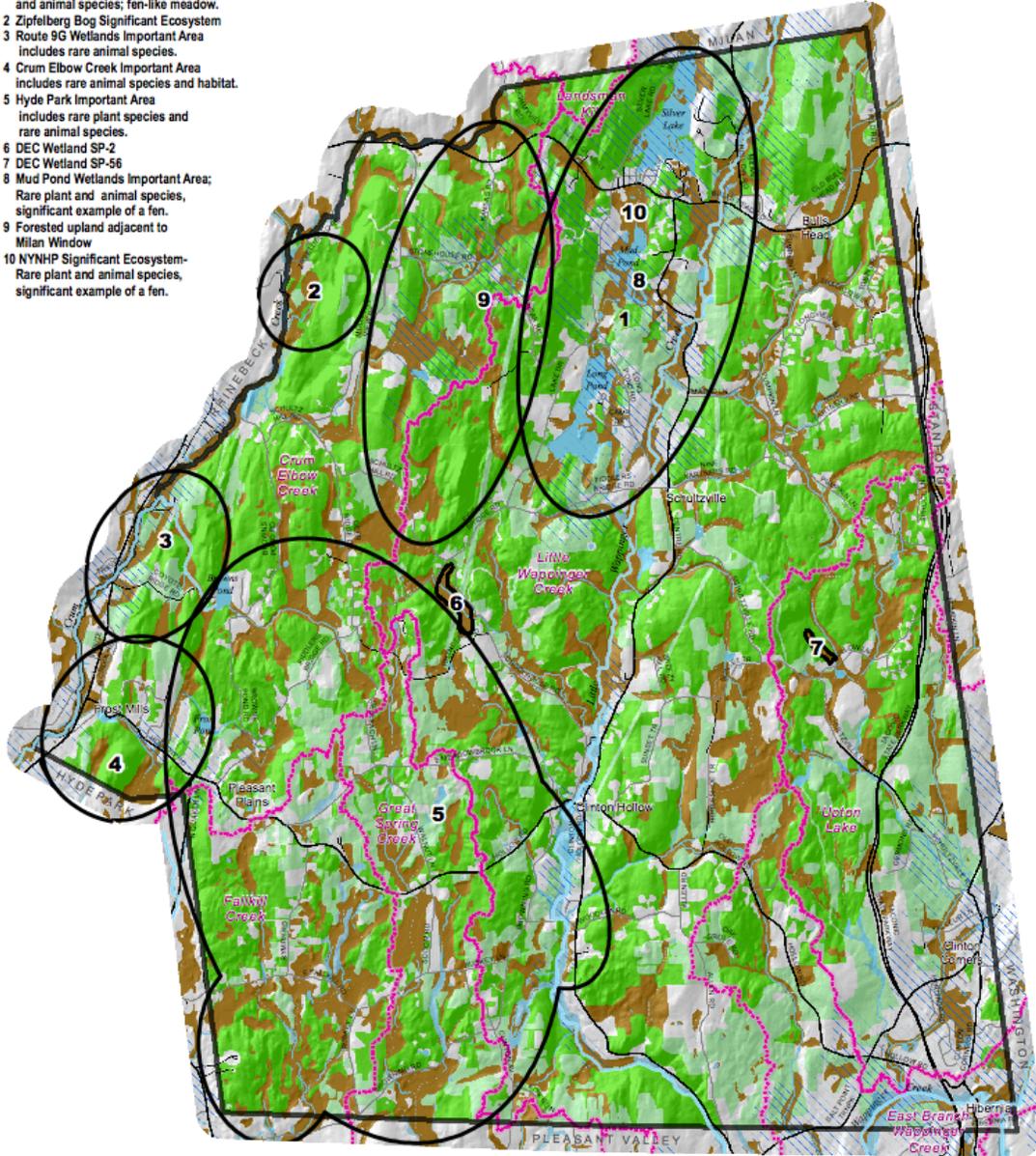


Map 1: Aerial View
Town of Clinton, Dutchess County, New York

Map 2: Open Space Map, Ecological Resources

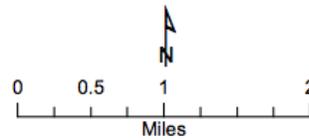
Town of Clinton, Dutchess County, New York

- 1 Milan Window – Four circumneutral bog lakes, variety of wetlands, rare plant and animal species; fen-like meadow.
- 2 Zipfelberg Bog Significant Ecosystem
- 3 Route 9G Wetlands Important Area includes rare animal species.
- 4 Crum Elbow Creek Important Area includes rare animal species and habitat.
- 5 Hyde Park Important Area includes rare plant species and rare animal species.
- 6 DEC Wetland SP-2
- 7 DEC Wetland SP-56
- 8 Mud Pond Wetlands Important Area; Rare plant and animal species, significant example of a fen.
- 9 Forested upland adjacent to Milan Window
- 10 NYNHP Significant Ecosystem- Rare plant and animal species, significant example of a fen.



- Town boundary
- Minor roads
- Major roads
- Streams**
 - intermittent
 - perennial
- Watershed boundaries
- Areas with documented examples of important habitat and significant ecosystems
- Aquifer Recharge Zones
- Surface water (some overlap with wetlands may exist)
- Upland forest
- Upland open & shrub
- NYSDEC Wetlands, NWI wetlands & hydric soils

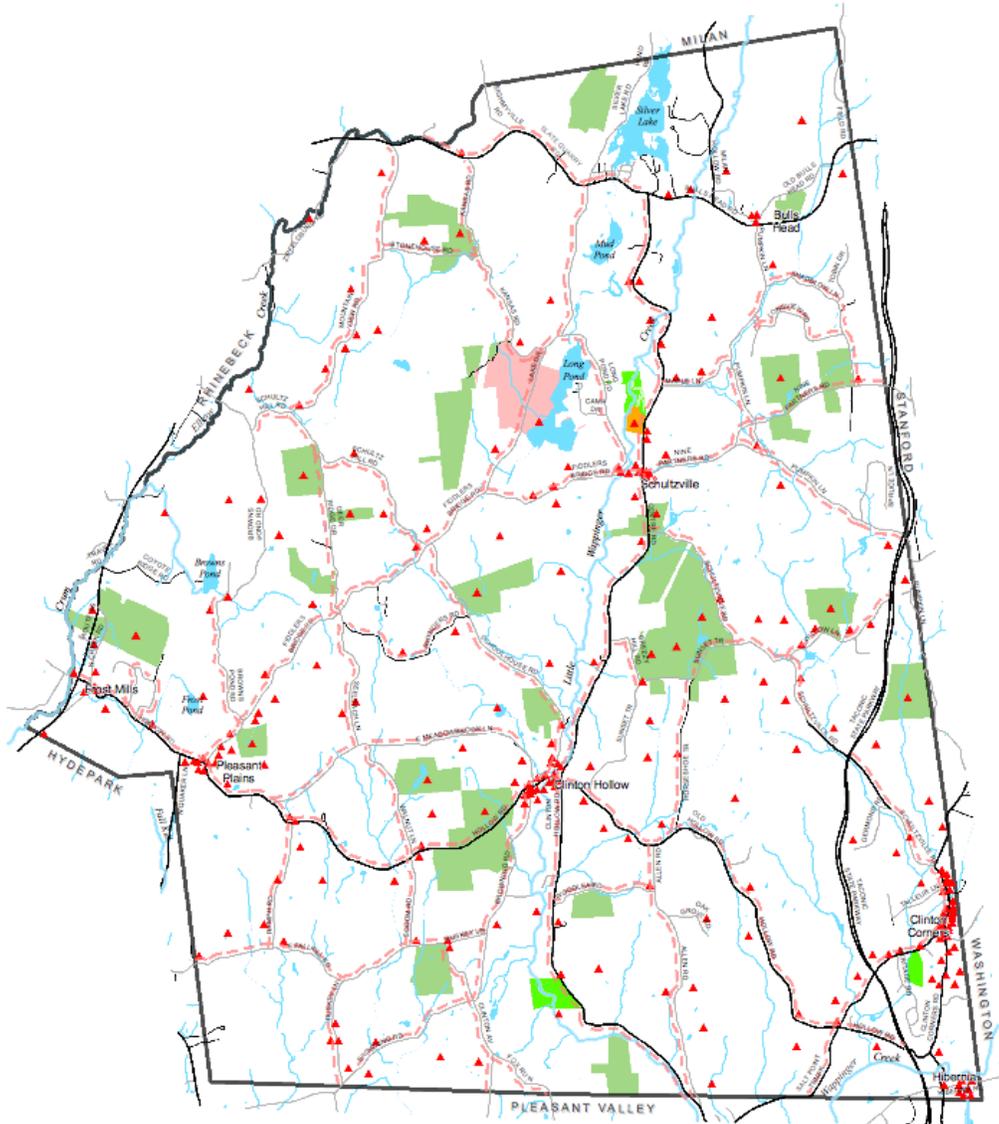
WARNING: This map is not intended for site specific analysis.



Prepared by Sarah Love, June 2011

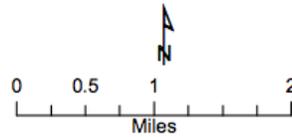
Map 3: Open Space Map, Cultural Resources

Town of Clinton, Dutchess County, New York



- Town boundary
- COUNTY
- LOCAL
- Minor roads
- Major roads
- Streams**
- intermittent
- perennial
- Potential on-road bike trails
- Historic Sites
- Nature Trail
- Critical Environmental Areas
- Town Recreation Land
- Town Hall & Garage
- Privately protected lands
- Omega Institute

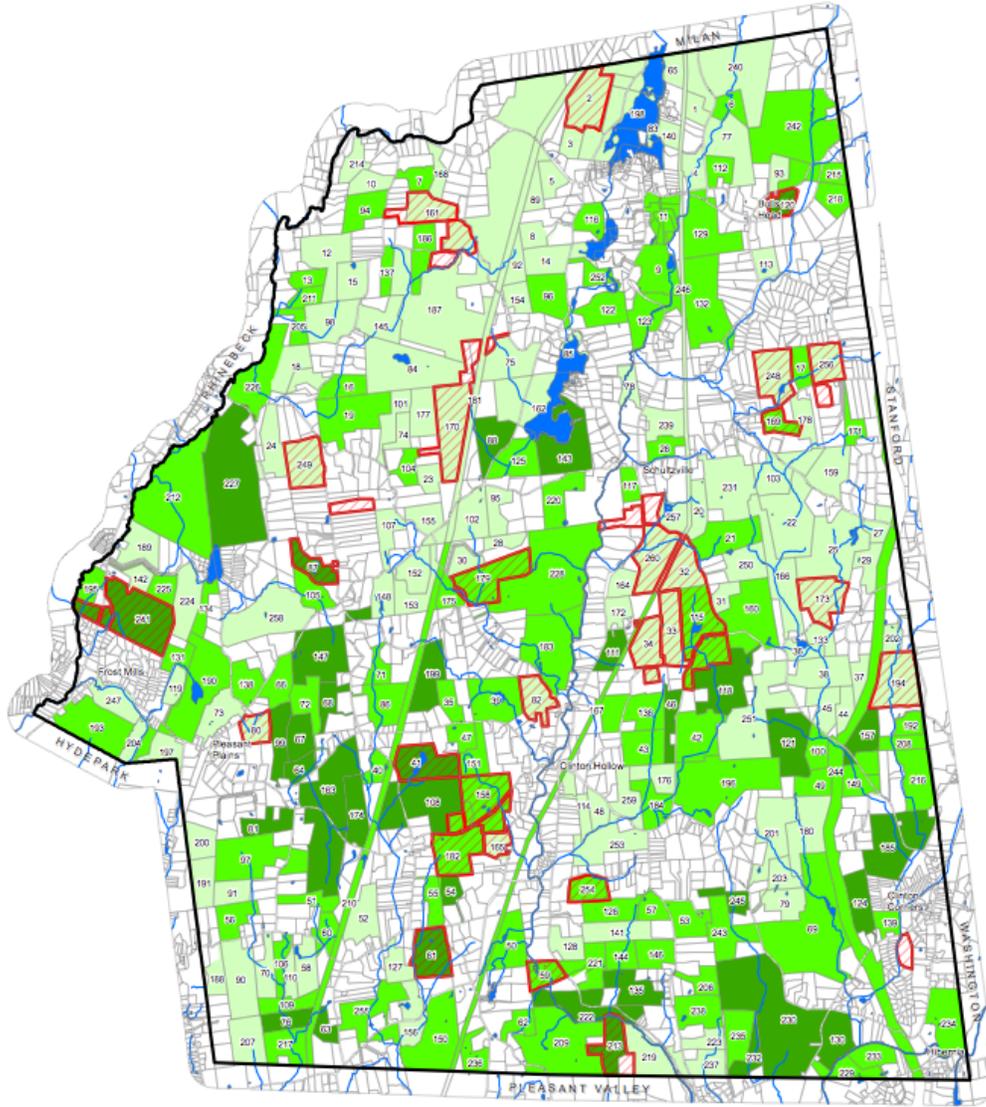
WARNING: This map is not intended for site specific analysis.



Prepared by Sarah Love, June 2011

Map 4: Important Farmland Areas

Town of Clinton, Dutchess County, New York



0 0.375 0.75 1.5 Miles
Map not intended for site specific work.

Agricultural Resources Rankings*

Totals

- 0.000000 - 0.625000
- 0.625001 - 1.500000
- 1.500001 - 2.625000
- Protected lands

*Rankings are based on an average % of a parcel that an agricultural resource comprises. Total points are summed and then mapped according to Jenks' Natural Breaks classification method. See methodology for detailed information.

Class	Total Count	Total Acres
0 - 0.625	121	6344
0.6250001 - 1.5	104	6078
1.50001 - 2.625	35	2443

DATA SOURCES FOR MAP AND ANALYSIS:
 Agricultural District Parcels, Agricultural Exemption Parcels: Dutchess County Real Property Tax Service, 2009.
 Municipal boundaries, tax parcels, and roads: Dutchess County Real Property Tax Service Agency, 2009.
 Protected lands: Dutchess County Dept. of Planning & Development, 2010.
 Streams, Waterbodies: National Hydrography Dataset, USGS 2007.
 Soils: USDA Natural Resources Conservation Service, SSURGO Database, 2006. Dutchess County Soil Survey, 1991.

Prepared by Sarah Love for Clinton Open Space Committee, March 2010.

OPEN SPACE PLAN APPENDICES

A. SPREADSHEET CRITERIA FOR PARCEL EVALUATION

B: BIKE ROUTE MAPS

C. SCENIC RESOURCES ASSESSMENT LINK

APPENDIX A: SPREADSHEET CRITERIA FOR PARCEL EVALUATION

DRAFT

April 29, 2008

Town of Clinton Open Space Criteria Review of Parcels Greater Than 20 acres															
Parcel ID	DEC Wet-lands	NWI Wet-lands	Water-bodies	Streams	Flood-plains	Aquifer	Steep Slopes	Ecological	Wood-lands	Ridge-lines	Cultural/Historic	Prime Soils	State-wide Exempt Soils	Ag District	Ag Notes
1	n/a	n/a	n/a	n/a	n/a	Sig - Z1	Sig	Sig - Animals	n/a	n/a	n/a	r/a	n/a	n/a	n/a
2	n/a	Min	n/a	n/a	n/a	Sig - Z2	Sig	Sig - Animals	n/a	Sig	n/a	r/a	n/a	n/a	n/a
3	n/a	n/a	n/a	n/a	n/a	Sig - Z2	Sig	Sig - Animals	n/a	Sig	n/a	r/a	n/a	n/a	n/a
4	Min	Sig	n/a	Min	Sig	Sig - Z1&2	Min	Sig - Animals	n/a	n/a	n/a	Mod	Min	n/a	n/a
5	n/a	n/a	n/a	n/a	n/a	Sig - Z2	Sig	Sig - Animals	n/a	Sig	n/a	r/a	Min	n/a	n/a
6	n/a	Mod	n/a	Min	Mod	Sig Z 1&2	Mod	n/a	n/a	n/a	n/a	Mod	Mod	n/a	n/a
7	n/a	n/a	n/a	n/a	n/a	n/a	Min	n/a	n/a	Sig	n/a	r/a	n/a	n/a	n/a
8	n/a	Min	n/a	n/a	n/a	Sig Z 2&3	Sig	Sig - Animals	n/a	Sig	n/a	r/a	Min	n/a	n/a
9	Min	Min	Min	Min	Min	Sig - Z 1&2	Min	Sig - Animals	n/a	n/a	n/a	r/a	Mod	n/a	n/a
10	n/a	Min	n/a	n/a	n/a	n/a	Sig	n/a	n/a	Sig	n/a	r/a	Mod	n/a	n/a
11	Min	Min	n/a	Min	Min	Sig - Z 1	Min	Sig - Animals	n/a	n/a	n/a	Mod	Mod	n/a	n/a
12	Min	Min	n/a	n/a	n/a	n/a	Sig	Mod - Ecosystem	n/a	Sig	n/a	r/a	Mod	n/a	n/a
13	Mod	Mod	n/a	n/a	n/a	n/a	Sig	Sig - Ecosystem	n/a	Min	n/a	r/a	Sig	n/a	n/a
14	Sig	Min	n/a	n/a	n/a	Sig - Z 1&2	Sig	Sig - Animals	n/a	Sig	n/a	r/a	Min	n/a	n/a
15	n/a	Min	n/a	n/a	n/a	n/a	Sig	n/a	n/a	Sig	n/a	r/a	Mod	n/a	n/a
16	Min	Min	n/a	Min	n/a	n/a	Sig	n/a	n/a	Sig	n/a	r/a	Sig	n/a	n/a
17	Min	Mod	n/a	Min	n/a	n/a	n/a	n/a	n/a	Sig	n/a	Min	Mod	n/a	n/a
18	n/a	n/a	n/a	n/a	n/a	n/a	Sig	n/a	n/a	n/a	n/a	r/a	Mod	n/a	n/a
19	Min	Min	n/a	Min	n/a	Min - Z 3	Sig	n/a	n/a	Sig	n/a	r/a	Min	n/a	n/a
20	n/a	Min	Min	Min	n/a	n/a	Min	n/a	n/a	Sig	n/a	r/a	Min	n/a	n/a
21	n/a	Min	Min	Min	n/a	n/a	Mod	n/a	n/a	Sig	n/a	r/a	n/a	n/a	n/a
22	n/a	Min	Min	Min	n/a	n/a	Mod	n/a	n/a	Sig	n/a	r/a	Min	n/a	n/a
23	n/a	Min	n/a	n/a	n/a	n/a	Sig	n/a	n/a	Sig	n/a	r/a	Min	n/a	n/a
24	n/a	Min	n/a	n/a	n/a	n/a	Mod	n/a	n/a	Sig	n/a	r/a	Min	n/a	n/a
25	n/a	Min	Min	Min	n/a	n/a	Mod	n/a	n/a	Sig	n/a	r/a	Mod	n/a	n/a
26	n/a	Min	n/a	n/a	n/a	Mod - Z2	Mod	n/a	n/a	Min	n/a	r/a	Sig	n/a	n/a
27	n/a	Min	n/a	Min	n/a	n/a	Mod	n/a	n/a	Sig	n/a	r/a	Min	n/a	n/a
28	n/a	Min	n/a	n/a	n/a	Mod - Z2	Mod	n/a	n/a	Sig	n/a	r/a	Mod	n/a	n/a
29	n/a	Min	Min	n/a	n/a	n/a	Mod	n/a	n/a	Sig	n/a	r/a	Mod	n/a	n/a
30	Min	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	Mod	n/a	Min	Min	n/a	n/a
31	n/a	Min	n/a	n/a	n/a	n/a	Mod	n/a	n/a	Sig	n/a	r/a	Min	n/a	n/a
32	n/a	n/a	n/a	n/a	n/a	n/a	Mod	n/a	n/a	Sig	n/a	r/a	Mod	n/a	n/a
33	n/a	n/a	Min	n/a	n/a	n/a	Min	n/a	n/a	Sig	n/a	r/a	Mod	n/a	n/a
34	n/a	n/a	n/a	n/a	n/a	n/a	Min	n/a	n/a	Sig	n/a	r/a	Mod	n/a	n/a

Presence of Feature on Parcel:
 Significant - more than 1/2 of parcel
 Moderate - 1/4 to 1/2 of parcel
 Minor - less than 1/4 of parcel

Parcel ID	DEC Wet-lands	NWI Wet-lands	Water-bodies	Streams	Flood-plains	Aquifer	Steep Slopes	Ecological	Wood-lands	Ridge-lines	Cultural/Historic	Prime Soils	State-wide Soils	Exempt	Ag District	Ag District	Notes
35	Mod	Mod	Min	n/a	n/a	n/a	Min	Sig - Animals	n/a	Min	n/a	n/a	Sig	n/a	n/a	Yes	
36	Sig	Sig	Min	Mod	n/a	n/a	Min	n/a	n/a	Min	n/a	Mod	n/a	n/a	n/a	n/a	
37	n/a	n/a	n/a	n/a	n/a	n/a	Mod	n/a	Sig	Sig	n/a	n/a	n/a	n/a	n/a	n/a	
38	Mod	Mod	n/a	Min	n/a	n/a	Mod	n/a	Mod	Mod	n/a	Min	Mod	n/a	n/a	n/a	
39	Mod	Min	Min	Min	n/a	n/a	Min	Sig - Animals	n/a	n/a	n/a	Min	Sig	n/a	n/a	n/a	
40	n/a	Min	Min	Min	n/a	n/a	Min	Sig - Animals	n/a	n/a	n/a	Min	Sig	n/a	n/a	n/a	
41	n/a	Min	Min	Min	n/a	n/a	Min	n/a	n/a	n/a	n/a	Min	Sig	n/a	n/a	n/a	Protected Property
42	Mod	Mod	n/a	n/a	n/a	n/a	Min	n/a	n/a	Sig	n/a	Min	Sig	n/a	n/a	n/a	
43	Min	Min	n/a	Min	n/a	n/a	Mod	n/a	n/a	Sig	n/a	n/a	Mod	n/a	n/a	n/a	
44	n/a	Min	n/a	n/a	n/a	n/a	Min	n/a	n/a	Min	n/a	n/a	Mod	n/a	n/a	n/a	
45	n/a	n/a	n/a	n/a	n/a	n/a	Mod	n/a	n/a	Min	n/a	n/a	Min	n/a	n/a	n/a	
46	Min	n/a	Min	n/a	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	Sig	n/a	n/a	n/a	
47	n/a	Min	Min	n/a	n/a	n/a	Min	Sig - Animals	n/a	Min	n/a	n/a	Sig	n/a	n/a	n/a	
48	n/a	n/a	n/a	n/a	n/a	n/a	Mod	n/a	n/a	Min	n/a	n/a	Mod	n/a	n/a	n/a	
49	n/a	Min	n/a	n/a	n/a	n/a	Mod	n/a	n/a	Sig	n/a	n/a	Sig	n/a	n/a	n/a	
50	n/a	Min	n/a	n/a	Mod	Min - Z 1	Mod	Sig - Animals	n/a	n/a	n/a	n/a	Sig	n/a	n/a	n/a	
51	Mod	Min	Min	n/a	Sig	n/a	Min	Sig - Animals	n/a	n/a	n/a	n/a	Sig	n/a	n/a	n/a	
52	Min	Min	n/a	Min	Min	n/a	Mod	Sig - Animals	n/a	n/a	n/a	n/a	Mod	n/a	n/a	n/a	
53	n/a	Min	Min	n/a	n/a	n/a	Mod	n/a	n/a	Mod	n/a	n/a	Sig	n/a	n/a	n/a	
54	n/a	Min	n/a	n/a	n/a	n/a	Min	Sig - Animals	n/a	n/a	n/a	n/a	Sig	n/a	n/a	n/a	
55	Min	Mod	n/a	n/a	Min	n/a	Sig	Sig - Animals	n/a	n/a	n/a	n/a	Sig	n/a	n/a	n/a	
56	Min	Mod	Min	n/a	Min	n/a	Mod	Sig - Animals	n/a	n/a	n/a	n/a	Sig	n/a	n/a	n/a	
57	n/a	Min	Min	n/a	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	Sig	n/a	n/a	n/a	
58	Mod	Mod	Min	n/a	Mod	n/a	Min	Sig - Animals	n/a	n/a	n/a	n/a	Mod	n/a	n/a	n/a	
59	n/a	Min	Min	n/a	Mod	Sig - Z 1	Mod	Sig - Animals	n/a	n/a	n/a	Mod	Mod	n/a	n/a	n/a	
60	Sig	Sig	n/a	Min	Sig	n/a	Min	Mod - Animals	n/a	n/a	n/a	Min	Sig	n/a	n/a	n/a	
61	n/a	Min	Min	n/a	Min	n/a	Mod	Sig - Animals	n/a	n/a	n/a	n/a	Mod	n/a	n/a	n/a	
62	n/a	Min	n/a	n/a	n/a	n/a	Mod	n/a	n/a	n/a	n/a	n/a	Sig	n/a	n/a	n/a	
63	Min	Min	n/a	n/a	n/a	n/a	Min	Sig - Animals	n/a	n/a	n/a	n/a	Sig	n/a	n/a	n/a	
64	n/a	Min	Min	n/a	Mod	n/a	Min	Mod - Animals	n/a	Min	n/a	n/a	Sig	n/a	n/a	n/a	
65	Min	Min	Min	n/a	Min	Sig - Z 1	Mod	Sig - Animals	n/a	n/a	n/a	n/a	Min	n/a	n/a	n/a	
66	Min	Min	n/a	n/a	n/a	n/a	Mod	Sig - Animals	n/a	Min	n/a	n/a	Sig	n/a	n/a	n/a	
67	n/a	Min	n/a	n/a	Min	n/a	Min	Mod - Animals	n/a	Sig	n/a	n/a	Sig	n/a	n/a	n/a	
68	n/a	Min	n/a	n/a	n/a	n/a	Min	Sig - Animals	n/a	Sig	n/a	n/a	Sig	n/a	n/a	n/a	
69	n/a	Min	Min	n/a	n/a	Min - Z 2	Sig	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	n/a	
70	Min	Min	n/a	Min	Min	n/a	Mod	Sig - Animals	n/a	n/a	n/a	n/a	Min	n/a	n/a	n/a	
71	Sig	Min	n/a	Min	n/a	n/a	Min	Sig - Animals	n/a	Min	n/a	n/a	Sig	n/a	n/a	n/a	
72	n/a	Min	n/a	n/a	n/a	n/a	Min	Sig - Animals	n/a	Sig	n/a	n/a	Sig	n/a	n/a	n/a	

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Parcel ID	DEC Wet-lands	NWI Wet-lands	Water-bodies	Streams	Flood-plains	Aquifer	Slopes	Steep Slopes	Ecological	Wood-lands	Ridge-lines	Cultural/Historic	Prime Soils	State-wide Soils	Ag Exempt	Ag District	Notes	
73	Min	Mod	Min	n/a	n/a	Sig - Z 1	Min	Mod	Mod - Animals	n/a	n/a	Sig	n/a	Min	n/a	n/a	Yes	
74	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Mod	n/a	n/a	Sig	n/a	n/a	Mod	n/a	n/a	n/a	
75	n/a	n/a	n/a	Min	n/a	n/a	n/a	Sig	Sig - Animals	n/a	Min	n/a	n/a	Min	n/a	n/a	n/a	
76	Mod	Mod	n/a	Min	Mod	n/a	Mod	Mod	Sig - Animals	n/a	n/a	n/a	n/a	Mod	Sig	n/a	Yes	
77	n/a	Min	n/a	Min	Min	Sig - Z 1&2	Sig	Sig	Min - Animals	n/a	Min	n/a	Min	Mod	n/a	n/a	n/a	
78	n/a	Sig	Mod	Min	Sig	Sig - Z 1	Min	Min	Sig - Animals	n/a	n/a	Sig	n/a	Min	n/a	n/a	n/a	Protected Property
79	n/a	Min	Min	n/a	n/a	n/a	Mod	Mod	n/a	n/a	n/a	n/a	n/a	Min	n/a	n/a	n/a	
80	Mod	Sig	n/a	n/a	n/a	Min - Z 1	Min	Min	Sig - Animals	n/a	min	Sig	n/a	Min	n/a	n/a	Yes	
81	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Sig	n/a	n/a	Mod	n/a	n/a	Mod	Sig	n/a	Yes	
82	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Sig	Min - Animals	n/a	n/a	n/a	n/a	Mod	n/a	n/a	n/a	
83	Sig	Sig	Min	n/a	Sig	Sig - Z 1	n/a	n/a	Sig - Animals	n/a	n/a	n/a	n/a	Min	n/a	n/a	n/a	
84	Min	Min	Min	n/a	n/a	Sig - Z 3	Mod	Mod	n/a	Sig	Sig	n/a	n/a	Mod	n/a	n/a	n/a	
85	Sig	Sig	Sig	n/a	Sig	Sig - Z 1	n/a	n/a	Sig - Animals	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
86	Mod	Min	n/a	Min	n/a	n/a	n/a	Min	Sig - Animals	n/a	Min	n/a	n/a	Min	n/a	n/a	Yes	
87	n/a	Mod	Min	n/a	n/a	n/a	n/a	Sig	Sig - Animals	n/a	Min	n/a	n/a	Mod	Sig	n/a	Yes	
88	n/a	n/a	n/a	Min	n/a	n/a	n/a	Sig	Sig - Animals	n/a	n/a	n/a	n/a	Min	Sig	n/a	Yes	
89	n/a	Min	n/a	n/a	Sig - Z 2&3	Sig	Sig	Sig	Sig - Animals	n/a	Sig	n/a	n/a	Min	n/a	n/a	n/a	
90	Min	Min	n/a	Min	Min	n/a	n/a	Sig	Sig - Animals	n/a	n/a	n/a	Min	Min	n/a	n/a	n/a	
91	Min	Min	n/a	n/a	n/a	n/a	n/a	Sig	Sig - Animals	n/a	n/a	n/a	n/a	Min	n/a	n/a	n/a	
92	n/a	Min	n/a	Min	n/a	Sig - Z 2&3	Mod	Mod	Sig - Animals	n/a	Sig	Sig	n/a	Min	n/a	n/a	n/a	
93	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	Min	n/a	n/a	Yes	
94	n/a	n/a	n/a	n/a	n/a	Min - Z 3	Sig	Sig	n/a	n/a	Sig	n/a	n/a	Sig	n/a	n/a	Yes	
95	n/a	n/a	n/a	n/a	n/a	Min - Z 2	Sig	Sig	Sig - Animals	n/a	Mod	n/a	n/a	Min	n/a	n/a	n/a	
96	n/a	n/a	n/a	n/a	n/a	Sig - Z 1&2	Sig	Sig	Mod - Animals	n/a	Mod	n/a	n/a	Mod	n/a	n/a	Yes	
97	Min	Min	n/a	Min	n/a	n/a	Mod	Mod	Min - Animals	Sig	Min	n/a	n/a	Mod	n/a	n/a	Yes	
98	n/a	Min	n/a	Min	n/a	n/a	n/a	Sig	Min - Animals	Sig	Mod	n/a	n/a	Mod	n/a	n/a	n/a	
99	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	Sig	n/a	n/a	Yes	
100	n/a	n/a	n/a	Min	n/a	Min - Z 3	n/a	Min	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	n/a	
101	n/a	Min	n/a	n/a	n/a	n/a	Mod	Mod	n/a	n/a	Sig	n/a	Mod	Min	n/a	n/a	n/a	
102	Mod	Min	Min	Min	n/a	n/a	Mod	Mod	Min - Animals	n/a	Min	n/a	n/a	Mod	n/a	n/a	n/a	
103	n/a	Min	Min	Min	n/a	n/a	n/a	Sig	n/a	n/a	n/a	n/a	n/a	Mod	n/a	n/a	n/a	
104	Mod	Mod	n/a	n/a	n/a	n/a	Mod	Mod	n/a	n/a	Sig	n/a	n/a	Sig	n/a	n/a	n/a	
105	n/a	Mod	Min	Min	n/a	n/a	n/a	Min	Sig - Animals	n/a	n/a	n/a	n/a	Mod	n/a	n/a	Yes	
106	Mod	Mod	n/a	Min	Sig	n/a	n/a	Min	Sig - Animals	n/a	n/a	n/a	n/a	Sig	n/a	n/a	n/a	
107	Min	Min	Min	Min	n/a	n/a	Min	Min	Mod - Animals	n/a	Sig	n/a	n/a	Min	n/a	n/a	n/a	
108	Min	Mod	Min	Min	n/a	n/a	Mod	Mod	Sig - Animals	n/a	Mod	n/a	n/a	Sig	Sig	n/a	Yes	
109	Mod	Min	n/a	n/a	Min	n/a	Mod	Mod	Sig - Animals	n/a	n/a	n/a	n/a	Sig	Sig	n/a	n/a	
110	Min	Min	n/a	Min	Mod	n/a	Min	Min	Sig - Animals	n/a	n/a	n/a	n/a	Mod	n/a	n/a	n/a	

Presence of Feature on Parcel:
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Parcel ID	DEC Wet-lands	NWI Wet-lands	Water-bodies	Streams	Flood-plains	Aquifer	Steep Slopes	Ecological	Wood-lands	Ridge-lines	Cultural/Historic	Prime Soils	State-wide Soils	Ag Exempt	Ag District	Ag District	Notes
111	n/a	Min	Min	Min	n/a	n/a	Sig	n/a	n/a	Min	n/a	n/a	Sig	Sig	n/a	Yes	
112	n/a	Min	n/a	n/a	Min	Sig - Z 1&2	Mod	Min - Animals	n/a	n/a	Sig	n/a	Sig	Sig	n/a	n/a	
113	n/a	Min	Min	n/a	n/a	n/a	Mod	n/a	n/a	Mod	Sig	Min	Min	Min	n/a	Yes	
114	n/a	n/a	n/a	n/a	n/a	Min - Z 1	Sig	n/a	n/a	Min	n/a	n/a	Mod	n/a	n/a	n/a	
115	Min	Min	Min	Min	n/a	n/a	Mod	n/a	Sig	Sig	n/a	Min	Sig	n/a	Yes		
116	Mod	Mod	Min	n/a	Mod	Sig - Z 1&2	Mod	Sig - Ecosystem/Animals	n/a	n/a	n/a	n/a	Sig	n/a	n/a	n/a	
117	n/a	n/a	n/a	n/a	n/a	n/a	Mod	n/a	n/a	n/a	n/a	n/a	Sig	n/a	n/a	n/a	
118	Mod	Mod	n/a	Min	n/a	n/a	Min	n/a	n/a	Sig	n/a	Min	Sig	Sig	n/a	Yes	
119	Min	Sig	n/a	Min	n/a	Sig - Z 1	Min	Sig - Animals	n/a	n/a	n/a	n/a	Mod	n/a	n/a	n/a	
120	n/a	Mod	n/a	n/a	n/a	n/a	Min	n/a	n/a	Mod	Sig	n/a	Sig	Sig	Yes		
121	n/a	Min	n/a	Min	n/a	n/a	Sig	n/a	n/a	Mod	n/a	n/a	Sig	Sig	Yes		
122	n/a	Min	n/a	Min	n/a	Sig - Z 1	Mod	Sig - Animals	Sig	n/a	n/a	n/a	Sig	n/a	n/a	Yes	
123	Min	Mod	Min	n/a	Mod	Sig - Z 1&2	Min	Sig - Animals	n/a	n/a	n/a	Min	Sig	n/a	n/a	Yes	
124	n/a	n/a	Min	n/a	n/a	Sig - Z 2	Sig	n/a	n/a	n/a	n/a	Min	Sig	Sig	Yes		
125	Mod	Mod	Min	Min	Min	Mod - Z 1&2	Min	Sig - Animals	n/a	n/a	n/a	Min	Sig	n/a	n/a	Yes	
126	n/a	Min	n/a	Min	n/a	n/a	Sig	n/a	n/a	n/a	n/a	n/a	Mod	n/a	n/a	Yes	
127	n/a	n/a	n/a	Min	Min	n/a	Sig	Sig - Animals	n/a	n/a	n/a	n/a	Min	n/a	n/a	n/a	
128	n/a	n/a	n/a	n/a	n/a	n/a	Sig	Mod - Animals	n/a	n/a	n/a	n/a	Mod	n/a	n/a	n/a	
129	Min	Min	n/a	Min	Min	Sig - Z 1&2	Mod	Sig - Animals	n/a	Min	n/a	Mod	Mod	Sig	n/a	Yes	
130	n/a	Min	n/a	Min	Mod	Sig - Z 1	Min	n/a	n/a	n/a	n/a	n/a	Sig	n/a	n/a	n/a	
131	Min	Min	n/a	Min	n/a	Min - Z 1	Sig	Sig - Animals	n/a	Min	n/a	n/a	Sig	n/a	n/a	n/a	
132	n/a	Min	Min	Min	n/a	Min - Z 2	Min	Sig - Animals	n/a	Min	n/a	n/a	Min	n/a	n/a	Yes	
133	Min	Min	Min	Min	n/a	n/a	Mod	n/a	n/a	n/a	n/a	n/a	Mod	n/a	n/a	Yes	
134	n/a	Min	Min	Min	n/a	n/a	Sig	n/a	n/a	n/a	n/a	n/a	Sig	Sig	n/a	Yes	
135	n/a	Min	Min	Min	n/a	n/a	Sig	n/a	n/a	n/a	n/a	n/a	Sig	Sig	n/a	Yes	
136	Mod	Min	n/a	Min	n/a	n/a	Mod	n/a	n/a	n/a	n/a	n/a	Sig	Sig	n/a	Yes	
137	n/a	n/a	n/a	Min	n/a	Sig - Z 3	Min	n/a	n/a	Sig	n/a	n/a	Sig	n/a	n/a	Yes	
138	n/a	Min	Min	n/a	n/a	Min - Z 1	Sig	Mod - Animals	Sig	n/a	n/a	n/a	Mod	n/a	n/a	Yes	
139	n/a	Min	n/a	Min	Min	Sig - Z 1&2	Min	n/a	n/a	n/a	Sig	Mod	Mod	n/a	n/a	Yes	
140	n/a	Min	n/a	n/a	n/a	Sig - Z 1	Mod	Sig - Animals	n/a	n/a	n/a	n/a	Min	n/a	n/a	n/a	
141	n/a	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	Mod	n/a	Min	Mod	n/a	n/a	n/a	
142	n/a	n/a	n/a	n/a	n/a	Min - Z 2	Mod	Sig - Animals	n/a	n/a	n/a	Min	Min	n/a	n/a	Yes	
143	Min	Min	n/a	n/a	n/a	Sig - Z 1	Mod	Sig - Animals	n/a	n/a	n/a	Min	Sig	Sig	n/a	Yes	
144	Min	Min	Min	Min	n/a	Sig - Z 3	Sig	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	Yes	
145	Sig	Sig	n/a	n/a	n/a	Sig - Z 3	Min	n/a	Sig	Sig	n/a	n/a	Mod	n/a	n/a	n/a	
146	n/a	n/a	n/a	n/a	n/a	n/a	Sig	n/a	n/a	Sig	n/a	n/a	Sig	n/a	n/a	n/a	

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147	Min	Min	Min	Min	n/a	n/a	n/a	Mod	Sig - Animals	n/a	Sig	n/a	n/a	Sig	Sig	n/a	Yes	
148	n/a	Min	Min	Min	n/a	n/a	n/a	Mod	Sig - Animals	n/a	Sig	n/a	n/a	Mod	n/a	n/a	Yes	
149	n/a	Min	Min	Min	n/a	Min - Z 2	n/a	Mod	n/a	n/a	Mod	n/a	n/a	Mod	n/a	n/a	Yes	
150	n/a	Min	Min	Min	n/a	n/a	n/a	Mod	n/a	n/a	Mod	n/a	n/a	Mod	n/a	n/a	Yes	
151	Min	Min	n/a	Min	Min	n/a	n/a	Min	Sig - Animals	n/a	Min	n/a	n/a	Mod	n/a	n/a	Yes	
152	Min	Min	n/a	Min	Min	Min - Z 2 & 3	n/a	Mod	Mod - Animals	n/a	Mod	n/a	n/a	Mod	n/a	n/a	Yes	
153	Min	Min	n/a	Min	n/a	n/a	n/a	Sig	Mod - Animals	n/a	mod	n/a	n/a	Min	n/a	n/a	n/a	
154	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Sig	Sig - Animals	n/a	Sig	n/a	n/a	Mod	n/a	n/a	n/a	
155	Min	Min	n/a	n/a	n/a	n/a	n/a	Sig	n/a	n/a	Mod	n/a	n/a	Mod	n/a	n/a	n/a	
156	Mod	Mod	Min	Min	Mod	n/a	n/a	Mod	n/a	n/a	n/a	n/a	n/a	Mod	n/a	n/a	n/a	
157	n/a	n/a	n/a	n/a	n/a	Min - Z 2	n/a	Min	n/a	n/a	Min	n/a	n/a	Sig	Sig	n/a	Yes	
158	n/a	n/a	Min	Min	n/a	n/a	n/a	Sig	Sig - Animals	n/a	Sig	n/a	n/a	Sig	n/a	n/a	Yes	
159	n/a	Min	Min	Min	n/a	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	Sig	n/a	n/a	Yes	
160	Min	Min	Min	Min	n/a	n/a	n/a	Mod	Min - Animals	n/a	Sig	n/a	n/a	Mod	n/a	n/a	Yes	
161	n/a	Min	Min	Min	n/a	Sig - Z 3	n/a	Mod	n/a	n/a	Sig	n/a	n/a	Mod	n/a	n/a	Yes	
162	Mod	Mod	Mod	Min	Mod	Mod - Z 1	n/a	Min	Sig - Animals	n/a	n/a	n/a	n/a	Mod	n/a	n/a	n/a	
163	Min	Min	Min	Min	Mod	n/a	n/a	Min	Mod - Animals	n/a	Min	n/a	n/a	Sig	Sig	n/a	Yes	
164	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Sig	n/a	n/a	Mod	n/a	n/a	Min	n/a	n/a	Yes	
165	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Sig	Sig - Animals	n/a	min	n/a	n/a	Min	n/a	n/a	Yes	
166	n/a	Min	n/a	n/a	n/a	n/a	n/a	Sig	n/a	n/a	Sig	n/a	n/a	Min	n/a	n/a	n/a	
167	Min	Min	n/a	Min	Min	Min - Z 1	n/a	Sig	Mod - Animals	n/a	min	n/a	n/a	Min	n/a	n/a	n/a	
168	Mod	Min	n/a	n/a	n/a	n/a	n/a	Mod	n/a	n/a	Sig	n/a	n/a	Mod	n/a	n/a	n/a	
169	n/a	Min	n/a	n/a	n/a	n/a	n/a	Mod	n/a	n/a	min	n/a	n/a	Sig	n/a	n/a	n/a	
170	n/a	Min	n/a	n/a	n/a	n/a	n/a	Sig	n/a	n/a	Sig	n/a	n/a	Min	n/a	n/a	n/a	
171	n/a	Min	n/a	Min	n/a	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	Mod	n/a	n/a	n/a	
172	n/a	Min	n/a	Min	n/a	n/a	n/a	Sig	n/a	n/a	Mod	n/a	n/a	Mod	n/a	n/a	n/a	
173	n/a	Min	Min	Min	n/a	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	Min	n/a	n/a	n/a	
174	Min	Min	Min	n/a	Min	n/a	n/a	Min	Sig - Animals	n/a	n/a	n/a	n/a	Sig	Sig	n/a	Yes	
175	Sig	Sig	n/a	Min	n/a	n/a	n/a	Min	n/a	n/a	n/a	n/a	n/a	Sig	n/a	n/a	Yes	
176	n/a	n/a	n/a	Min	n/a	n/a	n/a	Sig	n/a	n/a	Sig	n/a	n/a	Mod	n/a	n/a	n/a	
177	n/a	Min	Min	n/a	n/a	n/a	n/a	Mod	n/a	n/a	Sig	n/a	n/a	Mod	n/a	n/a	n/a	
178	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Sig	n/a	n/a	Sig	n/a	n/a	Mod	n/a	n/a	n/a	
179	Min	Min	n/a	Min	n/a	Min - Z 2	n/a	Sig	n/a	n/a	min	n/a	n/a	Mod	n/a	n/a	Yes	
180	n/a	Min	n/a	Min	n/a	n/a	n/a	Sig	n/a	n/a	Mod	n/a	n/a	Min	n/a	n/a	Yes	
181	Min	Min	n/a	Min	n/a/Mod - Z 1 & 2	n/a	n/a	Sig	Mod - Animals	n/a	Sig	n/a	n/a	Min	n/a	n/a	Yes	
182	n/a	Min	Min	Min	n/a	n/a	n/a	Mod	Sig - Animals	n/a	Sig	n/a	n/a	Sig	n/a	n/a	Yes	
183	n/a	Min	Min	Min	Min	Min - Z 1	n/a	Sig	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	n/a	
184	Mod	Mod	Min	Min	n/a	n/a	n/a	Sig	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	n/a	

Presence of Feature on Parcel:

- Significant - more than 1/2 of parcel
- Moderate - 1/4 to 1/2 of parcel
- Minor - less than 1/4 of parcel

Parcel ID	DEC Wet-lands	NWI Wet-lands	Water-bodies	Streams	Flood-plains	Aquifer	Steep Slopes	Ecological	Wood-lands	Ridge-lines	Cultural/Historic	Prime Soils	State-wide Soils	Ag Exempt	Ag District	Notes
185	n/a	Min	n/a	Min	n/a	Sig - Z 1&2	Min	n/a	n/a	n/a	n/a	Mod	Sig	Sig	n/a	Yes
186	Min	Min	n/a	Min	n/a	Sig - Z 3	Mod	n/a	n/a	Sig	n/a	Min	Sig	n/a	n/a	n/a
187	Min	Min	n/a	Min	n/a	Sig - Z 2&3	Mod	Mod - Animals	Mod	Sig	n/a	n/a	Mod	n/a	n/a	n/a
188	Sig	Mod	n/a	n/a	n/a	n/a	Mod	Sig - Animals	n/a	n/a	n/a	Min	Min	n/a	n/a	Yes
189	Min	Min	n/a	n/a	Min	Sig - Z 1&2	Sig	Sig - Animals	n/a	n/a	n/a	Min	Min	n/a	n/a	Yes
190	Min	Sig	Min	Min	n/a	Mod - Z 1	Mod	Mod - Animals	Sig	n/a	Sig	Min	Mod	n/a	n/a	Yes
191	n/a	Min	n/a	n/a	n/a	Min - Z 2	Min	Min - Animals	n/a	n/a	n/a	n/a	Mod	n/a	n/a	n/a
192	n/a	n/a	n/a	Min	n/a	Min - Z 2	Mod	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	Yes
193	n/a	Min	n/a	Min	n/a	Mod - Z 1&2	Sig	Sig - Animals	Sig	Min	n/a	n/a	Mod	n/a	n/a	Yes
194	n/a	Min	n/a	Min	n/a	n/a	Mod	n/a	Sig	Min	n/a	n/a	Mod	n/a	n/a	n/a
195	Min	Min	n/a	Min	Min	Mod - Z 1	Min	Mod - Animals	n/a	n/a	n/a	Sig	Mod	n/a	n/a	Yes
196	Min	Min	Min	Min	n/a	n/a	Mod	n/a	n/a	Sig	n/a	Min	Sig	n/a	n/a	Yes
197	Min	Min	n/a	n/a	n/a	Min - Z 1	Sig	Sig - Animals	n/a	Min	n/a	n/a	Min	n/a	n/a	Yes
198	Mod	Mod	Mod	n/a	Mod	Sig - Z 1&2	Mod	Sig - Animals	n/a	Min	n/a	n/a	Mod	n/a	n/a	n/a
199	Min	Min	n/a	n/a	n/a	n/a	Min	Sig - Animals	n/a	Min	n/a	n/a	Sig	n/a	n/a	Yes
200	n/a	Min	n/a	n/a	n/a	n/a	Sig	Mod - Animals	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Yes
201	n/a	Min	Min	Min	n/a	n/a	Mod	n/a	n/a	Sig	n/a	n/a	Min	n/a	n/a	n/a
202	n/a	Min	Min	Min	n/a	n/a	Min	n/a	n/a	n/a	n/a	n/a	Min	n/a	n/a	n/a
203	n/a	Min	Min	Min	n/a	n/a	Sig	n/a	n/a	Min	n/a	n/a	Min	n/a	n/a	n/a
204	Mod	Mod	n/a	Min	n/a	Min - Z 1	Sig	Sig - Animals	Sig	n/a	n/a	n/a	n/a	n/a	n/a	Yes
205	n/a	Min	n/a	Min	Min	n/a	Mod	n/a	n/a	n/a	n/a	n/a	Sig	n/a	n/a	Yes
206	n/a	Min	n/a	n/a	n/a	n/a	Min	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	n/a
207	n/a	Min	n/a	Min	n/a	n/a	Mod	n/a	n/a	n/a	n/a	n/a	Mod	n/a	n/a	n/a
208	n/a	n/a	n/a	Min	n/a	Min - Z 2	Mod	Sig - Animals	n/a	Min	n/a	n/a	Sig	n/a	n/a	Yes
209	n/a	Min	Min	Min	Min	Min - Z 1	Sig	n/a	n/a	Min	n/a	n/a	Mod	Sig	n/a	Yes
210	Min	Mod	Min	Min	Min	n/a	Min	Sig - Animals	n/a	Min	n/a	n/a	Sig	n/a	n/a	Yes
211	Min	Min	n/a	Min	n/a	n/a	Sig	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	n/a
212	n/a	Min	Min	Min	Min	Min - Z 1&2	Sig	Sig - Animals	n/a	Min	n/a	n/a	Sig	n/a	n/a	Yes
213	n/a	n/a	n/a	n/a	Min	n/a	Sig	n/a	n/a	Min	n/a	n/a	Mod	Sig	n/a	Yes
214	Mod	Mod	n/a	n/a	n/a	n/a	Mod	n/a	n/a	n/a	n/a	Mod	n/a	n/a	n/a	Yes
215	Mod	Mod	n/a	Min	n/a	n/a	Mod	n/a	n/a	Mod	Sig	Sig	Min	n/a	n/a	Yes
216	n/a	n/a	n/a	Min	n/a	Sig - Z 1&2	Mod	n/a	n/a	Min	n/a	Min	Sig	n/a	n/a	n/a
217	Sig	Mod	n/a	Min	Min	n/a	Min	Sig - Animals	n/a	Mod	n/a	n/a	Mod	n/a	n/a	Yes
218	Min	Mod	n/a	n/a	n/a	n/a	Min	n/a	n/a	n/a	n/a	Min	Sig	n/a	n/a	n/a
219	n/a	Min	Min	n/a	Min	n/a	Sig	n/a	n/a	n/a	n/a	Min	Min	n/a	n/a	n/a
220	n/a	Min	Min	n/a	Min	Sig - Z 1&2	Mod	n/a	n/a	Min	n/a	Min	Sig	n/a	n/a	Yes
221	n/a	Min	n/a	n/a	n/a	Min - Z 1	Sig	n/a	n/a	n/a	n/a	n/a	Sig	n/a	n/a	Yes
222	n/a	Min	n/a	Min	Mod	Mod - Z 1	Sig	n/a	n/a	n/a	n/a	Min	Min	Sig	n/a	Yes

Presence of Feature on Parcel:
 Significant - more than 1/2 of parcel
 Moderate - 1/4 to 1/2 of parcel
 Minor - less than 1/4 of parcel

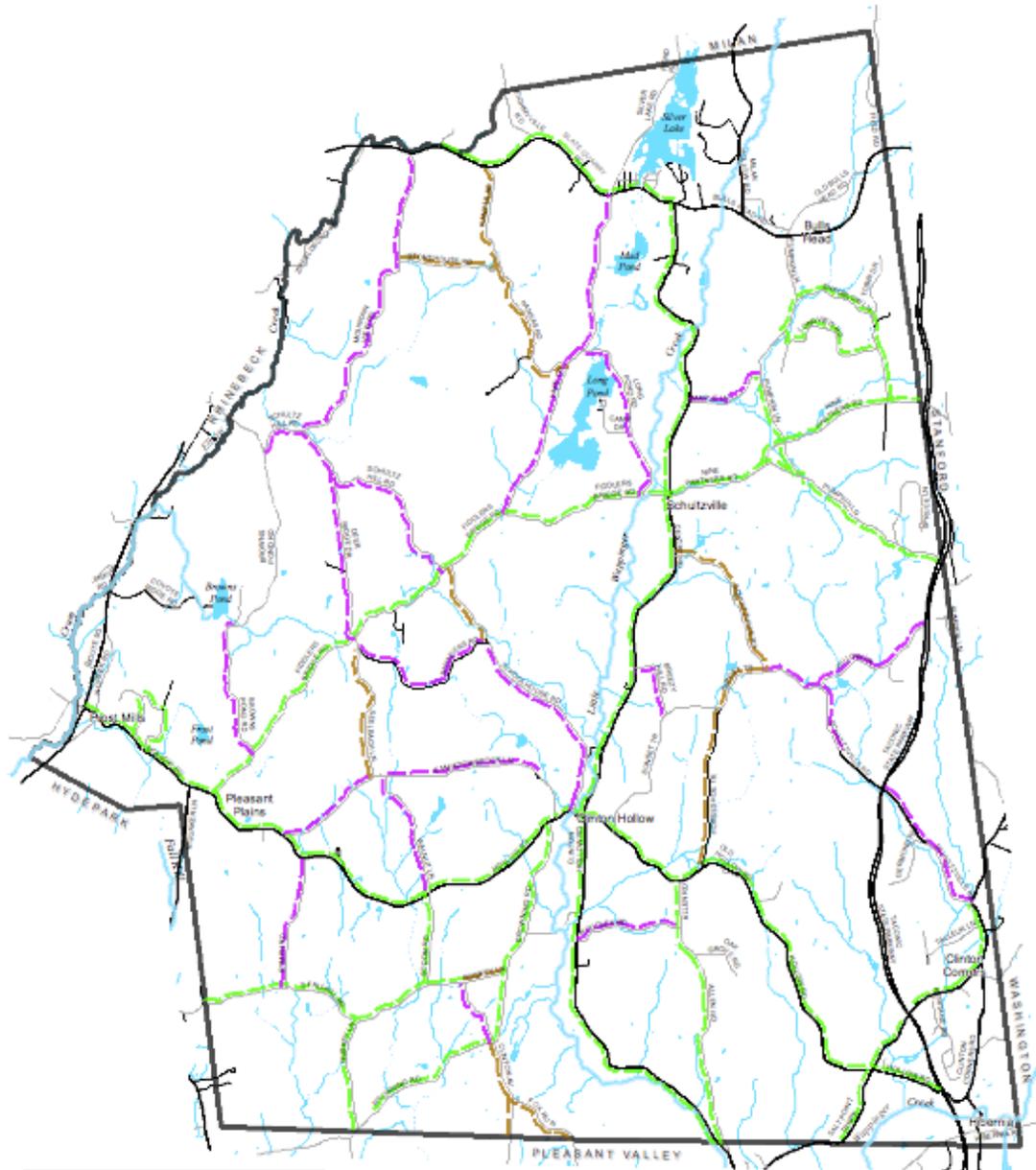
Parcel ID	DEC Wet-lands	NWI Wet-lands	Water-bodies	Streams	Flood-plains	Aquifer	Steep Slopes	Ecological	Wood-lands	Ridge-lines	Cultural/Historic	Prime Soils	State-wide Soils	Ag Exempt	Ag District	Ag District	Notes
223	n/a	Min	n/a	Min	n/a	n/a	Min	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Yes	
224	n/a	Min	n/a	Min	n/a	n/a	Min	Min - Animals	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Yes	
225	n/a	Mod	n/a	Min	n/a	n/a	Mod	Mod - Animals	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Yes	
226	n/a	Min	n/a	Min	n/a	n/a	Mod	n/a	n/a	Min	n/a	n/a	n/a	n/a	n/a	Yes	
227	n/a	Min	n/a	Min	n/a	n/a	Mod	Min - Animals	n/a	Min	n/a	Min	Mod	n/a	n/a	Yes	
228	Min	Min	Min	Min	Min	Min - Z 2	Sig	n/a	Sig	Min	n/a	Min	Sig	n/a	n/a	Yes	
229	n/a	Min	Min	n/a	Mod	Sig - Z 1	Min	n/a	n/a	n/a	n/a	Min	Sig	n/a	n/a	Yes	
230	n/a	Min	Min	n/a	n/a	Sig - Z 1&2	Mod	n/a	n/a	n/a	n/a	Min	Sig	n/a	n/a	Yes	
231	n/a	Min	Min	n/a	n/a	n/a	Mod	n/a	Sig	n/a	n/a	Min	Sig	n/a	n/a	Yes	
232	Mod	n/a	Min	Min	n/a	Sig - Z 1&2	n/a	n/a	n/a	n/a	n/a	Min	Sig	n/a	n/a	Yes	
233	n/a	Min	Min	n/a	Mod	Sig - Z 1	Min	n/a	n/a	n/a	n/a	Mod	Sig	n/a	n/a	Yes	
234	n/a	Min	Min	n/a	Min	Sig - Z 1&2	Min	Min - Animals	n/a	n/a	n/a	Min	Sig	n/a	n/a	Yes	
235	n/a	Min	Min	n/a	n/a	Sig - Z 2	Mod	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Yes	
236	n/a	Min	Min	n/a	n/a	n/a	Mod	n/a	n/a	n/a	n/a	n/a	Mod	n/a	n/a	Yes	
237	n/a	Min	Min	Min	n/a	Mod - Z 2	Min	n/a	n/a	n/a	n/a	n/a	Min	n/a	n/a	Yes	
238	n/a	Min	Min	Min	n/a	n/a	Mod	n/a	n/a	n/a	n/a	n/a	Sig	n/a	n/a	Yes	
239	n/a	Min	Min	Min	n/a	Sig - Z 2	Mod	n/a	n/a	Min	n/a	Min	Mod	n/a	n/a	Yes	
240	n/a	Min	Min	n/a	Min	Sig - Z 1&2	Mod	n/a	n/a	n/a	n/a	Min	Mod	n/a	n/a	Yes	
241	Min	Min	n/a	Min	Min	Min - Z 1&2	Mod	Min - Animals	n/a	n/a	Sig	n/a	Sig	n/a	Yes		
242	Min	Min	Min	Min	n/a	Min - Z 2	Mod	n/a	n/a	Sig	n/a	Min	Sig	n/a	n/a	Yes	
243	n/a	Min	Min	Min	n/a	n/a	Min	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	Yes	
244	n/a	Min	Min	Min	Min	Min - Z 1&2	Min	n/a	n/a	Min	n/a	Min	Sig	n/a	n/a	Yes	
245	n/a	Min	n/a	n/a	Min	Min - Z 1&2	Sig	n/a	n/a	Min	n/a	n/a	Sig	n/a	n/a	Yes	
246	Min	Min	n/a	Min	Min	Mod - Z 1&2	Mod	Mod - Animals	n/a	Min	n/a	Min	Mod	n/a	n/a	Yes	
247	Min	Min	Min	Min	n/a	Min - Z 1	Sig	Sig - Animals	n/a	n/a	Min	n/a	Mod	n/a	n/a	Yes	
248	Min	Min	Min	Min	n/a	n/a	Mod	n/a	Sig	n/a	n/a	Min	Mod	n/a	n/a	Yes	
249	n/a	Min	Min	Min	n/a	n/a	Mod	n/a	Sig	n/a	n/a	Min	Mod	n/a	n/a	Yes	
250	n/a	Min	Min	Min	n/a	n/a	Mod	n/a	Sig	n/a	n/a	Min	Mod	n/a	n/a	Yes	
251	Min	Min	Min	Min	n/a	n/a	Mod	n/a	Sig	Sig	n/a	n/a	Mod	n/a	n/a	Yes	
252	Mod	Mod	n/a	Min	Sig	Sig - Z 1	Min	Sig - Plants	Sig	Sig	n/a	n/a	Sig	n/a	n/a	Yes	
253	n/a	n/a	n/a	Min	n/a	n/a	Sig	Min - Animals	Sig	Mod	n/a	Min	Sig	n/a	n/a	Yes	
254	n/a	Min	n/a	Min	n/a	n/a	Mod	Mod - Animals	Sig	Min	n/a	n/a	Sig	n/a	n/a	Yes	
255	Mod	Min	n/a	Min	Min	n/a	Mod	Sig - Animals	Sig	n/a	n/a	Min	Sig	n/a	n/a	Yes	
256	Min	Min	n/a	Min	n/a	n/a	Min	n/a	Sig	Sig	n/a	Min	Mod	n/a	n/a	Yes	
257	n/a	Min	Min	Min	n/a	n/a	Min	n/a	Sig	Sig	n/a	Min	Mod	n/a	n/a	Yes	
258	n/a	Min	Min	Min	n/a	n/a	Sig	Sig - Animals	Sig	Min	n/a	Min	Mod	n/a	n/a	Yes	
259	Min	Min	Min	Min	n/a	n/a	Mod	n/a	Sig	Min	n/a	Min	Mod	n/a	n/a	Yes	
260	n/a	n/a	n/a	Min	n/a	n/a	Sig	n/a	Sig	Mod	n/a	n/a	Min	n/a	n/a	Yes	

Presence of Feature on Parcel:
 Significant - more than 1/2 of parcel
 Moderate - 1/4 to 1/2 of parcel
 Minor - less than 1/4 of parcel

APPENDIX B: BIKE ROUTE MAPS

Potential On-Road Biking Routes

Town of Clinton, Dutchess County, New York

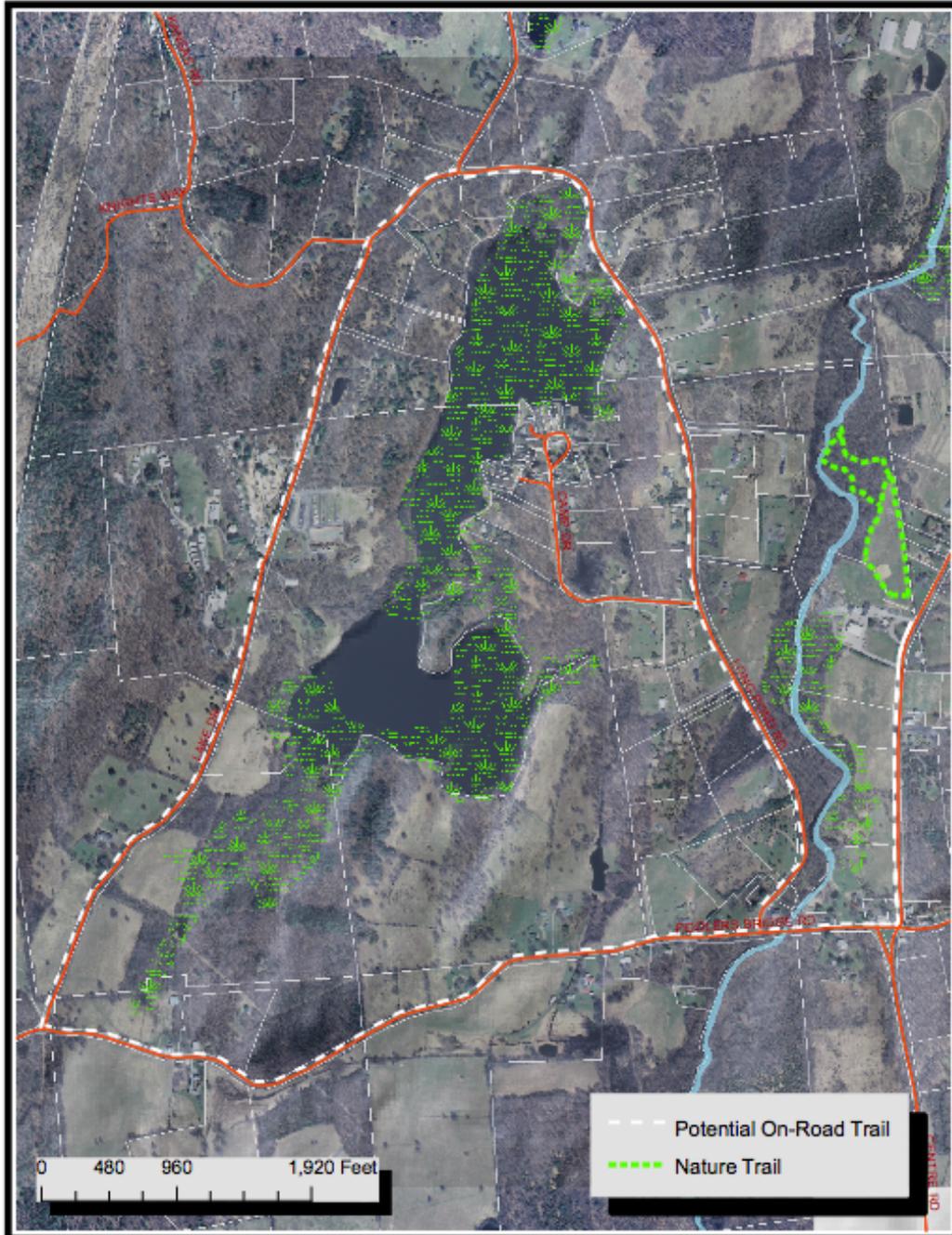


Potential biking routes

- one lane, paved
- one lane, unpaved
- road bike

Potential On-Road Trail Connection With Omega Institute

Town of Clinton, New York



Sarah Love, August 2009

APPENDIX C: SCENIC RESOURCES ASSESSMENT

The Open Space and Farmland Protection Committee evaluated scenic resources in the Town using the criterion as described below. This criterion was based upon New York State’s rating system for the Scenic Areas of Statewide Significance and was adapted for local use. This system helped the committee to assess scenic resources using a methodic approach with defined terms so that residents could understand the thought process by which these resources were identified.

Scenic resources were evaluated based on the following criteria: views (length, width, and background), physical character (landform, vegetation, water and land use) and cultural character (historic and architectural). Each of these characteristics was determined to be distinctive, noteworthy or common as described below.

Scenic Resource Assessment Criteria		
Category I – Views:		
a. Length - the average distance of views available.		
Distinctive: Long views greater than 5 miles to distant mountains or horizon line.	Noteworthy: Moderately long views (1-5 miles) across meadows or waterbodies.	Common: Short views cut off by trees, hills or structures.
b. Breadth - width of the views available within a given viewshed.		
Distinctive: Widest views generally greater than 180 degrees	Noteworthy: View widths between 90 and 180 degrees	Common: Narrow views less than 90 degrees
c. Background - the character of the views of surrounding landscapes or distant features outside the viewshed.		
Distinctive: Mountains or dramatic skylines or other prominent features clearly visible in the background.	Noteworthy: High hills or waterbodies visible in the distance.	Common: Limited or no background views available. Features not in harmony are located in the background.
d. Visual accessibility - the degree to which the area is visually accessible to the general public.		
Distinctive: High degree of visual & physical access for large numbers of the general public on a very frequent basis. (e.g. County or State park)	Noteworthy: Moderately visible to fairly high numbers of the public. (e.g Local park)	Common: Little public access. The area is visible to a few people on a infrequent basis. (site is accessible a few days a year)
Category II – Physical Character		
a. Landform - the shape and configuration of the land.		
Distinctive: Dramatic contrasts and changes in topography.	Noteworthy: Undulating land; some topographic variety.	Common: Little topographic variety.
b. Vegetation - the diversity, maturity & condition of vegetation.		
Distinctive: A variety of open meadows, mature woodlands, specimen trees.	Noteworthy: A variety of vegetation with woodlands dominating.	Common: Monotonous second growth and scrub growth.
c. Water - the role of water features in the visual environment.		
Distinctive: Water is the dominant feature in the landscape: full views of lakes, rivers or ponds.	Noteworthy: Water is present, but not dominant. Partial views of major water features or full views of moderate size features.	Common: Water is absent or barely noticeable in the landscape.
d. Land use - human use of the land.		
Distinctive: Use of the land that	Noteworthy: Use of the land that	Common: Use of the land that

harmonizes with and/or enhances scenic quality.	blends with existing scenic quality.	detracts from scenic quality.
Category III – Cultural Character		
a. Historic Character - the quality, value, state of preservation and authenticity of historic structures, landscapes, districts.		
Distinctive: Rich historic heritage preserved in a variety of well-maintained historic districts, sites, structures and spaces. Widespread historic integrity: historic districts relatively intact. Strong sense of historic character & continuity expressed in architecture & the landscape. National/State register sites, location of major historic events.	Noteworthy: Some historic heritage preserved in districts, sites, structures & spaces scattered within the town. Some disturbance of historic integrity.	Common: Little historic interest in the town with only minor, isolated preserved sites. Historic integrity of districts is minimal or lacking.
b. Architectural Character - the character of the architecture of communities; both vernacular and designed by professionals. Quality of the proportions, massing, materials, fenestration, roof lines & siting of buildings.		
Distinctive: High quality architectural design expressive of a particular location, architectural style & historical era.	Noteworthy: Consistent quality, vernacular or professional architectural planning & design settlement pattern linked to a particular location, architectural style & historical era.	Common: Poor quality vernacular or professional architectural planning and design settlement pattern, inconsistent, clashing styles, lack of recognizable connection to a particular location, architectural style or historical era.

The scenic resources inventory, including photographs, is available on the Town of Clinton website. The locations were identified at public meetings followed by a windshield survey completed by committee members.