Natural Resources Regulations

Environmental Protection

Conservation Councils and Boards

Many counties, cities, towns and villages have established advisory councils or conservation boards under Article 12-F of the General Municipal Law to help protect and manage local environmental and scenic resources. These agencies provide a focus for local environmental overview and advocacy and perform functions assigned by their local legislative bodies, including environmental education, review of development proposals, technical assistance to other agencies and sponsorship of improvement projects. The Department of Environmental Conservation (DEC) provides technical assistance to county environmental management councils and municipal conservation advisory councils and commissions.

Environmental Facilities

The Environmental Facilities Corporation (EFC) is a public benefit corporation that promotes environmental quality by providing low-cost capital and expert technical assistance to municipalities, businesses and state agencies for environmental projects throughout New York State. Its purpose is to help public and private entities comply with federal and state environmental requirements. The EFC oversees several major programs designed to promote environmental quality at an affordable cost. The EFC currently has two Revolving Loan Funds. The Clean Water State Revolving Loan Fund is used to make low-interest loans to municipalities to help pay for water pollution control facilities, such as wastewater treatment plants, and for water quality remediation measures associated with landfill closures. The Drinking Water State Revolving Loan Fund is operated jointly by the EFC and the Department of Health to provide low-interest loans to public and private water systems to undertake needed drinking water infrastructure improvements. Grants are available for drinking water projects in communities facing financial hardship. The Technical Advisory Services program helps business and government understand and comply with state environmental requirements, and provides services for protecting the New York City Watershed and helping small businesses comply with air pollution standards. The Industrial Finance Program provides low-cost loans to private entities seeking to borrow for capital facilities that deal with solid waste, sewage treatment, drinking water, limited hazardous waste disposal and site remediation. The Financial Assistance to Business program helps businesses comply with air and water quality environmental regulations and provides grants to small businesses for specific pollution control or prevention projects.

Flood Control and Water Resources

Much of early New York developed around waterways, with the result that some 1,400 communities are either wholly or partially in areas subject to a significant flood hazard. These communities seek to mitigate that hazard through such strategies as implementation of floodplain regulations, construction of flood control structures, and participation in: local flood warning systems, flood preparedness plans and in the National Flood Insurance Program. The latter is available to property owners and tenants in communities that regulate the use of their floodplains. The DEC assists localities with these activities, helps obtain funds for flood control measures, coordinates the National Flood Insurance Program and works with the State Emergency Management Office to help communities prepare for flood emergencies. The Department also helps local governments develop small watershed protection projects, and plan and implement strategies to protect, develop and use local water resources.

Forest Resources

Many local governments have significant rural and/or urban forest resources to protect and manage. The DEC provides technical assistance for the establishment and management of county forests, watershed forestry development, parks, and street tree programs. As many rural volunteer fire companies must protect forest resources in their jurisdictions, DEC also provides technical assistance and training in the control of forest, brush and grass fires and helps these rural companies obtain small federal grants for rural fire protection. The forest tax program, administered under section 480-a of the Real Property Tax Law, authorizes DEC to approve forestry management programs undertaken by private landowners who thereby become eligible for lower property tax assessments.

Hazardous Wastes

With the help of local health and environmental agencies, DEC has identified more than 1,600 sites where hazardous wastes may have been improperly disposed of in the past. When an inactive hazardous waste disposal site is determined to pose a significant threat to public health or the environment, action is required. If no responsible party can be identified, the DEC seeks federal or State Superfund assistance for site investigation and remediation. The DEC also manages portions of the Clean Water/ Clean Air Bond Act Fund, providing reimbursement grants to municipalities for the investigation and remediation of contaminated sites. In addition, New York's Voluntary Cleanup Program encourages volunteers to use private funds to clean up sites to specified levels in exchange for a release from state liability for the work done. Treatment, storage and disposal of more than one million tons of hazardous waste, which is generated each year by New York industries, is controlled by stringent state and federal regulations. The DEC enforces these controls, and studies the possible need for environmentally sound disposal of future hazardous wastes. Communities are involved in the search for suitable sites andin planning for possible facilities. Natural Resources Programs New Yorkers enjoy an abundance of natural resources, including the majestic Adirondack and Catskill mountains, a 3,200-mile coastline, thousands of square miles of public and private forest lands, immense surface and ground water resources and a wide variety of wildlife and mineral resources. Primary responsibility for protecting and managing the state's natural resources rests with the DEC, but some of that responsibility is shared with other state agencies and local governments. The Department of State's Coastal Management Program has already been discussed in this Chapter. Other programs are discussed below.

Oil Spill Prevention and Control

Legislation passed in 1977 provides for the licensing of major petroleum facilities and the collection of fees to establish a fund, now known as the Environmental Protection and Spill Compensation Fund. The DEC is designated as the administering agency to investigate and clean up oil spills. The Department establishes environmental priorities and provides advice on cleanup activities. All spills must be reported to DEC, and may be reported via a special hotline. The spiller is responsible for cleanup. When the spiller is unknown, or uncooperative, the Department initiates and implements cleanup activities through a series of standby contracts with recognized firms. The DEC may also use the Emergency Oil Spill Network that includes units of state and local government. The spill compensation fund, which is administered by the State Comptroller's Office, reimburses the costs incurred by cleanup activities that are directed by DEC.

SEQRA

The State Environmental Quality Review Act (SEQRA): requires state and local governments to determine whether or not certain proposed actions may have any significant adverse impacts on the environment and seeks to mitigate such impacts. The DEC provides technical assistance to municipalities in the administration of this law.

Solid Waste Management

Solid waste management is administered in New York through "planning units," as defined in the Environmental Conservation Law. "Solid waste" generally refers to garbage, refuse, sludge and other discarded materials resulting from industrial, commercial, mining or agricultural operations, and from residential and other community activities. A "planning unit" is a county or group of counties acting jointly, a local government agency or authority established by law for the purpose of managing solid waste, or two or more municipalities that have been determined by the DEC to be capable of implementing a regional solid waste management program. Plans are developed to promote an integrated system that provides for or considers the management of all solid waste generated within the planning unit and embodies sound principles of solid waste management, natural resource conservation, energy production and employment creation. Local governments are responsible for implementing integrated planning at the local level, adopting local laws and ordinances requiring source separation for materials for which there are economic markets, implementing separation, collection, recycling, transportation, storage and disposal, and promoting reduction, reuse and recycling. Local governments can also zone to permit or prohibit the siting of solid waste facilities in their communities. Towns have independent authority under sections 130 and 136 of the Town

Law, to regulate solid waste transfer stations. The DEC provides policy direction, technical assistance and long-range planning, and regulatory oversight.

Water and Wastewater Services
Water and sewerage services have long been available in urbanized areas and are also available in many suburban areas. The extension of these facilities has major impacts on the extent and direction of development. Localities utilize several organizational mechanisms to provide sewerage and water services. The most prevalent are the municipal water or sewer departments in cities and villages and the water or sewer districts in towns. Most cities and many villages have developed their own sources of water supply and have constructed sewage treatment plants. While some town districts have developed these capital facilities, many purchase the services from adjoining localities. Town districts frequently purchase water or sewage treatment services as a part of a growing regionalization of such services.

State and federal grant requirements often dictate inter-municipal action regarding sewerage. County sewer districts frequently provide major capital facilities for multi-municipal sewage treatment projects. The creation of county districts and other inter-municipal arrangements allow for the use of sophisticated techniques, often at considerably lower unit costs than could be obtained by a number of smaller, independent facilities. In addition to county districts, local governments have occasionally established authorities to provide water or sewage service over a wide area. An example is the Monroe County Water Authority, which serves a large area around the city of Rochester. In some areas the private sector plays a large role in the delivery of water and sewage service. Even in an urban area such as New York City, the Borough of Queens is served by a private water company. In a number of suburban developments, the developer often creates small water or sewage companies. Towns or villages control the rates that private companies charge for sewage service.

The State Public Service Commission regulates the price that private water firms charge for their services. The State plays a role in the regulation of municipal water and sewer agencies. The Department of Health enforces water supply standards and the Department of Environmental Conservation enforces sewage treatment standards. Both departments, through the use of aid programs, strongly encourage inter-municipal approaches to water and sewage services. One of the most powerful tools in the local government arsenal is the power to regulate the physical development of the municipality. This power is exercised through a variety of available authorizations and regulatory mechanisms. Through control of land use and development, each community is able to develop and display the most desirable physical features of the community. The Police Power Police power is the power that government has to provide for public order, peace, health, safety, morals and general welfare. It resides in the sovereign state, but may be delegated by the state to its municipalities. Land use controls are an exercise of the police power long recognized by the United States Supreme Court. In New York, the power to control land use is granted to each municipal government by Article IX, section 2, of the State Constitution and by the various state enabling statutes.

With few exceptions, the exercise of the police power to control land use is a city, town or village function in New York State. This includes the decision whether to control land use, and, if so, to determine the nature of the controls. When exercised, the power to control land use is governed by the state enabling statutes which have granted the power to local governments: the General City Law, the Town Law, the Village Law, the General Municipal Law, and the Municipal Home Rule Law and its companion Statute of Local Governments.

Since the health and welfare of the residents within the community is of great importance to the Town of Marshal any materials that have been proven harmful to human health should not be used within the Town.

Physical Geography and Soils

Topography:

The Town of Marshall holds the unique distinction of hosting the highest point in Oneida County: Tassel Hill at 1940 feet. Located in the southeastern most corner of the town, Tassel Hill marks the drainage divide between the Oriskany watershed and the Upper Unadilla River. The lowest topographic point in town may be at the northern end of NY 12B just south of the Kirkland town line.

Many portions of the town contain steep slopes as clearly seen on a USGS topographic map. The maps that cover the Town of Marshall include the Oriskany Falls sheet and the Cassville Sheet. Steep slopes on topographic maps are marked by contour lines that are very close together. Several areas with steep slopes can be identified throughout the town. While not specifically regulated, development on steep slopes presents a number of challenges. Unstable soils, high rates of erosion and the potential for increased stormwater runoff are all factors to consider when developing property located on steep slopes. NYS DEC has chosen in its construction activities permit to define a steep slope as 25% or greater. For example, a slope that rises 30 feet in a distance of 100 feet is a 30% slope and is therefore, considered steep by DEC's definition.

Soils in the Town of Marshall are highly productive and therefore, well suited to agricultural use. The United States Department of Agriculture's Natural Resources Conservation Service defines **soil** as follows: "The unconsolidated mineral or organic material on the immediate surface of the Earth that serves as a natural medium for the growth of land plants". Soil has specific formation factors including time, parent material and climate among others. In the Town of Marshall, parent material is typically limestone bedrock and glacial deposits. These factors influence the lime content of the soil as well as the texture. High lime content is typically associated with high productivity while soil texture influences drainage. Approximately 20% of the soils in the Town of Marshall are part of the Nellis series, 15% are classified as Pittsfield, 12% are Lansing, 10% are Amenia and 9% are Honeoye. The remaining 33% of the land is covered by 34 other soil series. The major Soil Series present in the Town of Marshall are mapped in the appendix:

***Amenia*:** The Amenia series consists of very deep, moderately well drained soils on hilltops and side slopes on uplands in the southern part of the county. These soils formed in calcareous glacial till derived mainly from limestone and shale with small amounts of siltstone. Slopes range from 0 to 8 percent. Amenia soils are commonly adjacent to well drained Nellis soils and somewhat poorly drained Kendaia soils. They are on the same landform as those soils. They are commonly near poorly drained Lyons soils in concave areas or depressions. Shallow, well drained Farmington soils and moderately deep, well drained Galway soils are on nearby limestone-controlled uplands. In some areas Lima soils and well drained Honeoye soils are near Amenia soils on uplands. Lima soils are finer textured than the Amenia soils. Typical pedon of Amenia silt loam, 0 to 3 percent slopes, in the town of Marshall, Oneida County, 1,100 feet east of the intersection of Route 12 and Summitt Road (Hubbard Corners).

Honeoye: The Honeoye series consists of very deep, well drained soils on till plains and drumlins (fig. 13) in the uplands. These soils formed in loamy glacial till derived mainly from limestone and calcareous shale. Slopes range from 2 to 45 percent. Honeoye soils are adjacent to and in a drainage sequence with moderately well drained Lima and somewhat poorly drained Appleton and Kendaia soils in slight depressions and the flatter areas. Honeoye soils are near poorly drained Lyons soils in drainageways and depressions. They commonly are near Lansing soils and moderately well drained Cazenovia and Conesus soils, which are in the same landscape positions as the Honeoye soils. Cazenovia soils have more clay in the subsoil than the Honeoye soils, and Lansing and Conesus soils are deeper to calcareous material.

Nellis: The Nellis series consists of very deep, well drained soils on till plains, moraines, and drumlins. In some areas these soils occur on a series of terracelike landforms supported by limestone bedrock that is nearly level bedded. The soils formed in calcareous till derived mainly from limestone and from lesser amounts of sandstone and coarse grained siltstone. Slopes range from 3 to 25 percent. Nellis soils are adjacent to and form a drainage sequence with moderately well drained Amenia soils and somewhat poorly drained Kendaia soils. Poorly drained or very poorly drained Lyons soils are near Nellis soils in slightly concave areas or depressions.

Nellis soils are near Pittsfield soils, which do not have carbonates above a depth of 40 inches. Shallow, well drained Farmington soils are on nearby limestone controlled
uplands. Typical pedon of Nellis loam, 3 to 8 percent slopes, in the town of Marshall, Oneida County, 0.75 mile south of the village of Paris and 50 feet east of Route 12.

Pittsfield: The Pittsfield series consists of very deep, well drained soils on till plains in the uplands. These soils formed in glacial till that is medium to high in content of lime. Slopes range from 0 to 45 percent. Pittsfield soils are commonly adjacent to well drained Nellis and Honeoye soils and moderately well drained Amenia soils, all of which are on the same landforms as the Pittsfield soils and have carbonates above a depth of 40 inches. Moderately well drained Phelps soils and somewhat excessively drained Howard soils are adjacent to Pittsfield soils on outwash plains. In a few areas Chadakoin soils are near Pittsfield soils. They are more acid throughout than the Pittsfield soils. Typical pedon of Pittsfield loam, 3 to 8 percent slopes, in the town of Marshall, Oneida County, one-third of a mile due east of Route 12B and one-eighth of a mile north of Burnham Road.

Hydrology and Water Quality

Water is a powerful force of nature and essential to life. In the Town of Marshall, our water resources are so abundant that the concept of water shortages faced elsewhere is nearly inconceivable. The Town of Marshall is largely defined by the path of the Oriskany and its many tributaries. The Oriskany Creek begins in Madison County and flows north/northeast toward the Village of Oriskany in the Town of Whitestown where it meets the mighty Mohawk River. The Oriskany Creek Valley is largely parallel to NYS Route 12B. It is considered by the NYSDEC to be a prime trout stream earning the Classification of B(T). DEC's stream classification is based on the highest best use of a waterbody. Class A streams tend to feed drinking water supplies, class B streams are well suited to swimming and fishing and Class C streams support fish habitat and propagation. The (T) in the designation refers to the presence of trout in the water. The Oriskany wasn't always so pristine. Raw sewage and industrial waste contaminated its flows. Today, it's not unusual to see kayakers, swimmers and anglers enjoying this high quality resource. The Oriskany is not without it's troubles though. Nonpoint sources of pollution such as sediment from agricultural land and construction sites can foul the water and smother aquatic habitat. Farmers often avail themselves of Federal and State programs that are available to prevent erosion from their cropland. Construction site operators are required by State and Federal Laws to control erosion and sediment laden runoff from leaving their sites. These programs and regulations help to protect the quality of the streams and preserve them for the enjoyment of all.

The Oriskany Creek is fed by a vast network of tributary streams in the Town of Marshall. The largest of these is Big Creek, a meandering stream that begins east of Waterville. Several tributaries feed Big Creek including Edwards Brook, Burchard Brook and McAdam Brook as well as several un-named streams. Big Creek drains much of the town's land east of the Oriskany and south of Turkey Creek. Streambank erosion on the eastern bank of Big Creek just north of the Village line is a persistent problem. In addition, the streambank erosion along Big Creek affects the Wastewater Treatment Plant and NYS Route 315. At the intersection of NY 315 and California Road, the stream has been known to diverge from its main channel and carve a path through the cropland at the corner. Other tributaries to the Oriskany include Lindsley Brook which originates near the intersection of Sanger Hill Road and Brothertown Road and enters the Oriskany near the Village of Oriskany Falls. Turkey Creek is a large tributary to the Oriskany and originates in the Town of Marshall. Turkey Creek drains much of the northeastern portion of the town.

The Town of Marshall also includes a small portion (approximately 300 acres) of the Sauquoit Creek Watershed. The Sauquoit Valley is largely the area along NY 8 in the Town of Paris where it then flows north through New Hartford to meet the Mohawk River. While the main channel of the Sauquoit is not located within our borders, the upper portion of the watershed is located in the eastern portion of the Town of Marshall.

The southeastern most corner of the Town of Marshall drains toward the Susquehanna River Basin via the Upper Unadilla River. Ultimately this flow outlets to the Chesapeake Bay. Only approximately 100 acres of the Town flow into the Upper Unadilla River Watershed.

Although considered by some to be an old-fashioned term, erosion is very much a part of our modern lives and an important factor in Marshall's appearance. Erosion is the transport of soil by agents like wind, water, ice or gravity. Without erosion we would not have the dramatic hills and valleys that make the Town of Marshall so picturesque. However, erosion of topsoil from farmland or streambank erosion can threaten our properties and is generally something that we try to control.

Flooding is described by FEMA as follows: "Flooding is the nation's most common natural disaster. Flooding can happen in every U.S. state and territory. However, all floods are not alike. Some can develop slowly during an extended period of rain, or in a warming trend following a heavy snow. Others, such as flash floods, can occur quickly, even without any visible signs of rain. It's important to be prepared for flooding no matter where you live, but particularly if you are in a low-lying area, near water or downstream from a dam. Even a very small stream or dry creek bed can overflow and create flooding". In the Town of Marshall, the Oriskany Creek and Big Creek are the two major areas where FEMA designated Flood Zones can be found. There are approximately 500 acres in the Town that are highly likely to be flooded on an annual basis. It is an important to define the term "100 year flood". This is not the flood that can occur once every 100 years. Rather, it is the flood that has a one percent likelihood of occurring on an annual basis. Therefore, in any given year, there can be several "100 year floods". The same is true for the 100 year storm: it is the 1% annual chance of a storm that generates 5.4 inches of rainfall in a 24 hour period. We may experience multiple "100 year storm" events in any given year. Regulations controlling development in the floodzone exist in every community that is part of the National Flood Insurance Program throughout the United States. In order for residents to qualify for reduced rates on flood insurance that is guaranteed by the federal government, their community has to be in good standing with the NFIP program. This program is administered locally by the Codes Enforcement/Zoning Enforcement Officer in most communities. That individual is responsible for reviewing any plans that are proposed for construction in the floodzone. Development in the floodzone is generally not acceptable given the threat to the occupants of the structure as well as the potential impact on those living downstream. Regulations are in place to preserve the flood zone.

While largely a natural event, human activities can increase the likelihood of flooding. When natural ground is developed and converted to impervious surfaces such as pavement or roof tops, an increase in stormwater runoff often results in flooding. Flooding attributed to stormwater runoff can damage infrastructure and personal property.

Wetlands:

The NYSDEC describes wetlands as follows: Freshwater wetlands are lands and submerged lands, commonly called marshes, swamps, sloughs, bogs, and flats, supporting aquatic or semi-aquatic vegetation. These ecological areas are valuable resources, necessary for flood control, surface and ground water protection, wildlife habitat, open space, and water resources. Freshwater wetlands also provide opportunities for recreation, education and research, and aesthetic appreciation. Adjacent areas may share some of these values and in addition, provide a valuable buffer for the wetlands.

Certain human activities can adversely affect, even destroy the delicate ecological balance in these important areas. The policy of New York State; set forth in the Freshwater Wetlands Act, is to preserve and protect the benefits that wetlands provide.

In the Town of Marshall, there are approximately 1200 acres of NYS regulated wetlands shown on DEC mapping. This does not include the roughly 100 foot buffer area that surrounds most wetlands and is also subject to DEC regulations. The NYSDEC regulates wetlands that are at least 12.4 acres in size. The US Army Corps of Engineers also regulates wetlands for the federal government. Army Corps wetlands do not have a minimum size, nor do they have to be entirely natural – man made ponds can be considered Army Corps Wetlands. Army Corps wetlands

are identified based on field conditions, specifically the presence of hydrophytic (water loving) vegetation. Therefore, there is no upper limit on the size of a federally regulated wetland. When State wetlands and Army Corps wetlands coincide, a joint permit for work in the wetland can be obtained by the landowner. The US ACE will accept the DEC's delineation of the wetland. If the wetland is only an Army Corps wetland, the owner must hire a wetland delineation specialist and the mapped delineation must be forwarded to the Army Corps office for review. Development within wetlands is not encouraged for both natural and practical reasons. From the perspective of the naturalist, wetlands offer unique areas for wildlife habitat. From a practical standpoint, building one's home in saturated soils leads to a host of problems: septic system failure, basement flooding, mold and difficulties maintaining the property.

Air Quality

The air we breathe is an easily dismissed natural resource but one of vital importance. Many human activities can foul this resource from industrial emissions, manure storage and spreading, and open burning operations. In the Town of Marshall, the (federal, state and local) regulations affect air quality are CAFO and a Wood Boiler local law.

Hazardous Materials: The NYSDEC is called to protect New York State's environment and the health of its citizens through innovative, rational, and reasonable management of solid and hazardous materials.
Per the DEC's website, DEC regulate and monitor solid and hazardous waste facilities and generators of hazardous waste; control disposal of radioactive materials and use of pesticides; and promote sound management of wastes by communities, businesses and industries.