



FEMA

The Federal Emergency Management Agency
&
New York State Emergency Management Office



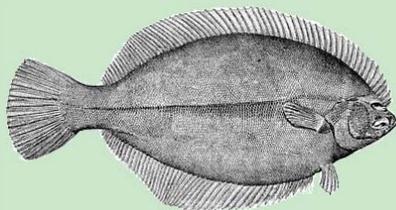
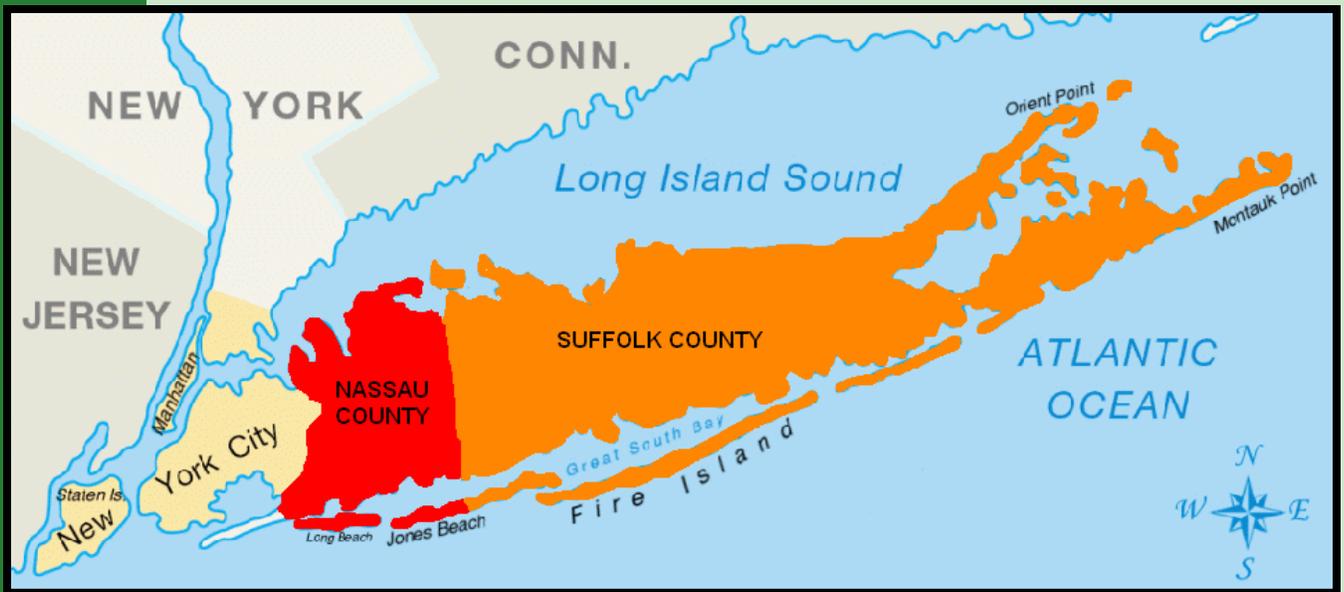
GREENBOOK

Environmental Considerations & Contacts

FEMA 1869-DR-NY

Nor'easter Ida Coastal Damage

Nassau & Suffolk Counties, NY



Winter Flounder



Piping Plover

JANUARY 2010

The Federal Emergency Management Agency (FEMA) and the New York State Emergency Management Office (NYSEMO) are here to assist communities in responding to and recovering from the damages as a result of Nor'easter Ida in November 2009. FEMA-1869-DR-NY Disaster Declaration designated that Public Assistance funding will be available to State and local governments and certain private nonprofit organizations for emergency work and the repair or replacement of disaster-damaged facilities in Nassau and Suffolk Counties, New York. Hazard Mitigation Grant Program funding is available State-wide to fund actions taken to prevent or reduce long term risk to life and property from natural hazards.

Incident Period:	November 12-14, 2009
Declaration Date:	December 31, 2009
Special Note:	Damages must have occurred within the Incident Period to qualify for FEMA funding

As you endeavor to repair and rebuild your communities, environmental and historic preservation concerns may be the last thing on your mind. However, as with all federal funding, certain requirements related to the environment must be fulfilled. This brochure is designed to provide an overview of environmental and historic preservation compliance and to facilitate your applicant process. This is not intended to be inclusive of all possible applicable laws, but highlights those routinely encountered in disaster recovery. It cannot be overemphasized that projects requiring an environmental review must be documented and approved **prior** to initializing any constructions or repair. Please be aware that failure to comply may jeopardize federal funding.

It is necessary for any applicant receiving FEMA and State assistance to obtain and comply with all applicable local, state and federal permits. Two example permits that an applicant may need to obtain include a U.S. Army Corps of Engineers' Section 404 permit and a Section 401 Water Quality Certification from the New York State Department of Environmental Conservation for projects located in water or with discharge to water resources. Applicants are also responsible for conducting work in compliance with applicable federal, state and local laws and regulations.

FEMA conducts streamlined environmental & historic preservation reviews of proposed actions in accordance with Federal laws. FEMA is the lead federal agency for consultations with resource agencies, such as New York State Historic Preservation Office (in accordance with Section 106 of the National Historic Preservation Act), U.S. Fish & Wildlife Service (in accordance with Endangered Species Act (ESA) and Fish & Wildlife Coordination Act), and the National Marine Fisheries Service (in accordance with ESA and Magnusson-Stevens Fishery Conservation Act). Consultations such as the above and compliance with the associated laws and regulations are also typically triggered by permit applications to agencies, such as the U.S. Army Corps of Engineers. It is important that we all work together and share information so as not to duplicate efforts when working with resource agencies.

If you have any questions or have information about environmental & cultural resources in your area, please discuss with the NYSEMO/FEMA Team assigned to assist your community. NYSEMO is the main point of contact for applicants and the public.

New York State Emergency Management Office

1220 Washington Avenue
Building 22, Suite 101
Albany, NY 12226-2251

Telephone: (518) 292-2200 Warning Point
Recovery Office Facsimile: (518) 322-4984
Recovery Office Phone: (518) 292-2293
www.semo.state.ny.us

The following are common acronyms used in this publication and other communications regarding environmental and cultural resources.

CBRA/CBRS	Coastal Barrier Resource Act/Coastal Barrier Resource System
CEHA	Coastal Erosion Hazard Area
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CZM or CZMA	Coastal Zone Management & Coastal Zone Management Act
EA	Environmental Assessment
EFH	Essential Fish Habitat
EHP	Environmental Planning & Historic Preservation (FEMA Special Considerations Team)
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FINS	Fire Island National Seashore
FIRM	Flood Insurance Rate Map
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic & Atmospheric Administration
NPS	National Park Service
NYSDEC	New York State Department of Environmental Conservation
NYSDOS	New York State Department of State
NYSEMO	New York State Emergency Management Office
NYSHPO	New York State Historic Preservation Office
NRCS	US Department of Agriculture-Natural Resource Conservation Service
SCWD	New York State's Soil & Water Conservation Districts
SEQRA	State Environmental Quality Review Act
SPDES	State Pollutant Discharge Elimination System
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish & Wildlife Service

Environmental Laws and Project Requirements

The National Environmental Policy Act (NEPA) defines the primary environmental laws and executive orders that govern the review process. Some projects with special historic and environmental issues will require additional consultation with FEMA and the appropriate State and Federal agencies. The State Environmental Quality Review Act (SEQRA) is the State equivalent of NEPA.

<p>Federal Laws</p> <ul style="list-style-type: none"> National Environmental Policy Act Endangered Species Act National Historic Preservation Act Clean Air Act Clean Water Act Rivers and Harbor Act Coastal Zone Management Act Resource Conservation and Recovery Act CERCLA (Superfund) Farmland Protection Policy Act Magnusson-Stevens Fishery Conservation and Management Act Marine Mammal Protection Act Executive Order for Wetlands Protection Executive Order for Floodplain Management Executive Order for Environmental Justice 	<p>Some projects proceed without detailed review</p> <ul style="list-style-type: none"> Emergency Protective Actions and Debris Removal Repairs to pre-disaster condition or temporary repairs (unless historic structure) <p>Some projects require environmental review</p> <ul style="list-style-type: none"> Debris disposal & debris burning Change in project footprint Involving hazard mitigation Involving designated habitat, wetlands, water resources, coastal zone or floodplains <p>Some projects require review and agency consultation</p> <ul style="list-style-type: none"> Historic Structures/Districts New ground disturbance Improved or alternate projects Other projects where the scope of work has changed
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Information requested for environmental compliance

Applicants can help expedite the federal agency environmental and historic preservation review by working with their assigned NYSEMO/FEMA Team to develop:

- Clear and complete scope of work
- Existing environmental documentation, including existing USACE/NYSDEC permits
- Photos—extra photos for historic structures and areas of concern
- Sketches or Design Plans
- Maps & GPS Coordinates of Project Area
- Description of Project Area (landscape surrounds, such as wetlands, forest, Pinelands, etc.)
- Date of construction for man-made structures
- Community information on potential public opposition to project

BEACHES

- **Provide copies of existing permits for beach work & sand dredging areas.**
- **Identify any existing Environmental Assessment (EA) documents and plans for managing beaches for threatened and endangered species.**
- **Are there any known Cultural Resource concerns—shipwrecks, historic piers?**
- **What will be the source of sand for beach restoration (i.e. offshore dredging, inlet, nearshore dredging, or trucked in from upland source)? Will the sand be similar grain size to existing or pre-disaster sand grain size?**
- **Provide designs (cross-sections, profiles), estimated volume of sand lost during storm event and volumes to be renourished.**
- **Are there any plans to construct an improved project (beach berm or dune) beyond pre-disaster conditions?**
- **Identify the anticipated schedule for construction. Timing is important for evaluating potential impacts to endangered species and fisheries habitat.**
- **Does the applicant plan to re-vegetate any of the dunes with plants such as beach grass?**
- **Is the applicant aware of New York State Coastal Erosion Hazard Area (CEHA) requirements, and does the applicant have access to CEHA maps through their local government and/or local floodplain administrator?**

Water Resources & Environmental Permits

Water Resources include, but are not limited to, rivers, streams, creeks, lakes, ponds, freshwater & tidal wetlands, bays and oceans.

There are many local, State and Federal guidelines and rules regarding protection of water resources. The applicant needs to ensure that all consultation and permit requirements are met. This may be as simple as a phone call to a regulatory agency to determine no permit is needed, or the applicant may be required to obtain and comply with several permits.

Obtaining authorization/permits is the responsibility of the applicant or person performing the work and must be done **prior to initiating any site activity**. Care should be taken to document all compliance. Copies of permits should be submitted to NYSEMO. The NYSEMO/FEMA Team will review projects to verify permits have been obtained. **Funding may be denied or jeopardized if work was conducted without prior authorization/permits.**

Commonplace repair-to-existing condition projects may be covered under a U.S. Army Corps of Engineers' (USACE) Nationwide Permit and require less time to obtain permits from both USACE and New York State Department of Environmental Conservation (NYSDEC). Unique projects or projects with potential to adversely effect a natural or historic resource may require more time-intensive individual permits.

Beach nourishment projects will typically need tidal wetland permits from NYSDEC; and dredging/fill projects would also require permits from NYSDEC and USACE.



USACE Permits

Dredging or construction activities in or over any navigable waterway of the U.S. are regulated by USACE under Section 10 of the Rivers and Harbors Act. Placement of any dredged or fill material in any waters of the United States, including coastal and inland wetlands, is regulated by the Corps under Section 404 of the Clean Water Act.

Contact: Ms. Stacey M. Jensen, (917) 790-8420, USACE New York District, Regulatory Branch.

For more information regarding USACE NY District Regulatory Branch visit:
www.nan.usace.army.mil/business/buslinks/regulat/index.htm.

A summary table of Nationwide Permits is available at www.usace.army.mil/CECW/Pages/nw_permits.aspx. Contact the New York District for more information regarding Regional Conditions for Nationwide Permits.

Applicants may apply jointly for a USACE/NYSDEC permit. This is a joint application process, not a joint permit issuance. Joint application forms and other permit forms are available at:
www.nan.usace.army.mil/business/buslinks/regulat/forms.htm.

Water Resources & Environmental Permits continued...

NYSDEC Permits

Activities in wetlands, waterways and floodplains are regulated by NYSDEC in accordance with the State's Environmental Conservation Law and its implementing regulations.

For more information on regulations and permits visit:

www.dec.ny.gov/regulations/regulations.html (Regulations)

www.dec.ny.gov/permits/6064.html (Coastal Erosion Control Permit Program)

www.dec.ny.gov/permits/6058.html (Freshwater Wetlands Permits)

www.dec.ny.gov/permits/6042.html (Protection of Waters Program)

www.dec.ny.gov/permits/6039.html (Tidal Wetlands Permit Program)

Applicants may apply jointly for a USACE/NYSDEC permit. This is a joint application process, not a joint permit issuance. Joint application form is available at www.dec.ny.gov/permits/6269.html.

Contact: NYSDEC Region 1; SUNY @ Stony Brook, 50 Circle Road, Stony Brook, NY 11790-3409; Office of Regional Permit Administrator; Mr. Roger Evans; Phone: (631) 444-0365; Fax: (631) 444-0360.

Wetlands Mapping

National Wetlands Inventory Mapper:

www.fws.gov/wetlands/Data/Mapper.html.

Wetland mapping is also available at

www.dec.ny.gov/ismaps/ERM/viewer.htm.



Online wetlands mapping is a tool to aid in assessment of environmental site conditions. Field verification of wetlands presence/absence by a qualified wetland professional is recommended to supplement use of online mapping.

Applicants should include the disaster declaration number FEMA-DR-1869-NY on any of their federal and state permit applications.

State Pollutant Discharge Elimination System

New construction projects that will have a discharge to groundwater and/or modified point source discharges may require a permit in accordance with New York State Department of Environmental Conservation's State Pollutant Discharge Elimination System (SPDES). To learn more, visit:

SPDES at www.dec.ny.gov/permits/6054.html

NYS Regulations 6NYCRRPart750: www.dec.ny.gov/regs/4585.html#16213

Contact: NYSDEC Division of Water, (518) 402-8111, dowinfo@gw.dec.state.ny.us

Coastal Zone Management Review

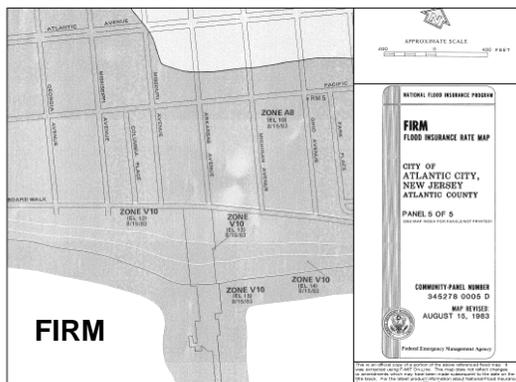
The Coastal Zone Management Act (CZMA) encourages the management of coastal zone areas and provides grants to be used in maintaining coastal zone areas. The Act requires that federal agencies be consistent with the enforceable policies of state coastal zone management programs when conducting or supporting activities that affect a coastal zone. In New York State, administration of the coastal zone management program resides with the New York State Department of State (NYS DOS), Division of Coastal Resources. The CZMA designated area includes islands, beaches, transitional and intertidal areas, salt marshes, etc. and may extend several miles inland. Applicants should review their community's Local Waterfront Revitalization Program when undertaking a project in a coastal zone or protected inland waterway.

NYS Coastal Atlas Maps that delineate coastal zone management areas can be found at: www.nyswaterfronts.com/maps_regions.asp.

For more information on Coastal Zone Consistency visit: <http://nyswaterfronts.com/consistency.asp>.

Contact: NYSDOS-Division of Coastal Resources, 99 Washington Avenue, Suite 1010 Albany, NY 12231-0001, (518) 474-6000.

Floodplains & Coastal Erosion Hazard Areas



Any new construction, substantial improvements to structures, repair of substantial damage to structures, or other development within mapped floodplains must comply with floodplain development standards. Projects undertaken by the private sector, or by any city, town, village, school district, or public improvement district must get a floodplain development permit from the local town, city or village. Projects undertaken or funded by any state agency, or on state land, must comply with the New York Code of Rules and Regulations, Title 6, Part 502: "Floodplain Management Criteria for State

Projects." Contact your local floodplain administrator for more information regarding your community's floodplain management requirements.

FEMA reviews proposed actions within a floodplain in accordance with Executive Order 11988 and the National Flood Insurance Program.

Flood Insurance Rate Maps (FIRM) are available for download from www.fema.gov/hazard/map/firm.shtm.

Coastal High Hazard Areas are designated as Zone V. To learn more visit: www.fema.gov/plan/prevent/floodplain/nfipkeywords/chha.shtm. **Special floodplain management requirements apply for this zone.**

The NYSDEC Division of Water & local governments also regulate coastal areas through the State's Coastal Erosion Control Permit Program. Coastal Erosion Hazard Areas (CEHA) are mapped. CEHA places restrictions on development. CEHA maps are available from NYSDEC.

For more information visit: www.dec.ny.gov/permits/6064.html.

Coastal Barrier Resources System

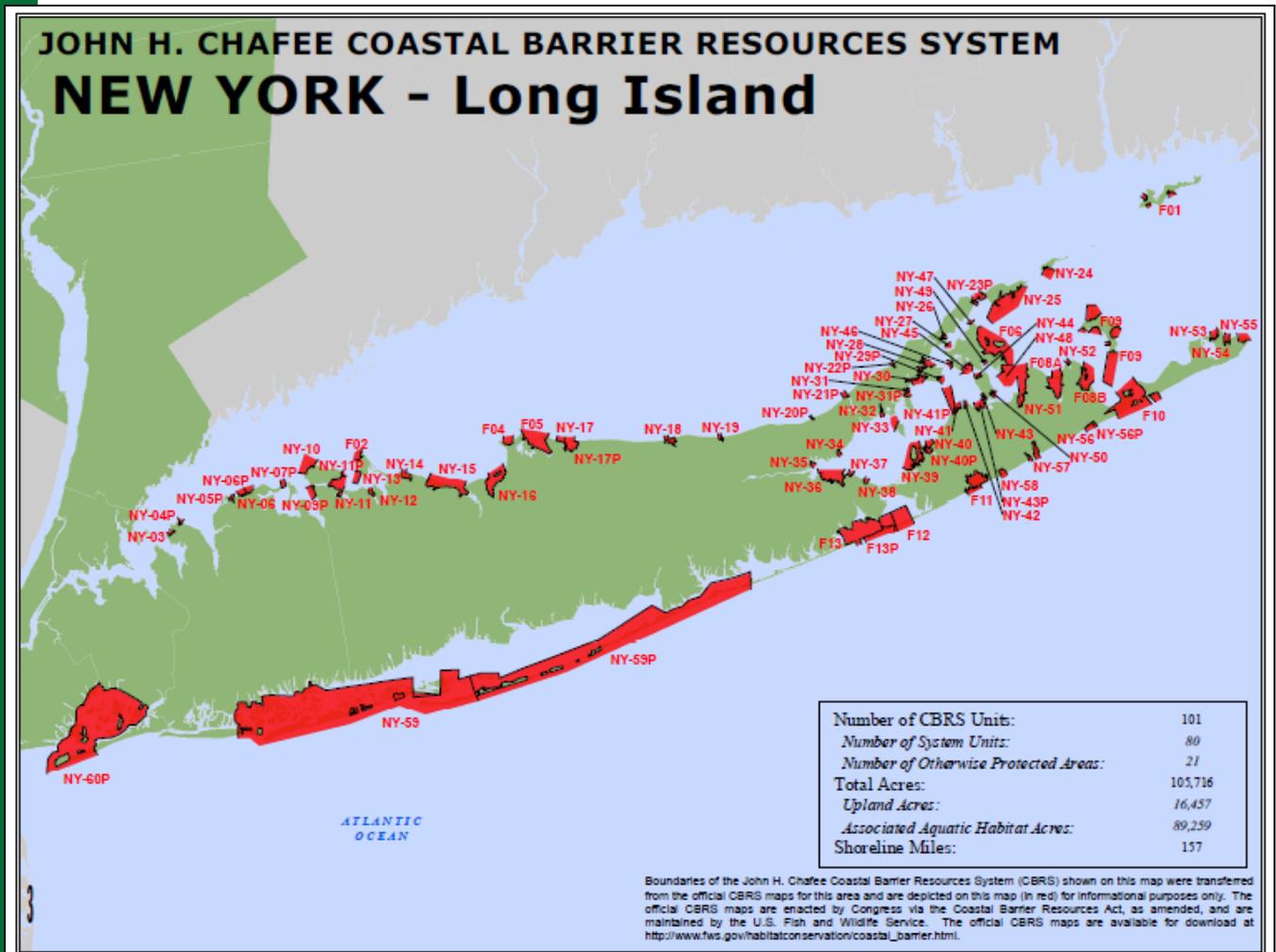
The purpose of the Coastal Barrier Resource Act (CBRA) is to protect ecologically sensitive coastal barriers. The Act establishes the Coastal Barrier Resource System (CBRS) and, with certain exceptions, prohibits new federal expenditures and financial development within the system. The CBRA is administered by the Department of the Interior through the U.S. Fish & Wildlife Service (USFWS). CBRA designated areas are located along the coastal areas including islands, beaches, transitional and intertidal areas, salt marshes, etc. FEMA is required to provide the USFWS the opportunity to submit written comments prior to making any federal expenditures or financial assistance within a CBRS unit.



Official CBRS maps indexed in the below map can be downloaded from:

www.fws.gov/habitatconservation/coastal_barrier.html.

Contact: Mr. Steve Papa, USFWS Long Island Field Office, 3 Old Barto Road, Brookhaven, NY 11719; Phone: (631) 776-1401; Fax: (631) 776-1405; www.fws.gov/northeast/nyfo/.



Fire Island National Seashore

Fire Island and vicinity waters are designated as a National Park. Fire Island National Seashore (FINS) is managed by the National Park Service (NPS). A Special Use Permit from NPS will be required for construction projects located within park boundaries. Applicants should initiate communications with FEMA/NYSEMO Team as soon as practicable to coordinate activities with NPS.



Contact: Mr. Michael S. Bileki, Chief, Natural Resources Management, National Park Service, Department of Interior; (631) 687-4760; Fire Island National Seashore, 120 Laurel Street, Patchogue, NY 11772.

For more information about the park visit: www.nps.gov/fiis/index.htm, and for Special Use Permit information visit: www.nps.gov/fiis/planyourvisit/bulkheads-and-shoreline-erosion-control.htm.



Essential Fish Habitat Assessment

The Magnuson-Stevens Fishery Conservation and Management Act established measures to protect marine & estuarine Essential Fish Habitat (EFH). EFH is defined as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." Federal agencies are required to consult with the NOAA-National Marine Fisheries Services (NMFS) to coordinate projects that may adversely affect EFH.



Winter Flounder

The NY coastal waters off the north and south shores of Long Island are designated for various life stages of the EFH species including: haddock, whiting, red hake, witch flounder, winter flounder, windowpane flounder, summer flounder, yellowtail flounder, ocean pout, Atlantic sea herring, monkfish, bluefish, Atlantic butterfish, surf clam, scup, black sea bass, king mackerel, Spanish mackerel, cobia, ocean quahog, spiny dogfish, long-finned squid, sand tiger shark, blue shark, white shark, dusky shark, tiger shark, sandbar shark, shortfin mako shark, bluefin tuna, yellowfin tuna, skipjack tuna, common thresher shark, basking shark, Pollock, and Atlantic salmon.

For maps of designated EFH and EHF species descriptions, visit: www.nero.noaa.gov/hcd/webintro.html.

Contact: Ms. Diane Rusanowsky @ NOAA-Fisheries, Northeast Fisheries Science Center, Milford Laboratory, 212 Rogers Avenue, Milford, CT 06460-6499, (203) 882-6500.

Threatened and Endangered Species

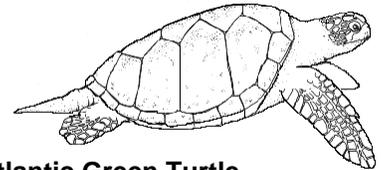
The Endangered Species Act (ESA) requires federal agencies to ensure that projects are not likely to harm or destroy federally threatened or endangered species or their critical habitat. NOAA-NMFS and USFWS share responsibility as lead agencies in accordance with the ESA. Consultation with one or both agencies may be required if the project may impact species or critical habitat. For DR-1869-NY, it is important that applicants be aware that FEMA may be consulting with these agencies in accordance with Section 7 of ESA. Applicants are asked to keep their NYSEMO/FEMA Team informed of their permitting status and to not duplicate Section 7 consultations. Review of beach management plans and adoption of species protection programs may be called for as part of environmental review and approval of proposed beach restoration actions. NOAA-NMFS also manages marine mammals in accordance with the Marine Mammal

Federally Protected Species of concern in coastal waters:

Sea turtles: Atlantic hawksbill, Atlantic leatherback, Atlantic loggerhead, Atlantic Ridley, and Green

Whales: Blue, Fin, Humpback, Sei and Sperm whales

Fish: Shortnose sturgeon



Atlantic Green Turtle

For more information visit : www.nmfs.noaa.gov/pr/laws/esa/ and www.nmfs.noaa.gov/pr/laws/mmpa/.

Federally Protected Species on land:

Birds: Piping plover & Roseate tern

Plants: Seabeach amaranth, Sandplain gerardia, and Small whorled pogonia.

For more information visit www.fws.gov/northeast/nyfo/.



Seabeach Amaranth

Contact: Mr. Steve Papa, USFWS Long Island Field Office, 3 Old Barto Road, Brookhaven, NY 11719; Phone: (631) 776-1401; Fax: (631) 776-1405; www.fws.gov/northeast/nyfo/.

Contact: NOAA-Fisheries, Northeast Regional Office, 55 Great Republic Drive, Gloucester, MA 01930; (978) 281-9300.

NYSDEC List of State Endangered, Threatened & Special Concern Fish & Wildlife Species

For information on State listed species visit: www.dec.ny.gov/animals/7494.html.

Contact: Mr. Chip Hamilton, NYSDEC Region 1, 50 Circle Road, SUNY Stony Brook, Stony Brook, NY 11790; (631) 444-0308

The NYSDEC Environmental Resource Mapper is an interactive mapping tool for Rare Plants & Animals, as well as Significant Natural Communities at www.dec.ny.gov/animals/38801.html.

The NYSEMO/FEMA team has additional data for the designated counties regarding locations of threatened and endangered species. This data cannot be publicly released. Please discuss any resource concerns with your NYSEMO/FEMA team and/or contact NYSDEC Region 1 with any questions regarding endangered species in your community.

Threatened and Endangered Species continued.....

Beach projects will typically involve Endangered Species Consultation. Piping plovers, least terns, and other protected shorebirds forage and nest on Long Island's north and south shore beaches. The period in which beach construction activities are typically limited is from mid-March through mid-September, depending upon the location and species presence. Seabeach amaranth plant grows on beaches as well and can be visible from May through November. Many communities already have beach management plans that involve fencing measures and monitoring for protection of these species of special concern.



Piping Plover chick and nest



Least Tern (State listed)

Historic Structures, Districts and Places

Please notify the NYSEMO/FEMA Team assigned to your community if:

- 1) there are any sites, districts, buildings, structures or objects affected by your project that you feel may be listed in federal, state or local historic registries;
- 2) A National Historic Landmark (NHL) was damaged and eligible for FEMA funding, or is near a property that is eligible for FEMA funding. NHLs may involve coordination between FEMA and the Department of Interior.

The NYSEMO/FEMA Team will work with specialists who may contact the New York State Historic Preservation Office (NYSHPO) to coordination projects in accordance with the National Historic Preservation Act. Any structure or facility that is 50 years old or older could be eligible for listing in the National Register of Historic Places. Within a declared disaster, only FEMA Historic Preservation Staff may determine if a property appears eligible for listing in the National Register of Historic Places, and only the NYSHPO or the Keeper of the [National] Register may concur with those findings.

National Register of Historic Places - Sites, districts, buildings, structures or objects:

Properties already determined eligible for the National Register of Historic Places can be found at www.nationalregisterofhistoricplaces.com/NY/state.html#pickem.

National Historic Landmarks:

Nassau County has three designated National Historic Landmarks: Oyster Bay Christeen (sloop); Fort Massapeag Archaeological Site in Oyster Bay; and John Philip Sousa House in Port Washington.

Suffolk County has several designated National Historic Landmarks: First Presbyterian Church (Old Whalers) in Sag Harbor; Fort Corchaug Archaeological Site near Southold; Thomas Moran House in East Hampton; William Sydney Mount House in Stony Brook; Old House in Cutchogue; Jackson Pollock House & Studio in East Hampton; and Priscilla (sloop) in Sayville.

Cultural and Archaeological Resources

Projects involving excavation outside the original footprint such as:

- extending or upsizing a culvert
- building a new bridge or repairing an old one
- constructing a temporary road
- laying down new utilities

will require a historic review to ensure that archeological sites eligible for listing in the National Register of Historic Places are not impacted. Staging equipment and materials on undisturbed ground, armoring previously undisturbed stream banks, burial of debris, dredging activities in the nearshore or offshore, or any other activities which may impact previously undisturbed areas must be coordinated with the NYSEMO/FEMA Team.

Tribal Nations

There are two Indian Nations with tribal lands located in Suffolk County. The Shinnecock Indian Nation are a State-recognized tribe, and are on their way to being a Federally-recognized tribal nation. The Department of Interior, Bureau of Indian Affairs proposed Federal acknowledgement of the Shinnecock Indian Nation in a federal register notice dated December 21, 2009. To review the notice, go to www.bia.gov/DocumentLibrary/index.htm . The Unkechaug Indian Nation is a State-recognized tribe. The NYSEMO/FEMA Team will communicate with both tribes to discuss opportunities for federal disaster assistance .

The Shinnecock Indian Nation, Shinnecock Indian Nation Tribal Office

PO Box 5006

Southampton, NY 11969

P: 631-283-6143

sination@optonline.net

www.shinnecocknation.com/index.asp

The Shinnecock Indian Reservation is approximately 900 acres in the western portion of the Town of Southampton on Shinnecock Bay.

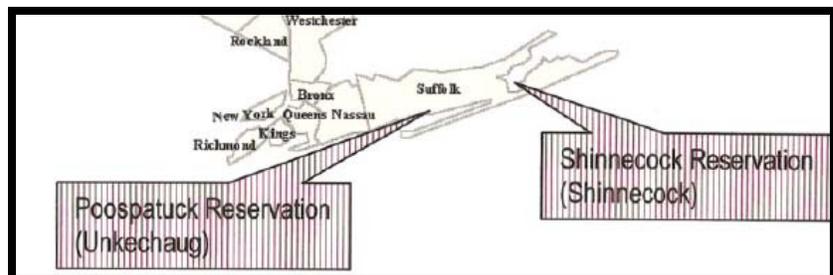
Unkechaug Indian Nation of Poospatuck Indians, Poospatuck Reservation

P.O. Box 86

Mastic, Long Island, NY 11950

516-281-6464

The Poospatuck Indian Reservation of the Unkechaug Indian Nation is approximately 55 acres of land in the Town of Brookhaven on Moriches Bay.



Habitat Designations

Long Island's coastal waters, estuaries, barrier islands, freshwater resources, inland forests, grasslands, pine barrens and other habitats are valuable for wildlife & fisheries species. A variety of different habitat designations are used to identify key habitat areas in Nassau and Suffolk Counties. Long Island itself is a migratory pathway (Atlantic Flyway) for birds.

NYSDOS has identified Significant Coastal Fish & Wildlife Habitats. These habitat areas are delineated on the State Coastal Atlas. To download maps visit: www.nyswaterfronts.com/maps_regions.asp.

Long Island has a number of National Wildlife Refuge Complexes such as Wertheim, Morton, Target Rock, Conscience Point, Lido Beach, Seatuck, Oyster Bay, Amagansett & Sayville.

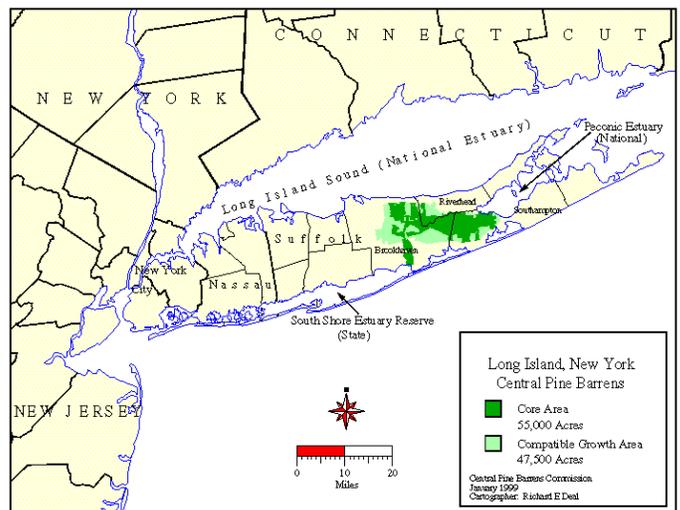
Long Island has several Outstanding Natural Resource Coastal Area Complexes such as Long Island Pine Barrens-Peconic River Complex and Oyster Bay/Cold Spring Harbor Complex.

Suffolk County has available online maps of habitat areas, such as the estuary map below. Visit: www.co.suffolk.ny.us/departments/planning.aspx (Cartography).



Pine Barrens

The Long Island Pine Barrens - Peconic River Complex is a Significant Habitat Complex in NY. New York State passed the Long Island Pine Barrens Protection Act in 1993, creating the Central Pine Barrens zone. The Long Island Pine Barrens - Peconic River complex contains regionally rare wetland communities including the Peconic River, coastal plain ponds, and coastal plain Atlantic white cedar swamps, and globally rare upland communities including pitch pine-oak-heath woodland and the dwarf pine plains. These communities support an unusual diversity of rare species with 147 species of special emphasis. For a map and other information visit: www.pb.state.ny.us/.



Above map illustrates Core Conservation Area for the Pine Barrens (shaded in dark green)

Debris & Waste Management

Disposal of debris and demolition waste is a major concern following any natural or manmade disaster. The NYSDEC oversees and regulates debris and hazardous waste management in conjunction with the U.S. Environmental Protection Agency. Check with your County and Municipal Government for local guidelines for proper debris and waste management practices in your area. Burning of debris is discouraged, and open burning requires a permit from the NYSDEC. References for proper handling of debris and wastes are found at:

www.fema.gov/government/grant/pa/policy.shtm (FEMA's Public Assistance Debris Management Guide, July 2007).

www.dec.ny.gov/regulations/8489.html (NYSDEC Hazardous Waste Guidance).

www.dec.ny.gov/regulations/8492.html (NYSDEC Solid Waste Guidance).

<http://www.dec.ny.gov/press/12706.html> (NYSDEC Burning Advisory)

NYSDEC Regional Contact for Solid & Hazardous Waste: Region 1, Tony Cava, Solid Waste Engineer, Stony Brook Regional Office, Work Phone: (631) 444-0375; Fax: (631) 444-0231

Asian Long-Horned Beetle

The Asian Long-Horned Beetle is an invasive insect that infects and kills various host trees. Woody materials & debris is regulated within two quarantine areas in Suffolk County shown below and available from: www.aphis.usda.gov/plant_health/plant_pest_info/asian_lhb/alb_maps.shtml.



All businesses, municipalities or individuals working inside the quarantine areas are required to be under a compliance agreement with the NYS Department of Agriculture and Markets for the proper handling and disposition of host material. Regulated articles include all life stages of the Asian Long-horned Beetle (*Anoplophora glabripennis*) and host material living, dead, cut or fallen, inclusive of nursery stock, logs, green lumber, firewood, stumps, roots, branches and debris of one-half inch or more of certain genera. Regulated materials are to be cut, chipped, and/or incinerated and removed in accordance with approved disposal procedures and practices identified by federal and state officials.

Flood Cleanup Considerations

Working in or near a stream or waterway can have unintended adverse effects on the environment. Some Public Assistance Program applicants have never had to undertake a stream clearing or repair project, but even if this is "old hat," please review the following common sense discussions and suggestions.

Do obtain any applicable permits before you start work. Permits from the U.S. Army Corps of Engineers and New York State Department of Environmental Conservation are typically required for work within streams and waterways. Permits must be obtained before work in waterways is started.

Do NOT cause more problems than you solve. Many floods deposit gravel, trees, and other debris that block the stream channel and effectively create a dam. Such blockages create a risk of future flooding and must be removed. However, extensive work in the stream to clear away new gravel bars, dredge out the stream channel, or build makeshift dikes may increase the damage caused in future floods and cause greater loss of land through erosion.

Do NOT get carried away with dredging. A stream may have jumped its banks or changed its course during the last flood. Don't assume that a straighter or wider channel will solve these flooding problems. Dredging out a channel will result in greater damage in the long run, both in the immediate area and downstream. Widening the channel, straightening it, or removing large material will destabilize the streambed and increase the force and velocity of water moving through the channel. This can cause much greater erosion damage and also can cause much more material (including boulders and large cobble) to move around in the stream during high water. This material, in turn, can cause blockages at narrow points (such as culverts) and result in a great deal of rock being deposited by floodwaters. Stream dredging also destroys fish habitat, increases water temperature, and can hurt overall water quality. Flood clean-up efforts should be careful to restore the pre-existing width (or that observed in an adjacent unaffected stretch of stream).

Do your best to preserve stream bank vegetation. Trees and shrubs along a stream can do more than almost any other single factor to limit flood damage and erosion. Such vegetation will hold stream banks together, reducing the risk that the stream will dramatically change course and also reducing the amount of property torn away and shipped downstream by the flood. Vegetation will also slow the flood down, which reduces damage to property. Be extremely careful that your flood cleanup doesn't damage streamside trees and shrubs, and look into planting more to shore up stream banks.

Look carefully at unaffected stream areas. It's only natural that floods draw your attention to damaged areas. It's important to consider, though, how undamaged areas endured the same amount of force as sites that "blew out." Natural stream features, such as channel meanders, an appropriate width and depth, and well-vegetated banks, all give a channel natural stability. Imitate or preserve these features in your work.

Consider the owners of surrounding property. The above points discuss some of the risks of improper flood repair. A straighter, wider channel also flushes the flood and flood debris on to your downstream neighbors' property. The damage inflicted by improperly dredged out streams grows and grows as the flood moves downstream. Consider these downstream effects and consult with an expert before starting your post-flood stream work.

Look for alternatives to riprap. Riprap is a very common means of stabilizing banks. Often times, it is effective or even necessary, but it may have downsides. It could accelerate water velocities during floods, increasing damage immediately downstream or at the next bend. In addition it may increase the

Flood Cleanup Considerations, continued

water temperature to levels that might be unhealthy for fish and other aquatic organisms. Alternative stabilization methods, such as planting it with vegetation, can lessen its downsides.

Do NOT remove gravel bars. Cobble and gravel move quickly and in massive amounts during flood flows in most of New Jersey's rivers. Gravel bars accumulate quickly when the flood begins to drop, but they will move out quickly the next time water rises and do not necessarily cause future floods. On the other hand, they help streams maintain a deep channel that prevents or minimizes sediment, ice, and debris accumulations, all of which do cause flooding. Dangerous gravel accumulations certainly occur (e.g., braided channels and plugged culverts) and must be removed, but keep in mind that they are symptoms of greater problems (like channel dredging or bad culvert design).

Limit in-stream work with heavy equipment as much as possible. Working in a stream with heavy equipment can damage its bed and banks, and should be limited as much as possible. Adequate channel clearing can often be performed from a bridge or road without damage to banks or stream bottoms. When it is necessary to leave the road, plan your entry and exit routes to minimize damage to banks and vegetation. Finally, don't push gravel up on banks; the next flood will quickly move it, either downstream or up on to your property.

Do not start work before notifying the Underground Facilities Protective Organization (UFPO). Call before you dig to avoid any underground utilities that may be located in the area. Call 1-800-962-7962.

Soil Conservation & Sedimentation Erosion Control

New York's Soil & Water Conservation Districts (SWCD) can provide technical assistance regarding construction best management techniques and conservation measures.

NASSAU COUNTY SWCD

Address: 1864 Muttontown Rd.

Syosset, New York 11791

Phone: (516) 364-5860

Fax: (516) 364-5861

Email: nassauswcd@optonline.net

SUFFOLK COUNTY SWCD

Address: 423 Griffing Avenue

Riverhead, NY 11901

Phone: (631) 727-2315, Ext. 3

Fax: (631) 727-3160

Email: paul.tenyenhuis@suffolkcountyny.gov

For more information visit: www.nys-soilandwater.org/DisLawPPT/dislaw.html

The U.S. Department of Agriculture—Natural Resources Conservation Service (NRCS) website and field offices are also great sources of information on construction best management practices and other topics such as streambank restoration, native plant material, and soils.

For more information on streambank restoration visit: www.nrcs.usda.gov/technical/ENG/stream-docs.html.

For more information on native plant materials visit: <http://plants.usda.gov/>.

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