



ANJEC
Local Environment Matters

Freshwater Wetlands Protection in New Jersey

A Manual for Local Officials
Fourth Edition

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This manual presents general information and does not reflect the views of the New Jersey Department of Environmental Protection. It is intended to assist municipal environmental commissions, planning boards, boards of adjustment, boards of health and construction offices.

*Cover: **Fragrant American White Water Lilies (*Nymphaea odorata*) thrive in shallow marhes.***

Foreword

Until the 1970s, wetlands were most commonly viewed as wastelands, and were filled or drained to create dry land, or used as dumps. By the mid-1970s, according to the US Fish and Wildlife Service, an estimated 20 percent of New Jersey's wetlands had been destroyed, with losses as high as 72 percent in Hunterdon County and 50 percent in parts of the Passaic River basin.

Increasing understanding of the important role wetlands play in providing flood control, purifying and stabilizing water supply, providing habitat for wildlife, and contributing to the economy led in 1977 to expansion of the federal *Clean Water Act*. It included federal wetlands protection regulations to be administered by the US Army Corps of Engineers (USACE). The federal regulations were limited to discharge of dredge and fill material and did not apply to large areas of freshwater wetlands in the headwaters of streams. Therefore, freshwater wetlands continued to be vulnerable to destruction.

In 1983, concerned citizens working with Assemblywoman Maureen Ogden and other legislators initiated a campaign to enact a strong New Jersey freshwater wetlands protection law. Despite four years' effort, and support from an unprecedented coalition of hunters, environmentalists, educators and businesses, the legislation remained stalled until June 8, 1987, when Governor Thomas Kean took a remarkable stand by issuing a moratorium on building in wetlands in New Jersey. The moratorium would be cancelled when the legislature passed the proposed freshwater wetlands protection law. Within 17 days of the Governor's moratorium, the New Jersey Senate and Assembly unanimously passed the wetlands act.

The *New Jersey Freshwater Wetlands Protection Act* (FWPA) was signed on July 1, 1987. The law controls virtually all activities in freshwater wetlands – including filling, draining, and clearing – and requires protection of additional buffer areas, called transition areas, around wetlands to protect the entire wetlands ecosystem. The provisions of the *Act* are administered by the New Jersey Department of Environmental Protection's (NJDEP) Division of Land Use Regulation.

This manual explains the provisions of the *New Jersey Freshwater Wetlands Protection Act* and its implementing regulations. It also offers techniques municipalities can use in the land use planning and application/review process to complement the State's program. It will help members of municipal environmental commissions, planning boards, boards of adjustment, boards of health, and interested citizens to work with NJDEP to protect freshwater wetlands in their communities.

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Whitesbog open wetlands in Lebanon State Forest



American toad (Anaxyrus americanus) breeds in pools and ponded areas in wetlands

Chapter I

Why Protect Wetlands and How to Identify Them

Freshwater wetlands were once viewed as wastelands – generally unfarmable and unbuildable. It was common practice to drain or fill wetlands in order to create land that was suitable for development or agriculture. Wetlands were also commonly used as dumps. We now realize that freshwater wetlands provide critical ecological services that support biodiversity and human survival, from protecting drinking water supplies to providing essential habitat for much of our wildlife. Federal and New Jersey law and regulations protect freshwater wetlands because they provide very important public benefits, and because the loss or degradation of these resources has serious ecological, economic and social consequences.

WHAT ARE FRESHWATER WETLANDS?

The *NJ Freshwater Wetlands Protection Act* defines a freshwater wetland as *"...an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation..."*

Freshwater wetlands occur throughout New Jersey, and currently make up approximately 15 percent of the state's land area [*Creating Indicators of Wetland Status, Quality and Quantity*, www.state.nj.us/dep/dsr/wetlands/final.pdf]. They usually lie between dry upland areas and surface water bodies, occurring most frequently along rivers and streams and on the margins of lakes and ponds. They can also be groundwater-fed depressions, or occur on slopes where springs or seeps erupt at the surface.

The different types of freshwater wetlands include areas referred to colloquially as marshes, swamps, wet meadows, bogs and vernal habitats. In other areas of the country they are known as potholes, fens,

peatlands, pocosins, and a host of other terms. They vary in character and appearance:

Marshes are most often covered with shallow water; **Swamps** and wet meadows are covered with water for only a portion of the year, occasionally drying up during the summer;

Bogs have very restricted inflow and outflow of water, are characterized by a buildup of peat and high acidity, and often provide habitat for particular plant species that will not survive elsewhere;

Vernal habitats are confined wetland depressions that hold water for at least two consecutive months of the year. They provide habitat to many species of amphibians, insects, reptiles and plants, but do not support fish.

The defining features of freshwater wetlands, whatever the type, are the frequent or prolonged presence of water and the characteristic hydrophytic vegetation and hydric soils that result from the presence of that water.

WHY PROTECT FRESHWATER WETLANDS?

Environmental benefits of wetlands

Wetlands perform critical functions that support and stabilize our ecosystems, sustaining the web of life. These functions include:

- providing essential breeding or maintenance habitat for a major portion of the state's fish and wildlife, including endangered, commercial and recreational species;
- protecting surface water quality for wildlife and human use by filtering out nutrients and other pollutants from stormwater;
- providing flood storage and storm damage protection that prevents loss of life and disruption of habitats;
- acting as carbon sinks by taking carbon dioxide out of the atmosphere through photosynthesis and storing it in wetland trees and sediments; and

- helping to maintain base flows to rivers and streams through groundwater discharge; base flow is particularly critical during dry periods, sometimes making up the entire flow of a stream.

Economic benefits of wetlands

It is difficult to assign a precise dollar value to the services nature provides. One way is to estimate the cost of replacing a natural service with manmade infrastructure. An example of this would be to calculate the cost of a sewer treatment plant that would be needed to remove pollutants from a volume of stormwater runoff that is currently being filtered by a natural swamp.

A 2007 report, *Valuing New Jersey's Natural Capital*, www.nj.gov/dep/dsr/naturalcap/nat-cap-1.pdf, developed for the NJ Department of Environmental Protection, estimated the dollar value of the services and goods produced by components of the state's natural environment that provide long-term benefits to society (i.e.; its natural capital). It valued the "goods and services," excluding ecotourism, provided by New Jersey's 814,479 acres of freshwater wetlands at \$11,802 per acre per year, for a total annual benefit of \$9.6 billion in 2004 dollars. The services include water supply, water filtration and storm buffering/avoided damage. The report stated, "Wetlands [both freshwater and saltwater], estuaries/tidal bays, and forests are by far the most valuable ecosystems in New Jersey's portfolio, accounting for over 90 percent of the estimated total value of ecosystem services." As sea level rise and climate change advance, bringing more intense and frequent storms, the buffering function of wetlands will become even more valuable.

In recent history, society's recognition of the value of nature's services has frequently come about when the negative impacts of destroying a resource become apparent. In the 1960s, the US Army Corps of Engineers (USACE) channelized the Kissimmee River in Florida, straightening miles of meandering river and building dikes and levees to prevent flooding. Subsequent to the channelization and before wetlands had federal protection, wetlands separated from the river by the new dikes were filled for agricultural use. By the mid 1970's, downstream Lake Okeechobee was suffering from severe eutrophication caused by nutrient rich agricultural runoff from the filled wetlands, and populations of water fowl, wading birds, fish and other animals had declined dramatically. Florida authorities were very concerned because the lake provides water supply for southern Florida during dry periods.

In the ensuing decades, the USACE and the State of Florida have collaborated on a \$1+ billion dollar project to restore the natural channel of the Kissimmee River, and its associated floodplains and wetlands. Combined with improved water management in the headwaters areas, the project has resulted in greatly improved water quality (reduced eutrophication, increased dissolved oxygen) and restoration of biological communities, while still affording flood protection to affected communities.

Additional economic and societal benefits of wetlands include those from tourism and recreation, and from products of agriculture, forestry and hunting that occurs in and around wetlands. Freshwater and coastal wetlands provide extensive opportunities for fishing, hunting, photography, birdwatching and other outdoor pursuits. These nature-based activities have significant documented economic benefits from retail sales (equipment, travel accommodations and food) and taxes. In 2006, wildlife viewing alone generated approximately \$43 billion nationally. Though it is difficult to tease out the exact portion of that figure that results from wetlands, there is no question that many of the species around which these activities center depend on freshwater wetlands for breeding, habitat and survival. The Delaware Bayshore and Cape May peninsula of New Jersey realize more than \$40 million annually from birders. [EPA "Wetland Functions and Values" Watershed Academy Web Module (undated) <http://cfpub.epa.gov/watertrain/pdf/modules/WetlandsFunctions.pdf>]

Other public benefits of wetlands

Wetland ecosystems have provided ingredients for important medical advances. Researchers at Bristol Myers Squibb Institute for Medical Research, Princeton, developed a valuable antibiotic, Azactam, using bacteria from soil in the wetlands of the New Jersey Pine Barrens. The antibiotic is effective against a wide range of bacterial infections, and is especially useful in hospitals. Although it is now manufactured synthetically, no one knows what other medical benefits future research on wetland biota will yield. Other commercial products including dyes, tannins, thatch and fiber are harvested from freshwater wetlands, in addition to agricultural products such as rice.

PHYSICAL ATTRIBUTES OF FRESHWATER WETLANDS

Three characteristic attributes are used to identify the presence and extent of a freshwater wetland: vegetation, soils and hydrology.

Wetlands vegetation

Plants that have adapted to living in wet conditions are called hydrophytes. Hydrophytes are unique because they grow in soils that lack oxygen as a result of excess water content. Hydrophytes fall into four categories:

- **Obligate wetland plants** nearly always occur in wetlands and are the best vegetative indicators of wetlands. Examples include cattail, royal fern, skunk cabbage, swamp azalea, and white cedar;
- **Facultative wetland plants** occur in wetlands over two-thirds of the time and are good indicators of wetlands. Examples include cinnamon fern, pin oak, high bush blueberry, and common elderberry;
- **Facultative plants** occur in wetlands between one-third and two-thirds of the time, but also occur in uplands. Examples include red maple, switchgrass, witch hazel, rosebay rhododendron; and
- **Facultative upland plants** are more typical of uplands, but will grow in wetlands less than one-third of the time. Examples include American holly, American beech, white oak, bracken fern.

Federal and state agencies including New Jersey use the *National Wetland Plant List* – <http://rsgisias.crrel.usace.army.mil/NWPL/> (Army Corps of Engineers, updated 2016) for wetland delineations.

Wetland soils

Wetland soils, which are called *hydric soils*, contain excess water for long enough periods to inhibit the presence of free oxygen necessary to support normal vegetation and to break down minerals; hydric soils exhibit *anaerobic* conditions in the soils' upper level.

Hydric soils are separated into two categories, organic and mineral.

Organic hydric soils contain a high percentage – more than half of the volume of the upper 32 inches of the soil – of organic material because the lack of oxygen slows down the natural decomposition process. Hydric organic soils are dark in color.

Mineral hydric soils contain a very low percentage of organic material and are hydric when they are saturated long enough to change their properties substantially. Hydric mineral soils are usually gray and mottled immediately below the soil surface, or exhibit dark colors at the surface and gray mottled areas below the surface.

Evidence of hydric conditions can consist of dark vertical streaking in the subsurface, brown or orange-brown channels left by oxidized roots, or the odor of hydrogen sulfide (rotten eggs).

Table 1

New Jersey Soils Associated with Wetlands

SOIL SERIES	TAXONOMY	SOIL SERIES	TAXONOMY
Adrian	Terric Haplosaprists	Portsmouth	Typic Umbraquults
Alden	Mollic Endoaquepts	Preakness	Typic Humaquepts
Appoquinimink	Thapto-Histic Sulfaquents	Psammaquents	
Atherton	Aeric Endoaquepts	Sandyhook	Haplic Sulfaquents
Berryland	Typic Alaquods	Timakwa	Terric Haplosaprists
Biddeford	Histic Humaquepts	Transquaking	Typic Sulfihemists
Broadkill	Typic Sulfaquents	Wallkill	Fluvaquentic Humaquepts
Canandaigua	Mollic Endoaquepts	Weeksville	Typic Humaquepts
Carlisle	Typic Haplosaprists	Westbrook	Terric Sulfihemists
Catden	Typic Haplosaprists	Whitman	Typic Humaquepts
Chicone	Thapto-Histic Fluvaquents	Willette	Terric Haplosaprists
Fluvaquents		Natchaug	Terric Haplosaprists
Halsey	Typic Humaquepts	Palms	Terric Haplosaprists
Humaquepts		Parsippany	Typic Ochraqualfs
Ipswich	Typic Sulfihemists	Pawcatuck	Terric Sulfihemists
Keansburg	Typic Umbraquults	Pedricktown	Humaqueptic Fluvaquents
Manahawkin	Terric Haplosaprists	Plummer	Grossarenic Paleaquults
Mannington	Thapto-Histic Hydraquents	Portsmouth	Typic Umbraquults
Mispillion	Terric Sulfihemists	Preakness	Typic Humaquepts
Mullica	Typic Humaquepts	Psammaquents	
Nanticoke	Typic Hydraquents	Sandyhook	Haplic Sulfaquents
Natchaug	Terric Haplosaprists	Timakwa	Terric Haplosaprists
Palms	Terric Haplosaprists	Transquaking	Typic Sulfihemists
Parsippany	Typic Ochraqualfs	Wallkill	Fluvaquentic Humaquepts
Pawcatuck	Terric Sulfihemists	Weeksville	Typic Humaquepts
Pedricktown	Humaqueptic Fluvaquents	Westbrook	Terric Sulfihemists
Plummer	Grossarenic Paleaquults	Whitman	Typic Humaquepts



Wetlands hydrology

Wetlands depend on the presence of surface or ground water supplied by rainfall, flooding, snow melt, and/or subsurface water for a long enough period during the growing season to support wetland vegetation. The presence of water in wetlands is highly variable and is not always obvious. At times when water is not apparent in a particular area, hydrologic indicators are used to ascertain that water is a dominant factor. These indicators include sediment deposits, water marks on tree trunks, moss lines on trees, and elevated (buttressed) roots.

WETLANDS IDENTIFICATION – THE FEDERAL MANUAL

In an effort to insure accurate, consistent and repeatable wetlands identifications and determinations,

Beavers (*castor canadensis*) are wetlands engineers

federal and state agencies administering wetlands law use the **federal methodology** developed by the four federal agencies primarily involved in wetlands identification and delineation, the US Army Corps of Engineers (USACE), US Fish and Wildlife Service, US Environmental Protection Agency (USEPA), and US Department of Agriculture Natural Resource Conservation Service (formerly the Soil Conservation Service).

The federal methodology uses a three parameter approach – soils, vegetation and hydrology – to identify the presence, absence or extent of wetlands, as detailed in the 1989 Federal Manual for Identifying and Delineating Jurisdictional Wetlands www.fws.gov/northeast/ecologicalservices/pdf/wetlands/interagency%20wetland%20delineation%20manual%201989.pdf. The *Federal Manual* provides direction on identifying



Great Blue Heron (Ardea herodias) may be found foraging in a variety of wetlands

various site specific wetland indicators and using them to establish a wetlands boundary that is accurate, consistent, and repeatable.

Individuals performing delineations need a background in botany, soil science, and hydrology. The degree to which expertise is required in any or all of these areas depends on the type of wetland determination required and the characteristics of a particular site. A higher level of experience is essential for the delineation of wetlands on highly disturbed sites such as those frequently encountered in urban landscapes. The *Federal Manual* contains protocols for wetland field investigations needed, at increasing levels of complexity, to determine the extent of wetlands on a site. They are:

- Routine determination;
- Intermediate level determination;
- Comprehensive level determination; and
- Problem or Disturbed Site determination (Disturbed areas are those where filling, damming, draining, clearing or other human activities have impacted the wetlands.)

The *Manual* details procedures to follow for each level and situation, and provides data sheets for reporting the investigation and calculations.

In situations where only a wetlands **presence/absence** determination is required, and access to a site is not possible or deemed necessary, it may be possible to use existing information about a site to do an off-site or “office” evaluation. If adequate information such as topographic, wetland and soils maps, aerial photos, or other recent reports are not available, an on-site investigation is necessary.

For most areas of five acres or less, or larger areas where vegetation is homogeneous, or where the boundary between the wetland and upland is clearly defined, a **Routine** onsite determination procedure is used to determine the existence of wetlands. An **Intermediate level** approach is required when the boundary is not clearly defined, and a **Comprehensive level** determination is required for extremely large or complex sites, or when detailed information is needed to support legal challenges.

All four approaches involve site-specific investigations designed to characterize the types of vegetation present, soils, and hydrology. To establish that a particular area is a wetland, wetlands indicators of all three parameters must be present. However, not all circumstances warrant a thorough investigation of each parameter. Where obligate wetland plants are

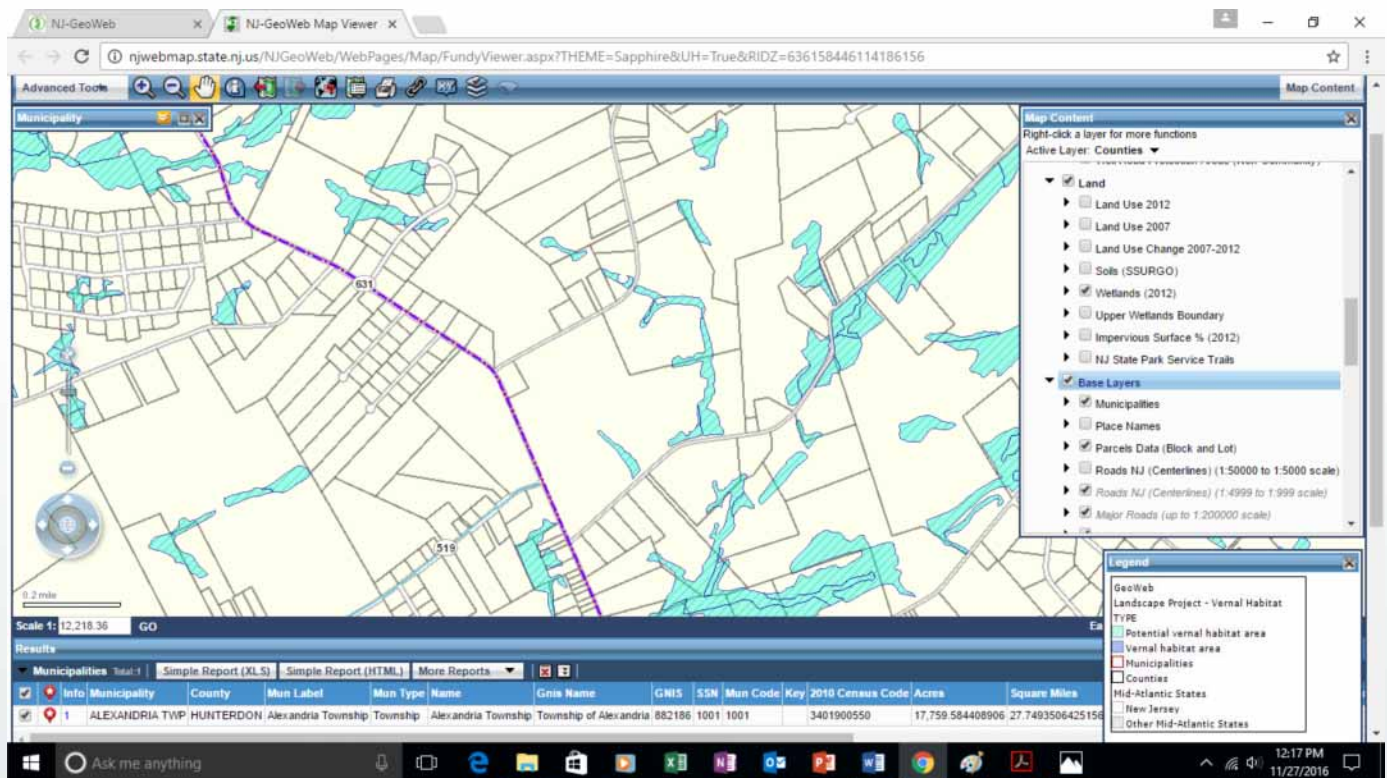
dominant, an area can be considered a wetland without intensive review of the soils and hydrology. In instances where the soils show hydric characteristics and there is obvious evidence of wetland hydrology, the vegetation is assumed to be hydrophytic and does not require further investigation. However, where facultative wetland, facultative, or facultative upland plant species are predominant, soil characteristics need to be investigated and hydrologic indicators documented. In general, the *Federal Manual* recommends that each parameter be investigated to accurately establish the extent of wetlands.

WETLANDS MAPS

The New Jersey Department of Environmental Protection (NJDEP) provides wetlands map information in digital format as GIS (Geographic Information System) downloads from its website (www.state.nj.us/dep/gis/download.htm) and also on NJ GeoWeb (www.nj.gov/dep/gis/geoweb splash.htm) an interactive, web-based mapping application. Wetlands maps are under the heading "Land," then select "Wetlands (2012)."

Hydric soils, a good indicator of wetlands potential, are shown on the USDA Natural Resource Conservation Service's (NRCS) Web Soil Survey (<http://websoilsurvey.sc.egov.usda.gov>). A municipal environmental resource inventory (ERI), if there is one, will also contain local wetlands information and maps. In almost all cases, the wetlands maps in an ERI are created using the NJDEP and NRCS data.

Neither the NJDEP maps nor the NRCS maps approach the accuracy of a site-specific survey and can be used only as an indicator in regard to the presence or absence of regulated wetlands on a particular site. Development and permit applications involving wetlands will require, in most instances, a professional field evaluation using the federal identification and delineation techniques to determine the exact boundaries of a wetland and its associated transition area for regulatory purposes.



Screen shot of NJDEP 2012 freshwater wetlands data layer, typical view, with parcels displayed.



Chapter II

The NJ Freshwater Wetlands Protection Act

Northern White Violet (Viola macloskeyi var pallens) grows beside brooks and springs

INTENT OF THE ACT

The New Jersey Legislature passed the *NJ Freshwater Wetlands Protection Act* on July 1, 1987, to “preserve the purity and integrity of freshwater wetlands from unnecessary and undesirable disturbance.” Until that year, New Jersey law protected only coastal wetlands.* The Legislature found that the public interest in protecting freshwater wetlands required “vigorous action” because of the important functions performed by wetlands and because the federal program was not strong enough.

Background

The federal program to protect wetlands, established under Section 404 of the *Clean Water Act* in 1977, is administered by the US Army Corps of Engineers (USACE), whose primary responsibility is to protect the navigable waters of the country. Because the federal program focuses on navigable waters, it does not provide comprehensive protection for freshwater wetlands. It limits the authority of USACE to regulation of discharge of dredged or fill material and does not authorize it to regulate such activities as draining wetlands or destroying vegetation in wetlands. The federal program also limits USACE’s jurisdiction so that no protection is afforded wetlands in headwater areas, where a great deal of freshwater wetlands are found.

By the 1980s, New Jersey had lost a significant amount of freshwater wetlands (up to 50 percent in some counties) due to filling, draining and development, and the State needed to take action.

*Coastal wetlands – those wetlands along the tidal coastline where dominant vegetation is tolerant of saline conditions – were already protected under New Jersey’s Coastal Area Facility Review Act of 1973 (CAFRA), the Wetlands Act of 1970 and the Waterfront Development Law of 1914. Coastal wetlands provide critical spawning area for saltwater fish, and vital feeding and resting places for waterfowl and migrating birds.

Reducing regulatory duplication

In 1987, in crafting the State’s wetlands law, the New Jersey Legislature directed NJDEP to consolidate and make consistent the programs involving freshwater wetlands, eliminate duplication between the federal and NJ programs, and establish one primary State wetlands program **by preempting wetlands regulation by lower levels of government**. The legislative intent for these changes was to bring predictability to both the regulated public and the regulating authority concerning wetlands protection.

To achieve effective, consistent statewide wetlands protection and to provide a timely and coordinated permit review process, the *Freshwater Wetlands Protection Act* directs NJDEP to consolidate wetlands protection aspects of all other NJDEP permit programs such as stream encroachment (Flood Hazard Area), CAFRA, waterfront development, water quality planning, and sewer extensions. The same wetlands definitions, identification and delineation criteria, and approval standards are used throughout NJDEP regulatory programs.

Under the federal *Clean Water Act*, a state may, with USEPA approval, take over administration of the 404 program when the state program incorporates all of the federal law’s requirements. The 1987 FWPA directed that New Jersey should do so.

USEPA approved New Jersey’s assumption of the federal wetlands program in 1994. The USACE still maintains jurisdiction over tidal and interstate waters and adjacent wetlands, including the New Jersey Meadowlands, Delaware River, Greenwood Lake and other tidally-influenced waterways and adjacent wetlands. USEPA retains oversight of New Jersey’s program and coordinates with NJDEP for certain categories of major activities. As a result of New Jersey’s assumption of the federal program, NJDEP has a Memorandum of Understanding with the USACE and implements the federal program regulating the

discharge of dredge or fill. The Pinelands Management Area is exempt from the *FWPA*; the Pinelands Commission has its own regulations protecting wetlands and can require more stringent regulation for activities other than discharge of dredge and fill.

The *FWPA* preempts regulation of freshwater wetlands by municipalities, counties, or regional entities with the exception of areas regulated by the Pinelands Commission, the NJ Meadowlands Commission (now merged with the NJ Sports and Exposition Authority), and coastal wetlands subject to the *Wetlands Act of 1970*. Although the *Act* preempts municipal ordinances whose sole purpose is to regulate wetlands, existing or new ordinances aimed at protecting other natural resources such as floodplains, which incidentally protect wetlands, are not preempted.

REGULATED AREAS AND ACTIVITIES

The *FWPA* directs NJDEP to provide comprehensive protection for freshwater wetlands, regardless of size, and their buffers (called transition areas) through regulation of actions that might impact these areas.* **Individuals, companies and all levels of government must obtain permits for activities in these resource areas.** The full text of the *Act* (NJSA 13:9B-1 et seq.) can be found at www.nj.gov/dep/landuse/lawsregs.html. The full text of the regulations ("rules") that implement the *Act* are at NJAC 7.7A, online at www.nj.gov/dep/rules/rules/njac7_7a.pdf.

The *FWPA* covers the following resources: **Freshwater wetlands** are areas that exhibit hydrology, vegetation and soils characteristics of wetlands, as described in the 1989 *Federal Manual for Identifying and Delineating Jurisdictional Wetlands*. The *Act* authorizes NJDEP to regulate virtually all activities in freshwater wetlands, including dredging, filling, soil removal and construction, drainage, vegetation disturbance and development. These activities all have significant potential for causing substantial harm to and loss of freshwater wetlands.

*As part of its assumption of the federal wetlands 404 program, New Jersey's Freshwater Wetlands Protection Act also contains provisions that regulate State open waters – inland waters including ponds, lakes, streams, and rivers. The regulation of State open waters under the 404 program and the *FWPA* is limited to the discharge of dredged or fill material, in order to protect water quality, aquatic habitat and navigability. The *FWPA* provisions related to State open waters are not detailed in this publication, which deals only with wetlands.

Transition areas are lands adjacent to and around defined wetlands, protected under the law as buffer areas for the wetland. They are an integral part of the wetlands ecosystem. The *FWPA* defines a transition area as:

"...an area of land adjacent to a freshwater wetland, that minimizes adverse impacts on the wetland or serves as an integral component of the wetlands ecosystem."

The regulations further detail the important functions of the transition area as follows: "[Transition areas provide] temporary refuge for freshwater wetlands fauna during high water episodes, critical habitat for animals dependent upon but not resident in freshwater wetlands, and slight variations of freshwater wetland boundaries over time due to hydrologic or climatologic effects; and [provide] a sediment and storm water control zone to reduce the impacts of development upon freshwater wetlands and freshwater wetlands species." (NJSA 7-7A:2.5)

The *Act* authorizes NJDEP to regulate many activities in transition areas, including soil removal, dumping or filling, erection of permanent structures, and destruction of plant life that would alter the existing pattern of vegetation.

Nearly all activities intended to be carried out in freshwater wetlands, and many activities in transition areas, require a permit from NJDEP.

Regulated activities in freshwater wetlands (NJSA 7-7A-2.2)

1. Removal, excavation, disturbance or dredging of soil, sand, gravel, or aggregate material of any kind;
2. Drainage or disturbance of the water level or water table in any way, or for any duration, so as to alter the ground or surface water that modifies the existing vegetation, values or functions of the wetland;
3. Dumping, discharging or filling with any materials;
4. Driving of pilings;
5. Placing of obstructions, including depositing, constructing, or otherwise situating any obstacle which will affect the values or functions of a freshwater wetland; and
6. Destruction of plant life, which would alter the character of a freshwater wetland, including killing vegetation by applying herbicides or by other means, the physical removal of wetland vegetation, and/or the cutting of trees.

Non-regulated activities in freshwater wetlands

1. Certain surveying or wetlands investigation activities, using only handheld equipment, with no use of

- motorized vehicles to clear vegetation or take soil borings. Limited to 3-foot diameter temporary clearing of vegetation around borings or survey lines;
2. The placement of temporary structures with a footprint of 32 square feet or less, for observing, managing, or harvesting fish or wildlife. No permanent foundations, deposition or fill material.
 3. Placement of small guy anchors that screw into the ground to secure a utility pole guy wire. Maximum 15-inch diameter disturbance area per anchor;
 4. Hand trimming of trees or other vegetation, provided the trimming does not alter the character of the freshwater wetland;
 5. The driving of pilings in a State open water, if there is no fill effect.

Regulated activities in transition areas (NJSA 7-7A:2.5)

1. Removal, excavation or disturbance of soil;
2. Dumping or filling with any materials;
3. Erection of structures;
4. Placing of pavements;
5. Destruction of plant life which would alter the existing pattern of vegetation (such as clear cutting, burning, application of herbicides) or planting of lawns or landscaping that significantly changes the character of the vegetation.

Non-regulated activities in transition areas

1. Normal property maintenance performed in a manner that minimizes adverse effects; includes mowing of existing lawns, maintenance of existing fields, pruning of trees and shrubs, selective cutting of trees, replacement of non-native plants, planting of native species and limited planting of non-native species, cultivation of existing gardens.
2. Development and cultivation of new gardens no larger than 2500 square feet in non-forested transition areas not subject to a conservation easement;
3. Maintenance of artificial features lawfully existing prior to July 1, 1989, but no additional disturbance of the transition area;
4. Minor and temporary disturbances resulting from normal construction activities on adjacent land, six month duration maximum;
5. Erection of temporary structure(s) covering a combined total of 150 square feet or less of the transition area (shed or fence without foundation allowed; no chain link fences).

EXEMPTIONS – Areas and Activities that are Exempt from the FWPA

Exempt geographical areas

Geographical areas exempted from the FWPA regulations are those under the jurisdiction of the NJ Meadowlands Commission (now merged with the NJ Sports & Exposition Authority, see below), and coastal wetlands subject to the *Wetlands Act of 1970* where the US Army Corps of Engineers (USACE) regulates deposition of dredged material. USACE also retains jurisdiction over tidally influenced waters including wetlands that are partially or entirely located within 1000 feet of their ordinary high water mark or mean high tide line, and interstate waters such as the Delaware River.

PINELANDS

In the New Jersey Pinelands, which encompass approximately 1.1 million acres spanning all or parts of 52 municipalities in southeastern New Jersey, delineation of wetlands and regulation of most activities that disturb wetlands are administered by the Pinelands Commission under a 1993 Memorandum of Agreement with NJDEP. The standards for that review are contained in the *Pinelands Comprehensive Management Plan (CMP)* and in the *Pinelands Supplement to the Federal Manual for Identifying and Delineating Jurisdictional Wetlands*. Pinelands wetlands criteria are as strict, or stricter, than the State standards. In most cases, wetlands buffers (called Transition Areas in the FWPA) are 300 feet in the Pinelands, significantly larger than the maximum 150-foot buffers provided by the FWPA. The Pinelands Commission does not issue wetlands *Individual permits* (see page 15 on NJ Individual Wetlands Permits). Individual permits for wetlands activities in the Pinelands are issued by NJDEP, but must conform to the Pinelands standards. The full text of the CMP is at www.state.nj.us/pinelands/cmp/CMP.pdf.

NEW JERSEY MEADOWLANDS

In the New Jersey Meadowlands District (formerly known as the Hackensack Meadowlands, and brought under control of the NJ Sports & Exposition Authority [NJSEA] in 2015), the USACE regulates all activities in wetlands. Individuals wishing to conduct regulated activities in wetlands within the District must submit a wetlands permit application directly to the USACE, and provide proof of approval by the Corps to the NJ Sports & Exposition Authority/Meadowlands Commission in order to acquire a development permit in the Meadowlands. For additional information on wetlands administration in the District, contact the NJSEA Administrative Offices at 201-460-1700.

Exempt activities

FARMING, RANCHING OR SILVICULTURE

Lands that are currently part of established ongoing farming, ranching or silviculture operations, and that have been so continuously since 1985 are exempt from the requirements of the *FWPA*. Normal activities associated with these operations such as plowing, seeding, mowing, harvesting, and maintenance or construction of farm ponds or roads, using best management practices, are not regulated (that is, do not require permits) under the *Act*. Activities on areas lying fallow as part of a conventional rotational cycle that does not exceed five years, provided that the idle period has not altered the hydrological regime and the land has not been converted to another use, are part of an established operation.

However, activities such as the deposition of dredged or fill material, or clearing of vegetation which would result in the modification of wetlands areas that are not currently under active cultivation, do require a permit. Activities that result in gradual conversion of a wetland to a non wetland are not exempt and do require a permit.

FORESTRY

Normal harvesting of forest products in accordance with a State-approved forest management plan is exempt, subject to the same limitations as those for farming, ranching and silviculture.

Wild Calla (Calla pallustris) sometimes found in northern New Jersey bogs



EXISTING DEVELOPMENT AND SUBDIVISION APPROVALS

The *FWPA* regulations exempt projects that had preliminary site plan approval prior to the law's implementation date in 1989, or for which complete applications were submitted prior to June 1987. It is unlikely that any of these projects are still pending with continuing approval.

SIGNIFICANT AMENDMENTS TO *FWPA* REGULATIONS

In the decades since the *FWPA* became law, the implementing regulations have been revised many times. Revisions have included:

- adoption of the NJDEP Landscape Project data for identification of exceptional resource value wetlands;
- changes to the fee schedule for permits (most recently Feb. 2015);
- a requirement for permittees to place conservation restrictions on the transition areas that receive waivers in addition to their adjacent wetlands;
- changing the definition of a 'farmed wetland' to apply only to a continuously farmed operation;
- requiring a survey of historic/archeological resources that may be affected by a regulated wetland activity;
- prohibiting discharge of stormwater into a wetland mitigation area; and establishing notification requirements for mitigation projects.

The list of General permits requiring mitigation has been expanded, and other mitigation requirements have been tightened.

A court case led to the addition of a provision in the regulations allowing municipalities to require Letters of Interpretation (an official NJDEP designation of a wetland's boundaries and resource classification – see page 11) on their development application completeness checklists.

Several other regulations were implemented but then struck down by the courts. These include the "twenty foot" rule and limitations on certain permits affecting vernal habitats.

Other NJ legislation such as the *Permit Extension Act* of 2008 and subsequent renewals have impacted the duration of some *FWPA* permits. Also, New Jersey's Stormwater Management Rules were applied to wetlands projects meeting the definition of "major development."



Chapter III

Wetlands Classification under the *FWPA*

Painted skimmer (Libellula semifasciata) inhabits shallow grassy ponds, marshes and fens

Prior to conducting regulated activities or applying for a permit on land known or suspected to contain wetlands, a property owner must first obtain verification from NJDEP of the presence or absence of wetlands, the regulatory boundaries of the wetland(s), and a determination of the resource value classification of the wetland, which dictates the size of the transition area (protected buffer area) around the wetland. If the proposed activity is exempt from New Jersey's wetlands restrictions, a property owner can also obtain verification of that exemption from NJDEP.

LETTERS OF INTERPRETATION (LOI)

NJDEP issues formal determinations of the boundaries and resource value classification of wetlands through *Letters of Interpretation* (LOI). A property owner must obtain an LOI from NJDEP in order to determine what permits, if any, will be required for a proposed activity in or near a wetland. An LOI is not a permit, and does not grant approval to conduct any regulated activities; it only provides or confirms information about the presence or absence, boundaries, and/or resource value classification of freshwater wetlands and transition areas.

An LOI can be obtained for:

1. a presence/absence determination for all or a portion of a site;
2. a wetlands line delineation for a site under one acre – NJDEP staff determines the boundary of all or a portion of the wetlands on site; or
3. a wetlands line verification for all or a portion of a site – NJDEP verifies a boundary delineated on a survey or site plan and with ground staking, as submitted by the applicant. This requires extensive submissions and wetlands expertise.

NJDEP provides a detailed checklist for LOI applicants, explaining what fees, materials and information must be submitted to the Department, and what

public notice requirements apply. The application and checklist are online at www.nj.gov/dep/landuse/forms.html – select the Freshwater Wetlands tab. NJDEP offers an online electronic application process for LOIs and LOI line revisions, as well as a paper application process.

Municipalities may require, through their subdivision/site plan checklist ordinance, submission of an LOI as part of a local application for development (NJSA 7:7A-3.1b1). Wetlands information is important for a planning or zoning board to know as it reviews a site plan. The LOI clearly shows a site's wetland and transition areas (regulated buffer areas) that cannot be developed, allowing a calculation of the "buildable area" on a site, and also enabling the board to anticipate what State wetlands permits will be required. An applicant does not need to have its NJDEP wetlands permits (or other State land use permits) in hand when submitting an application for development to the municipality, but the planning or zoning board can make its approval contingent on the applicant obtaining those permits from NJDEP.

Duration and extensions of LOIs

An LOI is in effect for five years (see note below on *Permit Extension Act*) from the date of approval, unless the LOI is determined to have been based on inaccurate or incomplete information. NJDEP may extend the LOI for an additional five years provided that the information originally submitted remains valid.

Note: in 2008, the NJ Legislature passed the *Permit Extension Act* in response to the economic downturn. This *Act*, with subsequent readoptions/revisions in 2010, 2012, and 2014, provided extensions for many land use permits including LOIs, wetland Transition Area permits, and wetland General Permits #6. To read current Permit Extension information, visit the NJDEP webpage, select Division of Land Use, then the Permit Extension tab. [\(include URL\)](#)

Public Comment on LOIs

Applicants for Letters of Interpretation and for LOI extensions are required to send a full copy of the application, as submitted to NJDEP, to the municipal clerk, and notification letters to the construction official, the municipal environmental commission, planning board and all property owners within 200 feet of the boundary of the site.

Public comment on LOIs is welcome. NJDEP provides opportunities for and encourages municipal and public comments on LOIs to insure that it has complete and accurate information concerning a specific site. The *FWPA* regulations provide a 15-day response time from receipt of the notice from the applicant (via certified mail) for municipal or public comments. Comments received after this time, but prior to the final decision on an application, will be considered by NJDEP.

CLASSIFICATION OF WETLANDS RESOURCE VALUE

LOIs include a determination, made by NJDEP, of the resource value classification of a freshwater wetland on or adjacent to a site. The classification of the wetland – ordinary, intermediate or exceptional – determines the appropriate standard transition area (regulated buffer area) width that will be applied to the wetland.

Because each freshwater wetland might not exhibit all possible wetland resource values – flood control, water purification, plant and wildlife habitat, groundwater recharge, discharge -New Jersey's wetlands law establishes criteria that classify wetlands according to the resource values present.

Exceptional resource value wetlands are those which:

- discharge into FW 1 waters or FW 2/trout production waters (as defined in NJDEP's Surface Water Quality Standards) and their tributaries.
 - FW 1 waters are those within federal or state parks and lands that are to be maintained for the future in their natural state.
 - FW 2 waters are trout production waters and their tributaries. These waters support trout spawning.
- provide, or documentation shows they can provide, habitat for state and federally identified threatened and endangered species. (See next column for information on NJDEP's Landscape Project.)

Ordinary resource value wetlands do not exhibit the characteristics of exceptional resource value wetlands and are:

- isolated wetlands that are not surface tributary systems of a lake, river, or stream and are more than

50 percent surrounded by development and less than 5,000 square feet in size;

- drainage ditches;
- swales; or
- detention facilities.

Intermediate resource value wetlands are all freshwater wetlands not meeting the definition of either exceptional or ordinary wetlands.

The resource classification of a wetland is very important. NJDEP considers the wetland's classification when evaluating the acceptability of a proposed activity for a permit; when determining the size of the required transition area (protected buffer area around the wetland); and when assessing mitigation proposals. transition areas are required only for exceptional and intermediate resource value wetlands. Delineated wetlands and transition areas may extend across property boundaries, but not usually across paved roads (except in the Pinelands). In some cases it may be necessary to delineate and determine the resource classification of a wetland on an adjacent property to determine the extent of the regulated area on a subject property. See page 23 for a discussion of an LOI involving transition areas when wetlands are on an adjacent property.

An exceptional resource value classification places additional restrictions and limits on wetlands permits (See permit discussion starting on page 15.)

EPA Priority Wetlands

In addition to the New Jersey law's wetlands classifications, the *FWPA* required NJDEP to take into account wetlands designated as Environmental Protection Agency (EPA) Priority Wetlands. NJDEP may not approve certain permits in EPA Priority Wetlands. (See section on Permits page 15) EPA and NJDEP compiled a list in 1994, sorted by county, entitled Priority Wetlands for the State of New Jersey. See Appendix.

NJ'S LANDSCAPE PROJECT AND WETLANDS

Use of the Landscape Project to classify Exceptional and Priority Wetlands

In 2001, NJDEP's Endangered and Nongame Species Program (Division of Fish and Wildlife) released the Landscape Project, a complex mapping and analysis initiative that combined information on documented rare species occurrences with land use/land cover data to create critical habitat data layers for New Jersey. Maps generated from these data layers depict areas where habitat for endangered, threatened or special

concern species exists for several types of landscape regions.

Since 2002, NJDEP has used the Landscape Project data in addition to the NJ Natural Heritage Database of rare plant data to identify exceptional resource value wetlands. A classification of exceptional resource value requires a 150-foot transition area buffer for the wetland, and restricts the use of some general permits. Habitat patches ranked 3 (threatened), 4 (NJ list endangered) or 5 (federal list endangered) in the Landscape data/maps are used as guidance in permit review. However, actual habitat suitability may be challenged or clarified during the permit application process based on site-specific information, and is determined on a case by case basis. See *NJ Landscape Project Version 3.1 Report*, NJ Department of Environmental Protection, www.state.nj.us/dep/fgw/ensp/landscape/lp_report_3_1.pdf (version 3.3 released).

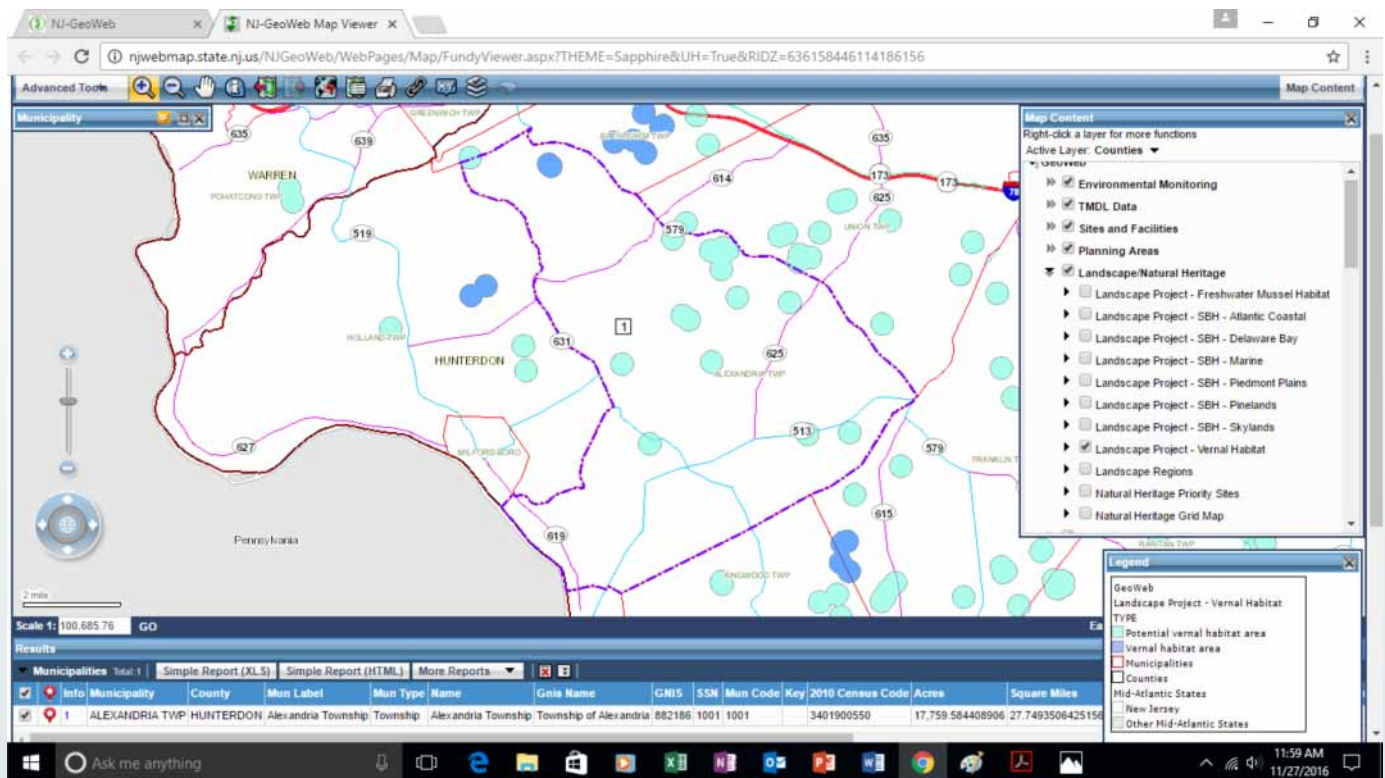
Use of the Landscape Project to identify vernal habitats

The Landscape Project also identifies vernal habitats (sometimes referred to as vernal pools). These are small, confined wetland depressions, either natural or manmade, that hold water for at least two consecutive months of the year, and are devoid of breeding fish populations. Vernal habitats are unique ecosystems that provide essential breeding habitat for many

species of amphibians, insects, reptiles, plants, and other wildlife, some of which are Threatened or Endangered.

Vernal habitats come in many forms: isolated depressions within upland forests, seasonally flooded meadows, floodplain swamps, abandoned gravel pits or quarries, and even derelict swimming pools. By definition, they have no outlet connecting them to a stream or lake. Regardless of the structure or genesis of the pool, all vernal habitats either dry out completely or draw down to very shallow levels, unsuitable for fish, for part of the year, generally late summer and fall. Fish are highly predatory on amphibian and insect eggs and larvae, so the absence of fish in a vernal habitat is critical for the survival of its amphibian breeding populations.

Using maps, photographs and computer modeling, NJDEP and the Center for Remote Sensing and Spatial Analysis (CRSSA) at Rutgers University identified and numbered thousands of potential vernal habitat locations around the state. These sites are shown on NJDEP's Landscape Project Vernal Habitat GIS layer (download data from www.state.nj.us/dep/fgw/ensp/landscape/download.htm), and are displayed on NJ GeoWeb (www.nj.gov/dep/gis/geowebsplash.htm) map content under "Landscape/Natural Heritage," "Landscape Project – Vernal Habitat."



Screen shot of NJDEP GeoWeb map showing general locations of vernal habitats and potential vernal habitats (see key) in Alexandria Twp. (Hunterdon) and surrounding areas.

Many of the potential vernal pool sites have been verified through a multi-season field inspection protocol required by NJDEP in order to **certify** a vernal habitat. The inspections include visual and auditory observations and physical searches for evidence of breeding characteristic species. Information about potential or certified vernal habitats is critical to project planning, and for permit and municipal development application review.

RECOMMENDATIONS FOR MUNICIPAL ACTION

A municipality should establish a process for responding to public notices of applications for Letters of Interpretation and Letters of Exemption, to allow timely submission of responses/ comments to NJDEP. An application for an LOI or LOE may occur in association with a development application, or independently. Either way, local information and comments from the municipality, other entities and individuals are part of the public record and will be considered in NJDEP's decisions. Limited time is allowed for responses, so it is important that the town has a process in place whereby the municipal clerk immediately notifies the designated boards and staff when the town receives notice of an application for an LOI or LOE. See Table 4 on page 22 for response deadlines.

An environmental commission should include as much local wetlands information and mapping (from field observations, reports prepared for municipal or other private development projects, previous permits and LOIs, etc.) as possible in the municipal ERI (environmental resource inventory). The commission, municipal staff and professionals should refer to the wetlands information in the ERI when reviewing and commenting on applications for LOIs, LOEs and development. By submitting pertinent information to NJDEP, the municipality can notify NJDEP where additional scrutiny may be needed.

An environmental commission can also participate in or lead efforts to certify vernal habitats within the municipality. Potential vernal habitats on municipal property, such as in a municipal park or natural area, are an obvious starting point. If a potential vernal habitat is on private property, the municipality/commission can only proceed if authorized by the owner. Some will be willing, others will not. An environmental commission can conduct an education and outreach effort to help property owners to see the value in protecting wetlands, and over time, may find that additional owners are receptive. See box, below, on the Hamilton Township Environmental Commission's work on vernal habitat certification.



Illustrations from Hamilton Township's vernal habitat survey showing a vernal pool as it appears in April (wet) and September (dry)

In 2012, the Hamilton Township Environmental Commission obtained an ANJEC Sustainable Land Use Planning Grant to survey 30 local sites identified on NJDEP maps as potential vernal habitats. The purpose of the project was to identify the sites that met NJDEP criteria for certification. The Commission engaged environmental consultants to conduct multi-season field assessments using NJDEP protocols. For sites on private property, the Commission assisted town staff in outreach to the property owners to request access. The field surveys determined that eight of the 30 sites met NJDEP criteria for certification. To learn more about vernal habitats and the certification process, see the full illustrated report, A 2013 Survey of Potential Vernal Pools in Hamilton Township, Mercer County, New Jersey (www.kratzerenv.com/files/Hamilton_Vernal_Report_12-20-2013.pdf).

For further information

NJ List of Threatened & Endangered Plants (Natural Heritage Program, Division of Parks & Forestry, NJDEP) www.nj.gov/dep/parksandforests/natural/heritage/njplantlist.pdf
NJ list of state and federally identified Threatened or Endangered animal species are www.nj.gov/dep/fgw/tandespp.htm;
NJDEP Endangered and Nongame program at 609-292-9400.



Spatterdock (Nuphar variegatum)
grows in shallow ponds and marshy areas

Chapter IV

Permits under the *FWPA*

NJDEP issues two basic types of wetlands permits, **Individual** and **Statewide General**. Relatively few applications are for Individual wetlands permits, which are more rigorous, costly and time-consuming to obtain, and require mitigation. Statewide General wetlands permits are offered for a list of common activities and/or disturbances in certain lower quality wetlands. Each of the 29 General permits has distinct criteria and limits. Not all General permits require mitigation, and many that do only require it when the disturbance exceeds 1/10th of an acre. General permits are less expensive to obtain, but can be issued only if the proposed activity meets all the criteria and conditions of that permit. Between 2008 and 2014, NJDEP issued an average of 21 Individual and 639 Statewide General wetlands permits per year.

When wetlands disturbance cannot be avoided during development, applicants should make every effort to design proposed activities to meet the requirements of the Statewide General Permits, to eliminate the need to obtain an Individual Permit.

When reviewing all applications, whether for an Individual or a Statewide General Permit, NJDEP is required to consider

- public interest in preserving natural resources;
- public and private need for the project;
- practicability of using reasonable alternative locations or methods to accomplish the purposes of the project;
- extent and permanence of the benefits and costs of the project;
- quality and amount of the wetland to be disturbed;
- impact on fish and wildlife; and
- economic value of the proposed activity to the general geographic area.

INDIVIDUAL WETLANDS PERMITS

An *Individual permit* is required for all activities that disturb freshwater wetlands but cannot meet the requirements of a Statewide General wetlands permit.

Because such activities may result in substantial impacts to freshwater wetlands, strict conditions must be satisfied to obtain approval. A critical factor influencing the review of an Individual permit application is the status of the proposed activity as either water-dependent or nonwater-dependent.

For **water-dependent activities**, an applicant must establish either that there is no practicable alternative outside of freshwater wetlands that would create less significant adverse environmental impacts, or that the activity cannot be placed in other freshwater wetlands in a way that would create a less adverse impact on wetlands.

For **nonwater-dependent activities**, an applicant must rebut the presumption that there is a practicable alternative that does not involve effects on a freshwater wetland or open water. That is, the applicant must establish that no alternative locations are available, including areas not owned by the applicant, nor any alternative sizes, configurations or designs that would serve the basic project purpose and result in less impact on wetlands or open waters. Before concluding that an alternate site will not meet the project's purposes because of zoning, infrastructure or parcel size, an applicant must demonstrate reasonable attempts to remove or accommodate these constraints. If an applicant successfully rebuts the presumption of practicable alternative(s), he/she must also establish that there is no alternative outside of freshwater wetlands or open waters without other significant adverse environmental impacts, or, in freshwater wetlands with a less adverse impact on wetlands.

In addition, if the wetland to be affected is classified as one of exceptional resource value, the applicant must show that there is a compelling public need for the activity, or that a denial would result in extraordinary hardship.

Individual permit conditions

Once an activity has met the water dependent or rebuttable presumption test, NJDEP will issue a permit

only if the activity will cause minimum alteration to wetlands, and will not cause:

- a threat to threatened and endangered species habitat;
- a violation of any state water quality standard or significant degradation of ground or surface water as set forth in the 404(b)(1) Guidelines at CFR 40 part 230 ; or
- a violation of any marine sanctuary requirement.

Conditions for Individual permits (7:7A-13.1-4) include:

- duty to reapply when the permit expires;
- duty to halt or reduce activities to maintain permit compliance;
- proper operation and maintenance;
- duty to provide information to NJDEP as requested, and to allow NJDEP reasonable access to inspect, sample or monitor the site and access records;
- 7-day construction notification to NJDEP;
- duty to record any conservation restriction/easement required by the permit;
- monitoring, record keeping and reporting requirements (includes duty to report planned changes to the site or anticipation of noncompliance);
- posting a prominently displayed sign on the property or the worksite that states the permit number and work authorized, NJDEP phone number, location where full permit may be viewed; and
- mitigation. (NJDEP considers the merits of a mitigation plan independently of the permit application; however, **it is important to note that a permitted activity may not be initiated until NJDEP has approved a mitigation plan.**)

See Chapter VIII for a full discussion of mitigation on page 39.

Water quality certificates

The federal *Clean Water Act* requires an applicant to obtain a permit called a Water Quality Certificate from USEPA for the discharge of dredged or fill material into wetlands or State open waters. As the administering agent of the Federal 404 program in New Jersey, NJDEP issues Water Quality Certificates concurrently with NJ Individual wetlands permits.

The discharge of dredged or fill material in a wetland may also require an NJDEP stream encroachment permit pursuant to the *NJ Flood Hazard Area Control Act*, NJSA 58:16A-50 et seq.

STATEWIDE GENERAL PERMITS

Through provision of Statewide General Permits (SGPs), the *Freshwater Wetlands Protection Act* recognizes that some activities in wetlands are inevitable (as does the Army Corps of Engineers in administering the Federal program). Currently, 29 SGPs are available in New Jersey. See Table 2 on page 17. These general permits provide a streamlined permit process for routine activities, which NJDEP has determined will cause only minimal adverse environmental and cumulative impacts, and will cause only minor impacts to freshwater wetlands.

Several of New Jersey's Statewide General wetlands permits correspond to the Federal Nationwide permits administered by USACE and USEPA, but most are specific to New Jersey under the FWPA. A General Permit is issued for a project, that is, a specific set of proposed activities on a site. It is not a blanket authorization for any activity there, or an exemption from the *FWPA* regulations. Only the activities specified in the permit are allowed, and only under the conditions stated in the permit and the administrative regulations.

Muskrat (Ondatra zibethicus) may be found in fresh, brackish or saltwater marshes



Table 2

STATEWIDE GENERAL PERMITS

Note that this is a very brief summary of major provisions of the various NJ Statewide General Permits for freshwater wetlands and State open waters (SOW). For full and accurate details on any permit, consult NJAC 7-7A: 5.1 et seq. and the NJDEP website.

PERMIT NO	ACTIVITY	LIMITATIONS FW=Freshwater Wetlands? WQC=Water Quality Certificate ROW=Right of Way	WHERE APPLICABLE	
			E=Exceptional I=Intermed/Ord P=EPA Priority TA=Transition Area SOW=State open waters	MITIGATION (threshold)
1	Repair/ maintenance of functional facilities/activities lawfully existing before 7/88	No expansion or additional disturbance of FW or SOW; no permit needed for TA disturbance.	E, I, P, SOW	
2	Surface disturbance to install or maintain underground utility lines	Max permanent disturbance 0.5 acres; Max 20-foot wide ROW maint.	E, I, P, SOW	0.1 acres of disturbance, with exceptions
3	Pipe or discharge water from upland dredge disposal site	Requires 401 WQC; may require other permits	E, I, P, SOW	
4	Activities for pollutant or hazardous substance cleanup	No acreage limits but project must minimize disturbance	E, I, P, SOW	Required as per NJAC 7-7A:15
5	Landfill closure, maintenance	Under NJDEP permitted closure plan, only	E, I, P, SOW	Required to mitigate losses
6	Activities in non-tributary [isolated] wetlands, or SOW less than 1 acre in size	Max disturbance 1 acre (0.5 acres in Waters of US); not for Exceptional, EPA Priority*, or Special Aquatic SOW	Non-tributary wetlands; SOW < 1 ac.	0.1 acres of disturbance, with many exceptions
6A	Activities in TAs adjacent to non-tributary wetlands	Max disturbance 0.5 ac.; not in TAs for Exceptional or EPA Priority* wetlands	TAs adjacent to non-trib. wetlands	
7	Activities in a manmade ditch or in a swale, in a headwater area; or activities in manmade wetlands	Max disturbance 1 acre; not for Exceptional or EPA Priority wetlands*; may not isolate the wetland		
8	Improvement/addition to residential dwelling existing prior to 7/88; also replacement of dwelling on same footprint or plus up to 750 sf	Max 750 square feet disturbance in wetlands; no additional disturbance outside the 750 feet; not for SOW		
9	Clearing of vegetation for airport site line	Limited to cutting to comply with FAA regulations; leave stumps and roots; no impervious or buildings		
10A	Very minor road crossings for a single project; construction of road, expansion, alignment	Max disturbance 0.25 acre and 100 feet or max 1/8 acre and no length limit; no alteration of hydrology or fish passage	E, I, P, SOW, TA	0.1 acres of disturbance, with exceptions
10B	Minor road crossing for construction/expansion	Alternatives analysis required. Max disturbance 0.25 acre; no alteration of hydrology, fish passage	E, I, P, SOW TA	0.1 acres of disturbance, with exceptions
11	Construction of a permitted outfall; intakes in SOW; wells; associated structures	Max disturbance 0.25 acres and 10 cubic yards. Stabilize; many conditions	E, I, P, SOW TA	0.1 acres of disturbance, with exceptions
12	Surveying, machine or large hand-dug soil borings, narrow survey lines	Max 3 feet hand-cut lines, 5 feet machine-cut lines; restoration required	E, I, P, SOW TA	

*See Appendix X for list of EPA Priority Wetlands

(continued)

Table 2 second page

STATEWIDE GENERAL PERMITS *Continued*

PERMIT NO	ACTIVITY	LIMITATIONS	WHERE APPLICABLE	MITIGATION (threshold)
			E=Exceptional I=Intermed/Ord P=EPA Priority TA=Transition Area SOW=State open waters	
13	Dredging for lake maintenance or restoration	Max disturbance of palustrine emergent (only) wetlands 1 acre; TA disturbance only for access; if dredging only in SOW, no permit req.		
14	Placement of scientific equip (flow meter, monitoring well)	Cannot disrupt aquatic species movement		
15	Mosquito control for documented problem	Maintain hydrology, use BMPs; newspaper ad required		
16	Habitat creation/enhancement sponsored by fed/state agency	Requires conservation easement on the area	E, I, P, SOW TA	
17	Construction of trails or boardwalk – non-motorized	Max disturbance 0.25 acres, 6-foot width, no fee and no limits if publicly-owned; align to minimize impacts	E, I, P, SOW TA	
17A	AASHTO** standard trail or boardwalk – non-motorized	Max disturbance 0.25 acres, AASHTO** standards only; no hydrology changes; align to minimize impacts	E, I, P, SOW TA	
18	Dam repair, construction, removal	Max disturbance 1 acre; serviceable dams only, except removal; dam permit required		
19	Dock, pier, boat ramp, (if no feasible on-site alternative)	Max disturbance 0.1 acres and 6 feet	E, I, P, TA (SOW for public boat ramp)	
20	Gabions, rip-rap, geotextiles for bank stabilization	Max 150 ft. rip-rap; 300 ft. soil engineering; 500 feet if DEP; no limit for planting	E, I, P, TA SOW	
21	New utility lines and conveyances above ground	Max permanent disturb 0.5 acres and 20-foot width (60-foot construction width area)		0.1 acres of disturbance
22	Expansion Pinelands cranberry growing	Max 10 acres/year 1 /year per grower (Statewide limits)		0.5 acres Pinelands Credit
23	Spring development for livestock – ongoing agriculture	No draining. Not for EPA Priority wetlands.*	P, I, SOW	
24	Repair of individual septic system	No expansion in use; Max disturbance 0.25 acre.		
25	Minor channel or stream cleaning for local government agency	Max 500 feet per project; stream max 15 feet wide; No C-1, T&E, Pinelands		
26	Redevelopment of previously disturbed areas designated on NJ Brownfields List, redevelopment agreement under B&CSRA, or EOZ	Max disturb 1 acre (0.5 inch Waters of US)		0.1 acres of disturbance, with exceptions
27	Application of herbicide within freshwater wetlands and transition areas to control invasive plant species	Herbicide application area cannot exceed 1 acre, activities must be conducted pursuant to NJDEP Aquatic Use Permit (Bureau of Licensing and Pesticide Operations).		

*See Appendix X for list of EPA Priority Wetlands

**AASHTO = American Association of State Highway Transportation Offices

Projects requiring multiple permits (NJAC 7:7a-4.4)

It is common for a project to involve more than one regulated activity and, therefore, to require more than one General permit. With the exception of Statewide General Permits 1, 3, 4, 5, 9, 15, 16, 20, 23 and some qualifications, the total combined area of wetlands, transition areas and State open waters disturbed on the site cannot exceed one acre if the project is to qualify for the general permit(s). Certain permits including 6, 6A, 10A and 10B have special limits related to multiple permits for one project, and some others cannot be issued more frequently than once every five years on a single site.

Conditions for all General permits (NJSA 7:7A-4.3)

To ensure that an activity will meet the requirements of minimum impact on wetlands or State open waters, NJDEP assesses the character of the wetland and the nature of the activity. An activity does not qualify for a Statewide General Permit if it:

- is near a public water supply intake;
- will jeopardize the continued existence of a local population of a threatened or endangered species;
- will destroy, jeopardize or adversely modify a present or documented habitat of threatened and endangered species;
- involves discharge of dredged or fill material containing toxic pollutants (40 CFR 401) in toxic amounts;
- will occur in a federal or state Wild and Scenic River System or a "study river" being considered for designation as a Wild and Scenic River.

In addition, there are conditions attached to permits for projects that would adversely affect properties on or eligible for listing on the State or National Register of Historic Places, and projects where acid-producing soils are encountered on the area of disturbance. A permittee under an SGP must observe best management practices, and abide by NJ Standards for Soil Erosion and Sediment Control (NJAC 2:90).

An applicant must receive a written approval before proceeding with an activity except for General Permits #1, #25, and #26. (See Table 4.)

In order to protect fishery resources, NJDEP requires permittees under General permits to restrict construction activity within or adjacent to streams to the following times:

If an activity proposed for a wetlands permit will result in a one-quarter acre or greater increase in impervious surface, the resulting stormwater must be

Table 3

STREAM CLASSIFICATION DATES OF RESTRICTION

Trout Production	
General	September 15 to February 28
Brook Trout	September 15 to February 28
Brown Trout	September 15 to February 28
Rainbow Trout	February 1 to April 30
Trout Maintenance	
	March 15 to June 15
Trout Stocked	
	March 15 to June 15
All unimpeded tidal waters open to the ocean and anadromous migratory pathway waterways	
	April 1 to June 30
Water bodies for migrating American Shad	
Delaware River	March 1 to June 30
upstream of Delaware	and
Memorial Bridge	September 1 to
and for tidal Crosswick,	November 30
Rancocas, and Raccoon Creeks	
Delaware River	April 1 to June 30
from Trenton to	and
NY State Line	September 1 to November 30
Delaware River	March 1 to June 30
from the Delaware Bay	and
to the Delaware Memorial Bridge	October 1 to
and tidal Maurice River	November 30
Water bodies supporting general game fish	
	May 1 to June 30
Water bodies supporting pickerel	
	Ice out to April 30
Water bodies supporting walleye	
	March 1 to May 30

managed in accordance with the water quality requirements in New Jersey's **Flood Hazard Area Control Rules** (NJAC 7:13-1 et seq.), which require best management practices. In addition, most SGPs have permit-specific conditions, which must be satisfied for an activity to be eligible for that permit.

SPECIAL PERMIT CONSIDERATIONS

Protection of vernal habitats

In the years following the passage of NJ's freshwater wetlands law, unique wetlands called **vernal habitats** continued to be filled at an alarming rate, primarily under Statewide General permits. In 2001, recognizing

the value of these imperiled habitats, NJDEP adopted amendments to the *FWPA* regulations that excluded vernal habitats from Statewide General Permit authorizations.

The NJ Builders Association challenged the regulation in court, and the NJ Supreme Court struck it down in 2004. The ruling was based on the fact that vernal habitats are, by definition, isolated wetlands, and the *FWPA* specifically requires NJDEP to make available general permits for the filling of less than an acre of isolated wetlands, which it did by creating SGP #6. However, the Court also noted that under NJSA 13:9B-23(d), NJDEP has the authority, on a case-by-case basis, to require an Individual permit for any Statewide General Permit proposal that it determines would result in impacts contrary to the intent of the *FWPA*. The intent of the *FWPA* includes protection of habitat for any endangered or threatened species, and many of the amphibians that depend on vernal pools for breeding are threatened or endangered. Therefore, NJDEP can require that an applicant obtain an Individual permit for disturbance of an area that has certified vernal habitat. If a property owner seeks an LOI or wetlands permit for a parcel that is not certified but is identified in the Landscape Project (see page 12) as potential vernal habitat, NJDEP can require multi-season field inspections to verify whether the area meets the *FWPA* criteria for certification.

The Court decision did not strike down the State's prohibition on issuing other Statewide General Permits in vernal habitats, and the regulations currently state:

With the exception of activities associated with general permits 1 (repairs of existing facilities), 6, 6A and 16 (restoration), activities authorized under a general permit shall not take place in a vernal habitat, as defined at N.J.A.C. 7:7A-1.4, or in a transition area adjacent to a vernal habitat.

Most certainly, potential vernal habitats exist in New Jersey that were not identified by CRSSA and NJDEP modeling and do not appear on the Landscape Project GIS layer. If an LOI is requested for an area a municipality suspects may contain vernal habitat, it is important for the environmental commission or some other party to make NJDEP aware of that possibility by submitting comments during the 15-day public notice/response period.

See page 13 for more information on vernal habitats.

Pinelands

Under a 1993 Memorandum of Understanding with NJDEP, the Pinelands Commission administers, on

behalf of NJDEP, a process to:

- issue Letters of Interpretation using the Pinelands delineation criteria (Pinelands Supplement to the Federal Manual for Identifying and Delineating Jurisdictional Wetlands, 1991, as amended),
- regulate discharge of dredged or fill materials in wetlands (and State open waters), and
- regulate activities allowed under New Jersey's wetlands Statewide General Permits.

The Pinelands Commission can also set transition areas according to its own standards, which in most cases results in a 300-foot buffer for wetlands.

NJDEP issues wetlands Individual permits in the Pinelands for discharge of dredged or fill material in wetlands or State open waters, but may not issue a permit for an activity that is inconsistent with the stringent *Pinelands Comprehensive Management Plan (CMP)* standards. In situations where the *CMP* is stricter than the *FWPA* regarding activities in wetlands (exceptions include certain pinelands agricultural, horticultural and forestry activities), the Pinelands standards apply.

Municipalities in the Pinelands are required to conform to the *CMP* by adopting master plan and ordinance provisions that provide for protection of wetlands consistent with/equivalent to the provisions in the *CMP*. The full *Pinelands Comprehensive Management Plan* is available at: www.state.nj.us/pinelands/cmp/CMP.pdf

Protection of historic and archeological resources (Section 106 Review)

Rules adopted in 2008 relate to the identification and consideration of historic and cultural resources in the wetlands permitting process. The intent of these rules is to avoid authorizing projects that will adversely affect historic resources – specifically, resources that are listed, or are eligible for listing, on the NJ or National Register of Historic Places. The regulations include a list of property characteristics that indicate a high probability of the presence of historic or archaeological resources, triggering a requirement for submittal of a Phase IA historical and archaeological survey and an architectural survey with the wetlands application.

The regulations do provide a process for situations when adverse impact cannot be avoided. In those instances, conditions are added to the permit, after coordination between the NJDEP Division of Land Use Regulation and the Historic Preservation Office (HPO), to minimize or mitigate adverse effects. If serious historic preservation concerns cannot be properly and sufficiently mitigated, NJDEP will not issue the wetlands permit.

Emergency permits

NJDEP can issue temporary emergency permits in cases where an unacceptable threat to life, severe loss of property or severe environmental degradation will occur before a regular permit or waiver can be issued. Emergency permits are limited to 90 days and require strict reporting and appropriate mitigation. NJDEP issues a regular permit for the activity after reviewing 'as built' documentation of the emergency activity. (See NJAC 7:7A 8.1 for a full description of Emergency Permit requirements.)

Permit fees

The fees for all NJDEP Division of Land Use Regulation permits were increased in 2015. The current fee schedule and permit application form are online: www.nj.gov/dep/landuse/forms.html There is no fee for SGP #16, # 23 or #25, or for #17 if the trail is on public land.

RECOMMENDATIONS FOR MUNICIPAL ACTION

Planning boards, boards of adjustment, governing bodies, boards of health, environmental commissions, municipal staff

Although they cannot regulate wetlands directly because the FWPA preempts it, municipalities can play an important role in protecting freshwater wetlands by ensuring that all potential wetlands information is disclosed and considered in local land use decisions. Municipalities should:

1. Establish clear procedures at town hall for responding to development applications involving wetlands.
 - a. The municipal development application "completeness checklist," established by ordinance, should require an applicant to check NJ wetlands and NRCS soils maps, and to submit an LOI or Letter of Exemption if the property or an adjacent property exhibits potential for wetlands or transition areas, as indicated by mapped wetlands, hydric or poorly-drained soils, or wetlands vegetation. If there is a municipal environmental resource inventory (ERI) with current mapping, wetlands and soils maps should be in the document; if not, digital maps can be accessed online through NJDEP's GeoWeb system (www.nj.gov/dep/gis/geoweb/geomaps.html), or GIS data layer downloads.
 - b. Staff for municipal planning/zoning boards (planner or engineer) should cross-check all
2. Establish a process for local response to public notices of applications for wetlands permits, to allow timely comment to NJDEP. Permit applications may occur in association with a local development application or independently. Either way, local information and comments from the municipality, other entities and individuals are part of the public record and will be considered in NJDEP's decisions. Limited time is allowed for responses. See Table 4 on page 22.
 - a. The municipality should establish a process through which the town clerk immediately notifies the environmental commission and/or land use
- c. If the applicant supplies an LOI that shows wetlands on the parcel and the proposed activity may require an Individual wetlands permit, advise the applicant to consider scheduling a preapplication conference with NJDEP. This will help the applicant understand what permit(s) will be needed and how to proceed, or possibly how to revise the development plan so that the project will qualify for a General (or no) wetlands permit, thereby avoiding the time and expense of acquiring an Individual permit.



Marsh Wren (Cistothorus palustris) inhabits freshwater and brackish marshes

Table 4
RESPONSE TIMES FOR COMMENT

Application Type from applicant	Applicant must notify (Notice)	Response time for comments to NJDEP from Receipt of Notice
Letter of Interpretation	Property owners within 200 feet, town clerk, planning board, environmental commission, and construction official	15 days
Statewide General Permit(s)	Property owners within 200 feet, town clerk, planning board, environmental commission, and construction official	15 days
Transition Area Waiver	Property owners within 200 feet, town clerk, planning board, environmental commission, and construction official	15 days
Individual Permit	Property owners within 200 feet, town clerk, planning board, environmental commission, and construction official	30 days from DEP Bulletin notice

staff or board of receipt of a notice of application for a wetlands permit.

- b. Each board should ensure that applicants obtain permits from other levels of government, including the NJDEP, by making approvals of development plans contingent on documenting that these permits have been obtained (i.e. by withholding final signature on development plans by the engineer, planner or other designated party until the applicant has obtained the necessary State permits).
3. Ensure that the municipality itself obtains a freshwater wetlands permit for any municipal project that will affect wetlands. This includes not only building projects, but activities such as clearing land, filling wet areas, stream cleaning/debris removal, and trails construction. The *FWPA* requires local government compliance. Note that municipalities must obtain a permit for trails construction in a regulated area. The fee for General Permits 17 and 17A are waived for trails on public lands.
4. Report violations of the *Freshwater Wetlands Protection Act* to NJDEP’s Action Line at 1-877-WARN-DEP (1-877-927-6337). The complaint will be referred to the appropriate person in the Enforcement Office.

5. Provide public outreach, such as municipal website postings and signage, to inform residents that wetlands are protected by State law, and how to report violations. The environmental commission should include wetlands education as part of its mission. See Montville Township Environmental Commission’s ‘Wetlands FAQ’ primer as an example of resident education:
www.montvale.org/freshwater-wetlands

Wetlands permittees are required to place conservation easements on the land area of a transition area waiver (see page X23) and on the adjacent wetland, and must provide a copy of the filed easement to NJDEP and the municipal clerk before any transfer of land and before the start of construction. If the environmental commission or the municipality tracks conservation easements (recommended), it should establish a process whereby the town clerk provides the appropriate board or staff with notification of NJDEP-required easements when applicants submit them.



*Fringed gentian (Gentiana crinita),
an autumn flower of moist meadows and low woods*

Chapter V

Transition Areas

Transition areas (TAs) are regulated buffer areas that surround freshwater wetlands. These buffers, assigned by NJDEP at the time a wetland is delineated (LOI process – see Chapter 3), vary in size depending on the resource value of the wetlands they surround. Under the *FWPA*, activities in TAs are restricted. However, in some cases NJDEP will issue waivers that allow certain activities or changes to the size or configuration of the transition area.

WHAT IS A TRANSITION AREA?

Transition areas are regulated buffer zones between wetland areas and uplands, and can incorporate both wet and dry areas. They provide vital functions for the freshwater wetlands ecosystem, including habitat and temporary refuge for wetlands dependent wildlife, habitat for breeding, spawning, nesting and wintering for wildlife, and a corridor area to protect wetlands from pollutants moving from uplands toward the wetlands. They buffer wetlands from human activities such as noise and traffic. They also accommodate slight variations in wetlands boundaries over time caused by changes in hydrology or climate.

SIZE OF TRANSITION AREAS

Transition area size is dependent on the resource classification of the freshwater wetland it abuts. (See Chapter III for a discussion of wetlands classifications.) Transition areas around exceptional resource value wetlands have a standard width of 150 feet, with reductions possible to 75 feet. Intermediate resource value wetlands require a standard 50-foot buffer, with reductions possible to 25 feet. Ordinary resource value wetlands do not require a transition area.

Transition areas when wetlands are on adjacent property (NJAC 7:7A-2.7)

A transition area extends from 50 to 150 feet from a wetlands boundary and, therefore, may extend across adjacent property boundaries. If wetlands are suspected on the adjacent property but have not been, or cannot be, delineated, NJDEP can set the edge of

the adjacent site wetlands along the shared property boundary. This is likely to lead to a larger transition area than necessary on the property seeking an LOI/ delineation, but is necessary in the absence of specific wetlands boundaries on the adjacent site.

A wetlands delineation should include up to 150 feet of the adjacent lots in order to properly designate all the transition areas from adjacent sites that could impact the site in question. Note that it may be necessary to obtain written permission from adjacent property owners to investigate their land within 150 feet of the site's boundary. To avoid obtaining an LOI based on the presence of wetlands on an adjacent site, one can ensure compliance with TA requirements by refraining from all regulated activities within 150 feet of the common property line.

REGULATED ACTIVITIES IN TRANSITION AREAS

As detailed in Chapter II, page 9, certain activities such as normal and minor property maintenance, minor and temporary disturbances for activities near the transition area, or erection of certain minor temporary structures are permitted in transition areas. A permit called a transition area waiver is required for all other activities including

- removal, excavation, or disturbance of the soil;
- dumping or filling with any materials;
- erection of structures;
- placement of pavements; and
- destruction/alteration of plant life which would alter vegetation patterns.

TRANSITION AREA WAIVERS – MODIFICATIONS OF TRANSITION AREA WIDTHS

The *FWPA* provides several opportunities for NJDEP to reduce or modify the standard transition area widths through issuance of Transition Area Waivers. NJDEP must include in any TA waiver additional conditions, as necessary, to ensure that an

activity does not result in **substantial impact** to the adjacent wetland, i.e., does not impair the purposes and functions of the transition area. Fencing is required to protect the wetland and TA functions and values from construction, disturbance or other impacts not authorized by the permit.

In addition, when issuing a TA waiver (certain waivers for redevelopment are excepted), NJDEP requires the applicant to execute and record a conservation restriction or easement that prohibits any regulated activities in the transition area and the adjacent wetlands, as appropriate (NJAC 7-7A-2.12). A permittee must provide a copy of the filed easement deed to NJDEP and to the municipal clerk before the start of the regulated activity. NJDEP does not require deed restrictions for TA waivers for Special Activities such as stormwater outfalls or on Individual permits, or for Statewide General permits that automatically include transition area permits.

As described below, transition areas may be modified through:

1. an averaging plan TA waiver
2. a special activity TA waiver
3. a matrix type width reduction TA waiver
4. a hardship TA waiver
5. a General permit TA waiver. All General permits except for 1, 6, 7, 22 and 24 authorize activities in transition areas. The terms of the allowed TA disturbance are contained in the language of the General permit.
6. an access TA waiver. This is a limited waiver to allow access to a project that has a General or Individual permit, or a mitigation proposal. An activity not directly required in order to obtain access to the permitted activity requires a separate TA waiver.

Averaging plan TA waiver (NJAC 7:7A- 6.2)

An *averaging plan waiver* modifies the overall shape of a transition area *without reducing its total square footage*. Areas proposed as compensation must be an extension of the same transition area, owned by the applicant, have no other easements, and have the same ecological characteristics as the reduced part of the TA.

NJDEP will not allow an averaged transition area if it cannot meet the protective “has no substantial impact” threshold for all TA waivers, including if:

- the portion of the TA proposed for reduction has a greater than 25 percent slope;
- a septic system that will discharge onsite is proposed for any part of the TA;

- an outfall structure that would discharge into wetlands will be placed in the TA;
- the proposed averaging compensation area is separated from the wetland by a structure.

Averaging in *intermediate* wetland transition areas – NJDEP assumes that TA averaging poses a substantial impact where:

- a structure, impervious surface or stormwater structure will be placed within 20 feet of the wetland;
- a portion of a transition area is reduced
 - to less than 10 feet
 - to less than 25 feet in an area containing critical habitat for flora or fauna
 - to 10 feet for a continuous distance of over 100 feet
 - to less than 25 feet within the watershed of a current or proposed National Wildlife Refuge
 - by increasing the compensation part of a TA to more than 75 feet; or
- the average TA width is less than 25 feet (based on provisions of a concurrent permit);

Averaging in *exceptional* wetland transition areas – NJDEP assumes that TA averaging poses substantial impact, and therefore does not qualify for an averaging waiver, where:

- the adjacent wetland is breeding or nesting habitat for a threatened or endangered species;
- the wetland discharges directly to a trout production water or its tributary (unless there is an intervening lake or a minimum distance);
- the averaging plan proposes to:
 - reduce any part of the transition area to less than 75 feet;
 - the compensation part of the reduction is more than 225 feet.
- the resulting average transition area is less than 100 feet (based on provisions of any concurrent permit).

Special activity TA waiver (NJAC 7:7A-6.3)

A TA waiver for *special activities* grants a blanket reduction or partial elimination of the TA requirement to allow certain activities. These waivers do not allow transition area reductions to less than 75 feet adjacent to exceptional resource value wetlands. A Special Activities Waiver may be approved for:

- **stormwater management** facilities such as detention basins, swales or rip-rap channels if there are no feasible alternative locations on the property, including redesign, relocation or modification of the project layout or size;
- **linear development** – examples include highways or transmission lines, provided there are no feasible alternative locations or design;

- **redevelopment** – the area must be so disturbed that it is not functioning as a transition area, the disturbance was legally existing prior to July 1, 1989, and there will be no additional wetland disturbance (revegetation and/or conservation easement may be required); and
- **an activity** that would meet the standards for a freshwater wetlands Individual permit and mitigation.

Matrix-type width reduction TA waiver (NJAC 7:7A-6.4)

A *matrix-type width reduction* TA waiver reduces the width of a TA without changing its shape. The reduction is based on the results of a matrix calculation based on the following:

- slope of the TA on the site;
 - dominant vegetation community on the TA (forest, scrub/shrub, or herbaceous); and
 - development intensity of the proposed project.
- NJDEP requires that a conservation restriction be established on the entire transition area.

Matrix-type width reductions adjacent to intermediate wetlands are appropriate when:

- activity(s) require approval by the National Park Service if the wetland is adjacent to a Federal or State Wild and Scenic River or is in an official study status for inclusion;
- activity will not disturb or expose acid-producing deposits;
- is not located next to a local, county, state or federal park, refuge, sanctuary or area listed in the NJ Register of Natural Areas;
- the application does not include construction or expansion of:
 - mineral extraction or processing;
 - wastewater treatment or septic system within 50 feet of the wetland;
 - solid waste facility; or
 - storage, processing or disposal of hazardous substances.

Matrix-type width reduction TA waivers may only be issued adjacent to an exceptional resource value wetland if it is located on a tributary to an FW1 or FW2 trout production water and the wetland does not contain habitat for threatened or endangered species.

Hardship TA waivers (NJAC 7:7A-6.5)

Similar to a municipality granting a land use variance, NJDEP issues a hardship TA waiver if a site cannot support a reasonable use if constrained by a Transition Area, and the site limitation results from the unique characteristics of the site. NJDEP shall assume a

hardship provided that the applicant demonstrates (IF THESE ARE THE SAME AS FOR WETLANDS, NOTE THAT AND POSSIBLY ELIMINATE):

- the impossibility of building a single family dwelling under the TA regulations;
- the lot or lots were created prior to July 1, 1988;
- the site has been owned by the applicant since before July 1, 1988;
- the site is not contiguous to an improved property owned by the applicant on July 1, 1988;
- the applicant has not previously received a hardship TA waiver;
- the applicant has been unable to purchase adjacent properties;
- the applicant has offered the site for sale at fair market value to adjacent property owners and been refused;
- the applicant has offered it to interested public and private conservation organizations and been refused.

RECOMMENDATIONS FOR MUNICIPAL ACTION

Public comment on TA waivers

As with LOIs and other permits, NJDEP provides opportunities for and encourages municipal comments on transition area waiver applications. The applicant for a waiver must send a full copy of the application to the municipal clerk, and certified mail notification to landowners within 200 feet of the project, the municipal construction official, environmental commission, and municipal and county planning boards. NJDEP provides a 15-day response time from receipt of the notice for municipal, county, or public comments (see chart on page 22). Municipalities should establish a process whereby the clerk immediately informs the environmental commission, land use staff or other designated persons of a transition area waiver application so they have adequate time to submit comments, as needed.

Track wetlands conservation easements

Wetlands permittees are required to place conservation easements on the land area of a transition area waiver and on the adjacent wetland. The permittee must provide a copy of the filed easement to NJDEP and to the municipal clerk before any transfer of land and before the start of disturbance/construction. If the environmental commission or the municipality tracks conservation easements (strongly recommended), it should establish a process whereby the town clerk provides the appropriate board or staff with copies of the required easements when applicants submit them.



*Swamp at Rockaway
River Wildlife
Management Area*



Bog copper (Lycaena epixanthe) a tiny butterfly that inhabits acid bogs

Chapter VI

Application and Review Process for Permits

Application forms, checklists and detailed guidance are available on the NJDEP's Division of Land Use Regulation website at www.nj.gov/dep/landuse/process.html. The regulations that specify submission and procedural requirements for applications under FWPA are at NJAC 7-7A:10.1 et seq. NJDEP publishes notices of applications for Letters of Interpretation (LOI), Statewide General Permits, Individual Permits and Transition Area Waivers twice a month in the DEP Bulletin, at www.nj.gov/dep/bulletin/.

FWPA PERMIT APPLICATIONS

Pre-application conferences

Where a proposed project will encroach upon freshwater wetlands and/or a wetlands transition area, and particularly if the project is complex or controversial, NJDEP encourages potential applicants to schedule a pre-application conference with Department staff. This provides informal, nonbinding review and advice to the applicant on how best to approach a project with respect to both the regulated resource and the permitting process. If the project will require other permits administered by NJDEP, it becomes even more important to schedule a pre-application conference to help facilitate coordinated multi-permit review.

A request for a pre-application conference must be made in writing to NJDEP, and include a description and plan view of the project, site identification information (State Plan coordinates, block and lot, municipality, county); color aerial and other photos of the site; USDA soils and USGS quad maps; a meeting agenda and objectives; floodplain information; and a copy of the Letter of Interpretation (LOI, see Chapter III) for the site. It is possible to proceed without an LOI, using general locational information for the regulated resources, but NJDEP encourages applicants to obtain an LOI before requesting a pre-application conference. Guidance for requesting a pre-application conference is at www.nj.gov/dep/landuse/download/lur_032.pdf.

Statewide General Permit (SGP) applications

When a proposed activity cannot be carried out without impacting a regulated area under the FWPA, the owner needs to determine whether the activity meets the criteria for one or more of New Jersey's 29 Statewide General Permits (see chapter IV). Submittal requirements for an application for an SGP include:

1. The completed DLUR general application form required for all applications issued by NJDEP's Division of Land Use Regulation – www.nj.gov/dep/landuse/download/lur_021.pdf. This form includes a listing of all permits and fee calculations, and requires information about property ownership, any agents representing the owner, and general site and project information.
2. For all SGPs except #25 (for repair of a malfunctioning septic system, which has a separate application) the required permit-specific submissions are detailed in the "Freshwater Wetlands General Permit Authorization Application Checklist" www.nj.gov/dep/landuse/download/fw_001.pdf. Required items include fee payment, proof that the applicant has met public notice requirements, maps and photographs, description of the project and how it complies with all requirements of the Act and the SGP being requested, property ownership and easement information, LOI, survey or site plan, other permits or approvals required, and information about contamination, stormwater management, endangered species and any Wild and Scenic or historic/archeological resources.

Freshwater wetlands permits e-Services from NJDEP

NJDEP accepts electronic submissions for two wetlands General permits: #25 (repair of a malfunctioning septic system) and #8 (addition to a single family residence only if attached to the structure). To see the limitations and conditions for online submissions, visit www.nj.gov/dep/landuse/e_fw.html

Individual wetlands permit applications

If an activity does not qualify for a Statewide General Permit, the owner may decide to apply for an Individual Wetlands Permit. Submission requirements include the completed general DLUR form and all items required for a Statewide General Permit, plus all items described in "Individual Freshwater Wetlands Permit [&] Individual Open Water Fill Permit* Application Checklist" at www.nj.gov/dep/landuse/download/fw_005.pdf. The additional Individual permit submissions include an alternatives analysis that include a thorough discussion of various offsite, onsite and design alternatives to illustrate that project impacts could not be avoided and that the impacts were minimized to the extent practicable. In addition, the assessment of impacts must be based on facts and may include a survey of flora and fauna, descriptions of best management practices, a compensatory mitigation plan, and cross sectional diagrams of the area of disturbance.

Transition area waiver applications

Applicants must obtain a Transition Area Waiver to carry out regulated activities in transition areas. (See Chapter V for a discussion of transition areas and the various types of waivers – Averaging Plan, Special Activity, Matrix or Hardship.) In addition to the DLUR general application form, applicants must address the requirements described in "Freshwater Wetlands Transition Area Waiver Application Checklist" at www.nj.gov/dep/landuse/download/fw_006.pdf, selecting the sections that apply to the particular type of waiver they seek. If a transition area disturbance can be covered by a Statewide General Permit (most general permits now include authorization for TA disturbance), the applicant should use the application checklist for that General permit.

NJDEP REVIEW OF APPLICATIONS

Completeness

Upon receipt of an application for any permit or authorization under FWPA, NJDEP has 20 days to determine whether the application is administratively complete (all required items included) and technically complete (the submitted information is sufficient to allow NJDEP to determine whether the proposed activity qualifies for a permit).

*For Individual permits, the county mosquito control agency and county environmental commission (if one exists) must also receive notification.

If the application is administratively complete, NJDEP notifies the applicant, and submits a notice for publication in the *DEP Bulletin* – www.state.nj.us/dep/bulletin/. If the application is not administratively complete, NJDEP will return it to the applicant. If additional information is required for technical completeness, NJDEP notifies the applicant, who has 60 days to submit the required information without being required to repeat the public notice requirements.

NJDEP may transmit copies of the application to other state or federal agencies, if required by the FWPA, including USEPA, US Fish & Wildlife Service, US Army Corps of Engineers, and/or the NJ State Historic Preservation Office for their review.

Public notice

NJDEP publishes nominal notices of applications for LOIs, Statewide General Permits, Individual permits, Transition Area Waivers, and related renewals and extensions twice a month in the *DEP Bulletin*. This notice allows interested parties to seek out and review copies of local applications at town hall or at NJDEP's office in Trenton. The public has 30 days from the date of publication to submit written comments on the application, but NJDEP may consider comments received any time before it makes a decision on issuance of a permit.

Interested persons may, within 30 days of the notice in the *DEP Bulletin*, make a written request for a public hearing for an Individual permit or a Transition Area Waiver application (7:7A-12.4). If there is substantial relevant public comment or interest, NJDEP may hold a hearing in the county where the proposed activity is located, and will publish notice of the hearing in the *DEP Bulletin*. The applicant is also required to publish a notice of the hearing in the appropriate newspaper. Such hearings are not common, but do occur.

Applications for LOIs, General, Individual, State Open Waters and Transition Area Permits (and extensions, renewals and major modifications) require the applicant to carry out and document:

- public notice (newspaper advertisement),
 - municipal notice (clerk, environmental commission, planning board and construction official),
 - county notice (planning board*), and
 - notice to owners of land within 200 feet of the site.
- See Table 2 on pages 17 and 18 for the specific requirements for each permit. The applicant must send a complete copy of the application to the municipal clerk, which must be accessible to any interested person for review. Other required parties receive a notice letter only, not a complete copy of the application.

The municipality must provide to the applicant, on request, a certified list of landowners within 200 feet of the site, to use for notification. NJDEP provides a template letter form for the required notifications called "Attachment A," as well as a model newspaper advertisement, called "Attachment B," for the required display advertisement (see below).

received the original application. If NJDEP determines that the change(s) increase the environmental impact of the application, it may require the applicant to re-notify the parties who received the original required notification letters. If the amendments constitute a significant change to the project, NJDEP may require the applicant to resubmit as a completely new application.

Amendments to a permit application

An applicant may submit amendments to an application at any time, and must send a copy of the amendments to the municipal clerk and others who

Figure 1

ATTACHMENT A

Freshwater Wetlands Application Checklist

Model Letter – Notice to Neighboring Landowners

(copy this letter, fill in the blanks, and send to all parties listed on the applicable application checklist)

Date: _____

Re: Application submitted by:

_____ (Print applicant's name)

Regarding property at:

_____ (Street address of property)

_____ (Block and lot of property)

_____ (Town and county)

Dear Interested Party:

I am sending you this letter to inform you that I am submitting an application for a permit or approval to the New Jersey Department of Environmental Protection (NJDEP) under the *Freshwater Wetlands Protection Act* rules, N.J.A.C. 7:7A. The permit or approval will either establish the boundary of freshwater wetlands on the above property, or will authorize me to conduct regulated activities on the property.

• I am applying for the following approval(s):

_____ Letter of interpretation (establishes the official boundary line of any regulated freshwater wetlands, open waters, or transition areas on the property, and if freshwater wetlands are present, identifies their resource value)

_____ General permit authorization (authorizes regulated activities, such as construction or development, in wetlands and adjacent transition areas)

_____ Individual transition area waiver (authorizes regulated activities, such as construction or development, in areas adjacent to wetlands)

_____ Individual freshwater wetlands permit (authorizes regulated activities, such as construction or development, in both wetlands and adjacent transition areas)

_____ Open water fill permit (authorizes regulated activities, such as construction or development, in open waters)

(continued)

ATTACHMENT A *Continued*

Freshwater Wetlands Application Checklist
Model Letter – Notice to Neighboring Landowners

The activities for which my application requests NJDEP approval are (I have checked all of those that apply):

- No regulated activities, just establishing where regulated wetlands (if any) are found on my property
 - Cutting or clearing of trees and/or other vegetation
 - Placement of pavement or other impervious surface
 - Placement of one or more buildings or other structures
 - Expansion of existing pavement, buildings, or other structures
 - Other (describe):
-
-
-

If you would like to inspect a copy of my application, it is on file at the Municipal Clerk's Office in the town in which the property is located, or you can call the NJDEP at (609) 777-0454 to make an appointment to see my application at NJDEP offices in Trenton during normal business hours.

The rules governing freshwater wetlands permits and approvals are found in the NJDEP's *Freshwater Wetlands Protection Act* rules at N.J.A.C. 7:7A. You can view or download these rules on the NJDEP Land Use Regulation Program website at www.state.nj.us/dep/landuse, or you can find a copy of these rules in the county law library in your county courthouse.

As part of the NJDEP's review of my application, NJDEP personnel may visit my property, and the portion of any neighboring property that lies within 150 feet of my property line, to perform a site inspection. This site inspection will involve only a visual inspection and possibly minor soil borings using a 4-inch diameter hand auger. The inspection will not result in any damage to vegetation or to property improvements.

The NJDEP welcomes any comments you may have on my application. If you wish to comment on my application, comments should be submitted to the NJDEP in writing within 30 days after the Department publishes notice of the application in the DEP Bulletin. The Department shall consider all written comments submitted within this time. The Department may, in its discretion, consider comments submitted after this date. Comments cannot be accepted by telephone. Please submit any comments you may have in writing, along with a copy of this letter, to:

New Jersey Department of Environmental Protection
Division of Land Use Regulation
Mail Code 501-02A
P.O. Box 420
Trenton, New Jersey 08625
Attn: (County in which the property is located) Section Chief

When the NJDEP has decided whether or not my application qualifies for approval under the *Freshwater Wetlands Protection Act* rules, NJDEP will notify the municipal clerk of the final decision on my application. If you have questions about my application, you can contact me or my agent, at the address(es) below.

Sincerely,

(Print applicant's name) _____
(Applicant's address – required) _____
(Applicant's phone or e-mail – optional) _____
(Applicant's agent's address, phone, and/or e-mail – optional)

Special questions for applicants in towns with swamp pink, bog turtle habitat, or other federally- or state-protected species

NJDEP requires special information in applications from the municipalities listed below (NJDEP Lists – “Attachment C” and “Attachment D” under Wetlands Permitting webpage), which have documented habitat for federally-endangered swamp pink and/or endan-

gered bog turtle. Applicants must sign a statement certifying that a proposed activity will not result in adverse impacts to swamp pink and/or bog turtle habitat. NJDEP staff also checks for additional federally- or State-protected species, such as certain endangered or threatened bat species. The 30-day public comment period for an application provides an opportunity for any interested party to provide specific information regarding the presence of protected habitats in the project area.

Figure 2

NJDEP List of Municipalities with Documented Swamp Pink Habitat (2016)



Swamp Pink

ATLANTIC COUNTY

- Egg Harbor Twp.
- Hammonton Twp.
- Mullica Twp
- City of Pleasantville

BURLINGTON COUNTY

- Evesham Twp.
- Maple Shade Twp.
- Medford Twp.
- Pemberton Twp.
- Southampton Twp.
- Woodland Twp.

CAMDEN COUNTY

- Berlin Twp. & Borough
- Clementon
- Gibbsboro
- Gloucester Twp.
- Haddonfield
- Lindenwald
- Pine Hill
- Pine Valley
- Runnemeade
- Voorhees Twp.
- Waterford Twp.
- Winslow Twp.

CAPE MAY COUNTY

- Cape May Point Borough
- Dennis Twp.
- Lower Twp.
- Middle Twp.
- Upper Twp.

CUMBERLAND COUNTY

- Bridgeton City
- Downe Twp.
- Fairfield Twp.
- Hopewell Twp.
- Lawrence Twp.
- Maurice River Twp.
- Millville City
- Stow Creek Twp.
- Upper Deerfield Twp.
- Vineland City

GLOUCESTER COUNTY

- Clayton Borough
- Deptford Twp.
- East Greenwich Twp.
- Elk Twp.
- Franklin Twp.
- Glassboro
- Mantua Twp.
- Monroe Twp.
- Newfield
- South Harrison Twp.
- Washington Twp.
- Wenonah
- West Deptford Twp.
- Woodbury Heights
- Woolwich Twp.

MIDDLESEX COUNTY

- East Brunswick Twp.
- Edison Twp.
- New Brunswick
- Perth Amboy City
- Sayreville

MONMOUTH COUNTY

- Brielle
- Colts Neck Twp.
- Freehold Twp.
- Howell Twp.
- Manalapan Twp.
- Millstone Twp.
- Wall Twp.

MORRIS COUNTY

- Mount Olive Twp.
- Randolph Twp.
- Roxbury Twp.

OCEAN COUNTY

- Barneget Twp.
- Brick Twp.
- Dover Twp.
- Jackson Twp.
- Lacey Twp.
- Lakewood Twp.
- Little Egg Harbor Twp.
- Manchester Twp.
- Plumsted Twp.
- Stafford Twp.

SALEM COUNTY

- Alloway Twp.
- Lower Alloways Creek Twp.
- Pittsgrove Twp.
- Quinton Twp.
- Upper Pittsgrove Twp.

Figure 3

NJDEP List of Municipalities with Documented Bog Turtle Habitat (2017)

BURLINGTON COUNTY

Bass River Twp.
Bordentown Twp.
Burlington Twp.
Chesterfield Twp.
Delanco Twp.
Delran Twp.
Edgewater Park Twp.
Evesham Twp.
Mansfield Twp.
Medford Twp.
Mount Laurel Twp.
New Hanover Twp.
North Hanover Twp.
Springfield Twp.
Washington Twp.
Westampton Twp.

GLOUCESTER COUNTY

East Greenwich Twp.
Harrison Twp.
South Harrison Twp.
Washington Twp.
Woolwich Twp.

HUNTERDON COUNTY

Alexandria Twp.
Bethlehem Twp.
Clinton Twp.
Franklin Twp.
Glen Gardner Borough
Lebanon Twp.
Readington Twp.
Tewksbury Twp.
Union Twp.

MERCER COUNTY

Hamilton Twp.

MONMOUTH COUNTY

Freehold Twp.
Howell Twp.
Long Branch City
Manalapan Twp.
Millstone Twp.
Roosevelt Borough
Upper Freehold Twp.
Wall Twp.

MORRIS COUNTY

Boonton Twp.
Chatham Twp.
Chester Twp.
Chester Borough
Denville Twp.
Dover Twp.
Florham Park Borough
Hanover Twp.
Harding Twp.
Jefferson Twp.
Long Hill Twp.
Mine Hill Twp.
Morris Twp.
Mount Olive Twp.
Parsippany Troy Hills Twp.
Passaic Twp.
Randolph Twp.
Rockaway Twp.
Roxbury Twp.
Washington Twp.
Wharton Borough

OCEAN COUNTY

Berkeley Twp.
Brick Twp.
Lakehurst Borough
Manchester Twp.
Plumsted Twp.

SALEM COUNTY

Mannington Twp.
Pilesgrove Twp.
Quinton Twp.
Upper Pittsgrove Twp.

SOMERSET COUNTY

Bedminster Twp.
Bernards Twp.
Far Hills Borough
Franklin Twp.
[Montgomery Twp.]
Peapack-Gladstone Twp.
Warren Twp.
Watchung Twp.

SUSSEX COUNTY

Andover Twp.
Byram Twp.
Frankford Twp.
Franklin Boro
Fredon Twp.
Green Twp.
Hamburg Boro

SUSSEX COUNTY *cont'd*

Hampton Twp.
Hardyston Twp.
Lafayette Twp.
Ogdensburg Borough
Sandyston Twp.
Sparta Twp.
Stillwater Twp.
Vernon Twp.
Walpack Twp.
Wantage Twp.

UNION COUNTY

Berkeley Heights Twp.
Mountainside Borough
Scotch Plains Twp.

WARREN COUNTY

Allamuchy Twp.
Franklin Twp.
Frelinghuysen Twp.
Hardwick Twp.
Harmony Twp.
Hope Twp.
Independence Twp.
Liberty Twp.
Oxford Twp.
Washington Twp.
White Twp.



Bog Turtle

PERMIT DECISIONS

Under the *FWPA*, NJDEP has 180 days to issue or deny a wetlands permit or waiver. The review period may be extended by mutual agreement of the applicant and NJDEP. If an applicant does not receive a decision from NJDEP within the required time, this does not entitle the applicant to proceed with the regulated activity. The only exceptions to this rule are for SGPs #1, #25 and #26, under which an applicant may proceed without NJDEP response after 30 days have passed from the date of submission; this provision stands only if the application meets all requirements of the permit. All other permits require written authorization from NJDEP to proceed.

If the Department denies an application, it notifies the applicant and the applicant's agent, if there is one, and posts a notice of the denial in the DEP Bulletin. An applicant is free to submit a new, revised application (with fee) for the same site. If the Department issues a permit, the approval may include any additional conditions NJDEP judges necessary to achieve compliance with the wetlands law and the *NJ Water Pollution Control Act*. Permit approval notices are also published in the DEP Bulletin.

FWPA permits and authorizations are valid for five years, and most may be extended for one additional five year period (NJAC 7:7A-14.6). The permittee must apply before the permit expires (30 days before for SGP, or 90 days before for Individual Permit or TA waiver). See [page ___](#) for Permit Extension Act information.

Requirements after notification

After receiving a favorable permit decision, the applicant has additional steps to follow. Except for SGPs #1, #25 and #26, the permittee must sign and submit a form that indicates acceptance of the terms of the permit.

Permit modifications (NJAC 7:7A-10.7, 14.1)

All permits, waivers and/or verifications may be modified after issuance, either by NJDEP for cause, or at the request of the permittee. To apply for a modification, the permittee must submit an application (and fee) with all items required for the original permit, but is only required to include information pertaining to the portions of the permit that are being modified. The transfer of a permit to a subsequent property owner, if the permitted activity and any required mitigation are ongoing, also requires a permit modification. If all activity under the permit is complete, no modification is required.

MULTI-PERMIT REVIEW and OTHER NJDEP REGULATORY PROGRAMS

A development project may involve several State permits and review by different divisions in the Department. NJDEP consolidates permit review and, when possible, will issue several permits simultaneously for a particular project. For example, review for a Water Quality Certification and a freshwater wetlands permit will occur concurrently and both permits will be issued at the same time. NJDEP reviews Flood Hazard Area (stream encroachment) permits simultaneously with its review of many wetlands Statewide General Permits. All NJDEP programs use the same wetlands definitions.

RECOMMENDATIONS for MUNICIPAL ACTION

Every municipality should establish a process by which the town clerk will promptly notify the designated person on each municipal land use board, the environmental commission, and relevant municipal staff and professionals of receipt of copies of applications for LOIs, Statewide General Permits, Individual Permits, and Transition Area Waivers, and any extensions or modifications. The environmental commission receives a notification letter, only, for local wetlands applications; it can review the complete copy of the application that comes to the municipal clerk, or can arrange for the clerk to distribute a copy to the commission.

Each board should designate a person or sub-committee to respond to applications for Letters of Exemption, LOIs, Statewide General Permits, and Individual Permits. A quick assessment and response (if warranted) is needed so that any comments will reach NJDEP within the allotted public comment period (see Table 4 on page 22).

Local knowledge submitted by municipal boards or staff, based on local records, previous development applications, or on-the-ground observations, can enhance NJDEP's review, providing information that may not show up in the application, the Department's files, digital mapping or aerial photographs. In towns where there is documented swamp pink, bog turtle habitat, or other endangered species habitat, the environmental commission should make sure these issues receive due attention. Local comments can be critical in alerting NJDEP to incorrect information in the application.

For LOI applications, commissions should pay special attention to conditions or criteria that will affect the resource classification of the wetland by NJDEP. The classification will determine the size of the transition area and affects eligibility for and conditions of some permits.

Webb's Mill bog dotted with the bright orange fruits of bog asphodel





Green Frog (Lithobates clamitans), is a ubiquitous species that may be found in many wetlands.

Chapter VII Enforcement

This chapter describes NJDEP's procedures for verifying and proceeding against violators, as well as steps municipalities can take to assist in the enforcement of the *FWPA* regulations.

VIOLATIONS OF THE *FWPA*

Violations of the freshwater wetlands law and regulations are handled by NJDEP's Bureau of Coastal and Land Use Compliance and Enforcement, which has offices in Chester, Trenton and Toms River. Violations of the *FWPA* include:

- failure to obtain a permit prior to conducting activities in wetlands, transition areas or State open waters;
- violation of permit conditions if a permit has already been issued for the activity;
- failure to obtain a permit modification from NJDEP for any change in conditions, activities or ownership of the regulated area;
- submitting false information related to a permit; or
- refusing to allow entry for inspection by NJDEP.

Persons violating any provision of the *Act* are subject to administrative, civil and/or criminal penalties, as well as mitigation requirements to compensate for damage to wetlands and/or transition areas.

Failure to obtain a permit

The following are examples of violations due to failure to obtain a permit:

Illustration 1. A person applies for a wetlands General permit and starts construction of a road that will require filling less than 0.25 of an acre of wetlands, without receiving authorization from NJDEP. SGPs #10A and #10B for minor road crossings, and all wetlands permits except for SGPs #1, #25 and #26, require authorization from NJDEP.

Illustration 2. A house is legally constructed near wetlands. After several years, the occupants begin to build a swimming pool. The yard contains a stream with a swampy area (wetland) next to it. Although the swimming pool isn't right next to the wet area, it is within 50 feet of it. The owner is in violation because the wetland has a 50-foot transi-

tion area where no construction or removal/excavation/disturbance of soil can take place without a Transition Area Waiver Permit.

Violation of permit conditions

All permitted activities must satisfy various standard, permit-specific, and site-specific conditions. Standard conditions, such as proper maintenance of control facilities or the posting of appropriate permit forms onsite, apply to all permitted activities. (See NJAC 13.1 for permit conditions.) Permit-specific standards, such as a maximum of 0.25 acres of disturbance for wetlands under Statewide General Permit #10, apply to the activity permitted under that specific permit. Site-specific conditions, such as a timing restriction to minimize disturbance to trout waters during breeding or stocking periods, are applied due to site-specific needs or sensitivities.

The following examples illustrate violations of permit conditions:

Illustration 1. A wetlands permit requires the erection of silt fencing before any work begins to protect adjacent wetlands. When the permittee starts earth moving activities on the site without installing such devices, a permit condition has been violated.

Illustration 2. A piece of machinery falls into an area that was to be left undisturbed. The permittee has violated the permit condition requiring no disturbance to adjacent wetlands. To correct the violation, the permittee must use all necessary resources to remove the machinery and repair any damage to the wetland even if it means stopping work on other parts of the site.

REPORTING A VIOLATION

NJDEP strongly encourages self-reporting of any wetlands violation, using the Department's standard form, available online at www.state.nj.us/dep/enforcement/docs/sdreport-rev5-12-14.pdf. In accordance with NJDEP's Self-Disclosure Policy, a regulated entity may be eligible for a 75 to 100 percent penalty reduction for

violations that it discovers, discloses and corrects. Violations can be reported by other parties using NJDEP's 24-hour hot line number, 1-877-WARN=DEP (1-877-927-6337).

THE ENFORCEMENT PROCESS

Reports of possible violation

When NJDEP receives a report or complaint about a potential violation, the information is logged as an incident for investigation. Enforcement staff at NJDEP's Bureau of Coastal and Land Use Compliance and Enforcement begin by consulting remote sensing data (aerial photos and GIS digital map layers) to determine whether a wetland, State open water, or other regulated feature is likely to exist on the site in question. They also consult the Department's permit monitoring database (NJ Environmental Monitoring System – NJEMS – www.state.nj.us/dep/gis/digidownload/metadata/statewide/sde.njemssites.htm) to establish whether the site has received a permit from NJDEP.

If the activity is found to be exempt from the *FWPA* and does not require any other local, state, or federal permits, the investigation is closed. If the activity is in violation of another law, the matter is referred to the appropriate agency.

If a wetlands permit has been issued, NJDEP reviews the conditions placed on it to determine if the activities reported are allowed by the permit. If not, or if no permit has been issued, the next step is to verify that the reported activity is a violation and to establish the extent of the environmental impact. NJDEP may prioritize a violation for inspection or action based on the value of the resource being impacted, the size and scope of the violation, and whether the violation is ongoing.

To confirm that a reported activity is a violation, NJDEP investigates past site conditions by reviewing soil maps, wetlands maps, and aerial photography. After gathering background information, enforcement staff will conduct a site inspection to confirm the reported activity as a violation and establish the extent of the violation – acres of fill, amount of area cleared of vegetation, etc.

If NJDEP establishes that the reported activity is a violation, it issues a Notice of Violation (NOV) to the property owner. The NOV details the regulated activities observed to have taken place on the property, and options for resolution. This document may not be appealed. If a contractor or lessee is identified as being

involved with the violation, NJDEP may also cite them. Note that NJDEP does not have the authority to issue a stop work order, but does have the right to pursue a civil action in Superior Court to obtain an injunction or other remedies.

Action required by the responsible party

The property owner is required to respond to a NOV in writing, generally within 10 days, stating his/her course of action. The violator usually has the option to restore the site to its pre-disturbance conditions, and/or mitigate for the disturbance. Alternatively, the property owner may apply for a wetlands or State open waters permit to legitimize the activity.

If the activity qualifies for a permit under the standards in the regulations, NJDEP's Land Use Regulation Program will issue the appropriate permit, authorizing the activity under a specific scope and schedule. If the activity does not qualify for a permit, the violator must provide an acceptable plan to restore the resource to its former condition and functions. In either case the violator may have to pay a penalty since the activity requires that a permit must be issued prior to the disturbance taking place. The Department may reduce or waive a penalty if the physical violation is resolved/restored quickly; this is determined by NJDEP on a case-by-case basis.

Failure to respond to a Notice of Violation

If the violator does not provide a satisfactory response to the Notice of Violation, NJDEP can issue an Administrative Order (AO). The Order specifies the provisions of the *Act*, rules, permit or other condition that were violated, the actions which constituted the violation, and requirements for correcting it, to include restoration/rehabilitation of the wetland and compliance with the rules. The AO may include a Notice of Civil Administrative Penalty Assessment (NoCAPA), assessing a fine for the cited violation. Penalties of up to \$25,000 per day may be assessed under the *Act*, although this maximum fine is rarely imposed. The *FWPA* regulations provide a points system for determining penalties based on the size of the affected wetland, its resource value classification, the seriousness of the violation and the conduct of the violator (see NJAC 7:7A-16.8).

The responsible party may either comply with the AO and NoCAPA, or request a hearing with the Office of Administrative Law to contest them. A request for a hearing must be submitted within 35 days of receipt of the Administrative Order. Late or incomplete requests are denied.



Golden Club grows in shallow water of swamps and bogs

If the parties do not reach a settlement agreement* prior to the scheduled hearing date, a trial occurs. If the court finds merit in NJDEP's case, the violator must restore/pay, or may appeal to a higher court.

NJDEP may attach the NOV or Administrative Order to the deed of the affected property. This will notify any potential purchaser of the fact that the Department has found a problem on the site and will generally deter purchasers until the violation is resolved. When the violation is remedied, the NJDEP Commissioner can order removal of the notice from the property deed.

Under the *FWPA*, NJDEP can also pursue civil or criminal action through the courts

After-the-fact permits

NJDEP may issue an after-the-fact permit when it determines that restoration of a site to its pre-violation state would increase the harm to the freshwater wetlands or State open waters. For NJDEP to issue an after-the-fact permit, these conditions must have been met:

- the violator has created or enhanced freshwater wetlands or State open waters at another site as mitigation, as required by NJDEP;

**NJDEP must publish notice of any proposed settlement of a Department enforcement action in the DEP Bulletin and provide at least 30 days for public comment on the settlement.*

- NJDEP has provided an opportunity for public comment; and
- the reasons for issuance of the proposed permit were published in the DEP Bulletin and a newspaper of general circulation in the geographic area of the violation.

Like any other permit, an after-the-fact wetlands permit has conditions and restrictions, and NJDEP will enforce violations of that permit as it would any other permit.

MUNICIPAL RESPONSIBILITIES

Municipalities should encourage staff, board members, and the public to notify NJDEP of possible wetlands violations, either by working with the local Construction Official or by calling NJDEP directly. Wetlands permits must be prominently displayed on a construction site. If wetlands are present and no permit is visible, there is a violation because either

- no permit exists; or
- the display requirement has not been met.

Municipalities should report suspected violations of wetlands regulations to NJDEP via its 24-hour hotline at 1-877 WARN-DEP (1-877-927-6337). The municipality may also report directly to the regional office (Toms River, Chester or Trenton) under which it falls. When reporting a possible violation, one should be ready to provide the address and/or block and lot number and the nature of the suspected violation, as well as information about the property owner and any witnesses that can confirm the activity in question.



Floodplain along the Passaic River

Chapter VIII Mitigation



*Marsh St.-John's-wort
(Hypericum virginicum)
grows in bogs, marshes
and swamps.*

Wetlands mitigation refers to actions carried out to compensate the public for disturbance or loss of freshwater wetlands. All New Jersey Individual Wetlands Permits, and many Statewide General Permits (SGPs #2, #4, #5, #6, #10A, #10B, #11, #21, and #27, for disturbances of 0.1 acre or greater) require mitigation as a condition of approval. Mitigation is also imposed for certain violations of the FWPA regulations. The regulations governing wetlands mitigation are at NJAC 7:7A-15 et seq.

NJDEP considers mitigation plans independently of permit applications. However, a permitted activity may not be initiated until a mitigation plan is approved by NJDEP, and a permittee must perform mitigation prior to or concurrent with the permitted activity. Mitigation for a temporary disturbance must be completed within six months of completion of the permitted activity. NJDEP requires the establishment of transition areas around all mitigation sites except for mitigation of temporary disturbances.

TYPES OF MITIGATION

NJDEP distinguishes among various types of mitigation: restoration, creation, enhancement, purchase of credits from a mitigation bank, preservation, land donation and monetary contribution. Each is defined below. The list is a hierarchy, from most desirable (restoration) to least desirable (monetary contribution).

Restoration is the return of disturbed wetlands and/or state open waters to a condition having the same characteristics and functions as in its predisturbed state, generally required to be two acres restored for every one acre disturbed. For example, a former wetland area that has been drained and farmed could be restored to its original condition by blocking or removing drainage devices and replanting with appropriate wetland plants. Another example would be removing structures and soil from a site that had been (wetlands) filled and built upon. Restoration of a temporary disturbance is the reversal of that disturbance to reestablish the wetland's pre-activity functions and values.

Creation means the establishment of freshwater wetland and/or State open water characteristics and functions in non-wetlands (uplands) areas where wetlands have not previously existed. Generally, creation mitigation is required at a ratio of two acres for each acre lost or disturbed. Once created, the new wetland is assigned the same size transition area as that which was applied to the wetland disturbed. A proposed site for wetlands creation must have low ecological value and include a transition area onsite. Also, the application requires submission of a water budget that demonstrates sufficient water to support wetland functions. Monitoring wells are required.

Enhancement is the improvement of the character, functions, and values of an existing degraded wetland and/or open water to replace the value and functions of a wetland through substantial alterations to the soils, vegetation, and/or hydrology. Ratios range from 3:1 to 10:1 depending on the ecological benefit. Examples could include converting a wetland dominated by non-native invasive species such as common reed (*Phragmites australis*) to a wetland dominated by desirable native vegetation such as smooth cordgrass (*Spartina alterniflora*). Trash removal or installation of human-made habitat devices (such as duck boxes) are not enhancement.

Purchase of credits from an approved mitigation bank. A mitigation (land) bank is a site on which a private or public operator restores, creates, enhances, or preserves wetlands, uplands and/or riparian zones. The purpose of a mitigation bank is to increase wetland values and functions on a fairly large area and increase the interaction with regional wetland and aquatic resources. A mitigation bank is created to provide an area for wetlands mitigation where applicants can purchase credits for the wetlands disturbance or loss that their project causes. Required ratios are generally 1:1 (1 credit purchased to compensate for 1 acre of impact), and the mitigation site must be of the same wetland type as the impacted wetland. The cost of wetland credits vary depending on the location of the bank and can range from \$300,000 to over \$750,000. After all the credits in a wetland bank are sold, the bank has to be conveyed to a governmental agency or land conservancy organization for long-term stewardship.

Preservation means the permanent protection of a wetland or upland feature from disturbance or development through the transfer of the property, or a conservation easement on the property, to a government agency or charitable conservancy. This form of mitigation can only take place offsite, and is allowed only when all other types of mitigation are not feasible. Ratios are generally quite high, at 27:1. The Wetlands Mitigation Council (described later in this chapter) must approve the mitigation, and the preserved uplands must be valuable for the protection of a freshwater wetlands ecosystem.

Land donation means performing mitigation through the transfer of land by donation. Ratios are generally 27:1. The mitigation must be approved by the Wetlands Mitigation Council and the land must be valuable for the protection of a freshwater wetlands ecosystem.

FWPA regulations require that permittees establish conservation restrictions on all mitigation areas, except for mitigation of temporary disturbances. Municipalities should track and record these and other conservation easements in the town's GIS database and maps.

Monetary contribution is mitigation through a contribution to the Wetland Mitigation Fund, administered by the Wetlands Mitigation Council, which the Council can use to fund a mitigation project. The amount of the contribution is determined by the Council, based on the size of the impact and type of permit.

MITIGATION CLASSIFICATION AND PRIORITIES

The *FWPA* regulations establish different mitigation requirements for wetlands disturbance, based on their size. NJDEP characterizes a disturbance of 1.5 acres or less of wetlands as a smaller disturbance and more than 1.5 acres as a larger disturbance.

Mitigation for smaller disturbances

The regulations require that permittees mitigate smaller wetland disturbances by purchasing the appropriate number of mitigation credits from a mitigation bank. The types of credits to be purchased are ranked in the regulations with "credits from a mitigation bank in the same subwatershed" being the highest priority, to "credits from anywhere in the service area of a credit bank in the same NJ watershed management area (WMA)" being the lowest priority.

An applicant can also try to demonstrate that onsite mitigation (restoration, enhancement or creation) or other mitigation types would be more environmentally beneficial.

The regulations include the flow chart on page 41.

Mitigation for larger disturbances

For larger disturbances (greater than 1.5 acres), NJDEP requires an applicant to explore onsite mitigation, and reviews the proposals using the hierarchy of mitigation options listed above under 'Types of Mitigation.' A suitable site for creation, restoration or enhancement must be privately and fully owned by the applicant, with no easements or encumbrances, large enough to include a transition area, free of contamination, and not highly valuable ecologically or of historic or cultural interest. Government agencies may use public land, but the land must have been purchased specifically for the purpose of the mitigation.

If onsite mitigation is not feasible, the applicant is required to mitigate using one of the following options, in the priority sequence below:

- purchase of credits from a mitigation bank in the same subwatershed or an adjacent subwatershed in the same watershed management area (WMA);
- offsite restoration, creation or enhancement in the same WMA as the disturbance;
- monetary contribution;
- upland preservation in the same WMA as the disturbance; or
- land donation.

The submission details for a wetlands mitigation proposal are contained in NJDEP's "Creation, Restoration or Enhancement for a Wetland Mitigation Proposal – Checklist for Completeness" online at www.nj.gov/dep/landuse/download/mit_001.pdf. A Mitigation Council decision on a proposed mitigation project must be consistent with the *FWPA* mitigation regulations (NJAC 7-7A: 15.23).

MITIGATION BANKS

As of June 2015, NJ had 19 approved mitigation bank sites around the state, not all of which can sell credits. Each of New Jersey's Watershed Management Areas except for WMA7 has at least one mitigation bank assigned to it.

Banks can serve multiple permittees. In fact, the majority of purchases are for tenths or even hundredths of a credit. The banker is responsible for maintenance and achieving success criteria for the project, with up to

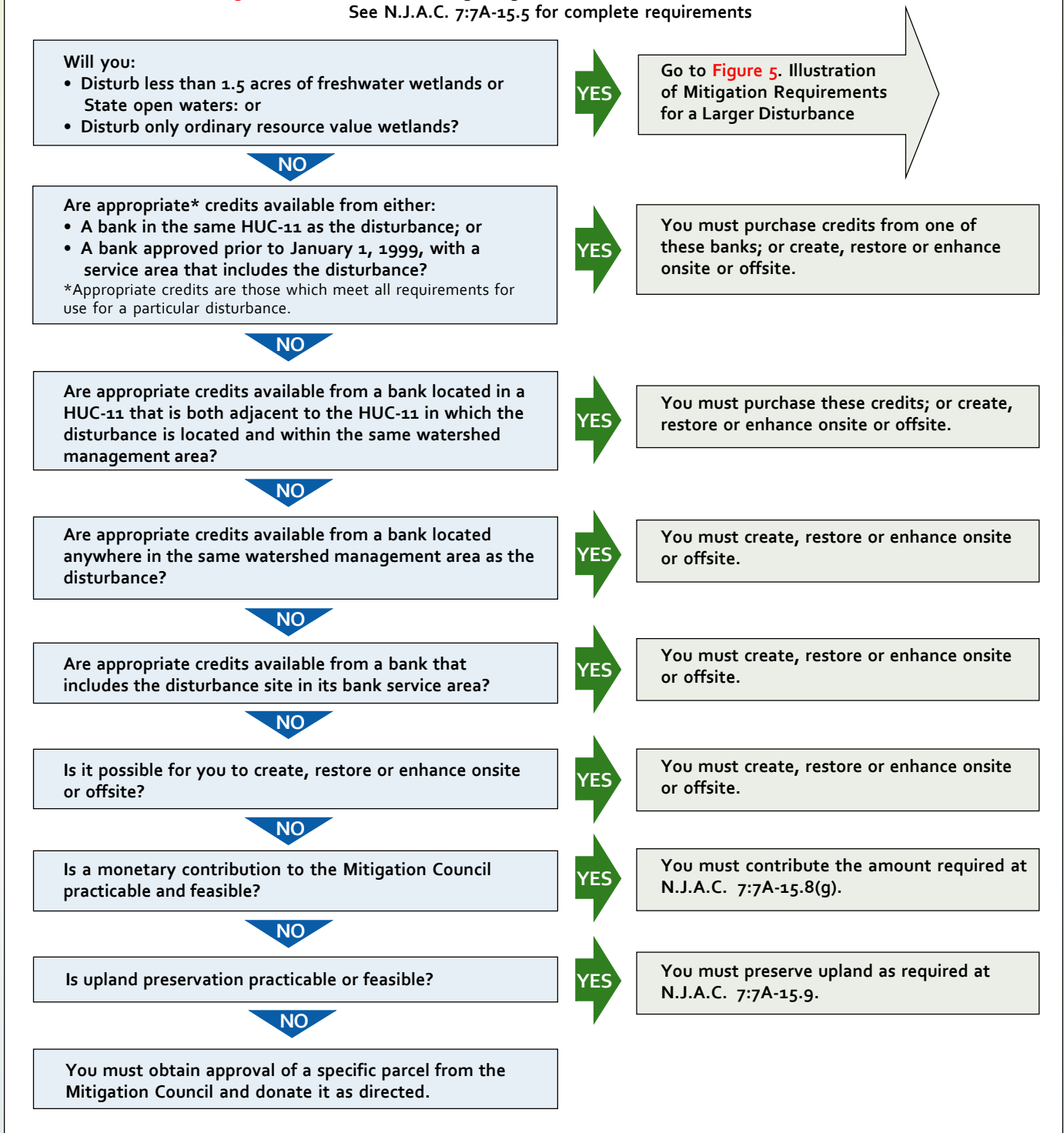
Figure 4

Mitigation Flow Chart for Smaller Disturbances

THIS IS A COURTESY COPY OF THIS RULE.

ALL OF THE DEPARTMENT'S RULES ARE COMPARED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Figure 4: Flow chart Illustrating Mitigation Alternatives for a Smaller Disturbance
See N.J.A.C. 7:7A-15.5 for complete requirements



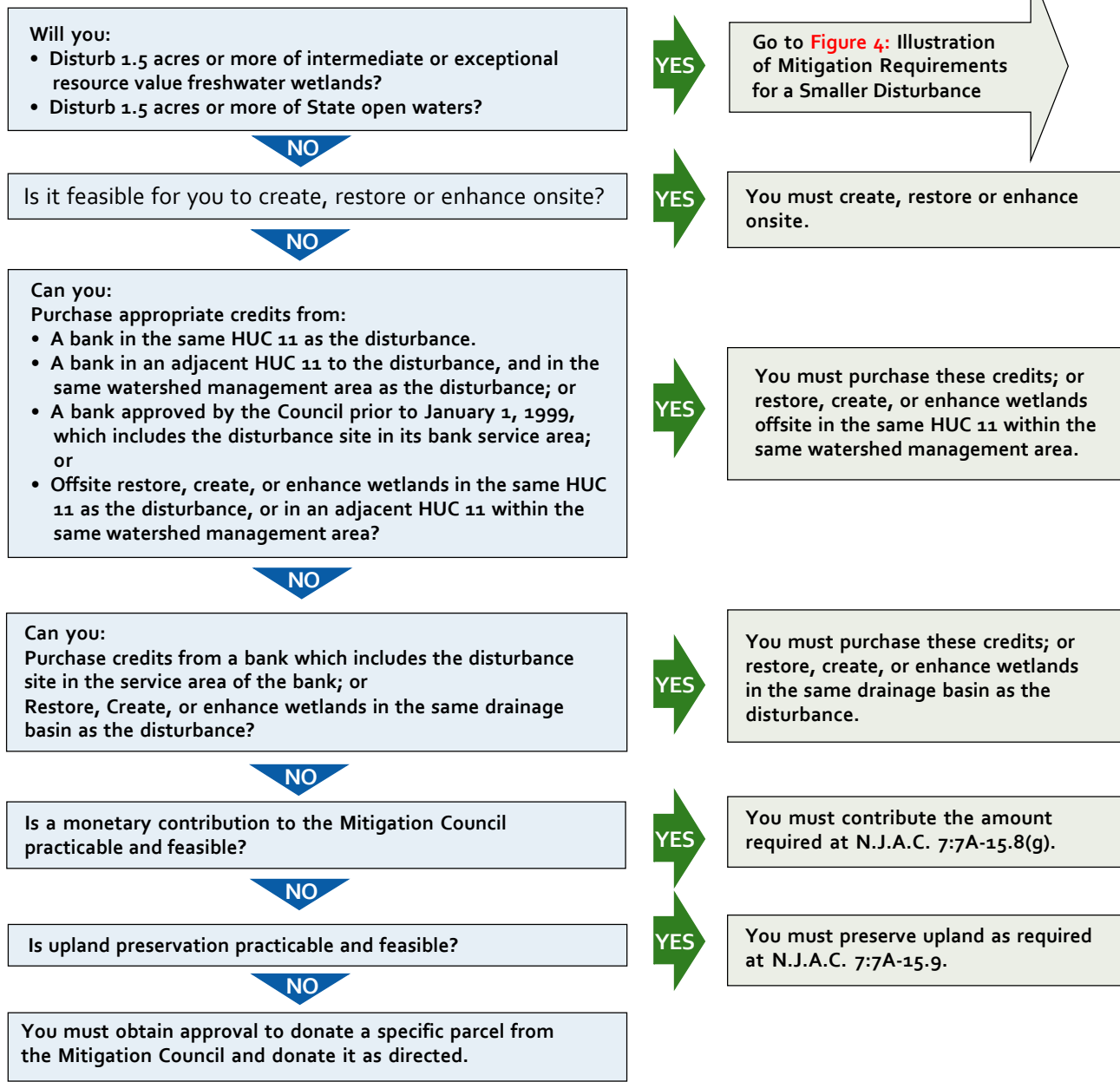
five years of mandatory monitoring. The cost per credit is determined by the cost of creating the mitigation bank and includes costs related to land acquisition, any required cleanup or remediation, predesign investigations,

construction, installation of plant material and maintenance and monitoring. As of 2015, prices per credit ranged from approximately \$300,000 to \$800,000.

Figure 5

Mitigation Flow Chart for Larger Disturbances

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 ALL OF THE DEPARTMENT'S RULES ARE COMPARED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.
Figure 5: Flow chart Illustrating Mitigation Alternatives for a Larger Disturbance
 See N.J.A.C. 7:7A-15.6 for complete requirements



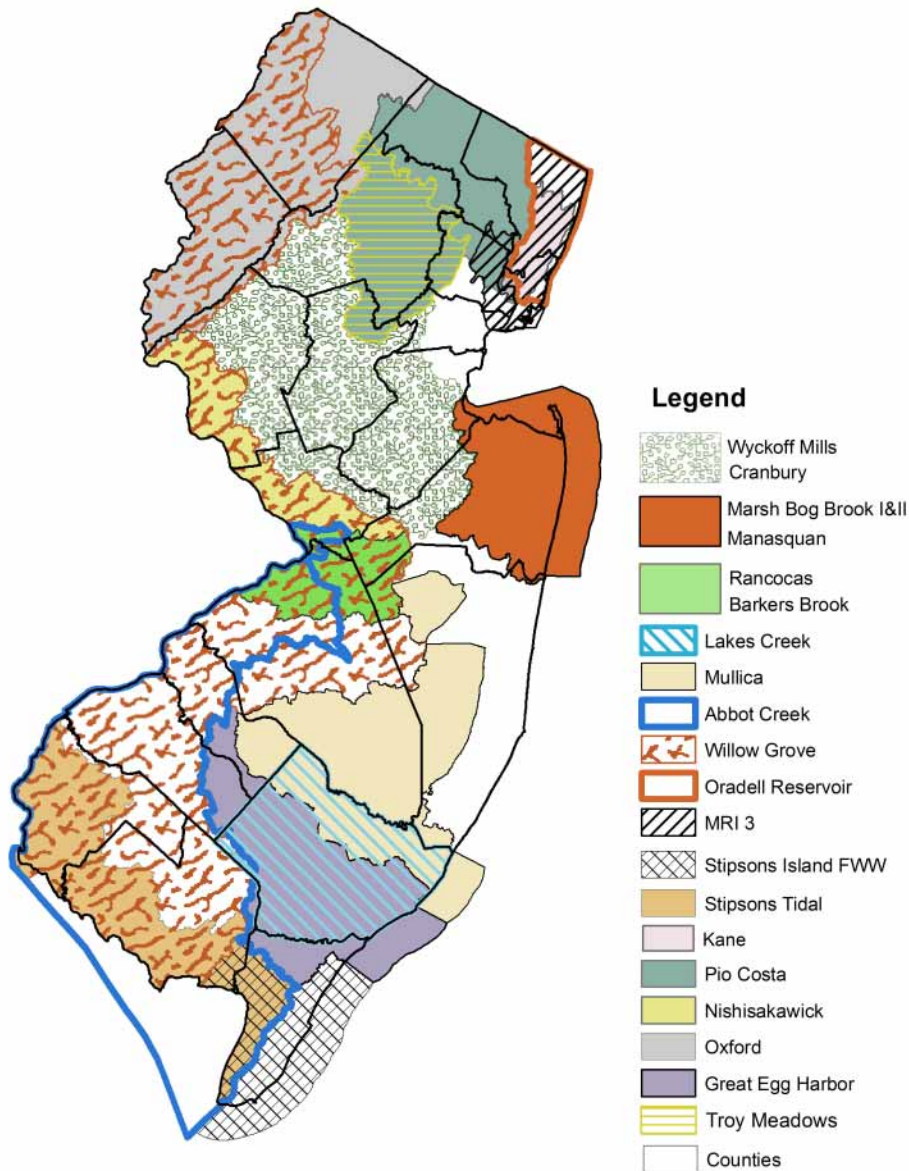
Mitigation Bank Creation

Permit applicants who anticipate large scale wetlands impacts from a development project, or counties with infrastructure projects requiring significant or varied mitigation, may find it beneficial to establish a mitigation bank that is specific to the types of wetlands they will be impacting. Atlantic County was the first NJ government agency to follow this route, establishing a mitigation bank that includes both

freshwater and coastal (salt water) wetlands. In its Fall 2013 ACUA Newsletter, the Atlantic County Utilities Authority explained, "The decision to design, permit, and construct a wetland bank was considered a progressive move by Atlantic County to satisfy numerous wetland mitigation needs on a single site. In particular, it satisfies the requirements for the bridge over English Creek (EH-21) and the improvement of the intersection of Mill and Fire roads in Egg Harbor Township."

Figure 6

Map of NJDEP-Approved Wetland Mitigation Banks



The jury is still out on the effectiveness of mitigation. Mitigation involving creation of freshwater wetlands is very difficult to achieve; restoration has a much better chance of success. Because of the difficulty that mitigation poses, NJDEP strongly encourages applicants to submit a conceptual plan for review, and to select a potential mitigation site that:

- is located at a practical elevation suitable for a wetland;
- has an adequate water supply; and
- is large enough for the mitigation proposed.

WETLANDS MITIGATION COUNCIL

New Jersey's *Freshwater Wetlands Protection Act* required establishment of the Wetlands Mitigation Council. The Council is composed of seven members – a representative of the Commissioner of NJDEP and six members from the general public appointed by the Governor with the advice and consent of the Senate. Two members are recommended by recognized building and development organizations; two are recommended by recognized environmental and conservation organizations; and two are appointed from institutions of higher learning

in NJ. The Council's meetings are public, and a tentative meeting schedule, minutes and agendas are posted at www.nj.gov/dep/landuse/mitigate.html.

The Act empowers the Council to conduct research on mitigation, disburse funds to support mitigation efforts, advise NJDEP on mitigation issues, or contract with a charitable conservancy or appropriate agency to carry out its responsibilities.

The Council reviews proposals for:

- monetary contributions from permittees,
- land donations,
- mitigation banks,
- county mitigation inventories (the law provides that counties can compile inventories of appropriate mitigation sites within their borders), and
- grant projects and other wetlands creation, restoration or enhancement projects funded by the Mitigation Fund (see below).

THE WETLAND MITIGATION FUND

Monetary contributions collected from permittees or from violators in lieu of onsite mitigation, land donation or preservation are deposited into the Wetland Mitigation Fund. The Mitigation Council manages the Fund and makes disbursements to finance mitigation projects. The Council has the power to purchase land with those funds, to provide areas for enhancement or restoration of degraded freshwater wetlands, to engage in the enhancement or restoration of degraded freshwater wetlands on public lands (including those acquired by the Council), and to preserve freshwater wetlands and transition areas of critical importance.

Historically, the Council administered a grant program that provided mitigation funds to public or nonprofit agency projects that would restore, enhance, create or preserve wetlands. Under a 2015 agreement with USEPA that redefined the In Lieu program, going forward, mitigation funds are to be allocated by five service areas/water regions within the state. The water regions each comprise between three and five NJ Watershed Management Areas. As of the end of 2016, the Council had allocated all available mitigation funds to current projects. At some point when additional credits are needed, NJDEP will publicize an RFP for projects in the particular ecoregion(s) where the credits are needed.

MUNICIPAL OPPORTUNITIES for MITIGATION

Environmental commissions often develop a familiarity with their town's water resources through

doing site walks for development proposals, commenting on LOIs and wetland permits, developing the town's environmental resource inventory (ERI), and participating in stream stewardship. Municipal planning staff and environmental commissions are in a good position to identify local areas where wetlands have been disturbed, and to maintain an inventory of disturbed wetlands on public property that could serve as restoration sites. They can include information about potential wetlands restoration sites, as well as information about any prior mitigation projects, in the wetlands section of the town's ERI.

A municipality and its environmental commission may, in response to a Mitigation Council RFP (see previous section), also propose a mitigation project, either on their own or in collaboration with a local watershed group, land trust or other community group(s) that has technical expertise or volunteer resources. The combination of municipal and nonprofit partners can sometimes expand the field of potential funders. It is unlikely that the Council's mitigation funding would cover all costs, so the municipality and its partners would likely need to find additional funding sources.

Case study of D&R Greenway, Isles and Trenton Partnership to restore a section of Cadwalader Park

Beginning in 2009, the City of Trenton collaborated with D&R Greenway, a regional land trust organization based in Princeton, and Isles, Inc., a Trenton-based community organization, on a wetlands mitigation project to improve the quality of water entering the Delaware River, increase biodiversity, and provide environmental education opportunities in a former animal paddock area on the perimeter of the City's historic Cadwalader Park.

D&R Greenway's staff proposed the project to the Wetlands Mitigation Council, and also applied for grants from other sources. Wetlands mitigation funds covered the costs of engineering, grading plans, delineation, surveying and State permits – common ingredients of a wetlands restoration project that can be more expensive than the physical work. The City's Parks & Recreation and Finance Departments and D&R collaborated to carry out the plan, using professional contractors for the heavy work and local volunteers to assist with planting and other tasks.

The six-acre site has been converted from a degraded area into vibrant meadows, wetlands and woodland. It now provides habitat for many species of wildlife, and will serve as an outdoor classroom where local students can learn about wetlands ecosystems and nature on field trips led by D&R.



Wood Frog, vernal pond breeder

Chapter IX

Local Planning, Site Plan Review, Ordinances and Other Practices for Wetlands Protection

Despite New Jersey's comparatively strong wetlands law and regulations, freshwater wetlands are still being lost in the state through the *FWPA* permit process. The *Act* discourages development in wetlands, but does not prohibit it in many circumstances. Both Statewide General and Individual Wetlands Permits allow development that impacts or destroys wetlands when the applicant has shown that there are no practicable alternatives and has incorporated strategies to minimize impact, or the impacts are considered to be minimal.

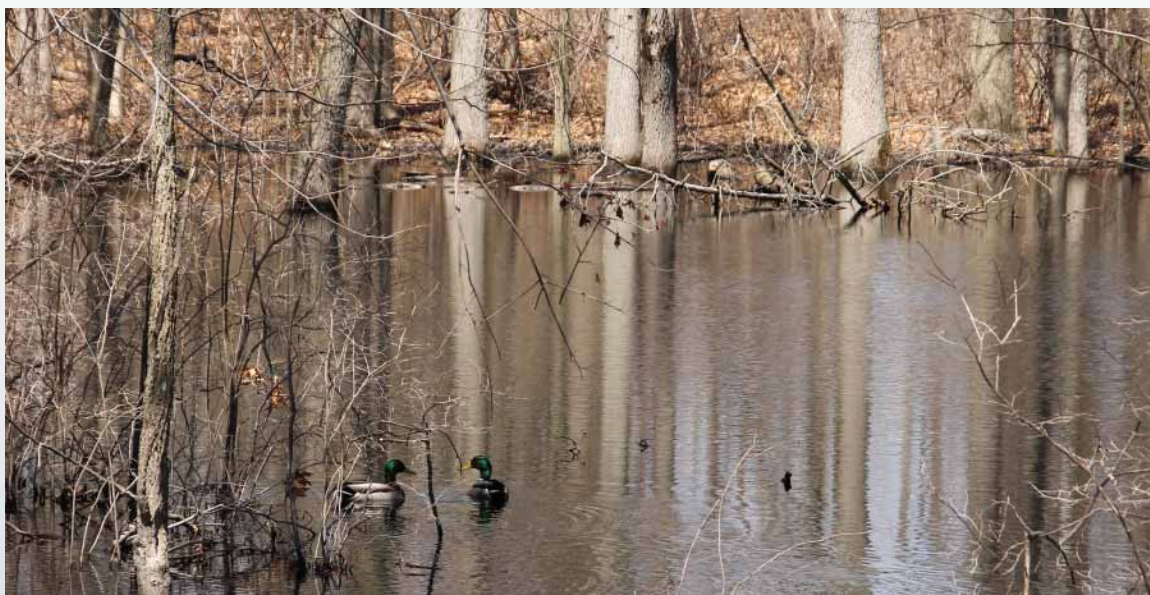
From 1988 to 2001, NJDEP's annual reports to the US Environmental Protection Agency showed that 1,793.3 acres were lost due to permit activity, an average of about 138 acres a year. NJDEP annual reports from 2003/2004 through 2013/2014 show:

- 676 acres filled under General permits (approx. 61 acres per year)
- 215 acres filled under Individual permits and modifications (approx. 20 acres per year)
- Total loss of 891 acres (average of 80 acres lost per year) in that time period.

LAND USE PLANNING, SITE PLAN REVIEW and ORDINANCES

Through their power to regulate land use, delegated to them by the State of New Jersey in the *Municipal Land Use Law (MLUL)* (NJSA 40:55D -1 et seq.), municipalities have many opportunities to take actions that will complement the provisions and intent of the *Freshwater Wetlands Protection Act*. The provisions of the MLUL are intended to promote appropriate use or development of all lands in the State in a manner that will protect public health, safety and welfare.

Although New Jersey's wetlands law preempts municipalities from regulating wetlands directly, it does not supersede the provisions of the MLUL that empower municipalities to designate (zone) appropriate uses and densities for land, or to plan for open space. Nor does State law prohibit them from adopting land use ordinances with a general purpose(s) that incidentally protects wetlands.



Vernal pond

Master plan, zoning and the environmental resource inventory

The MLUL charges planning boards with the job of preparing, adopting, and updating a municipal master plan that lays out a vision for land use based on the characteristics of the land and the needs of the community. The governing body adopts a zoning ordinance and other land use ordinances to implement the vision in the master plan, providing specific requirements and standards for subdivision and development.

A municipal master plan must have a land use element that identifies areas appropriate for various uses – residential, commercial, industrial, agricultural, etc. – and the intensity (density) of that development, as well as areas appropriate for protection – open space preservation, greenways, historic and agricultural preservation. These determinations should be based on an understanding of the physical character, capacity and ecological/natural resource value of those lands and resources.

A municipal environmental resource (ERI) is an important source document for the master plan, and is typically adopted as part of the master plan or as an appendix to it. An ERI identifies and describes a town's wetlands, floodplains, soils, geology, topography, forests, rivers and other physical characteristics that the municipality should consider in its land use planning and decisionmaking.* The ERI also serves as the basis for a master plan conservation element, which contains goals and strategies for preservation and conservation of natural resources.

The MLUL encourages environmental commissions to develop an ERI. NJSA 40:55D-27 states that once an environmental commission has prepared and submitted an "index of the natural resources of the municipality" to the planning and zoning board, the boards shall provide copies of all development applications to the commission, enabling the commission to review and comment on the environmental aspects of development proposals. Wetlands maps and information in the ERI can alert the commission and municipality to the possibility that a parcel proposed for development has or abuts wetlands. This 'red flags' the need for the applicant to submit an LOI as an element of application

completeness, if the town's checklist ordinance requires that. If the LOI confirms wetlands or a transition area, the applicant will need to alter the development to avoid the wetlands, or obtain a *FWPA* permit.

With maps and other information on areas of hydric and poorly drained soils and freshwater wetlands, the environmental commission and planning board can recommend uses for them consistent with their environmental sensitivity. For example, tracts containing significant amounts of wetlands can be identified for preservation through the town's open space acquisition program. They could also be designated for large lot zoning and included in overlay districts that require conservation design (placing development on the least sensitive areas of a parcel and deed restricting the sensitive areas) or that are eligible for lot-size averaging. Other strategies include 'usable lot area' ordinances (requiring a minimum developable area on a lot, free of environmental constraints such as regulated wetlands, steep slopes or water features) and noncontiguous cluster ordinances (allowing transfer of development rights/density from an environmentally-sensitive parcel to another parcel that is more suitable for development).

Other ordinances and best practices

A local stream corridor ordinance that requires a riparian buffer zone (free of disturbance) along both sides of a stream will incidentally provide protection to wetlands that occur adjacent to the stream. State law sets certain riparian buffer widths (50 to 300 feet depending on the classification of the stream), but municipalities can require wider buffers, by ordinance, where appropriate.

Local ordinances that limit tree removal or soil disturbance on uplands and slopes protect the quality of wetlands and transition areas below by preventing sedimentation and nutrient overload from stormwater runoff. Municipal tree planting and stream bank restoration projects can provide similar benefits.

All efforts to manage and control stormwater on development sites by implementing State standards (i.e.; maintaining the volume and quality of stormwater runoff at pre-development levels, using nonstructural means where possible) during site plan review, and by imposing stricter local standards where merited, have positive impacts on nearby or downstream wetlands, protecting them from pollutants and excessive inundation. Minimizing groundwater withdrawals through density control (zoning) and water conservation initiatives also benefits wetlands when groundwater withdrawals are excessive, associated wetlands dry up.

* See ANJEC's Resource Paper "The Environmental Resource Inventory: ERI" www.anjec.org/pdfs/ERI2013.pdf Digital and graphical information about the natural features of municipalities in New Jersey is available from NJDEP on NJ GeoWeb or as GIS data downloads from www.nj.gov/dep/gis/. New Jersey data layers include wetlands, floodprone areas, topography, soils (Natural Resource Conservation Service soil data), contaminated sites, recharge, soils, habitat, rare species and many other features.

Proper attention to soil management and sediment control during construction is beneficial to wetlands. The municipal construction official should monitor sites to ensure that silt fences, hay bales, gravel paths and other controls are in place before and throughout construction, and that stockpiled soil is covered. Phasing of disturbance is another soil management practice that can protect nearby wetlands. In short, most construction practices that protect streams and lakes also protect wetlands.

Local development review

A municipality can adopt a provision in its development application completeness checklist ordinance requiring applicants to submit a Letter of Interpretation (LOI) or Letter of Exemption (LOE) when maps or other information indicate that a proposed development may involve wetlands or a wetlands transition area, including a transition area for wetlands that are offsite. It is in the applicant's and the town's interest to know if and/or where wetlands and transition areas are located on a site, since wetlands considerations are an important factor in subdivision and site plan design. Staff for municipal boards can also make the applicant aware of the advisability of conferring with NJDEP about permit needs through a pre-application conference (see Chapter VI, page 22). With complete site information and an understanding of the wetlands law, an applicant may be able to alter a project's design to avoid wetlands impacts, and thereby the requirement for a

wetlands permit, or at least to minimize permit requirements. This will be cheaper and easier in the long run and will reduce wetlands impacts.

Time limits for municipal approval

The MLUL sets forth strict time limits for municipal approval of development applications (see Table 5 below), keyed to the date an application is deemed complete. If the municipality has adopted a checklist to determine when an application is complete, the time limits do not start until all items on the checklist are submitted, or a waiver for an item is granted. The municipal checklist can include the following kinds of requirements:

- copies of site plan maps showing site topography, drainage, vegetation, proposed grading, landscaping, soil erosion and sediment control
- an Environmental Impact Statement
- delineation of wetlands or transition areas on site, verified by an LOI or LOE from NJDEP.

The municipality may also require submission of a map showing the State approved wetlands delineation and transition area boundaries in GIS format, which allows the municipality to enter the data into its GIS database and maps.

Table 5

MUNICIPAL TIME LIMITATIONS FOR APPROVAL OR DENIAL OF DEVELOPMENT APPLICATIONS

	Review Time
Preliminary* subdivision of 10 lots or less	45 days
Preliminary* site plan for 10 acres or less	45 days
Preliminary* subdivision of more than 10 lots	95 days
Preliminary* site plan for more than 10 acres	95 days
Final** site plan and subdivision	45 days
General Development Plan for PUD	95 days
Use variance applications	120 days
Conditional use	120 days

**Preliminary approval gives the applicant the right to construct site improvements. It determines layout and design standards for streets, curbs, sidewalks; lot size; yard dimensions; safe vehicular access; stormwater management.*

***Final approval determines the specific, detailed specifications for the conditions the applicant must meet, including those in the preliminary approval.*

Review times can be extended with the applicant's agreement.

Whitesbog open wetlands



Chapter X

Long-Term Protection for Freshwater Wetlands



Bloodroot (Sanguinaria canadensis)

WETLANDS PRESERVATION

Although state and local regulation do a great deal to protect freshwater wetlands on a large scale, wetlands remain vulnerable to fill and degradation by many small losses permitted under the FWPA. Government purchase of wetlands as preserved open space, or protection through a government-held conservation easement that precludes development, can provide an

Purchase in Fee vs Conservation Easement
Traditional purchase of land, in what is referred to as 'fee simple,' transfers the land and all of its associated rights to the purchaser. Land, including wetlands, may be purchased in fee simple by a federal, state, municipal or county government. The purchase may be at market value or through a bargain sale where the landowner receives tax benefits for the discounted price. Land may also be acquired through landowner donation or bequest. Much municipal and county open space, including freshwater wetlands, is owned in fee simple, which brings with it an obligation to monitor and maintain the land – full control and full responsibility.

Land can also be protected through the sale or donation of a conservation easement. The receiving entity becomes the owner of the right to conserve the land, and the property owner gives up the right to develop or otherwise alter the land. If a state, county or municipal government purchases or accepts a conservation easement, it does not take possession of the land, but owns the conservation rights to it. Although the government entity needs to monitor the land to make sure the easement conditions – no development/disturbance – are respected, there is no obligation to maintain the land, as it is still held by the property owner.

additional layer of long-term protection, particularly when the preserved tract includes uplands or other contributing lands that impact the wetland. Public ownership is not an iron-clad protection, however; government and private proposals for infrastructure such as roads, bridges, pipelines and transmission lines, viewed as providing a public benefit, often receive wetlands permits to cross publicly-owned open space lands.

LOCAL PLANNING TOOLS and LANDOWNER DONATION

Master plan

Local governments can encourage donations of wetlands or other open space areas. An important foundation for preservation at the local level is inclusion of wetlands in the open space, greenway, stream corridor, or conservation element of a municipal or county master plan. This establishes the official preservation goal for targeted areas, fulfills eligibility requirements for State grant and loan applications, and provides for possible tax benefits for donors.

Subdivision and site plan review

During subdivision and site plan review, local government can encourage applicants to donate land or conservation easements on wetlands and other lands included in their greenway, conservation, open space or stream corridor plans. A conceptual plan conference provides a good opportunity for discussion of this option, although the decision to accept a land donation is made by the governing body, not the planning board. Such donations protect the area(s) with critical resources such as wetlands on a site, and can provide a developer with tax savings (see box.)

Local ordinances that preclude development on certain environmentally-sensitive areas like slopes and stream corridors may require that, as a condition of site plan approval, the owner must place a conservation easement on the areas, naming the municipality as the easement owner. Landowners and developers may be

quite willing to give easements as long as they are aware of the town's open space policies at the outset of project planning.

Proper mapping of an easement is essential. Local ordinance should require that any easements being placed on a property through the development approval process be marked with permanent ground monuments and surveyed using State Plane or GPS coordinates for incorporation into the municipal GIS database and tax maps.

Tax deduction criteria

Under the Internal Revenue Service criteria, to qualify for a tax deduction, an easement donation must be made in perpetuity and must be given to a qualified organization such as a land trust or public agency/government, and must provide one of the following functions:

- public recreation and/or education;
- significant natural habitat;
- scenic enjoyment;
- contribution to local government policy; or
- historic preservation.

LAND PURCHASE

Local government, working on its own with its environmental commission or open space committee or with a land trust, can purchase areas of land or easements to protect wetlands. As mentioned earlier, an important first step for municipal or county open space preservation involves deciding what lands are in need of protection due to their natural resource functions, and including them in an open space or greenway/stream corridor plan, or the conservation element of a municipal or county master plan.



Receipt of Green Acres funding places an obligation on a municipality to ensure that all of its existing publicly-owned open space is protected. Towns must list all of their open space on an inventory called a municipal ROSI (Recreation & Open Space Inventory) and cannot sell or develop those areas for other purposes. In certain instances

Swamp at Rockaway River Wildlife Management Area

Reserving land for public use

Another important planning option is for a municipality to designate lands as "reserved for public use" on the master plan or an official map, if one exists. This option creates a window of opportunity for a municipality to arrange to acquire land proposed for development. According to the Municipal Land Use Law (NJSA 40:55D-44), if an official map designating land as "reserved for public use" has been adopted before a development application is received, the developer must leave any "reserved" acreage vacant in the site design. The municipality then has one year to carry out acquisition of the reserved area through purchase or condemnation, but must compensate the owner for the temporary lost use as well as the purchase price. This option allows municipalities to take positive action to protect sensitive lands at the point where they are proposed for development, if the town has not acted earlier.

Funding sources

Green Acres – The New Jersey Green Acres Program (www.nj.gov/dep/greenacres) offers matching grants and low interest loans to municipal and county governments for land acquisition, and grants to tax-exempt nonprofit organizations that qualify as "charitable conservancies." To encourage a comprehensive approach to open space preservation, Green Acres offers a program of Planning Incentive Grants. Counties and municipalities that have a dedicated source of open space funding (generally an open space tax/trust fund) and an open space and recreation plan approved by Green Acres can apply for grants in a manner that is similar to a credit line. The parcels designated in the approved preservation plan are "pre-screened" so that local government does not have to start from scratch in the application process for each purchase.

Green Acres and the NJ Statehouse Commission will allow an exchange for land of equal environmental value, or other replacement or fee arrangement.

Local Open Space Taxes – Many New Jersey counties and municipalities have established dedicated open space taxes through public referendum. The revenues from a municipal open space tax can preserve open space directly, can be used to pay debt service on funds that are borrowed to pay for open space, or can serve as a match for land preservation grants. Over 200 of the 565 municipalities in NJ have an open space trust funded by a dedicated tax. For more information on municipal and county open space taxes, see ANJEC's publication "A Handbook for Public Financing of Open Space in New Jersey" www.anjec.org/pdfs/PublicFinancingOpenSpace.pdf.

Regardless of the source of funding, when a local government decides to purchase land containing wetlands, it should confirm that the required appraisals are based on the reduced fair market value of wetlands, due to their lack of development potential, as indicated in the Future Wetlands Service Area (FWSA) definitions at NJSA 7-7A-1.4. (See below, 'Assessed Value of Wetlands').

Land Trusts – Land trusts are nonprofit organizations established to accomplish specific goals such as land conservation, farmland preservation, or habitat preservation. They can be local, state, or national in their scope of operation. Land trusts can assist local government in acquiring open space land or easements, including land with wetlands. Because of their private, nonprofit, tax-exempt status, land trusts can also accept donations of land or easements, and can do outreach and education to help donors understand the potential tax benefits of land donation and bargain sales.

Working with land trusts offers local government many advantages. Land trusts do not have the same constraints as government, so can act more flexibly and quickly to purchase or encumber land, and may be willing to hold and manage a tract of land until a public agency is able to buy it. As private organizations, land trusts can work more cooperatively with landowners than government can. Other land trust options include the ability to sell off or develop a portion of a tract in order to fund preservation of the remainder. Land trusts can also obtain Green Acres grants.

Assessed value of wetlands

The *New Jersey Conservation Restriction and Historic Preservation Act* (NJSA 13:8B 1 to 9) and the *Freshwater Wetlands Protection Act* direct local tax assessors to

take conservation easements and wetlands into account when they are valuing land. In November 1986 the New Jersey Superior Court affirmed that property encumbered by a perpetual easement that benefits the public should be assessed at a lower value. The court held that:

"The taxpayer, in giving up in perpetuity the right to do anything other than keep the property in its natural state, has seriously compromised the property's value as a marketable commodity. The adverse impact of such an encumbrance on market value must be taken into account in arriving at an assessed valuation."

– Village of Ridgewood and Borough of Midland Park v. The Bolger Foundation.

When a municipality proposes to purchase land containing wetlands, it should ensure that the required appraisal(s) is based on the fair market (generally lower) value of the wetlands.

Municipal outreach to landowners

Local government can provide information to the public about the benefits of donating local land or easements for conservation purposes. In addition to explaining the environmental benefits of preserving wetlands and other open land, a municipality can make landowners aware that they may qualify for a tax deduction for a land donation or bargain sale. Environmental commissions can take on this landowner education task, and then refer property owners to land trusts for specific information concerning individual properties. **ADD CASE STUDY ON BETHLEHEM TOWNSHIP EC'S LAND-OWNER OUTREACH PROJECT?**

Municipal actions to enhance acquisition

Public ownership or control of land as open space, with or without wetlands, is enhanced by articulating the municipal intent and commitment to carry out monitoring and protection of the land to protect its natural resource values. In the case of easements held by the municipality, to ensure that the terms of an easement are respected, a local ordinance can require:

- periodic inspection of easements by town staff, a board or organization designated by the governing body, such as an environmental commission or a local land trust;
- annual written reports to the governing body on the inspection, documenting any changes to the land; and
- regular communication with owners and contact with new owners of property containing a public easement, to assure that new owners/occupants understand the provisions of the conservation easement.

Model Language for Protecting Acquired Open Space

Plainsboro Land Use Ordinance

Section 101.24.2

Land permanently set aside for agricultural, conservation, open space and/or recreational uses may either be offered for dedication to Plainsboro Township, deed restricted to a nonprofit organization found acceptable to the Township Planning Board and/or protected by a homeowners' community association. Open space which is not accepted for public use by the Township Committee shall be protected by legal arrangements satisfactory to the Planning Board sufficient to ensure its maintenance and preservation in perpetuity for its intended purpose. Covenants or other legal arrangements shall specify ownership of the open space; method of maintenance; responsibility for maintenance; maintenance taxes and insurance; compulsory assessment provisions; guarantees that any homeowners' association formed to own and maintain open space will not be dissolved without the consent of the Planning Board; and any other specifications deemed necessary by the Planning Board. The open space left unbuilt after development shall be maintained in accordance with a land management plan prepared by the developer and accepted and approved by the Planning Board. The developer shall provide copies of deed covenants with prospective purchasers, or conservation easements with the township, describing land management practices to be followed by party or parties that are responsible for open space. Further subdivision of open space land, or its use for other than agriculture, conservation and recreation, shall be prohibited.

tural Conservation Easement Program's Wetland Reserve Enhancement Partnership is a voluntary program that provides technical and financial assistance to eligible partners and landowners (including state and local governments) to restore, enhance, and protect agricultural wetlands to improve wildlife habitat, through conservation easements or restoration cost-share agreements.

Landowners can learn more about Wetland Reserve opportunities by contacting their local USDA Service Center (www.nrcs.usda.gov/wps/portal/nrcs/main/nj/contact/local/).

BENEFITS OF WETLANDS PRESERVATION

Wetlands preservation benefits both the public and the individual property owner. Property owners or developers who preserve wetlands:

- may enjoy tax benefits;
- may reduce their costs;
- complete projects more easily and quickly by avoiding some regulatory requirements; and
- gain satisfaction for protecting a valuable natural resource.

The public gains a unique and important resource – special areas that shelter wildlife and endangered species, prevent flooding and protect water quality. Wetlands are an important element of green infrastructure practices that seek to maximize the services that natural systems provide to humans. It is directly related to the services that natural systems, such as floodplains and coastal wetlands, provide that greater emphasis has been placed on restoring the functions of these systems, especially after tropical storm Sandy. Local governments need to make a concerted effort to provide information about the benefits of wetlands preservation and the options for protection available to their boards, staff and residents.

SPECIAL OPPORTUNITIES FOR AGRICULTURAL LANDS

Vast amounts of wetlands were lost in the last century through conversion to agricultural use. This conversion involved draining wetlands via trenches and field tile piping. Today, there are abundant opportunities for wetlands restoration on farms, in New Jersey and elsewhere.

The Natural Resource Conservation Service (NRCS) of the US Department of Agriculture has programs to assist farmers with conservation initiatives. The Agricul-



Appendix I

Internet Resources

*Thread-leaved sundew (Drosera filiformis),
grows in acidic bogs*

Government

- NJDEP NJGeoWeb Web-based Mapping Application www.nj.gov/dep/gis/geoweb/splash.htm
- NJDEP Bulletin – Notice of Permit Applications www.nj.gov/dep/bulletin/
- NJDEP Bureau of Coastal & Land Use Compliance & Enforcement www.nj.gov/dep/enforcement/clue.html
- NJ Wetlands Mitigation Council www.nj.gov/dep/landuse/mitigate.html
- NJ Freshwater Wetlands Protection Act (FWPA) NJSA 13:9B www.nj.gov/dep/landuse/lawsregs.html ?
- NJ FWPA Regulations NJAC 7:7A www.nj.gov/dep/rules/rules/njac7_7a.pdf
- NJDEP Freshwater Wetlands Webpage www.nj.gov/dep/landuse/fww/fww_main.html
- US Environmental Protection Agency (EPA) Wetlands Webpage www.epa.gov/wetlands
- NJ County Soil Conservation Districts www.nj.gov/agriculture/divisions/anr/nrc/conservdistricts.html
- USDA NRCS Web Soil Survey www.nrcs.usda.gov

Organizations

- ANJEC, Association of NJ Environmental Commissions www.anjec.org
- Association of State Wetland Managers www.aswm.org
- Edison Wetlands Association www.edisonwetlands.org
- Hackensack Riverkeeper www.hackensackriverkeeper.org
- Izaak Walton League www.iwla.org
- NY/NJ Baykeeper www.nynjbaykeeper.org
- Ducks Unlimited NJ www.ducks.org/new-jersey
- Vernal Pool Association www.vernalpool.org

Publications & Wetland Topics

- NJDEP Vernal Pools Information www.state.nj.us/dep/fgw/ensp/vernalpool.htm
- Wetlands Primer, Stony Brook-Millstone Watershed Assn. www.stonybrookmillstonewatershed.org
- National Wetlands Newsletter (by subscription) Environmental Law Institute www.wetlandsnewsletter.org
- Meetings, Conference Announce www.wetlandsnewsletter.org
- NJ Wetlands Research www.state.nj.us/dep/dsr/wetlands/
- Potential Vernal Habitat Sites www.state.nj.us/dep/dsr/wetlands/
- Threatened and Endangered Species of NJ www.state.nj.us/dep/fgw/tandespp.htm
- Threatened & Endangered Species Hab. Protocols www.nj.gov/dep/landuse/download/fw_o16.pdf
- USDA Plants Database <http://plants.usda.gov>
- Vernal Pools Booklet www.state.nj.us/dep/fgw/ensp/pdf/vernalpool02.pdf



Sphagnum mat in autumn

Sphagnum sprites (Nehalennia gracilis) reside in swamps and marshes with abundant sphagnum



Green wood orchis (Platanthera clavellata), is an uncommon plant that grows in wet woods

Appendix II

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Obligate and Facultative Vernal Pool Breeding Amphibians:

Taken from NJDEP Vernal Pools webpage www.state.nj.us/dep/fgw/ensp/vernalpool.htm

Obligate Vernal Pool Breeding Amphibians:

Eastern tiger salamander (*Ambystoma t. tigrinum*) **Endangered**

Marbled salamander (*A. opacum*) **Special Concern**

Spotted salamander (*A. maculatum*)

Jefferson salamander (*A. jeffersonianum*) **Special Concern**

Blue-spotted salamander (*A. laterale*) **Endangered**

Wood frog (*Rana sylvatica*)

Eastern spadefoot toad (*Scaphiopus holbrookii*)

Facultative Vernal Pool Breeding Amphibians:

Green frog (*Rana clamitans melanota*)

Bullfrog (*R. catesbiana*)

Pickerel frog (*R. palustris*)

Southern leopard frog (*R. utricularia*)

Carpenter frog (*R. virgatipes*) **Special Concern**

Northern cricket frog (*Acris crepitans*)

Northern spring peeper (*Pseudacris crucifer*)

New Jersey chorus frog (*P. triseriata kalmii*)

Upland chorus frog (*P. triseriata ferarium*)

Northern gray treefrog (*Hyla versicolor*)

Southern gray treefrog (*H. chrysocelis*) **Endangered**

Pine Barrens treefrog (*H. andersonii*) **Threatened**

Four-toed salamander (*Hemidactylium scutatum*)

Long-tailed salamander (*Eurycea l. longicauda*) **Threatened**

American toad (*Bufo americanus*)

Fowler's Toad (*B. fowleri*) **Special Concern**

In addition to amphibians, there are several reptiles that inhabit vernal pools on a seasonal basis, primarily to eat the eggs and larvae of amphibians:

Wood turtle (*Glyptemys insculpta*) **Threatened**

Spotted turtle (*Clemmys guttata*) **Special Concern**

Mud turtle (*Kinosternon subrubrum*)

Eastern painted turtle (*Chrysemys picta picta*)

Common snapping turtle (*Chelydra serpentina serpentina*)



Northern red salamander (*Pseudotriton r. ruber*) occurs in springs, seepages and swamps



Spotted salamanders (*Ambystoma maculatum*) developing in an egg mass

Four-toed salamander (*Hemidactylium scutatum*) resides in sphagnum mats in boggy areas and floodplains



Other NJDEP Regulatory Programs Requiring Permits

(CAFRA) Coastal Area Facilities Review

Permits are required in the designated coastal zone for a variety of projects, including those located in tidal wetlands. Facilities regulated depend on how many units are proposed and how close to the water they would be. The rules place limits on impervious surface.

Municipal Stormwater Permits are required for municipal stormwater collection systems. The permit requirements include: good housekeeping measures by public works departments, enactment of ordinances to control litter, pet waste, and wildlife feeding, enactment of a stormwater management ordinance to control new development, and mapping of stormwater outfalls.

Sewage Extension and Connection

Permits are required for connections involving 8,000 gallons or more of wastewater per day, or if the extension serves more than two buildings, or extends along an easement to ensure that wastes are properly collected, and facilities have sufficient capacity to receive additional wastes.

A Flood Hazard Area (Stream Encroachment) Permit is required for any alteration of the stream or floodplain, and construction, installation, or alteration of any structure or permanent fill along, in, or across the channel or floodplain of a stream.

A Wastewater Management Plan is required of municipal, county or regional sewer authorities. The plan must demonstrate how a particular MUA will meet the sewage needs of its area for the next 20-year period. It must be consistent with the appropriate areawide Water Quality Management Plan.

401 Water Quality Certification (WQC).

On July 27, 1988, the DEP took over the responsibility of implementing the *Clean Water Act's* Section 401 Water Quality Certification (WQC) program. All projects requiring a federal 404 permit for the discharge of dredged or fill material into state open waters and/or wetlands require a WQC to ensure that all such activities are consistent with New Jersey's Water Quality standards and DEP policies related to water quality management.

Waterfront Development Permits are generally required for upland construction projects outside the Coastal Area Management zone within 500 feet of the high tide line as well as for all activities below the mean high water line.

Waterfront Development permits are also generally required for upland construction projects within the *Coastal Area Facility Renewal Act (CAFRA)* zone, including all property up to and including the first property with a permanent building upon it or within 100 feet of regulated waters, whichever is greater. In no case, however, will the zone of regulation extend more than 1000 feet from a beach, dune or wetland pursuant to the *Wetlands Act* of 1970.

Water Quality Management Plan

Consistency is a program to insure consistency of water and wastewater management planning with Section 201 and Section 208 of the *Clean Water Act*. Any permit issued by the DEP must be consistent with the Areawide Water Quality Management Plan.

NJPDES – New Jersey Pollution Discharge Elimination System permits are required for wastewater discharge permits involving discharges to surface or ground

This was the end of the file! It does seem incomplete.

About ANJEC

The Association of New Jersey Environmental Commissions (ANJEC) is a statewide nonprofit organization with headquarters in Mendham. ANJEC has worked with all levels of government and the public to protect the environment since 1969. ANJEC works to establish and support environmental commissions, educate local officials and concerned citizens. ANJEC provides leadership, education and support for environmental commissions and other local boards, and partners with other organizations to advocate for strong State and regional environmental policy. The organizations 2,800 members represent environmental commissions and local boards in approximately 300 municipalities in all 21 counties of New Jersey.

ANJEC's mission is to achieve responsible and sustainable use of New Jersey's natural resources and protection of environmental health.

ANJEC supports the environmental efforts of environmental commissions and local officials through an extensive environmental library, and information and referral service (The ANJEC Resource Center), seminars and conferences, special publications, the quarterly newsletter (The *ANJEC Report*), twice-monthly digital newsletter (The *ANJEC News*) and a comprehensive website www.anjec.org. Each year, ANJEC provides trainings for over 1,500 municipal environmental commissioners and local officials. The ANJEC Resource Center answers over 2,000 requests for assistance annually from officials and concerned citizens. The *ANJEC Report* is sent to 2,500 readers quarterly, and special publications are sent to all municipalities and environmental commissions in New Jersey.



American toad (Anaxyrus americanus) breeds in pools and ponded areas in wetlands.

The Beauty of Wetlands Flora

photo collage page 61

- ① *Turk's-cap lily (Lilium superbum) grows in damp meadows and borders of bogs*
- ② *Marsh marigold (Caltha palustris) grows in swamps and wet meadows*
- ③ *Blue flag (Iris versicolor) is common in marshes and wet meadows*
- ④ *Jack-in-the-pulpit (Arisaema triphyllum) well-known plant that grows in wet woods*
- ⑤ *Pitcher plant (Sarracenia purpurea) is an insectivorous plant of acid bogs*
- ⑥ *Southern yellow orchid (Platanthera integra) grows in shallow ponds and marshy areas*
- ⑦ *Skunk cabbage (Symplocarpus foetidus) is widespread in swampy habitats*
- ⑧ *Buckbean (Menyanthes trifoliata) is a bog plant that is rare in NJ*



The Beauty of Wetlands Flora

Photos by Jill Dodd



