Andrew J. Spano, Westchester County Executive

Appendix A: Additional Resources
Indian Brook-Croton Gorge Watershed Conservation Action Plan Westchester County, NY

Prepared by:

The Westchester County Department of Planning

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A cooperative effort among
the Town of Cortlandt, the Town of New Castle, the Town of Ossining, the Village of Croton-on-Hudson, the Village of Ossining, Hudson River Estuary and Westchester County.

WESTCHESTER COUNTY DEPARTMENT OF PLANNING
Gerard E. Mulligan, AICP, Commissioner

Appendix A contains more information on the following subjects discussed in the Indian Brook-Croton Gorge Watershed Conservation Action Plan:

- Soil Descriptions: Contains a detailed map of the soils in the watershed, descriptions of the soil types, their soil taxonomy and hydrologic classification and if they are considered hydric soils;
- Wetlands: Additional information on wetlands, wetland regulations and regulatory definitions of wetlands;
- Surface Water Classifications: Information on the NYSDEC surface water classifications and their definitions;
- Indian Brook Streamwalk: Contains the streamwalk report published in 2004;
- Indian Brook-Croton Gorge Watershed Environmental Regulations Summary: Contains the ordinance review document completed in 2007 and
- Croton River Flow Analysis: Additional material developed by the NYSDEC Hudson River Estuary Program on the issues concerning the current flow of the Croton River.

Soil Descriptions of the Indian Brook-Croton Gorge Watershed

Soil Descriptions
Listed below are details of each the general soil map units found in the Indian Brook-Croton Gorge Watershed. Information for this appendix as well as additional information can be found at United States Department of Agriculture Natural Resources Conservation Services website: http://soils.usda.gov/technical/classification/, United States Department of Agriculture Soil Survey of Putnam and Westchester Counties, and Table 8 (New York Soils Hydrologic Groups) listed on the New York and Cornell University Crop and Soil Sciences website: http://nmsp.css.cornell.edu/publications/index.asp

Carlisle
Description: Carlisle soils occupy depressions within lake plains, outwash plains, ground moraines, and floodplains. These very deep soils formed in woody and herbaceous organic materials.
Soil Taxonomic Class: Euic, mesic Typic Haplosaprists.
Hydrologic Classification: A/D.
Permeability: Permeability is moderately slow to moderately rapid.
Drainage: Very poorly drained.
Runoff Potential: Surface runoff is very slow or ponded.
Hydric Soil: Yes.
Depth to Water: Depth to the seasonal high water table ranges from 1.0 foot above the surface to 1 foot below the surface from September to June.
Soils in Indian Brook-Croton Gorge Watershed: Carlisle Muck (Ce).

Charlton
Description: Charlton soils are very deep soils formed in acid till derived mainly from schist, gneiss, or granite. They are nearly level to very steep soils on till plains and hills.
Soil Taxonomic Class: Coarse-loamy, mixed, active, mesic Typic Dystrudepts.
Hydrologic Classification: B.
Permeability: Permeability is moderate or moderately rapid throughout.
Drainage: Well drained.
Runoff Potential: Surface runoff is medium to rapid.
Hydric Soil: No.
Depth to Water: At a depth of more than 6 feet throughout the year.
Soils in Indian Brook-Croton Gorge Watershed: Charlton loam 2-8 percent slopes (ChB); Charlton loam 8-15 percent slopes (ChC); Charlton loam 15-25 percent slopes (ChD); Charlton loam 25-35 percent slopes (ChE); Charlton loam 2-8 percent slopes very stony (ClB); Charlton loam 8-15 percent slopes very stony (ClC); Charlton loam 15-25 percent slopes very stony (ClD); Charlton loam 35-45 percent slopes very stony (ClF) and Charlton-Chatfield complex (CrC).

Chatfield
Description: They are moderately deep formed in till overlying granite, gneiss, or schist bedrock. They are nearly level to very steep soils on glaciated plains, hills, and ridges.
Soil Taxonomic Class: Coarse-loamy, mixed, superactive, mesic Typic Dystrudepts.
Hydrologic Classification: B.
Permeability: Permeability is moderate or moderately rapid.
Drainage: Well to somewhat excessively drained.
Runoff Potential: Potential for surface runoff ranges from low to high.
Hydric Soil: No.
Depth to Water: At a depth of more than 6 feet throughout the year.
Soils in Indian Brook-Croton Gorge Watershed: Chatfield-Charlton complex (CsD); Chatfield-Hollis-Rock complex, rocky (CtC) and Chatfield-Hollis-Rock complex, hilly (CuD).

Fluvaquents
Description: Very deep soils that form in recent alluvial deposits. Soils are in areas where the adjacent stream frequently shifts from place to place through scouring, cutting, and lateral erosion. There is little or no profile development.
Soil Taxonomic Class: Fluvaquents
Hydrologic Classification: No information available.
Permeability: No information available.
Drainage: Poorly drained to very poorly drained soils.
Runoff Potential: Very slow or ponded.
Hydric Soil: Yes.
Depth to Water: One foot above to 1.5 feet below the surface from October through June.
Soils in Indian Brook-Croton Gorge Watershed: Fluvaquents-Udihluvents complex, frequently flooded (Ff).

Hinckley
Description: They are very deep soils formed in water-sorted sand and gravel derived principally from granite, gneiss, and schist. They are found on nearly level to very steep terraces, outwash plains, deltas, kames, and eskers.
Soil Taxonomic Class: Sandy-skeletal, mixed, mesic Typic Udorthents
Hydrologic Classification: A.
Permeability: Rapid to very rapid.
Drainage: Excessively drained.
Runoff Potential: Surface runoff is negligible to low.
Hydric Soil: No.
Depth to Water: At a depth of more than 6 feet throughout the year.
Soils in Indian Brook-Croton Gorge Watershed: Hinckley gravelly loamy sand, 3-8 percent slope (HnB) and Hinckley gravelly loamy sand, 8-15 percent slope (HnC).

Hollis
Description: They are shallow somewhat excessively drained soils formed in a thin mantle of till derived mainly from gneiss, schist, and granite. They are found on nearly level to very steep upland terrain on bedrock-controlled hills and ridges.
Soil Taxonomic Class: Loamy, mixed, active, mesic Lithic Dystrudepts
Hydrologic Classification: C.
Permeability: Moderate or moderately rapid.
Drainage: Well drained and somewhat excessively drained.
Runoff Potential: Surface runoff is negligible to very high.
Hydric Soil: No.
Depth to Water: At surface to 1 foot above throughout the year.
Soils in Indian Brook-Croton Gorge Watershed: Hollis-Rock outcrop complex, very steep (HrF).

Knickerbocker
Description: They consist of very deep soils formed in stratified sandy deltaic or fluvial deposits. They are located on nearly level to steep terrain on lake plains and terraces.
Soil Taxonomic Class: Sandy, mixed, mesic Typic Dystrudepts.
Hydrologic Classification: A.
Permeability: Moderately rapid to very rapid.
Drainage: Well or somewhat excessively drained.
Runoff Potential: Surface runoff is low to high.
Hydric Soil: No.
Depth to Water: At a depth of more than 6 feet throughout the year.
Soils in Indian Brook-Croton Gorge Watershed: Knickerbocker fine sandy loam, 2-8 percent slopes (KnB) and Knickerbocker fine sandy loam, 8-15 percent slopes (KnC).

Leicester
Description: They are very deep soils formed in acidic glacial till derived mostly from schist, gneiss, and granite. Leicester soils are found in nearly level to gently sloping areas and are located in low-lying depressional areas and drainageways of glaciated hills.
Soil Taxonomic Class: Coarse-loamy mixed, active, acid, mesic Aeric Endoaquepts.
Hydrologic Classification: C.
Permeability: Moderate to rapid.
Drainage: Poorly drained.
Runoff Potential: Surface runoff is slow.
Hydric Soil: No.
Depth to Water: Within a depth of 1.5 feet from November to May.
Soils in Indian Brook-Croton Gorge Watershed: Leicester loam, 0-3 percent slopes, stony (LcA) and Leicester loam, 3-8 percent slopes, very stony (LcB).

Palms
Description: They are very deep formed in herbaceous organic material usually 16 to 51 inches thick and the underlying loamy deposits in closed depressions on moraines, lake plains, till plains, outwash plains, hillside seep areas and on backswamps of flood plains.
Soil Taxonomic Class: Loamy, mixed, euic, mesic Terric Haplosaprists.
Hydrologic Classification: A/D.
Permeability: Moderately slow to moderately rapid in the organic material and moderate or moderately slow in the loamy material.
Drainage: Very poorly drained.
Runoff Potential: Runoff for surface runoff is negligible.
Hydric Soil: Yes.
Depth to Water: Six inches to 12 inches below surface from September to June, receding to a depth of 24 inches during dry periods.
Soils in Indian Brook-Croton Gorge Watershed: Palms Muck (Pa) and Palms and Carlisle soils, ponded.

Paxton
Description: They are very deep loamy soils formed in acidic subglacial till derived mostly from schist, gneiss, and granite. Paxton soils are located on nearly level to steep areas on till plains, hills, and drumlins
Soil Taxonomic Class: Coarse-loamy, mixed, active, mesic Oxyaquic Dystrudepts.
Hydrologic Classification: C.
Permeability: Slow to moderate.
Drainage: Well drained.
Runoff Potential: Surface runoff is negligible to high.
Hydric Soil: No.
Depth to Water: Water can be found perched at a depth of 1.5-2.5 feet below the surface from February to April.
Soils in Indian Brook-Croton Gorge Watershed: Paxton fine sandy loam, 2-8 percent slopes (PnB); Paxton fine sandy loam, 8-15 percent slopes (PnC); Paxton fine sandy loam, 15-25 percent slopes (PnD); Paxton fine sandy loam, 8 to 15 percent slopes, very stony (PoC) and Paxton fine sandy loam, 15 to 25 percent slopes, very stony (PoD).

Pits
Description: This unit consists mostly of exposed bedrock in areas that have been partially mined for rock.
Soil Taxonomic Class: None
Hydrologic Classification: Not applicable.
Permeability: Varies.
Drainage: Varies.
Runoff Potential: Slow to very rapid.
Hydric Soil: No.
Depth to Water: Varies.
Soils in Indian Brook-Croton Gorge Watershed: Pits, quarry (Pv).

Pompton
Description: They are deep soils formed in water-sorted sandy and gravelly materials dominated by granitic gneiss with lesser amounts of many other kinds of materials. Pompton soils are located on outwash plains and terraces in waterways and low positions.
Soil Taxonomic Class: Coarse-loamy, mixed, active, mesic Aquic Dystrudepts.
Hydrologic Classification: B.
Permeability: Moderately rapid to very rapid.
Drainage: Moderately well drained and somewhat poorly drained.
Runoff Potential: Surface runoff is very low or low.
Hydric Soil: No.
Depth to Water: 0.5 foot to 2.0 feet below the surface from October to May.
Soils in Indian Brook-Croton Gorge Watershed: Pompton silt loam, loamy substratum (Pw).

Ridgebury
Description: They are very deep soils formed in till derived mainly from granite, gneiss and schist. They are nearly level to gently sloping soils in low areas in uplands.
Soil Taxonomic Class: Loamy, mixed, active, acid, mesic, shallow Aeric Endoaquepts.
Hydrologic Classification: C.
Permeability: Moderate to moderately rapid.
Drainage: Poorly drained to somewhat poorly drained.
Runoff Potential: Surface runoff is negligible to medium.
Hydric Soil: Yes.
Depth to Water: Within 1.5 feet from May to November.
Soils in Indian Brook-Croton Gorge Watershed: Ridgebury loam, 0-3 percent slopes (RdA); Ridgebury loam, 3-8 percent slopes (RdB) and Ridgebury loam 2-8 percent slopes, very stony (RgB).

Riverhead
Description: They are very deep soils formed in glacial outwash deposits that consist of sandy loam or fine sandy loam material derived primarily from granite. Riverhead soils are located on outwash plains, valley trains, beaches, and water-sorted moraines.
Soil Taxonomic Class: Coarse-loamy, mixed, active, mesic Typic Dystrudepts.
Hydrologic Classification: B.
Permeability: Moderately rapid to very rapid.
Drainage: Well drained.
Runoff Potential: Surface runoff is low to medium.
Hydric Soil: No.
Depth to Water: At a depth of more than 6 feet throughout the year.
Soils in Indian Brook-Croton Gorge Watershed: Riverhead loam, 0-3 percent slopes (RhA); Riverhead loam, 3-8 percent slopes (RhB); Riverhead loam, 8-15 percent slopes (RhC); Riverhead loam, 15-25 percent slopes (RhD) and Riverhead loam, 25-50 percent slopes (RhE).

Sun
Description: They are very deep soils formed in till derived primarily from limestone and sandstone with smaller amounts of schist, shale and granite in some areas. The sun soils are in low areas or depressions on till plains.
Soil Taxonomic Class: Coarse-loamy, mixed, active, nonacid, mesic Aeric Epiaquepts.
Hydrologic Classification: D.
Permeability: Slow to moderate.
Drainage: Poorly drained.
Runoff Potential: Surface runoff is low to very high.
Hydric Soil: Yes.
Depth to Water: At a depth of more than 6 feet throughout the year.
Soils in Indian Brook-Croton Gorge Watershed: Sun loam (Sh) and Sun loam, extremely stony (Sm).

Sutton
Description: They are very deep, moderately well drained loamy soils formed in acidic till derived mainly from schist, gneiss, and granite. Sutton soils are located on are nearly level to strongly sloping plains, low ridges, and hills. They are typically on lower slopes and in slight depressions.
Soil Taxonomic Class: Coarse-loamy, mixed, active, mesic Aquic Dystrudepts.
Hydrologic Classification: B.
Permeability: Moderate to moderately rapid.
Drainage: Moderately well drained.
Runoff Potential: Surface runoff is slow to medium.
Hydric Soil: No.
Depth to Water: 1.5 to 2.5 feet below the surface from November through April.
Soils in Indian Brook-Croton Gorge Watershed: Sutton loam, 3-8 percent slopes.

Udorthents
Description: They consist of very deep soils in urban areas that have been disturbed by cutting or filling. These soils are on glacial till plains, outwash plains, terraces and flood plains.
Soil Taxonomic Class: Udorthents
Hydrologic Classification: Information not available.
Permeability: Varies.
Drainage: Somewhat poorly drained to poorly drained.
Runoff Potential: Varies.
Hydric Soil: Yes.
Depth to Water: Varies.
Soils in Indian Brook-Croton Gorge Watershed: Udorthents, smoothed (Ub) and Udorthents, wet substratum (Uc).

Unadilla
Description: They are deep to very deep soils formed in silty, lacustrine sediments or old alluvial deposits. Unadilla soils are located on valley terraces and lacustrine plains.
Soil Taxonomic Class: Coarse-silty, mixed, active, mesic Typic Dystrudepts.
Hydrologic Classification: B.
Permeability: Moderate to rapid.
Drainage: Well drained.
Runoff Potential: Surface runoff is low to medium.
Hydric Soil: No.
Depth to Water: At a depth of more than 6 feet throughout the year.
Soils in Indian Brook-Croton Gorge Watershed: Unadilla silt loam, 2-6 percent slopes.

Urban fill
Description: This unit consists of soils in which a large portion of the area is covered with buildings and other structures including parking lots, streets, shopping centers, industrial parks and institutional sites. The structures make it impossible to identify the soils. In most cases the natural soil layers have been altered or mixed with manufactured materials such as brick, concrete or cinders.
Soil Taxonomic Class: None.
Hydrologic Classification: Information not available.
Permeability: Varies.
Drainage: Varies.
Runoff Potential: Varies.
Hydric Soil: No.
Depth to Water: Varies.
Soils in Indian Brook-Croton Gorge Watershed: Urban land (Uf); Urban land-Charlton complex, 2-8 percent slopes (UhB); Urban land-Charlton complex, 8-15 percent slopes (UhC); Urban land-Charlton complex, 15-25 percent slopes; Urban land-Charlton-Chatfield complex, rolling, very rocky (UlC); Urban land-Charlton-Chatfield complex, hilly, very rocky (UlD); Urban land-Ridgebury complex, 1-8 percent slopes (UrB); Urban land-Riverhead complex, 2-8 percent slopes (UvB) and Urban land-Riverhead complex, 8-15 percent slopes (UvC).

Woodbridge
Description: They are loamy soils formed in acidic till derived mostly from schist, gneiss, and granite. Woodbridge soils are found on nearly level to moderately steep soils on till plains, hills, and drumlins.
Soil Taxonomic Class: Coarse-loamy, mixed, active, mesic Aquic Dystrudepts.
Hydrologic Classification: C.
Permeability: Very slow to moderate.
Drainage: Moderately well drained.
Runoff Potential: Surface runoff is slow to rapid.
Hydric Soil: No.
Depth to Water: 1.5 to 2.5 feet below the surface from November to May.

Soils in Indian Brook-Croton Gorge Watershed: Woodbridge loam, 0-3 percent slopes (WdA); Woodbridge loam, 3-8 percent slopes (Wd

Introduction to Wetlands

Wetlands are unique ecosystems where the soils are saturated or flooded for varying periods of time during the year. The hydrology of a wetland is its most important characteristic. The amount of water present determines the type and abundance of vegetation living in the wetland. A wetland ecosystem can also be distinguished by the presence of hydric soils and hydrophytic vegetation (plants that are adapted to live in water saturated or flooded soils).

Wetlands are usually located at interfaces between terrestrial and aquatic ecosystems such as lakes, ponds, rivers, streams, bays and oceans. According to the National Resources Conservation Service, over 85% of wetlands in the United States are vegetated freshwater wetlands. A majority of wetlands in the United States are found on forested land while 15% of the wetlands are on land associated with crop or pasture activities.

Wetlands are important in maintaining the hydrology and ecology of a watershed. They are one of the most biologically active ecosystems found on this planet. They serve as a habitat to various fowl, aquatic life, amphibians, mammals and invertebrates. Besides acting as a shelter, wetlands serve as a spawning and nesting area for many species. Wetlands are also a critical component in the protection and management of both surface and groundwater quality and quantity. Wetlands help control the quantity of water through absorption and containment of floodwaters. They also improve water quality by removing pollutants (sediments, nutrients and metals) through a combination of physical, chemical and biological processes.

Tidal and non-tidal wetlands are the two main types of wetlands. Tidal wetlands occur along the coast or areas where tidal fluctuations cause inundation of water. Tidal wetlands are predominately found near coastal shorelines or rivers. Although a majority of the tidal wetlands are saline, tidal wetlands can also contain freshwater. These tidal wetlands form beyond the limit of the salt water intrusion and only contend with fluctuating water levels. Saline tidal wetlands, which include estuaries, mudflats and salt marshes, are wetlands where freshwater mixes with salt water to form brackish waters that vary in salinity. As a result of the fluctuating salinity content and water level, these types of wetlands can be a challenging environment for most plants. There are some tidal wetlands that do not contain vegetation, such as mud flats or sand flats.

Non-tidal wetlands are not affected by the tides but are influenced by precipitation, river and stream flooding and groundwater. They are most commonly found on floodplains of river and streams, in areas where precipitation saturates the soils and borders of lakes and ponds, where groundwater intercepts with the soil surface. Non-tidal wetlands include marshes, wet meadows, swamps and vernal pools or bogs (USEPA).

Wetland Regulations

Federal

The principal federal laws that regulate activities in wetlands are Sections 404 and 401 of the Clean Water Act, and Section 10 of the Rivers and Harbors Act. Other federal wetland regulations can be found in the National Environmental Policy Act, the Coastal Zone Management Act, and the Swampbuster provision of the Food Security Act. The federal wetland protection law most commonly applied in Westchester County is the Clean Water Act. Under this law, applicants who want to conduct a regulated activity, such as excavating or filling a wetland, must demonstrate that the wetland impacts will be avoided and minimized to the fullest practicable extent and that unavoidable adverse impacts will be mitigated. According to recent revisions, the U.S. Army Corps of Engineers must be notified by applicants proposing to impact one-third of an acre to three acres of wetland before conducting the activity under Nationwide Permit No. 26. Any activity impacting more than three acres requires the applicant to first acquire an Individual Permit from the Army Corps; applications under this permit are reviewed by the U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency and National Marine Fisheries Service. Any activity impacting less than one-third of an acre does not require a federal permit but requires that the Army Corps be notified of the activity. The law does not regulate any upland (non-wetland) buffer adjacent to wetlands.

State

The principal New York State regulations affecting development activities in and near wetlands include the Freshwater Wetlands Act (FWA), the Tidal Wetlands Act, and the Adirondack Park Agency (APA) Act. Administration of the Tidal Wetlands Act [Article 25 of the State Environmental Conservation Law (ECL)] rests solely with the State Department of Environmental Conservation (DEC). With exception of the Adirondacks State Park, the Freshwater Wetlands Act (Article 24 of the ECL) is administered by the DEC. Inside Adirondack State Park, the Adirondack Park Agency administers both the FWA and the APA. The Freshwater Wetlands Act regulates only wetlands which are equal to or greater than 12.4 acres in size or wetlands that have been designated as wetlands of "unusual local importance". The FWA also regulates a 100-foot-wide buffer adjacent to these wetlands.

Other state laws that may apply to activities in or near wetlands include the State Environmental Quality Review Act (SEQRA), the Waterfront Revitalization of Coastal Areas and Inland Waterways Act, the Coastal Erosion Hazard Areas Act, and the Use and Protection of Waters Program. In addition, the New York Uniform Procedures Act applies to procedural aspects of the review and permitting process.

Local

As of 1975, the New York State Freshwater Wetlands Act (Article 24 of the Environmental Conservation Law) allows local governments to assume jurisdiction for regulating wetlands wholly or partially within their boundaries. Many local governments

in New York have their own wetland protection ordinances or provisions in their other ordinances that regulate activities proposed in or near wetlands. Because there is considerable variation in the provisions of these local regulations, it is necessary to contact the appropriate local government agency to determine the local provisions that affect a particular wetland. Local wetland protection laws or ordinances may simply adopt the state law, or may strengthen the law (for example, by protecting smaller wetland areas). However, no local law or ordinance that is adopted pursuant to the act can be less protective of wetlands than the New York State Freshwater Wetlands Act. If local laws are less restrictive, projects must still comply with state and federal laws.

Wetlands also may be indirectly regulated by additional ordinances, such as sensitive areas or clearing and grading ordinances. Special analysis and review may be required for projects affecting wetlands covered by locally sensitive areas ordinances. Such policies and regulations may regulate wetlands and/or activities that are not covered under state and federal laws. Please see Indian Brook-Croton Gorge Watershed Environmental Regulations Summary for more details.

Other local mechanisms that may be used to regulate development affecting wetlands include comprehensive plans, zoning ordinances and flood plain management regulations. Local planning and public work agencies can assist project sponsors in determining local requirements.

Regulatory Definition of a Wetland

There are many different wetland definitions. There are scientific definitions, which are used to inventory and delineate wetlands and regulatory definitions, which are used to determine areas protected by government regulations. The regulatory definitions are the most variable. Municipalities in New York should be aware of federal, state and any local wetland definitions.

Federal
The Clean Water Act defines wetlands as:

". . . those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

The current federal methodology of delineating a wetland based on the characteristics described in the Clean Water Act definition can be found in the 1987 Corps of Engineers Wetlands Delineation Manual. However, many wetland scientists use the 1989 Federal Manual for Identifying and Delineating Jurisdictional Wetlands when determining wetland boundaries because its methodology includes areas that would not be delineated as wetlands in the 1987 manual. The Army Corp of Engineers accepts wetland

delineations conducted under both methods.

State

New York State Freshwater Wetlands Act defines a freshwater wetland as lands and waters of the state as shown on the freshwater wetlands map which contain any or all of the following:

(a) lands and submerged lands commonly called marshes, swamps, sloughs, bogs, and flats supporting aquatic or semi-aquatic vegetation of the following types: (lists indicator species); (b) lands and submerged lands containing remnants of any vegetation that is not aquatic or semi-aquatic 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 and provided further that such conditions can be expected to persist indefinitely, barring human intervention;(c) lands and waters substantially enclosed by aquatic or semi-aquatic vegetation as set forth in paragraph (a) or by dead vegetation as set forth in paragraph (b), the regulation of which is necessary to protect and preserve the aquatic and semi-aquatic vegetation; and (d) the waters overlying the areas set forth in (a) and (b) and the lands underlying (c).

Local

Local definitions will vary. Some municipalities choose to adopt the New York State Wetlands definition. Westchester County recommends the following wetland definition of a freshwater wetland:

All areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of hydrophytic vegetation as defined by the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (January 1989) prepared by the Federal Interagency Committee of the U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S.D.A. Natural Resources Conservation Service.

Surface Water Classifications for the Indian Brook-Croton Gorge Watershed

The State of New York has adopted regulations (6 NYCRR §703) that identify stream use classifications and water quality standards. These standards legally set the maximum amount of any pollutants that can be in a waterbody and still be considered clean. The allowed amount of pollution varies depending on the assigned stream use classification. Each stream is assigned the highest use classification that it ever could reach as determined by the State of New York.

The classification system lists freshwater waterbodies as AA, A, B, C and D. Generally, the best use of waterbodies classified as AA/A is for drinking water; B for primary and secondary contact recreation and fishing; C for fishing and fish propagation and D for fishing. New York also classifies tidal waterbodies as SA, SB and SC. The best use for SA is shellfishing for consumption, SB for fish propagation and SC for fishing. The New York stream and waterbody classifications and their respective uses are detailed in the following table. The New York State water quality and chemical standards for surface and groundwater can be found in 6 NYCRR §703.2 - §703.6 located on the web at http://www.dec.ny.gov/regs/4590.html.

New York State Surface Water Classifications

FRESHWATER STANDARDS

Class	Most sensitive Use	Also Supports These Uses
A/ AA-Special	 **Drinking**	• **Swimming** • **Fishing** • **Fish propagation**
B	 **Swimming**	• **Fishing** • **Fish propagation**
C	 **Fish propagation**	• **Fishing**
D	 **Fishing**	

SALT WATER STANDARDS

SA	 **Shellfishing for Market**	• **Primary and secondary contact recreation** • **Fish propagation** • **Fishing**
SB	 **Fish propagation**	• **Fishing**
SC	 **Fishing**	