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Abstract

The following is a model law that can be used by municipalities to protect wildlife habitat and other critical environmental areas.

Resource

Model Critical Environmental Area Overlay District

Land Use Law Center

Metropolitan Conservation Alliance

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*Words in *italics* are instructions to the reader as to steps that must be taken to further implement an overlay district.

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§1.1 Title.

This ordinance shall be known, cited and referred to as the Critical Environmental Areas Overlay District Ordinance.

§1.2 Authority.

Enactment of this ordinance by [insert name of municipality] is pursuant to §10 of the Municipal Home Rule Law, which grants power to local governments to enact certain local laws. Municipal Home Rule Section 10(1)(ii)(a)(14) grants authority to pass laws for the purpose of protecting and enhancing the physical and visual environment.

§1.3 Definitions.

Applicant: Any individual, firm, partnership, association, corporation, company, organization or other legal entity of any kind that requests the approval of the [insert relevant approval agency] to subdivide or otherwise develop lands in the designated critical environmental area overlay district.

Buffer Area: A designated area along the perimeter of a wetland, fish and wildlife habitat or other critical area which is regulated to the minimize impact of adjacent activities.

Critical Environmental Area: A specific geographic having exceptional or unique environmental characteristics area and designated a critical environmental area by [insert name of municipality].

Code Enforcement Officer: The building inspector, engineer or other officer authorized to enforce provisions of the municipal code and perform other activities as designated in this chapter.

Deposit: To fill, grade, discharge, emit, dump or place any material.

Development: Any construction or expansion of a building, structure or use; any change in the use of a building or structure, or changes in the use of land that requires the approval of an agency of the municipality.

Discharge: The emission of any water, substance or material into a wetland, watercourse or water body or their buffers, whether or not such substance causes pollution.

Disturbance: Land preparation, such as clearing, grading and filling, or the building of structures including driveways. The condition of land disturbance is deemed to continue

until the area of disturbance is returned to its original state or to a state as approved in accordance with the [insert name of municipality] Code.

Drain: To deplete or empty water by drawing off by degrees or in increments.

Dredge: To excavate or remove sediment, soil, mud, sand, shells, gravel or other aggregate.

Ecosystem: A dynamic and interrelating complex of plant and animal communities and their associated environments.

Erosion: The wearing away of the ground surface as a result of mass wasting or the movement of wind, water soil and/or ice.

Excavation: To dig out and remove any material.

Grading: Excavation or fill or any combination thereof, including but not limited to the establishment of a grade following the demolition of a structure or preparation of a site for development.

Hazardous Material: Material which is a present or potential danger to health or the environment when improperly stored, transported, disposed or otherwise managed and also as any other toxic, caustic or corrosive chemicals, radioactive materials or other substance listed in Title 40 of the Code of Federal Regulations or Part 366 of Title Six (6) of the Official Compilation of Codes, Rules and Regulations of the State of New York.

Hydric Soil: Soil that is saturated, flooded or ponded long enough during the growing season to develop anaerobic condition in the upper part.

Landscape Linkages: A movement corridor in which the complete range of community ecosystem processes continue to operate through time thereby allowing plants and animals to move through large landscapes over a period of time.

Native Vegetation: Vegetation on a site or plant species which are indigenous to the area in question; or if the site has been cleared, species of a size and type that were on the site or reasonably could have been expected to have been found on the site at the time it was cleared.

Open Space: Publicly or privately held undeveloped lands to be used for the preservation or protection of natural resources (steep slopes, stream corridors, wetlands, wildlife) or managed for the production of resources (agricultural or pasture lands, forests) or any compatible combination thereof. Open space also includes lands with minimal or minor improvements made for a specific purpose (active or passive recreation areas, greenways) with the improvements contemplating or being compatible with surrounding land uses and having a minimal impact on the environment.

Stable Angle of Repose: The limiting steepness beyond which soils will slip downhill or become unstable.

Stand: A unit of trees that is relatively homogenous in age, structure, composition, and physical environment.

Traditional Neighborhood Development: A community that is compact and pedestrian friendly. It is comprised of mixed use which incorporates housing opportunities within walking distance of retail shopping, employment centers, and mass transit nodes.

Wildlife Corridor: A landscape feature that facilitates the biologically effective transport of animals between larger patches of habitat dedicated to conservation functions. Such corridors may facilitate several kinds of traffic, including frequent foraging movements, seasonal migrations, or the once in a lifetime dispersion of juvenile animals. These are transitional habitats and need not contain all the habitat elements required for the long-term survival or reproductions of its migrants.

Woodland: A forested area; a plant community in which, in contrast to a typical forest, the trees are often small, characteristically short-boled relative to their crown depth, and forming only an open canopy with the intervening area being occupied by lower vegetation, commonly grass.

§1.4 Purpose and Objectives.

- A. The purpose of the critical environment areas overlay district is to provide special controls over land use and development located in critical ecological landscapes identified by the [insert name of municipality]. The overlay district is designed to preserve and protect ecosystems in their entirety to the greatest extent possible. This will be accomplished by minimizing fragmentation of the landscape, maintaining biodiversity and specifically protecting unique environmental features identified as integral parts of the designated landscape. The overlay district will establish standards and procedures for the use and development of land. The standards and procedures are designed to protect, conserve, enhance, restore, and maintain significant natural features and the ecological connections between them.
- B. The regulations contained in this overlay district seek to protect those areas shown to be ecologically sensitive to disturbance (due to various forms of development), or are ecologically important for reasons such as they support threatened or endangered species, maintain connections within a landscape, support a diversity of species or are rare or unusual habitats.

These areas will be further protected by seeking to:

1. Maintain and enhance the diversity of wildlife species and habitat found in the critical environmental area. Protect habitat areas from activities, which would cause immediate or foreseeable danger to significant wildlife habitat. Land uses

and development should be planned and designed to be harmonious with wildlife habitat and the species that depend on that habitat, and should recognize and protect the full range of habitats and species in the area.

2. Preserve and protect open space to the maximum extent possible by requiring the clustering of permitted development and limiting the amount of intrusions into natural habitat. Open spaces shall be connected to the greatest extent possible to allow for the preservation of wildlife habitat and other environmental features.
 3. Reduce the amount of nutrients, sediment, organic matter, pesticides, and other harmful substances that reach watercourses, wetlands, or subsurface water bodies by using scientifically proven processes including filtration, deposition, absorption, plant uptake, and denitrification, and by improving infiltration, encouraging sheet flow, and stabilizing concentrated flows.
 4. Improve and maintain the safety, reliability, and adequacy of the water supply for domestic, agricultural, commercial, industrial, and recreational uses along with sustaining diverse populations of aquatic flora and fauna. Areas of annual flooding, floodplains, water areas, and wetlands shall be retained in their natural state to the maximum possible extent to preserve water quality and protect water retention, overflow, and natural functions.
 5. Protect steep slopes and other areas of erosion or potential erosion to the greatest extent possible by minimizing the impacts in these areas by properly managing disturbances.
 6. Protect the quality of the air, water, and maintain minimum noise levels in sensitive environmental areas.
 7. Protect areas generally recognized for their special or unique vegetative features or communities. Natural vegetation along lakes, rivers, wetlands and streams, woodlands, stands of trees and mature forest shall be retained in a natural state to the maximum extent possible.
 8. Protect and enhance scenic resources including landscapes, ridgelines, meadows, and geologic features that have a special scenic character or a historic or aesthetic interest or value.
- C. The regulations contained in the critical environmental areas overlay district are not intended to be substituted for other general zoning district provisions, but can be superimposed over district provisions, and should be considered as additional requirements to be met by the applicant or developer, prior to project approval. The purpose of the overlay district is to provide the [insert name of municipality] with an additional level of review and regulation that controls how land use and development permitted by the [insert name of municipality] primary zoning districts should occur in sensitive or unique environmental areas.

§2 Findings of Fact and Intent

§2.1 Wetlands, Water Bodies, Watercourses.

A. Findings of fact.

1. Wetlands and watercourses serve multiple functions, including:
 - a. Protecting water resources by providing sources of surface water, recharging groundwater and aquifers, serving as chemical and biological oxidation basins and functioning as settling basins for naturally occurring sedimentation.
 - b. Controlling flooding and stormwater runoff by regulating natural flows, storing water and desynchronizing flows.
 - c. Providing critical nesting, migratory and over wintering habitats for a wide diversity of species.
 - d. Supporting unique vegetative associations specifically adapted for survival in low oxygen environments.
 - e. Providing areas of unusually high plant productivity, which support significant wildlife diversity and abundance.
 - f. Providing breeding and spawning grounds, nursery habitat and food for various species of fish and amphibians.
 - g. Serving as nutrient traps for nitrogen and phosphorous and filters for surface water pollutants.
 - h. Helping to maintain biospheric stability by supporting particularly efficient photosynthesizers capable of producing significant amounts of oxygen and supporting bacteria which process excess nitrates and nitrogenous pollutants and return them to the atmosphere as inert nitrogen gas.
 - i. Providing open space and visual relief from intense development in urbanized and growing areas.
 - j. Serving as outdoor laboratories and living classrooms for the study and appreciation of natural history, ecology and biology.

B. Intent.

Development or significant activities in and around wetlands, water bodies or watercourses shall not threaten public safety, the natural environment or cause nuisance by:

1. Impeding flood flows, reducing flood flows, reducing flood storage areas or destroying storm barriers, thereby resulting in increased flood heights, stream scouring, flood frequency or velocity over land.
2. Increasing water pollution through location of domestic wastewater disposal systems in wet soils; inappropriate siting of stormwater control facilities; unauthorized application of fertilizers, pesticides, herbicides and algicides; disposal of solid wastes at inappropriate sites; creation of unstabilized fills; or

the destruction of wetland soils and vegetation serving pollution and sediment control functions.

3. Increasing erosion.
4. Decreasing breeding, nesting and feeding areas for many species of waterfowl and shorebirds, including those rare and endangered.
5. Interfering with the exchange of nutrients needed by fish and other forms of wildlife.
6. Decreasing habitat for fish and wildlife.
7. Adversely altering the recharge or discharge functions of wetlands, thereby impacting groundwater or surface water supplies.
8. Significantly altering the wetland hydro-period and thereby causing either short- or long-term changes in vegetational composition, soil characteristics, and nutrient recycling or water chemistry.
9. Destroying sites needed for educational and scientific research, such as outdoor biophysical laboratories, living classroom and training areas.
10. Interfering with public rights in navigable waters and the recreation opportunities provided by wetlands for fishing, boating, hiking, bird watching, photography, camping and other passive uses.
11. Destroying or damaging aesthetic and property values, including significant public viewsheds.

§2.2 Floodplains.

A. Findings of Fact.

1. Floodplains temporarily store water and decrease storm velocity. These functions are increased by vegetation which allow water to spread horizontally and more slowly.
2. Floodplains help control runoff, decreases the potential for catastrophic flooding, and allow for the infiltration of water into the groundwater table.
3. Floodplains capture and sequester sediment and nutrients thereby enhancing the quality of water.
4. Floodplain trees and plants stabilize riverbanks reducing erosion.
5. Floodplains provide critical habitat for wildlife and aquatic species. These areas provide resting, feeding and nesting areas and are a transition zone between watercourses and uplands.
6. Potential and/or actual damages from flooding and erosion may be a problem to the residents of the [insert name of municipality] and such damages may include destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life.

B. Intent.

1. To regulate uses which are dangerous to health, safety and property due to water or erosion hazards or which result in increases in erosion or flood heights or velocities.
2. Require that uses vulnerable to floods, including structures, be protected against flood damage.
3. Control the alteration of natural floodplains, stream channels and natural protective barriers, which are involved in the accommodation of floodwaters.
4. Control filling, grading, dredging and other development, which may increase erosion or flood damages.
5. Regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.
6. Prevent the removal of floodplain vegetation and the creation of impermeable surfaces that prohibit the natural functions of a floodplain ecosystem.

§2.3 Aquifers.

A. Findings of Fact.

1. Aquifers store water for varying periods of time acting as underground reservoirs.
2. Springs and spring fed habitat are important for wildlife.
3. Aquifers contribute significantly to surface water and are important to sustaining vegetation.
4. Activities that prevent infiltration into aquifers cause increased runoff.
5. The ground water underlying the [insert name of municipality] is a major source of existing and potential future ground water supply, including drinking water, and, as such, should be protected from contamination.
6. Unregulated development in areas with sensitive hydrogeologic formations of stratified drift aquifer and their primary recharge areas in addition to accidental spills and discharges of toxic and hazardous materials may threaten the quality of such ground-water supplies and related water resources in the [insert name of municipality] posing potential public health and safety hazards.
7. Preventive measures should be adopted to control the development of land and to control the discharge and storage of hazardous materials within the hydrologic formations to limit the potential adverse impacts that such development and discharge can create.

B. Intent.

1. To protect the public health, safety and welfare through the preservation of the [insert name of municipality]'s major ground-water resources to ensure a future supply of safe and healthful drinking water for the [insert name of municipality], local residents and employees and the general public by reducing the potential for ground-water contamination.

§2.4 Scenic Resources.

A. Findings of Fact.

1. Many landscape and geologic features and improvements have a special scenic character, including a special historic or aesthetic interest or value. These features have been altered or changed, notwithstanding the feasibility of preserving and continuing the use of such landscape and geologic features and without adequate consideration of the irreplaceable loss to the people of the [insert name of municipality] of the scenic, aesthetic, cultural and historic values represented by such landscape and geologic features. The [insert name of municipality] should not disregard the scenic landscape, geologic and aesthetic features and should not permit their destruction and in the alternative should further their preservation and creation.
2. Resources that are recognized for the scenic beauty also provide critical habitat for wildlife. Ridgelines, open fields and meadows, and cultural places provide critical nesting and denning areas and are important dispersal areas.

B. Intent.

1. Preserve and protection scenic resources such as landscapes, ridgelines and geologic features which represent or reflect the character of the [insert name of municipality].
2. Safeguard scenic resources and aesthetic and cultural heritage, as embodied in the landscape and geologic features.
3. Stabilize and improve property values in such scenic resource areas.
4. Foster civic pride in the beauty of the [insert name of municipality].
5. Promote the use of scenic and aesthetic resources for the education, pleasure and welfare of the people of the [insert name of municipality].

§2.5 Steep Slopes.

A. Findings of Fact.

1. Steep slopes have been or are in jeopardy of being destroyed by unregulated regrading, filling, excavation, building, clearing and other such acts, which are inconsistent with the natural condition or acceptable uses of steep slopes. Steep slopes are environmentally sensitive landforms and valuable natural resources, which are of benefit to the entire [insert name of municipality] and the surrounding region. The environmental sensitivity of steep slopes often results from such features as shallow soils over bedrock, bedrock features groundwater seeps, or watercourses and wetlands found on or adjacent to steep slopes.
2. Steep slopes serve as critical wildlife habitat.

3. Protection of steep slopes is a matter of concern to the entire [insert name of municipality]. The establishment of regulatory and conservation practices in critical areas are needed to protect the public health, safety and general welfare. Experience has demonstrated that effective protection of steep slopes requires preservation and where they have to be disturbed, careful regulation, including stringent mitigating measures of disturbance of soil and vegetation on steep slopes.
4. The improperly managed disturbance of steep slopes can aggravate erosion and sedimentation beyond rates experienced in natural geomorphological processes. Erosion and sedimentation often include the loss of topsoil, a valuable natural resource, and can result in the disturbance of habitats, alteration of drainage patterns, obstruction of drainage structures, damage to surface and subsurface hydrology and intensification of flooding.
5. The inadequately controlled disturbance of certain steep slopes can lead to the failure of slopes and mass-movement of earth; damage to natural environment, man-made structures and personal safety, and the loss or aesthetically pleasing landscapes.

B. Intent.

1. Preserve steep slopes to the greatest extent practicable and to regulate their use to protect the public interest by ensuring the maximization of benefits found to be provided by the preservation of steep slopes and by ensuring the minimization of detrimental effects through the practice of properly managed disturbance of steep slopes.
2. Reduce water runoff, soil erosion, and rockslides by minimizing grading and by requiring revegetation.
3. Permitting intensity of development compatible with the natural character of the slope or hillside by considering degree of slope, significant landforms, soil suitability, and existing drainage patterns.

§2.6 Woodlands, Forests and Trees.

A. Findings of fact.

1. The preservation and maintenance of trees is necessary to protect the wealth, safety, environment, and general welfare of the inhabitants of the [insert name of municipality].
2. Trees provide necessary shade and cooling, greenspace and aesthetic appeal, impede soil erosion, aid water absorption and provide other environmental benefits and generally enhance the quality of life within the [insert name of municipality].

3. Forests and stands of trees provide important habitat for wildlife. Forests plants provide cover for escape from predators, areas for rest, protection from inclement weather, and areas necessary for nesting and reproduction.
4. The destruction and damage of trees and the indiscriminate and excessive cutting of trees cases barren and unsightly conditions, creates surface drainage problems, increases municipal costs to control drainage, impairs stability of real property values, and adversely affects the character of the community.

B. Intent.

1. To preserve and protect woodland, stands of trees, mature forests and shrubs, particularly specimen trees and/or select or rare species by regulating or controlling land use and development in those areas.
2. Preserve the physical environment, biotic resources, and trophic networks needed to support productive forests by maintaining compositional and structural diversity.
3. Provide a diversity of seral stages, cover types, and stand structures that provide habitat for many native species and a framework for all essential ecosystem processes.
4. Preserve forest soil stability, fertility and vitality by eliminating activities that result in erosion, acidification, loss of nutrients, and compaction.

§2.7 Wildlife and Habitat.

A. Findings of fact.

1. Areas that contain wildlife and wildlife species are a natural resource of local, statewide, national and global significance.
2. Wildlife play important roles in maintaining ecosystems through ecological interactions such as predation, pollination and seed dispersal.
3. Wildlife provide valuable educational and recreational opportunities.
4. Wildlife populations can only be sustained if adequate measures are taken to maintain the habitats they require and the ecological connections between them. Habitat protection enables wildlife to persist in a region as well as enabling the continuation of vital natural processes.
5. Poorly planned land development has fragmented ecosystems.
6. The protection of ecosystems is dependent on a basic understanding that few ecosystems are wholly contained within one municipality. Therefore, intermunicipal cooperation is necessary to ensure that ecologically sensitive landscapes are protected and maintained.

B. Intent.

1. Identify critical fish and wildlife habitat areas.
2. Protect fish and wildlife habitat and their ecological connections.
3. Maintain populations of wildlife species and the habitats they depend upon.

4. Provide for breeding, nesting, feeding and other life functions required to sustain a diversity of wildlife including species declining in the region and rare, endangered and threatened species.
5. Minimize fragmentation of habitat by protecting open space and by maintaining interconnecting corridors to form a continuous network of wildlife habitat and ecosystems.
6. Participate in intermunicipal agreements that will ensure the maintenance of critical ecosystems and their ecological connections.

§3.1 Official Map.

The locations and boundaries of all the critical environmental area(s) shall be delineated on an official set of maps on file on the Municipal Clerk's office. These maps shall be known and cited as the "Official Critical Environmental Areas Maps".

§3.2 Critical Environmental Area Overlay Designation.

- A. The boundaries of the critical environmental area shall be included on the Official Critical Environmental Areas Map at an appropriate scale and with a metes and bounds description such that the boundaries of the Critical Environmental Area can be clearly identified.
- B. The Critical Environmental Area, as designated on the Official Map, shall contain all characteristics identified as environmentally sensitive and therefore, in need of the protection provided by adherence to the regulations set forth in this chapter. Characteristics in this Critical Environmental Area include:

An authorized official should be responsible for designating critical environmental area boundaries based on the identification of certain characteristics that need protection. The authorized approval agency should request the assistance of the [insert name of municipality] Engineer, Building Inspector or other scientists as necessary to identify environmental features in need of protection. Field studies should be conducted and other such applicable data gathered to adequately determine which environmental areas and/or features need to be protected. There must be written justification supporting the decision to designate the particular area as one that is environmentally sensitive.

§3.3 Designation Criteria

To preserve an ecosystems and ecologically viable landscapes, the following natural resources, found on a large undisturbed landscape, must be identified and mapped. It is critical that these areas remain connected and undisturbed allowing the resources to function properly.

§3.3.1 Wetlands, Water bodies, Watercourses.

- A. Wetlands shall include and be characterized as follows:

1. Lands that qualify or are commonly referred to as marshes, swamps, sloughs, bogs, flats, vernal pools, wetland meadows and other wetlands whether flooded at all times, flooded seasonally or having a water table at least three consecutive months of the year within six inches of the ground surface or supporting aquatic or semiaquatic vegetation.
2. Lands and submerged lands containing remnants of any vegetation that is not aquatic or semiaquatic that has died because of wet conditions over a sufficiently long period, provided that such wet conditions do not exceed a maximum seasonal water depth of six feet.
3. Lands and water substantially enclosed by aquatic or semiaquatic vegetation as set for in subsection (1) of this section or by dead vegetation as set forth in subsection (2) of this section, the regulation of which is necessary to protect and preserve the aquatic and semiaquatic vegetation.
4. The water overlying the areas set forth in subsections (1) and (2) of this section and the lands underlying subsection (3) of this section.
5. Lands and submerged lands containing sensitive soils where the slope is less than 3% and where the typical wetlands vegetation and a groundwater table within six inches of the surface for over three consecutive months in the year found.
6. Soil types that are poorly drained, alluvial or floodplain soil.

B. Watercourses shall include and be characterized as follows:

1. A running stream of water; a natural stream fed from permanent or natural sources, including rivers, creeks, springs, runs and rivulets; a stream, usually flowing in a particular direction, though it need not flow continuously.
2. The watercourse must flow in a definite channel, having a bed or banks. It usually discharges itself into some other stream or body of water. It must be something more than mere surface drainage over the entire face of the tract of land, occasioned by unusual freshets or other extraordinary causes.

C. Water bodies shall include and be characterized as follows:

1. Any natural or artificial pond, lake, reservoir or other area which ordinarily or intermittently contains water and which has a discernable shoreline.

D. Establishing and interpreting wetland and buffer area boundaries.

1. Wetlands, water bodies and watercourses and their adjacent critical terrestrial habitat that are ecologically related and cannot be considered in isolation. Buffers are extremely important ecologically and many species depend on the uplands that border wetlands for critical habitat.
2. The boundaries of the wetlands, water bodies and watercourse and buffer areas shall be determined by a field investigator and surveyed by a licensed surveyor. The buffer area shall extend to the extent deemed necessary to protect wildlife and other critical resources. The authorized official should

consult with biologists, hydrologists, soil scientists, ecologists/ botanists or other experts and professionals as needed.

§3.3.2 Floodplains.

A. Floodplains shall include and be characterized as follows:

1. Any land area susceptible to being inundated by water as a result of the overflow of inland or tidal waters or the unusual and rapid accumulation of runoff of surface waters from any source.
2. Land subject to a one-percent or greater chance of flooding in any given year. This is commonly referred to as the "one-hundred year floodplain".
3. Floodway or channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot.

§3.3.3 Aquifers.

A. Aquifers shall include and be characterized as follows:

1. A consolidated or unconsolidated geologic formation, group of formations or part of a formation capable of yielding a significant amount of groundwater to wells, springs or infiltration galleries.
2. Soil or rock units that have substantial porosity plus sufficient permeability to permit storage or economic extraction of water.

§3.3.4 Scenic Resources.

A. General Characteristics. A scenic resource shall be found to possess one (1) or more of the following general characteristics.

1. Illustrative of a natural landscape feature, geologic feature or improvement representing the natural character and history of the [insert name of municipality].
2. Possessing a unique overall quality of scenic beauty, scale, texture and form.

B. Specific characteristics. A scenic resource shall be found to have one (1) or more of the following specific characteristics:

1. Roadways.
 - a. The natural landscape on the edge of the roadway consists of dense forest edge with extensive, healthy or unusual variety of major rock outcroppings.

- b. Roadway that provides a scenic vista or a panoramic view over one (1) or more of the other types of resources such as slopes, ridgelines, open fields and meadows, water's edge, cultural places and tress and stands of trees.
- c. The road has a narrow, winding quality linking it with the rural past.
- d. The road has a special character defined as identified by the [insert name of municipality].

2. Slopes.

- a. A rise in elevation providing a focal point of a vista or elements of a panoramic view.
- b. An elevation which because of steepness, geologic structure, water flow or vegetation is aesthetically pleasing.
- c. Areas that provide critical nesting and denning habitat.

3. Ridgelines.

- a. The crest of hills that are the focal points of vistas or are elements of a panoramic view.
- b. Linear elements that define the horizon or define progression of significant elevation.
- c. Important wildlife dispersal areas.

4. Open fields and meadows.

- a. A large open area where the predominant vegetation consists of herbaceous growth and shrubs that provide unique and distinct landscape scenery significantly different from a predominantly wooded landscape.
- b. The open field or meadow provides a visual link to the agricultural history of the [insert name of municipality].
- c. The open field provides an important visual focus for stands of tress, stone walls or fences.
- d. Areas of critical wildlife habitat.

5. Water's edge.

- a. Reservoirs, ponds, lakes and permanently running streams and brooks that are focal points of vistas or are elements of a panoramic view.
- b. The reservoir, pond, lake or permanently running stream or brook provides a reflective or aesthetically scenic view.

6. Cultural places.

- a. Settings and locations, including buildings walls, fences, cemeteries, markers, monuments, statues, other structures and the surrounding areas which

provide a visual link to the culture and history of the [insert name of municipality].

- b. Any historically unique or significant area.
- c. Any property designated or eligible for designation on an official list of historic places.

7. Trees.

- a. Unique trees with regard to species diversity and species assemblages.
- b. Any tree or stand of trees with historic significance.
- c. Landmark tress, defined as any tree which is representative of a particular species in form, size (height, diameter breast height, crown width) and age-potential and has reached the limits of one (1) of these characteristics, or is unusual based on its location or history, and is identified as contributing significantly to the character or visual amenity of the town.

§3.3.5 Steep Slopes.

A. Steep Slopes shall include and be characterized as follows:

1. All areas in the [insert name of municipality] within fifty (50) feet of the top or toe or fifteen percent (15%) slope or greater.
2. The authorized official [insert name of municipality] may consult other information including, but not limited to, soil survey reports prepared by the Soil Conservation Service, topographic maps produced by the United States Geologic Service, field surveys and other appropriate sources in order to more accurately locate and delineate steep slopes.

§3.3.6 Woodland, Forests and Trees.

A. Woodlands and trees shall include and be characterized as follows:

1. Five or more contiguous acres of woodland.
2. All areas less than five acres with stands of trees measuring six (6) inches in diameter at any point 4.5 feet above existing ground level.
3. Significant areas covered by shrubs or other vegetative ground cover.

§3.3.7 Wildlife and Wildlife Habitat.

A. Wildlife and wildlife habitat shall include and be characterized as follows:

1. Areas where primarily endangered, threatened and sensitive species have a primary association.
2. Habitats and species of local importance.
3. Lakes, ponds, streams, rivers and their submerged aquatic beds that provide fish and wildlife habitat.

4. Natural preserves or conservation areas.
5. Wildlife corridors and landscaped linkages.
6. Areas with one of the following attributes: wildlife diversity, significant seasonal ranges for wildlife, wildlife migration corridors, limited availability and/or highly vulnerable habitat.
7. Significant habitat areas including habitat that is limited, declining or highly vulnerable to degradation and destruction, and ecological communities.
8. Species that are unique, rare, threatened, endangered or otherwise deemed to be of significance to the [insert name of municipality].

§4 Performance Standards.

The following standards are designed to ensure that resources comprising the critical environmental area are impacted to the least possible extent. Performance standards ensure that the landscape will remain connected and that resources can function in a natural state. The following standards are applicable to all development activities that occur within the Critical Environmental Overlay District.

The municipality may already have similar regulations set out in the zoning chapter or other natural resource protection chapters within the municipal code. However the municipality may wish to apply stricter standards to the critical environmental areas to provide added protection to sensitive areas. Standards may also be set forth here or at minimum a directive to apply the other land use chapters to ensure complete protection of critical areas.

§4.1 Fragmentation

- A. Objectives. To decrease to the greatest extent possible the fragmentation of ecologically significant landscapes. To maintain habitats and ecosystems such that natural processes are not disrupted and biodiversity is not diminished.
- B. The objectives shall be accomplished by applying the following standards.
 1. To the greatest extent possible, development shall be limited to existing fragmented areas.
 2. If development in sensitive environmental areas cannot be avoided, development should be planned and technology used to maintain ecological connections and protect critical resources.
 3. Population nodes should be placed in close proximity to existing development to minimize the need for additional road and sewage system construction.
 4. The rehabilitation and restoration of hamlets, use of traditional neighborhood development or other methods of compact development should be used to the greatest extent possible to avoid degradation of critical resources and further fragmentation of the landscape.

§4.2 Clustering

- A. Objectives. The objectives of a residential cluster development are to encourage flexible and innovation in design and development of land in such a manner as to promote the most appropriate use of land; achieve greater variety in type, design and layout of buildings; maintain the natural and scenic qualities of the town; preserve areas of ecological significance; and minimize the amount of land required for roads and utilities.
- B. Definition. A “residential cluster development” is defined as an area with a minimum contiguous acreage of twenty acres or more to be developed as a single entity according to a plan containing one or more residential clusters, and shall include at the minimum the provisions for opens space as outlined in this section.
- C. Permitted uses. The following uses are permitted in a residential cluster development:
 - a. Dwelling units in detached, semidetached, attached and/or groups of attached.
 - b. Quasi-public social, recreational and cultural features, such as neighborhood or community centers, game rooms, swimming pools and tennis courts.
- D. Area. A residential cluster development shall have a total site area of at least twenty acres in one aggregate or contiguous parcels.
- E. Overall residential density. A residential cluster development shall not contain a total number of dwelling units which exceeds the number which could be permitted if the land were subdivided into conventional lots conforming to the minimum lot size and density requirements of this chapter applicable to the district or districts in which such land is located and conforming to all other applicable requirements.
- F. Open Space. There shall be provided at least thirty-five percent of the gross area of a residential cluster development for open space, exclusive of streets and other paved areas. In determining which land is to be preserved as open space, the natural and scenic qualities of the site shall be taken into consideration, as well as the ecological significance of the site and its utility as an open space. If the [insert relevant approval agency] finds that part of such open space is of such size, location, shape, topography and general character as to be useful to satisfy the recreational purposes, the [insert relevant approval agency] may require the applicant to provide five thousand square feet of recreational area within such open space for each detached dwelling unit and three hundred square feet of recreational area within such open space for each semidetached or attached dwelling unit. When the [insert relevant approval agency] finds that there is no such land within the open space that is of such character as to be useful to satisfy recreational purposes, then the applicant shall pay [insert name of municipality] a fee equal to seven hundred fifty dollars for each detached dwelling unit and five hundred dollars for each semidetached or attached dwelling unit show on the site plan, which shall constitute a trust fund to be used exclusively for park, playground or other recreational purposes, including the acquisition of property.
- G. Common open space title.

- a. Deed restriction. The applicant shall deliver to the [insert relevant approval agency] for its approval appropriate documents establishing deed restrictions prohibiting in perpetuity any land designated for common open space from being used for any other purpose.
- b. Organization for common ownership required. The applicant shall establish a legally constituted organization for the ownership and maintenance of all common open space and any undedicated streets. This organization shall not be dissolved, nor shall it dispose of any common space, by sale or otherwise, except to another organization conceived and established to own and maintain the common open space and nondedicated streets.
- c. Rules for organization. Any organization established in accordance with section (b) above shall:
 1. Be established before a certificate of occupancy has been issued for any dwelling unit in the residential cluster development.
 2. Make membership mandatory for each owner of a residential building and any succeeding owner.
 3. Guarantee access to all the common open space to all persons legally residing in the development and limit that access to the legal residents and their guests only.
 4. Be responsible for liability insurance and maintenance of the common open space.
 5. Require owners of residential buildings to pay the pro rata share of the costs listed above, and provided that an assessment levied by the organization shall have the same force and effect as a debt or ground rent or lien against the real property.
 6. Be able to adjust the assessment to meet changing needs.
- d. Common open spaced maintenance; maintenance plan required. The documents establishing or creating such organization shall provide for a plan for the maintenance of all-common open space and undedicated streets in the residential cluster development.
 1. Heights, bulk, coverage, location and land uses. In order to encourage and enable a residential cluster development of desirable design and to maintain a flexibility of this section, specific controls of the height, bulk and lot coverage of buildings and the location of the various permitted land uses and public facilities are not contained in this section. Instead, it is required that all stages of a residential cluster development be developed according to a comprehensive final plan for the overall development, as approved by the [insert relevant approval agency], which will conform to the requirements of this overlay district and, in addition, shall be compatible with the other requirements of the

underlying zoning district for residential or other land uses contemplated or by common good practice.

§4.3 Density Calculations.

- A. All open water, streams, ponds, and wetlands, as defined on the Official Critical Environmental Areas Map shall be excluded from the land area used by an applicant for development in the calculation of permitted densities for construction.
- B. All land areas with a slope of 50% or greater shall be excluded from the land area and land area where the slope is in excess of 15% but less than 50%, an applicant for development may use 50% of the land so sloped for development in the calculation of permitted densities for construction.
- C. Areas of significant wildlife habitat, including landscape linkages and wildlife corridors shall be excluded from the land areas used by applicant for development in the calculation of permitted densities for construction.

§4.4 Erosion and Sedimentation Control.

- A. Objective. To safeguard persons, protect property, prevent damage to the environment, and promote the public welfare by guiding, regulating, and controlling the design, construction, use, and maintenance of any development or other activity which disturbs or breaks the topsoil or results in the movement of earth on land.
- B. General Principles. The objective is to control soil erosion and sedimentation caused by land use or development activities. Measures taken to control erosion and sedimentation shall be adequate to ensure that sediment is transported from the site by a storm event of ten-year frequency or less. The following principles shall apply to all land use or development activities.

1. Selection of Control Measures

The selection of erosion and sedimentation control measures shall be based on assessment of the probable frequency of climatic and other events likely to contribute to erosion, and on an evaluation of the risks, costs, and benefits involved.

2. Protection of Adjacent Properties

Properties adjacent to the site of a land disturbance shall be protected from sediment deposition. This may be accomplished by preserving a well-vegetated buffer strip around the lower perimeter of the land disturbance, by installing perimeter controls such as sediment barriers, filters, dikes, or sediment basins, or by a combination of such measures.

3. Cut and Fill Slopes

Development shall reflect the topography and soils of the site so as to create the least potential for erosion. Areas of steep slopes where high cuts and fills may be required shall be avoided wherever possible, and natural contours shall be followed as closely as possible.

In the design of cut and fill slopes, consideration must be given to the length and steepness of the slope, the soil type, upslope drainage area, groundwater conditions and other applicable factors. Slopes, which are found to be eroding excessively within one year of construction, must be provided with additional stabilizing measures until the problem is corrected.

4. Vegetation

Natural vegetation shall be retained and protected wherever possible. A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation and related structures shall be installed as soon as practical, or within the time specified in the permit. Permanent vegetation shall not be considered established until a ground cover is achieved which, in the opinion of the code enforcement officer, is mature enough to control soil erosion satisfactorily and to survive severe weather conditions. The smallest practical area of land shall be exposed for the shortest practical time during development.

5. Stabilization of Denuded Areas and Soil Stockpiles

Permanent or temporary soil stabilization must be applied to denuded areas within 15 days after final grade is reached on any portion of the site. Soil stabilization must also be applied within 15 days to denuded areas which may not be at final grade but will remain dormant (undisturbed) for longer than 60 days. Soil stabilization refers to measures, which protect soil from the erosive forces of raindrop impact and flowing water. Applicable practices include vegetative establishment, mulching, and the early application of gravel base on areas to be paved.

6. Sediment basins, debris basins, desilting basins, silt traps or filters shall be installed and maintained to remove sediment from runoff waters from land undergoing development.

7. Timing and Stabilization of Sediment Trapping Measures

Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment on-site must be constructed as a first step in grading and must be made functional before upslope land disturbance takes place. Earthen structures such as dams, dikes, and diversions must be seeded and mulched within 15 days of installation.

8. Stabilization of Waterways and Outlets

All on-site stormwater conveyance channels shall be designed and constructed to withstand the expected velocity of flow from a 10-year frequency storm without erosion. Stabilization adequate to prevent erosion must also be provided at the outlets of all pipes and paved channels.

9. Storm Sewer Inlet Protection

All storm sewer inlets which are made operable during construction shall be protected so that sediment-laden water will not enter the conveyance system without first being filtered or otherwise treated to remove sediment.

10. Working In or Crossing Watercourses

Construction vehicles should be kept out of watercourses to the greatest extent possible. Where in-channel work is necessary, precautions must be taken to stabilize the work area during construction to minimize erosion. The channel (including bed and banks) must be restabilized immediately after in-channel work is completed.

11. Stormwater Management Criteria for Controlling Off-Site Erosion

Provision shall be made to accommodate the increased runoff caused by changed soil and surface conditions during and after development. Drainageways shall be designed so that the final gradients and the resultant velocities of discharges will not create additional erosion.

12. Underground Utility Construction

The construction of underground utility lines involving installation, maintenance or repair which disturbs more than 10,000 square feet shall be subject to the following criteria:

- a. No more than 500 feet of trench are to be opened at one time.
- b. Where consistent with safety and space consideration, excavated material is to be placed on the uphill side of trenches.
- c. Trench dewatering devices shall discharge in a manner, which will not adversely affect flowing streams, drainage systems, or off-site property.

13. Construction Access Routes

Wherever construction vehicle access routes intersect paved public roads, provisions must be made to minimize the transport of sediment (mud) by runoff or vehicle tracking onto the paved surface. Where sediment is transported onto a public road surface, the roads shall be cleaned thoroughly at the end of each day. Sediment shall be removed from roads by shoveling or sweeping and transported to a sediment control area. Street washing shall be allowed only after sediment is removed in this manner.

14. Disposition of Temporary Measures

All temporary erosion and sediment control measures shall be disposed of within 30 days after final site stabilization is achieved or after the temporary measures are no longer needed, unless otherwise authorized by [insert relevant approval agency]. Trapped sediment and other disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion and sedimentation.

15. Maintenance

All temporary and permanent erosion and sediment control practices, aesthetics and the requirements of continuing maintenance shall be considered.

16. Aesthetics

In the design of erosion and sediment control practices must be maintained and repaired as needed to assure continued performance of their intended function.

17. Review by the Westchester County Soil & Water Conservation District

The Westchester County Soil and Water Conservation District shall be consulted for review and recommendations for all erosion and sediment control plans for proposed developments submitted to the municipality.

§4.5 Filling and Grading.

A. Objectives. To provide for the proper use of land and to remove the dangers caused by soil erosion, filling operations, the stripping of soil and alteration to the natural contour of earth as it presently exists in the [insert name of municipality], thereby resulting in detriment to the health, welfare and safety of persons and property in the [insert name of municipality], the depletion of trees, soil and natural vegetative, cover, damage to agricultural crops and depreciation in value of and physical damage to properties adjacent to such dangers.

B. Exempt properties and uses.

The following uses shall be exempt from the provisions of this section.

1. Any filling or grading operation where a building permit shall have been duly issued, provided that it is limited in area and bulk to that strictly essential for, and limited to the extent of, the foundation, walls, and basement of such building or for the construction of a wall, driveway, sidewalk, swimming pool, service connections or other structure or underground tank, and which is actually replaced by a basement foundation, wall, swimming pool, tank or other underground structure, does not involve any change in the existing grade and contour.

2. Any filling or grading operation, which shall constitute repair, maintenance or resurfacing of an existing sidewalk, walk or driveway, provided that such sidewalk, walk or driveway is not enlarged or extended.
3. Nothing in this chapter shall be construed as to prevent the owner or occupant of a premises used as a residence from placing or moving topsoil for lawn maintenance or repair or for landscaping purposes, provided that no power tools are used other than a garden tractor not exceeding six horsepower.

C. Findings.

The [insert relevant approval agency] shall make the following findings before approving any development involving grading and filling:

1. The work will not interfere with surface drainage, endanger any street, road, highway or municipal facility or interfere with support or drainage of adjoining properties.
2. The property can be restored and rehabilitated so that it will not cause soil erosion, drainage problems or create disturbance of land in conflict with the established purposes of this chapter.
3. The work or its results will not cause substantial traffic hazards, vibrations, noise, dust or sand.
4. The work or its result will be in conformity to the natural topography of land and will not change the established character of the neighborhood or depress the value of the lands generally in such neighborhood.
5. The period of time and the methods for the completion of the work are reasonable.
6. Accessibility of the property involved in the application to fire and police protection; access of light and air to the property and to adjoining properties; traffic conditions; transportation requirements and facilities; the general safety, health, pace, comfort and general welfare of the community at large; and whether the location and size of the proposed use, the nature and intensity of the operations involved, the size of the site in relation to the use, the location of the site with respect to existing or future streets giving access to it and parks and drainage systems shall be such that it will be in harmony with the Comprehensive Plan and Zoning Ordinance of the [insert name of municipality] and that location, nature and height of buildings, retaining walls and fences will not discourage the appropriate development and use of adjacent land, uses, structures and buildings or impair the value thereof.
7. Operations in connection with any use shall not be more objectionable to nearby properties by reason of noise, fumes, vibration or lights than would be the operations of any use permitted by right.

- D. Conditions. The [insert relevant approval agency] is authorized to impose , in granting approval, the following conditions:
1. The establishment of the permitted period of time for the completion of the work.
 2. The establishment of hours and days of operation, taking into account the nature of the area in which the work is to be performed.
 3. The construction of fencing and other safety precautions, specifying the height and type of fencing or precaution and the location of the same.
 4. The maximum slope and depth of any fill and the height and slope of any material moved or removed. All excavations and all conformations resulting from grading and filling operations shall be drained so there shall be no water or pools gathering in the bottom of such property.
 5. The provisions of access roads or other adequate means of access or ingress, which shall have a surface satisfactory to the [insert relevant approval agency].
 6. The establishment of the minimum horizontal distance from any public road or highway or from any work to be performed.
 7. No filling operation shall be conducted which results in the deposit of topsoil, earth, sand, gravel, rock or other substance upon or shall interfere with any natural watercourse on or the natural drainage of the property; and at the termination of the permit, the premises shall be roughly graded and, if necessary, other provisions made of a permanent nature so that the natural drainage shall be fully restored.
 8. There shall be no interference with existing drainage, nor shall the filling operation divert or cause water to collect on the property of others or interfere with or overload any existing or planned drainage facilities, endanger any road, street or highway within the limits of the town or produce or enlarge areas from which water will not drain; any provision shall be made for the temporary drainage to be effective upon completion of the operation.
 9. The execution of a payment and performance bond or cash deposit in the amount sufficient to secure the rehabilitation of the site and/or to guarantee the faithful performance of the work in accordance with the approval of the permit and all ordinances, laws and regulations of the [insert name of municipality] and all plans and specifications filed with the application for the permit. Such bond shall be approved by the [insert name of municipality] Attorney as to form and manner of execution and sufficiency of sureties and shall run for the same term as the term of the approval. Default on such bond or deposit shall be declared by the [insert relevant approval agency] upon recommendation of the Code Enforcement Officer.

10. Such other considerations or requirements as the [insert relevant approval agency] in its discretion shall determine to be necessary for the protection of health, safety and welfare of the public.

§4.6 Mining and Excavation.

- A. Objective. To provide for the proper use of land and to mitigate the dangers caused by soil erosion, filling operations, excavations in the ground, sand and gravel excavation, the removal of trees, the stripping of soil and alteration to the natural contours of the earth as it presently exists in the [insert name of municipality], thereby resulting in detriment to the health, safety of persons and property, the depletion of trees, soil and natural vegetative cover and the depreciation in value of and physical damage to properties adjacent to such dangers.
- B. Exemptions. The following properties and uses shall be exempt from the provisions of this section:
 1. Any excavation incident to public highway construction or maintenance.
 2. Any removal of vegetation or soil (not amounting to an excavation), or planting of it, incident to the business of operating a nursery, farm or sod farm.
 3. A single parcel of property located in a residential zoning district which is owned and occupied by the same family unit and which is incapable of being further subdivided into two or more valid conforming lots pursuant to the Zoning Ordinance for the district in which the property is located, provided that the [insert relevant approval agency] determines that there is no existing or potential danger to adjoining properties by virtue of fill or excavation operations.
 4. Any excavating operation in which fill or other material is removed from the premises where a building permit shall have been duly issued, provided that the excavation is limited to not more than four feet below original ground level and not more than four feet below the original ground level and not more than fifty yards of material is to be removed or as determined by the [insert relevant approval agency] in area and bulk to that strictly essential for and limited to the extent of the foundation, walls and basement of such building or for the construction of a wall, driveway, sidewalk, swimming pool, service connections or other structure or underground tank, and which is actually replaced by a basement foundation, wall, swimming pool, tank or other underground structure, does not involve any change in the existing grade and contour.
 5. Any excavation or filling operation in connection with a subdivision or site plan which has been duly approved by the [insert relevant approval agency] and which makes specific provision for grading, contouring and drainage in the manner deemed by the [insert relevant approval agency] appropriate to carry out policies.

- C. Findings. The [insert relevant approval agency] shall make the following findings before approving any development or other activity involving mining, excavation, filling, draining, or clearing:
1. Development or other activity does not create hazardous or dangerous conditions by creating pits, holes or hollows in the earth, by creating or leaving unprotected banks or ledges of exposed earth or by permitting or creating conditions, which cause the collection of water.
 2. Usefulness of the land involved or any surrounding land is not impaired.
 3. Development activity does not cause soil erosion, which depletes the land of vegetative cover and supply of organic material and results or tends to result in the washing of the soil, erosion or interference with normal drainage.
 4. Development activity does not divert or causes water to collect on the property of others, interferes with or overloads any existing or planned drainage facilities of the [insert name of municipality], causes unnatural runoff or results in the collection of pools of water, with the possibility of health and safety hazards or the lowering of value of the property affected.
 5. No cut trees, timber, debris, rocks, stones, junk, rubbish or other waste materials of any kind will be buried in any land or deposited on any lot or street except as approved by the [insert relevant approval agency]. If a building permit has been previously issued for premises, no certificate of occupancy shall be issued unless the conditions described above, which are not approved by the [insert relevant approval agency], have been remedied, nor shall any building permit or certificate of occupancy in the same subdivision be issued until the conditions described, unless approved, also have been remedied.
 6. The work will not interfere with surface drainage, endanger any street, road, highway or municipal facility or interfere with support or drainage of adjoining properties.
 7. The property can be restored and rehabilitated so that it will not cause soil erosion, drainage problems or create disturbance of land in conflict with the established purposes of this chapter.
 8. The work or its result will not cause substantial traffic hazards, vibrations, noise, dust or sand.
 9. The work or its result will be in conformity with the natural topography of land and will not change the established character of the neighborhood or depress the value of lands generally in such neighborhood.
 10. The period of time and the methods for the completion of the work are reasonable.

11. Accessibility of the property involved in the application to fire and police protection; access of light and air to the property and to adjoining properties; traffic conditions; transportation requirements and facilities; the general safety, health, peace, comfort and general welfare of the community-at-large; whether the location and size of the proposed use, the nature and intensity of the operations involved, the size of the site in relation to the use, and the location of the site with respect to existing or future street with respect to existing or future street giving access to it, parks and drainage systems shall be such that it will be in harmony with the location, nature and height of buildings, retaining walls and fences will not discourage the appropriate development and use of adjacent land, uses, structures and buildings or impair the value thereof.
 12. Operations in connection with any use shall not be more objectionable to nearby properties by reason of noise, fumes, vibration or lights than would be the operations of any use permitted by right.
 13. Provisions have been made to clean area and streets used as truck routes on a regular basis.
 14. All property shall be suitable graded and recovered with an adequate layer of topsoil, satisfactory to the [insert relevant approval agency], which shall contain no particle over two inches in diameter, over the entire area of the property except that portion which had not been disturbed in construction and that portion covered by structures, construction in roads, driveways, walks, patios and swimming pools.
 15. No certificate of occupancy shall be issued until respreading of topsoil and seeding of lawn has been completed, except that between October 1 and April 1 and between May 15 and August 15 the developer shall submit an agreement in writing, signed by the developer and property owner, with a copy of the [insert relevant approval agency], that respreading of soil and seeding of lawn will be done during the immediately following planting season, and leave a cash escrow for performance, in such amount as shall be determined by the [insert relevant approval agency].
- D. Conditions. The [insert relevant approval agency] is authorized to impose, in granting approval, the following conditions:
1. The establishment of the permitted period of time for the completion of the work.
 2. The establishment of hours and days of operation, taking into account the nature of the area in which the work is performed.
 3. The construction of fencing and other safety precautions, including street signs and flagmen, specifying the height and type of fencing or precaution and the location. No excavation shall be made below the grade of surrounding property to a depth

greater than four feet unless the excavation is properly guarded and protected by a substantial fence of proper height and strength which will prevent children and adults from climbing over such fence, and with gates, which gates shall be locked at all times when the property is not being worked.

4. The maximum slope and depth of any excavation or fill and the height and slope of any material moved or removed shall be in accordance with city standards. All excavations and all conformations resulting from grading or filling operations shall be drained so that water or pools gathering in the bottom of such excavations shall not be greater in depth than one foot.
5. The provision of access roads or other adequate means of access or ingress.
6. No excavation shall be made nor shall any filling operation be conducted which results in the deposit of topsoil, earth, sand, gravel, rock, or other substance upon, or shall interfere with any natural watercourse on or the natural drainage of, the property, and at the termination of the permit, the premises shall be roughly graded and, if necessary, other provisions made of a permanent nature so that the natural drainage shall be fully restored.
7. There shall be no interference with existing drainage, nor shall the operation divert or cause water to collect on the property of others or interfere with or overload any existing or planned drainage facilities, endanger any road, street or highway within the limits of the [insert name of municipality], or produce or enlarge areas from which water will not drain, and provision shall be made for the temporary drainage of the surrounding area during the operation and for the restoration of permanent drainage to be effective upon completion of the operation.
8. Requirements for rehabilitation of the site when necessary.
9. The execution of a payment and performance bond or cash deposit in an amount sufficient to secure the rehabilitation of the site and/or to guarantee the faithful performance of the work in accordance with the approval of development and all ordinances, laws regulations of the [insert name of municipality]. Such bond shall be approved by the Corporation Counsel as to form and manner of execution and sufficiency of sureties and shall run for the same term as the term of the permit and for a one-year maintenance period after completion of the work. Default on such bond or deposit shall be declared by the [insert name of municipality] Manager upon recommendation of the [insert relevant approval agency].

§4.7 Stormwater Management.

- A. Objective. To protect, maintain and enhance both the immediate and the long-term health, safety and general welfare of the citizens of the [insert name of municipality], this section has the following objectives:

1. Prevent increases in the magnitude and frequency of stormwater runoff so as to prevent an increase in flood flows and in the hazards and costs associated with flooding.
2. Prevent decreases in groundwater recharge and stream base flow so as to maintain aquatic life, assimilative capacity and potential water supplies.
3. Maintain the integrity of stream geometry so as to sustain the hydrologic functions of streams.
4. Facilitate the removal of pollutants in stormwater runoff so as to perpetuate the natural biological functions of streams.
5. To the extent practical, secure multiple community benefits such as groundwater replenishment, open space protection and increased recreational opportunity through stormwater management planning.

B. Applicability. The stormwater management control plan should be prepared and reviewed for all development when it is determined that stormwater runoff and/or erosion will have a significant effect on the environment.

1. It has been established that land clearing, land grading or earthmoving activities can have a significant effect on the environment, therefore, no person, corporation, organization or public agency may, on or after the effective date of the chapter:
 - a. Initiate any land clearing, land grading or earthmoving activities without first preparing a stormwater management plan and obtaining approval of said plan from the [insert relevant approval agency].
 - b. Alter any drainage system without first preparing a stormwater plan and obtaining approval of said plan from the [insert relevant approval agency].

C. Exemptions. The following activities are exempt from the stormwater management and erosion control plan requirements:

1. Agricultural activities, including household gardening.
2. Development of less than five (5) single-family or duplex residential dwelling units and their accessory structures such as garages and storage shed in an existing subdivision.
3. Development of one (1) single-family or duplex residential structure not in an existing subdivision.
4. Industrial and/or commercial development projects, which result in an impervious, surface less than ten thousand (10,000) square feet.
5. Any maintenance, alteration, use or improvement to an existing structure, which will not change the quality, rate, volume or location of surface water discharge or contribute to erosion and sedimentation.

D. Contents of stormwater management control plan.

1. It is the responsibility of an applicant to include sufficient information in the stormwater management plan for the [insert name of municipality] to evaluate the environmental characteristics of the affected areas, the potential and predicted impacts of the proposed activity on community waters and the effectiveness and acceptability of those measures proposed by the applicant for reducing or mitigating adverse impacts.
2. The stormwater management control plan shall contain the name, address and telephone number of the owner and developer. In addition, the legal description of the property shall be provided, and its location with reference to such landmarks as major water bodies, adjoining roads, railroads, subdivisions or towns shall be clearly identified on a map.
3. The structure and content of the stormwater management control plan should be as follows:

- a. Background information.

- 1.) Project description.

- i. Describe what is being proposed (i.e., residential lot subdivisions, planned unit development, commercial/retail development or industrial development).
- ii. Describe project size (i.e., number of acres, number of dwelling units, other buildings and density).
- iii. Describe other improvements which will be made on project site, including streets and roads, utilities (water, sewer, etc.), and give particular attention to acreage of land that will become paved and covered with buildings. Lawn acreage also should be specified.
- iv. Provide a location map. Include watershed in the community that may be impacted by project. Also, show highways, roads and proximity of project to nearest city, village or hamlet, and to the nearest water body and other prominent features.
- v. Provide a base map containing boundary lines of the project site, sub-catchments and contributory watersheds at a scale agreed upon by the municipality and developer.
- vi. Provide an analysis of site limitations and development constraints by including such factors as slope, soil erodibility, depth to bedrock, depth to seasonal high water, soil percolation, etc., to facilitate evaluation of site suitability for proposed stormwater control facilities in relation to the overall development proposal.
- vii. Provide a statement describing how this project will meet stormwater management objectives established by the [insert name of municipality].
- viii. Provide a general description of the approaches, which will be taken to control stormwater runoff.
- ix. Provide a statement indicating when project is to begin and the expected

date of completion.

- x. Provide a map and description of all critical environmental areas, conservation areas, wildlife habitats, easements, etc., to be protected. (These areas should be marked in the field.)
- xi. Provide an analysis of potential impacts from the proposed development to natural resource features on site and off site such as streams, lakes, wetlands, water supplies, coastal estuaries, etc. A determination as to whether the proposed development will affect any designated primary or principal aquifer should also be included.

b. Existing (predevelopment) conditions.

- 1) Provide map showing topography (contours) under existing conditions. On this same map, show drainage patterns, including ditches, culverts, permanent streams, intermittent/ephemeral streams or drainages, wetlands or other water bodies and existing roads. Indicate sizes of existing culverts. Delineate watershed and sub-watershed boundaries on the map.
- 2) Provide a map showing existing land use, open space, public facilities, utility lines, water supply wells on site and predominant vegetation cover types (forested, brushland, grassland, cropland, pasture, etc.).
- 3) Obtain soils survey information and, by sub-catchment, provide tabular information detailing the area in acres that are in each of the Soil Conservation Service (SCS) Hydrologic Soil Groups A, B, C or D in Table 10 in Chapter III. Soils information should be obtained by conducting a site-specific soil survey.
- 4) Where applicable, provide a map showing designated one-hundred-year floodplain boundaries in affected drainage basins in the community including any available one-hundred-year flood elevations and floodways. Show culverts downstream of project and culvert size. Show existing easements for storm drains, sewers and other utilities. Show the extent of the drainage area served by a man-made stormwater drainage network if that network system is collecting runoff from outside of the natural drainage basin and is discharging into the basin of concern.
- 5) Provide hydrologic data describing rainfall characteristics. This should include:
 - a) Precipitation data for several return periods (i.e., the one-year, two-year, ten-year and one-hundred-year storms for a twenty-four-hour duration).
 - b) Provide stream channel survey data by sub-catchment showing channel conditions including roughness and vegetation.

c. Proposed future (development) conditions.

- 1. Provide a map showing, by sub-catchment, the completed project, including lot layout, approximate location of buildings, streets and other paved surfaces, final contours, utility lines, water supply wells, individual sewage disposal systems and location and types of easements.

2. Provide tabular information, by sub-catchment, showing the acres of impervious area created in the proposed development as well as the extent of lawn and areas where the land has been made more impervious than predevelopment conditions.
3. By sub-catchment, show on a map changes to land surface, including areas of cuts and fills, changes in vegetative cover types and final contours. Indicate by sub-catchment, land clearing and earthmoving start-up and completion dates.
4. Indicate construction schedule including estimated completion date(s) and proposed winter shutdowns.
5. Comparison of predevelopment with post-development runoff.
 - a. Methodologies.
 - 1) Describe or identify the methodology used to compare and evaluate pre- with post-development runoff conditions in terms of volumes, peak rates of runoff, routing and hydrographs.
 - 2) Peak discharge rates and total runoff volumes from the project area for existing site conditions and post-development conditions for the two-year and ten-year, twenty-four-hour storm events should be calculated. The relevant variables used in this determination, such as curve number and time of concentration, should be included.
 - 3) Downstream analysis of the one-hundred-year, twenty-four-hour event, including peak discharge rates, total runoff volumes and evaluation of impacts to receiving waters and/or wetlands, should be evaluated.
 - 4) Storage volume and surface area requirements necessary to provide flood control for runoff generated during two-year, ten-year and one-hundred-year, twenty-four-hour storm events should be calculated.
 - 5) Discharge provisions for the proposed control measures, including peak discharge rates, outlet design, discharge capacity for each stage, outlet channel design and a description of the point of discharge should be provided.
 - 6) Sufficient detail should be provided to show that the stormwater facility(ies) is/are capable of withstanding the discharge from the one-hundred-year storm event.
 - b. Describe or identify the methodology used to compare and evaluate pre- with post-development pollutant loading. Contaminants to be compared include total suspended solids, total phosphorus, total nitrogen and biological oxygen demand. Pollutant loading coefficients may be used.

- 1) Water quality treatment facilities should be designed for the one-year, twenty-four-hour storm event.
- 2) The necessary storage volumes should be calculated and the proposed stormwater measure(s) should be described in detail. The plans should provide sufficient detail of the water quality control measures to ensure that the relevant design criteria will be met.
- 3) Specific information may include surface area dimensions, depths, inlet designs, planting specifications for use of aquatic vegetation, percent solids removal expected, discharge rates and outlet design.

c. Calculations.

- 1) State any assumptions used in making the calculations.
- 2) Provide assumptions and coefficient values used in the hydrologic calculations for making above comparisons. Evaluate the post-development effect of stormwater runoff on identified floodplains or designated flood hazard areas in the community.
- 3) Compare pollutant loading between before and after conditions. Provide computations.

6. Stormwater management.

a. Stormwater management facilities.

- 1) Describe in a narrative and show on a map, by sub-catchment, proposed stormwater management facilities. A soil profile to at least one (1) foot below the stormwater management facility should be provided.
- 2) Provide designs of proposed structural stormwater management facilities including peak flow attenuation and water quality management. Indicate which facilities will be used to attenuate peak flows, which will be used to enhance stormwater runoff quality and which facilities will serve a dual role. Identify the materials to be used in constructing these facilities
- 3) Calculations for sizing stormwater facilities should be provided.
- 4) Provide designs and calculations for siting and sizing such specialized measures and devices as filter strips, water quality inlets (oil/grit separator), forebays, etc., which will be used to remove sediment, oil-based products and other contaminants found in urban runoff.
- 5) Provide an evaluation of the amount of treatment or level of pollutant reduction that can be expected from the proposed stormwater management facility(ies). Contaminants to be considered in this evaluation include total suspended solids (TSS), total phosphorus (P), total nitrogen (N), biological oxygen demand (BOD) and thermal pollution. Evaluation of the effectiveness of stormwater management practices can be based on reports on the effectiveness of comparable stormwater facilities on similar sites.

- 6) Provide information on the design provisions that address safety considerations (e.g., gentle slopes and benches in ponds) and accommodate maintenance needs (including access to conduct maintenance operations).

b. Stormwater conveyance system.

- 1) Describe in a narrative and map, by sub-catchment, the stormwater conveyance (drainage) system. Indicate which segments of the drainage system are open channels and which segments are piped (culverts). Provide rationale and justification for installing piped segments.
- 2) Provide plan view and cross-sectional designs of stormwater conveyance systems. Hydrologic calculations for siting and sizing the stormwater conveyance system should be provided. Identify materials to be used.
- 3) Provide plans and designs and identify materials to be used for preventing erosion in channel sections of stormwater conveyance systems. Show how erosion at culvert inlets and outfalls will be prevented.

c. Recreational and/or landscape features.

- 1) Describe and illustrate any recreational or landscape features, which are to be factored into the stormwater management system to enhance the aesthetics of the facility(ies) and provide multiple use options.
- 2) On a map prepared, show the location of recreational facilities.
- 3) Provide landscaping sketches and designs for the stormwater management facilities.

E. Plan review process.

1. The stormwater management control plan shall be reviewed in a three-stage process:
 - a. Pre-submission phase, which provides an opportunity for the community to learn of the developer's intent and for the developer to learn of the community's requirements and standards for development.
 - b. Preliminary site development plan phase, which includes the submission of an application for preliminary site development plan approved for a developer. The application shall be accompanied by information about the proposal as set forth in this section. Because it is a preliminary action and not final, [insert relevant approval agency] action on the proposal shall be given as tentative approval, tentative approval with modification or disapproval.
 - c. Final site development plan phase: If approval or approval with modification is tentatively given in the preliminary site development phase, the next step can be submission of a final application, including the necessary documentation for final approval. It is in this phase that any requested modifications shall be satisfied as part of final application submission.

2. The stormwater management plan shall not be approved unless it is consistent with the purposes and objectives of this section, except where a variance has been granted or where off-site management is approved.
3. Inspections. The applicant shall schedule the following inspections with the Code Enforcement Official:
 - a. Initial inspection: prior to approval of the stormwater management and erosion control plan.
 - b. Erosion control inspection: to ensure erosion control practices have been installed in accord with the plan.
 - c. Bury inspection: prior to backfilling of any underground drainage or stormwater conveyance structures.
 - d. Final inspection: when all work including construction of stormwater management facilities has been completed.
4. The Code Enforcement Official shall inspect the work and either approve it or notify the applicant, in writing, in what respects there has been a failure to comply with the requirements of the approved stormwater management and erosion control plan. The applicant shall promptly correct any portion of the work, which does not comply, or the applicant will be subject to the bonding provisions and the penalty provisions of this ordinance. The Code Enforcement Official may conduct random inspections to ensure effective control of erosion and sedimentation during all phases of construction.
- F. Off-site stormwater management facilities. The [insert name of municipality] may allow stormwater runoff that is of unacceptable quality or which would be discharged in volumes or rates in excess of those otherwise allowed by this chapter to be discharged into stormwater management facilities off the site of development if all of the following conditions are met:
 1. It is not practicable to completely manage runoff on the site in a manner that meets the performance standards set forth above.
 2. The off site drainage facilities and channels leading to them are designed, constructed and maintained in accordance with the requirements of this section.
 3. Adverse environmental impacts on the site of development will be minimized.
 - a. Adequate provision is made for the sharing of construction and operating costs of the off site facilities. The developer may be required to pay a portion of the cost of constructing the facilities as a condition to receiving approval of the drainage plan.

- b. Use of regional off site stormwater management facilities does not eliminate the requirement that the first flush be captured and treated on site.
- c. A request to use off site stormwater management facilities and all information related to the proposed off site facilities should be made a part of the developer's stormwater management plan.

G. Maintenance of facilities.

1. The [insert name of municipality] shall determine whether stormwater management facilities are to be maintained by the developer/owner, a homeowner's association or by the [insert name of municipality].
 - a. If maintenance is to be performed by a homeowner's association, the homeowner's association must be registered pursuant to § 352-e of the New York State General Business Law.
 - b. If maintained by an owner or homeowner's association, a maintenance plan containing a maintenance schedule shall be prepared by the developer, owner and/or homeowner's association for approval by the [insert name of municipality].
 - c. Stormwater management facilities maintained by an owner or homeowner's association shall have adequate easements to permit the [insert name of municipality] Code Enforcement Official to inspect and, if necessary, to take corrective action should the owner fail to properly maintain the system. Before taking corrective action, the [insert name of municipality] shall give the owner or homeowner's association written notice of the nature of the existing defects. If the owner or homeowner's association fails within thirty (30) days from the date of notice to commence corrective action or to appeal the matter to the [insert name of municipality] Board, the town may take necessary corrective action, the cost of which shall be borne by the owner or developer pursuant to § 186-13 of this section or by the homeowner's association. If, in the event that the homeowner's association fails to pay for required corrective action, the [insert name of municipality] shall have a lien placed on the real property of members of the homeowner's association until payment is made.
2. Stormwater management facilities may be dedicated to the [insert name of municipality] for the purposes of maintenance by mutual consent and agreement of the developer/owner and town and shall be dedicated to the [insert name of municipality] when said facilities are determined to be appropriately a part of the [insert name of municipality] maintained stormwater management system.

§4.8 Timber Management.

A. Objective. To promote the welfare of the people of the [insert name of municipality] by providing for regulation of the removal of trees in such a way as to protect and preserve the environment, roads and quality of the community in general. Trees are a natural resource and an integral part of the natural landscape of the town, providing soil erosion control, surface water flow barriers and scenic beauty, and fostering plant and wildlife species. The removal or harvest of trees is therefore of prime concern to the people of the [insert name of municipality] and shall not be permitted, except as hereinafter provided.

B. Management Plan

To obtain approval for timber harvesting operations a management plan shall be submitted which contains the following information:

1. A precise description of the operating area with an accurate topographic map of a scale of not less than eight inches to one mile, indicating:
 - a. Location of timber stands proposed for timber harvesting such that old growth stands, prior cut stands, small stands and hardwood stands are identified.
 - b. Location of truck roads, both existing and proposed.
 - c. Location of drainage structures.
 - d. Location of all buildings.
 - e. Location of firebreaks.
 - f. Location of all streams.
2. An operating plan describing the following information:
 - a. Estimated total volume of timber by species and diameter class and the basis of said estimate. If estimated by timber inventory, then specify date of inventory, type of inventory, and percent sample.
 - b. Type of timber stand in terms of age and crown density.
 - c. Method of tree selection for harvest and leave.
 - d. Slash disposal and cleanup plans.
 - e. Erosion control measures.
 - f. Fire prevention plan.
 - g. Name, address, and telephone number of logging operation and on-the-premises supervisor.
 - h. The desired haul route.
 - i. Name and address of owner's forestry consultant.
 - j. Dates within which the timber harvest operations are to take place.
3. A statement of intent of the operation.
 - a. Timber harvest for sustained timber production.
 - b. Subdivision development.
 - c. Site development.
 - d. Recreation development.

e. Other.

4. Proposed area, drainage structures, and truck roads shall be suitably designated on the ground by flagging or other such means so that area is easily determined.

C. Findings. The [insert relevant approval agency] shall make the following findings before approving any timber harvesting or forest clearing activity:

1. To the greatest extent possible trees, shrubs and plants located within a floodplain, stream buffer, wetland, steep slope or critical habitat are retained
2. Contiguous forests that connect large undeveloped or highly vegetated tracts of land are maintained.
3. Trees, shrubs, or plants determined to be rare, threatened, or endangered are protected.
4. To the extent possible, no new Truck roads are created. If such roads must be created, they are laid out and constructed in such a manner that the general contours of the land are utilized, thus avoiding excessive cuts and fills. Roads shall be located so as to cause the minimal amount of erosion and stream contamination. Where possible all roads shall be located so that fill material will not be deposited closer than fifty feet from the high water mark of any stream or natural watercourse except where truck roads cross streams.
5. No track laying or wheeled equipment shall operate, deposit or disturb soil within fifty feet of the high water mark of any stream.
6. No slash or debris is allowed to accumulated in any stream. No streams are used as a truck road or tractor road.
7. All road and skid road crossings of streams will be provided with temporary or permanent drainage structures which will adequately carry water under the road or skid road without the water being contaminated or polluted with soil or organic material.
8. Drainage structures are installed concurrently with road and skid road construction. They shall be of adequate size to carry anticipated peak flows.
9. Any fill deposited for truck road or tractor road crossings will be removed from natural watercourses.
10. Tractor trails and skid trails are limited in number and width consistent with sound logging practices, and due diligence shall be exercised in skidding operations so as to prevent damage to leave trees, other vegetation and soil.

11. Landings are kept to a minimum in size and number consistent with sound logging practices. Landings shall not be located where their construction causes disturbance or depositing of soil within 100 feet of any stream or natural watercourse.
12. Measures are taken to control erosion.
13. No slash or debris greater than one inch in diameter shall be permitted within one hundred feet of any dwelling or public road.
14. The amount of trees to be harvested from any old growth, prior cut, small or hardwood stand, shall be in accordance with the following standards:
 - a. Old growth stands. Leave uncut and undamaged all tress measuring thirty inches or less provided, however, no leave stand shall contain less than two trees.
 - b. Prior cut stands. Leave uncut and undamaged a well distributed timber stand Each leave stand area shall contain forty percent of those coniferous tress measuring twenty inches and above present prior to commencement of timer harvesting. No trees eighteen inches or less shall be cut. Leave trees shall be thrifty, vigorous, coniferous trees with well formed full crowns.
 - c. Small stands. Leave uncut and undamaged a well distributed timber stand. Each leave stand shall fifty percent of those coniferous trees measured twenty inches present prior to commencing of timber harvesting. No trees eighteen inches or less shall be cut. Leave trees shall be thrifty, vigorous, coniferous tress with well formed full crowns.
 - d. Hardwood stands. All coniferous tress not damaged beyond recovery by the timer harvest must remain uncut.
15. Timber harvesting of any stand shall be limited to only one operation in any ten-year period of time; provided that, following the ten-year period, minimum stocking has been obtained.
16. Trees shall be felled to the fullest extent possible that topography, lean of tree, landings, utility lines, local obstructions and safety factors permit, in line skidding direction, away from roads, and with minimum damage to tress and reproduction. Trees located within a tree length of a stream shall be felled so that tree branches will not enter the stream.
17. Efforts are taken to reforest whenever possible.

§5 Approval Requirements and Standards

§5.1 General Approval Procedures.

- A. If not otherwise required for the approval of the development, the

applicant shall submit the following information:

1. A location plan and boundary line survey of the property.
 2. The location of the critical environmental area district boundaries.
 3. The location of all existing and proposed buildings, structures, utility lines, sewers, water and storm drains on the property or within two hundred (200) feet of the proposed work site.
 4. The location of all existing and proposed impervious surfaces such as driveways, sidewalks, etc., on the property or within two hundred (200) feet of the proposed work site.
 5. Existing and proposed contour levels at one (1) foot intervals for the property, unless such property is located within a steep slopes area whereby contour levels may be shown at two (2) foot intervals.
 6. The location and types of all existing and proposed vegetation and shrub masses, as well as all trees with a diameter of six (6) inches or more within and/or adjacent to the property.
 7. The location of all existing and proposed drainage patterns, drainageways, swales, etc., within and/or adjacent to the property.
 8. The location of critical wildlife habitat and a listing of wildlife species that utilize the habitat.
 9. The location of any other critical natural resources that have been identified upon designation of the critical environmental overlay area.
- B. Each application for a development permit shall be accompanied by the appropriate fee(s) as determined by the [relevant approval agency]. This/those fee (s) shall be in addition to any other fees required for the development under the Zoning Ordinance and/or municipal code.

§5.2 Development approval on land located in proximity to Wetlands, and Water Bodies, Watercourses.

- A. In addition to the information requested in §5.1, the application shall include:
1. A plat drawn to scale showing the wetland boundary as determined by a documented field survey, the location of all existing and proposed watercourses, drainageways, and stormwater facilities.
 2. A description and map of the wetland area that will be affected by the proposed activity. This documentation must also include a map of the entire wetland, an assessment of the wetland's functional characteristics and water sources, and a description of the vegetation types and fish and wildlife habitat;
 3. A description and map of soil types in the proposed development area and the locations and specifications for all proposed draining, filling, grading, dredging and vegetation removal, including the amounts and methods;

4. A study of any flood hazard, erosion hazard, or other natural hazards in the proposed development area any prospective measures to reduce such hazards;
5. Detailed Mitigation Plans if required;
6. Description of how the proposal meets the approval criteria listed in subsection (B) below.

B. The applicant shall demonstrate that the proposal:

1. Is water-dependent or requires access to the wetland as a central element of its basic design function, or is not water dependent but has no practicable alternative as described subsection (C) below;
2. Will have as few adverse impacts as is practical to the wetland's functional characteristics and its existing contour, vegetation, fish and wildlife resources, shoreline anchoring, flood storage, general hydrological conditions, and visual amenities;
3. Will not cause significant degradation of groundwater or surface-water quality;
4. Will provide offsetting replacement wetlands for any loss of existing wetland areas.

C. A finding of no practicable alternative is to be made only after demonstration by the applicant that:

1. The basic purpose of the project cannot reasonably be accomplished using one or more practicable alternative sites that would avoid or result in less adverse impact on a wetland. An alternative site is to be considered practicable if it is available for purchase and the proposed activity can be conducted on that site after taking into consideration costs, existing technology, infrastructure, and logistics in achieving the overall project purpose;
2. The basic purpose of the project cannot be accomplished by a reduction in the size, scope, configuration, or density of the project as proposed, or by changing the design of the project in a way that would avoid or result in fewer adverse effects on the wetland; and
3. In cases where the applicant has rejected alternatives to the project as proposed due to constraints, a reasonable attempt has been made to move or accommodate such constraints.

§5.3 Development approval for land located in aquifers.

A. In addition to the information required in §5.1, the application shall include:

1. A hydrology analysis of the property. The purpose of the report is to demonstrate whether the proposed use will result in any degradation or contamination of ground water. Such analysis shall be prepared by a qualified hydrologist at the expense of the applicant. Such analysis shall include:

- a. Identification of the nature and importance of the groundwater supply and recharge aspects of the individual property upon which the use is proposed.
 - b. Aquifer flow characteristics, including a delineation of the primary recharge area, a distribution of transmissivity and details of the hydrologic budget, including natural and man-made sources of recharge and withdrawal.
 - c. Description of the water table level.
 - d. Establishment of a ground-water protection plan which shall be implemented as part of the use. The plan, and its implementation at the time of establishment of the use, shall be such that it will mitigate any reasonable possibility of degradation or contamination of the ground water designated for protection. Particular design features to mitigate the water-quality impacts of first-flush runoff from paved surfaces shall be included in the ground-water protection plan.
 - e. A showing that the use together with the implementation of the ground-water protection plan, will not result in a violation of the New York State Drinking Water Standard (10 NYCRR 5). The location of measurement/testing would be in the ground water within the downgradient property line.
 - f. An analysis of installation and/or extension of public or community sanitary sewer system as a mitigation measure and as an alternative to septic systems.
- B. Approval Criteria. In determining approval, the [insert relevant approval agency] shall consider the following:
1. The type of use and the area in which the use is proposed.
 2. The amount of vegetation that would be lost.
 3. The degree of threat to ground water quality caused by the proposed use including the degree of soil compaction reducing the ability of the aquifer to store water.
 4. The [insert relevant approval agency] may attach conditions to a permit to insure the protection of ground-water quality.
- C. Prohibited Uses in Aquifer and Recharge Areas.
1. The disposal, storage or treatment of hazardous material and solid or liquid waste material, except the storage of such hazardous material in sealed containers for retail sale or for normal household use.
 2. The creation of manufacturing of any hazardous material.

3. Dry wells directly connected to any floor drain, garage drain, wash basin or sink.
4. Gasoline service and filling stations and automobile service and repair facilities.
5. Dry-cleaning and dyeing establishments and laundries that use cleaning solvents.
6. Photographic printing and processing labs.
7. Furniture stripping and refinishing establishments.
8. The storage of hydrocarbon products except those necessary for residential use in homes and vehicles provided that such products are stored in appropriate containers.
9. Disposal of hazardous material used in medical and dental office operations.
10. Disposal of septic or sewage sludge or ash.
11. Any storage of materials, which in the opinion of the [insert relevant approval agency], has the potential to contaminate or degrade ground-water resources.

§5.4 Development Approval for Land Located in Floodplains:

A. In addition to the information required in §5.1, the application shall include:

1. The elevation, in relation to mean sea level, of the proposed lowest floor, including the basement or cellar of all structures.
2. The elevation, in relation to mean sea level, to which any nonresidential structure has been floodproofed.
3. When required, a certificate from a licensed professional engineer or architect that the utility floodproofing will meet the floodproofing criteria.
4. A certificate from a licensed professional engineer or architect that the nonresidential floodproofed structure will meet the floodproofing criteria.
5. A description of the extent to which any watercourse will be altered or relocated as a result of the proposed land use or development.
6. Any such other information and technical data as the [insert relevant approval agency] may require.

B. Approval Criteria. In determining approval, the [insert relevant approval agency]

shall consider the following:

1. Requirements of this ordinance have been satisfied.
2. Whether proposed building sites will be reasonably safe from flooding.
3. Whether proposed development in an area of special flood hazard may result in physical damage to any other property (e.g., stream bank erosion and increased flood velocities).
4. All necessary permits have been received from those governmental agencies from which approval is required by state or federal law.

It appears that most communities already have some kind of flood damage prevention in their code that meets the requirements necessary for flood insurance. It seems like this chapter is sufficient to protect floodplains. The chapter usually provides the detailed requirements for building in a floodplain. I am not sure how many additional standards would then be required for this section of this ordinance.

§5.5 Development Approval For Land Located in Scenic Resources.

A. In addition to the information required in §5.1, the application shall include:

1. A grading plan showing all areas of cut and fill.
2. A site plan delineating the locations of all structures.
3. Sections, elevations, and perspectives showing the design of all proposed structures, including height from design grade.
4. A landscape plan showing existing and proposed vegetation.
5. Calculations showing how height restrictions are met.
6. Material and/or paint descriptions for areas of structures visible in a scenic view.
7. Color photographs showing the site from representative locations on the roadway of a scenic view.

B. The Applicant Shall Demonstrate That:

1. Views of prominent ridgelines that form the limits of scenic viewsheds are preserved.
2. Viewsheds shall provide the observer with the visual perspective of the area in terms of foreground, middle ground, and background.
3. The scenic quality of the area shall be retained through the preservation of native vegetation and natural topography.
4. View windows through site development are maintained.

C. Approval Criteria. In determining approval, the [insert relevant approval agency] shall consider the following:

1. Siting of any structure is on a portion of the property where topography and existing vegetation will screen the development from view.
2. Use of nonreflective or low reflective building material and dark natural or earthtone colors.
3. Exterior lighting is shielded so that it is not highly visible from identified viewing areas. Shielded materials should be composed of nonreflective, opaque materials.

4. Use of screening vegetation or earth berms to block and/or disrupt views of the development. Priority should be given to retaining existing vegetation over other screening methods. Trees planted for screening purposes should be coniferous to provide winter screening. The applicant is responsible for the proper maintenance and survival of any vegetation used for screening.
5. Proposed developments or land use activities are aligned, designed and sited to fit the natural topography and to take advantage of vegetation and land form screening, and to minimize visible grading or other modifications of landforms, vegetation cover, and natural characteristics.
6. Structure height remains below the surrounding forest canopy level thereby maintaining the tree line.
7. Siting and/or design is such that the silhouette of buildings and other structures remains below the skyline of bluffs or ridges as seen from identified viewing areas. This may require modifying the building or structure height and design as well as the location on the property.
8. Paving and excavation is minimized to the greatest extent possible
9. Features that are characteristic of the scenic area such as retaining fences, stone walls, rocks, and vegetation are preserved and maintained.

§5.6 Development Approval on Land Located on Steep Slopes.

- A. In addition to the information required in §5.1, the application shall include:
 1. The location of the proposed area of disturbance and its relationship to property lines, easements, buildings, roads, walls and wetlands, if any, within fifty (50) feet of the boundaries of said area.
 2. Proposed final contours at a maximum contour interval of two feet, locations of proposed structures, underground improvements, and proposed surface materials or treatment.
 3. Existing topography of the entire watershed tributary to the proposed area of disturbance, presented at a scale of not more than one hundred (100) feet per inch. An insert map at a scale of not more than 2,000 feet per inch may be used to show the entire watershed, if needed. This map shall show existing and proposed controls and diversions of upland water.
 4. A soils and slopes map indicating existing soils on the property, based on USDA Soil Conservation Service soils surveys. The depth of bedrock and depth to water table shall be identified in all areas of disturbance. Generalized slope

areas for slopes 0 to 15 percent, 15 to 25 percent, and greater than 25 percent shall be delineated. This map shall be drawn on a topographic base map.

5. A soils erosion and sedimentation control plan prepared in accordance with the erosion and sedimentation performance standards set forth in this chapter. The soil erosion and sediment control plan shall show the site's existing topography, and how and when it will be altered. It shall show the erosion and sediment control measures that will be used to minimize the risk of sediment pollution, and how and when they will be implemented and maintained. The coordination of erosion and sediment control practices with construction activities shall be explained on the plan by a phasing schedule.
6. The details of any surface or subsurface drainage systems proposed to be installed including special erosion control measures designed to provide for proper of subsurface drainage, both during the performance of the work and after it completion.
7. Any special reports deemed necessary by the [insert relevant approval agency] to evaluate the application, including but not limited to detailed soils, geologic or hydrogeologic studies.
8. A written narrative explaining the nature of the proposal, including any future development anticipated for the property and whether alternative locations exist for the proposed activity.

B. Approval Criteria. In determining approval, the [insert relevant approval agency] shall consider the following:

1. The stable angle of repose of the soil classes found on the site have been used to determine the proper placement of structures and other development and other development related facilities with in the steep slope area.
2. The stability of soils will be maintained or increased to adequately support any construction thereon, or to support any landscaping, agricultural, or similar activities.
3. No proposed activity will cause erosion or slipping of soil, or cause sediment to be discharged into wetlands, watercourses or water bodies.
4. Plant life located on the slopes outside of the minimum area that needs to be disturbed for carrying on approved activity shall not be destroyed. Plants or other acceptable ground cover shall be re-established in distributed area immediately upon completion of development activity set forth above to maintain the natural scenic characteristics of any steep slope.

5. Access down steep slopes shall be provided with ramp slopes no greater than 1:16 and side slopes greater than 1:3 if not terraced or otherwise structurally stabilized. Disturbed non-roadway areas shall be stabilized and adequately drained.
6. Construction of erosion protection structures, particularly along the water side of eroding bluffs, shall provide protection of bluff features according to the following standards:
 - a. All erosion protection structures shall be designed and constructed according to general accepted engineering principles found in publications of the U.S. Soil Conservation Service.
 - b. The construction, modification or restoration of erosion protection structures shall not be likely to cause any measurable increase in erosion at the development site or other locations and prevent adverse effects to natural protective features, existing erosion protection structures, and natural resources such as significant fish and wildlife habitats.
7. Drainage of stormwater shall not cause erosion or siltation, contribute to slope failure, pollute groundwater, or cause damage to, or flooding of property. Drainage systems shall be designed and located to ensure slope stability.
8. Any grading, excavating or other soil disturbance conducted on a steep slope shall not direct surface water runoff over the receding edge during construction.
9. There is no reasonable alternative for the proposed regulated activity on that portion of the site not containing steep slopes.

§5.7 Development Approval on Land Located in Woodlands and Forests.

- A. In addition to information requested in §5.1, the application shall include:
 1. Boundaries of woodland areas, forests, and stands of trees.
 2. Limits of proposed clearing for right of ways, utility easements, building sites, access roads and drainage areas.
 3. Method of providing positive drainage in any proposed tree wells or acres where drainage patterns will be modified.
 4. Proposed grade changes in or around treed areas.
 5. Determine areas where tree preservation methods are to be intensified or where stands of trees will be left untouched.

6. Demonstrate that as much of the original site vegetation, including understory, brush and shrubs, will be preserved.

B. Approval Criteria. In determining approval, the [insert relevant approval agency] shall consider the following:

1. Preservation of all trees eight inches or greater. Trees less than eight inches are preserved if such trees have a significant aesthetic value or removal would excessively alter drainage or affect the stability of slopes.
2. Protective barriers are installed around trees and understory prior to the start of any construction or other land use activity that may adversely affect vegetation.
3. Proposed development will not affect soil stability or rate of surface water runoff.
4. Existing drainage systems are maintained.
5. The natural characteristics of the wooded area are preserved and maintained by ensuring that forest practice activities such as road and trail construction, timber harvesting, thinning, reforestation, fertilization, prevention and suppression of diseases and insects, salvage of trees and brush control will not have an adverse impact on wooded areas.

§5.8 Wildlife and Habitat.

A. In addition to the information required in §5.1, the application shall include:

1. The location of the proposed site in relation to critical habitat including den or nest sites.
2. The nature and density of the proposed use or activity.
3. A survey of all wildlife species found on property and the habitat they require to flourish.
4. A description of the nature, density and intensity of the proposed use or activity in sufficient detail to allow analysis of such land use change upon identified wildlife habitat.
5. An analysis of the effect of the proposed use or activity upon fish and wildlife species and their habitats.
6. A plan, which explains how, the applicant will avoid, minimize or mitigate adverse impacts to fish and/or wildlife habitats created by the proposed use or activity. These mitigation measures may include but are not limited to:

- a. Establishment of buffer areas;
- b. Preservation of critically important plants and trees;
- c. Limitation of access to habitat areas;
- d. Seasonal restriction of construction activities;
- e. Clustering of development and preservation of open spaces;
- f. Signs marking habitats and habitat buffer areas;
- g. Conservation easements.

B. Approval Criteria

In determining approval, the [insert relevant approval agency] shall consider the following:

1. Buffer areas are designated and maintained to avoid adverse impacts on wildlife or wildlife habitat as a result of the proposed activity.
2. Wildlife corridors will be preserved and maintained to ensure that wildlife migration patterns are not interrupted.
3. Ecological process will be maintained to the greatest extent possible by preserving and maintaining landscape linkages.
4. Any adverse impacts to wildlife or wildlife habitat will be minimized or mitigated

§6.1 Additional Considerations and Findings.

- A. Consideration. In granting or denying approval of any development the [insert relevant approval agency] shall consider all relevant facts and circumstances including by not limited to the following:
 1. The environmental impact of the proposed action.
 2. The alternatives to the proposed action, including the availability of preferable alternative locations on the subject parcel or any other parcel under the control of the applicant.
 3. The ability or unsuitability of the proposed activity to the area for which it is proposed.
 4. The effect of the proposed activity with reference to the protection or enhancement of the functions of critical environmental features and the benefits these characteristics provide.
 5. The availability of further technical improvements, safeguards or other mitigation measures that could feasibly be added to the plan or action.

6. The possibility of further avoiding reduction of the critical area's natural capacity to support desirable biological life, prevent flooding, supply water, control sedimentation and/or prevent erosion, assimilates wastes, facilitate drainage and provide recreation and open space.

B. Findings. Approval will be issued by the [insert relevant approval agency] pursuant to this chapter only if the applicant demonstrates that:

1. The proposed development is consistent with the policy hereof to preserve, protect and conserve critical environmental features and their ecological connections by preventing to the maximum extent practicable the degradation and destruction of these features.
2. The proposed regulated activity is compatible with public health and welfare.
3. The proposed activity cannot practicably be relocated on the site so as to eliminate or reduce the impacts on critical environmental areas.

§6.2 Approval Conditions.

- A. Approval issued pursuant to this chapter may contain conditions designed to assure the preservation and protection of affected critical environmental areas, and compliance with the objectives of this ordinance.
- B. Approval issued pursuant to this chapter shall contain conditions including the following:
 1. Work conducted under approval shall be open to inspection at any time, including weekends and holidays, by the code enforcement officer.
 2. Approval shall expire on a specified date.
 3. The applicant shall notify the code enforcement officer of the date on which the work is to begin, at least five days in advance of such date.
- C. Conditions may include but shall not be limited to the following:
 1. Limitations on the total portion of any lot or the portion of the critical environmental characteristic on the lot than may be adversely impacted.
 2. Setbacks for structures, filling, grading, or otherwise modifying a critical environmental area.
 3. Modifications to project design to ensure continued protection of an area or specific feature.

4. Replanting of vegetation or other necessary restoration activities to replace damaged or destroyed areas.

D. Performance guarantees.

1. The [insert relevant approval agency] may require that, prior to commencement of work under approval issued pursuant to this ordinance, the applicant shall post a performance guarantee in an amount and with surety and conditions sufficient to secure compliance with the conditions and limitations set forth in the permit. The particular amount and the conditions of the performance guarantee shall be consistent with the performance guarantee shall be consistent with the purposes of this ordinance. The performance guarantee shall remain in effect until the approval authority or its designated agent certifies in writing that the work has been completed in compliance with the terms of the permit and the performance guarantee is released by the approval authority, or until a substitute performance guarantee is provided. In the event of a breach of any condition of any permit, the approval authority may act to obtain and make appropriate use of the proceeds of the performance guarantee.
2. The approval authority shall set forth in writing in the file it keeps regarding an application its findings and reasons for imposing a performance guarantee pursuant to this section.

§7 Penalties for offenses.

A. Administrative sanctions.

1. Damages. Any person who undertakes any activity regulated by this chapter without approval issued hereunder, or who violates, disobeys or disregards any provision of this ordinance, shall be liable to the [insert name of municipality] for civil damages caused by such violation. Each consecutive day of the violation will be considered a separate offense. Such civil damages may be recovered in an action brought by the municipality at the request and in the name of the [insert relevant approval agency] in any court of competent jurisdiction.
2. Restitution. The [insert relevant approval agency] shall have the authority to direct the violator to restore the affected critical environmental area to its condition prior to violation, insofar as that is possible, within a reasonable time and under the supervision of the [insert relevant approval agency] or its designee. Further, the [insert relevant approval agency] shall have the authority to require an adequate performance guarantee in a form and amount deemed necessary by the [insert relevant approval agency] to ensure the restitution of the affected critical environmental area.

3. Stop-work order; revocation of permit. In the event that any person having approval issued pursuant to this chapter fails to comply with any of the conditions or limitations set forth in the approval, exceeds the scope of the activity as set forth in the application or operates so as to be materially detrimental to the public welfare or injurious to a critical environmental area, the approval authority may suspend or revoke the approval as follows:
 - a. Suspension of approval shall be by a written stop-work order issued by the Building inspector and delivered to the permittee or his agent or the person performing the work. The stop-work order shall be effective immediately, shall state the specific violations cited and shall state the conditions under which work may be resumed. A stop-work order shall have the effect of suspending all authorizations and permits granted by the town or any agency thereof. The stop-work order shall remain in effect until the [insert relevant approval agency] is satisfied that the applicant has complied with all terms of approval or until a final determination is made by the [insert relevant approval agency] as provided in Subsection A(3)(b) immediately below.
 - b. Public hearing; notice; determination.
 - (1) No site development approval shall be permanently suspended or revoked until the [insert relevant approval agency] holds a public hearing. Written notice of such hearing shall be served on the permittee, either personally or by registered mail, and shall state:
 - (a) The grounds for complaint or reasons for suspension or revocation.
 - (b) The time and place of the hearing to be held.
 - (2) Such notice shall be served on the applicant at least one week prior to the date set for the public hearing unless the stop-work order is issued for a violation occurring less than one week before the regularly scheduled public meeting of the [insert relevant approval agency]. At such hearing, the applicant shall be given an opportunity to be heard and may call witnesses and present evidence on his behalf. At the conclusion of the hearing, the [insert relevant approval agency] shall determine whether approval shall be reinstated, suspended or revoked.
- B. Other sanctions. Any person convicted of having violated or disobeyed any provision hereof, any order of the [insert relevant approval agency] or any condition duly imposed in development approval granted pursuant to this chapter, for the first offense shall be punished by a fine of not less than \$1,000 per day of offense. Each subsequent offense shall be punishable by a fine of not less that \$2,000 per day. Each consecutive day of the violation shall be considered a separate offense. The term "person," as used herein, shall mean a natural person or a corporation.

§8 Enforcement.

The [insert name of municipality] is specifically empowered to seek injunctive relief restraining any violation or threatened violation of any provisions hereof and/or to compel the restoration of the affected critical environmental area to its condition prior to the violation of the provisions of this ordinance.

§9 Appeals.

Any final determination, decision or order of the [insert relevant approval agency] may be appealed by means of the procedure specified for zoning matters as set forth in the zoning chapter.

§10 Inspection.

- A. Lands within or adjacent to an identified Critical Environmental Area will be inspected by the Code Enforcement Officer when:
 - 1. A subdivision or land development plan is submitted.
 - 2. A building permit is requested.
 - 3. A change or resumption of nonconforming use is posed.
- B. The district may also be inspected periodically by the Code Enforcement Officer for compliance with an approved restoration plan, excessive or potentially problematic erosion, hazardous trees, or at any time when the presence of an unauthorized activity or structure is brought to the attention of municipal officials.

§11 Critical Environmental Areas Management.

A. Management Plan

Within any identified critical environmental area district, no construction, development, use, activity, or encroachment shall be permitted unless the effects of such development are accompanied by implementation of an approved Critical Environmental Areas Management Plan.

- 1. The landowner or developer shall submit to the [insert relevant approval agency] a Critical Environmental Area Management Plan prepared by a landscape architect, engineer, or other qualified professional, which fully evaluates the effects of any proposed uses on the Critical Environmental Area. The management plan shall identify the existing conditions, all proposed activities, and all proposed management techniques, including any measures necessary to offset disturbances.

§12 General Provisions. In order to carry out the purposed provisions hereof, and in addition to the powers specified elsewhere in this ordinance, the following general provisions shall apply:

- A. Indemnification. The property owner and applicant, by making an application for approval, shall indemnify and hold the [insert name of municipality] harmless against any damage or injury that may be caused by or arise out of any entry onto the subject property in connection with the processing of the application, during proposed work, or within one year after completion of the work.
- B. Conflicts. Wherever this chapter is inconsistent with any other law of the [insert name of municipality], whichever law imposes the more stringent restriction shall prevail.
- C. Severability. The provisions and sections of this chapter shall be deemed to be severable, and the invalidity of any portion of this ordinance by a court of competent jurisdiction shall not affect the validity of the remainder of this chapter.
- D. Cease and Desist Order. The Code Enforcement Officer is authorized to issue a cease and desist order to any landowner, contractor or their agent who is engaged in any activity on the land that may have a significant impact on any critical resources designated in this chapter. When such an order has been issued, the landowner must not resume the activity until approval has been issued by the [insert relevant approval agency] which shall cause the [insert relevant approval agency] to make all the findings, apply all standards and consider all relevant approval criteria as contained in this chapter.
- E. Waiver. The [insert relevant approval agency] charged with the implementation of these provisions may waive them when reasonable with regard to any development proposal submitted for its approval or any permit requested to which these standards are applicable. The applicant must demonstrate, by presenting clear and convincing evidence, that the application of the particular standard or standards requested to be waived will cause a unique and serious hardship to the applicant. Before such a waiver may be granted, the approval agency must find that the waiver it is granting is the minimum needed to relieve the demonstrated hardship and that the natural resources protected by these standards will be impacted as minimally as possible by the waiver.
- F. Effective date. This chapter shall become effective immediately upon publishing and posting as required by law.