



FEMA & NJOEM DR-NJ-4086
Greenbook Guide to
Environmental & Historic Preservation Compliance
For Disaster Recovery Operations



Dear Applicant,

The New Jersey State Office of Emergency Management (NJOEM) and the Federal Emergency Management Agency (FEMA) are here to assist communities in responding to and recovering from the damages of the federally-declared disaster. As you endeavor to repair and rebuild your communities, environmental and historic preservation concerns may be the last thing on your mind. We ask you to join us in being stewards of the human environment and to use techniques for recovery construction and management that help avoid and minimize adverse impacts to environmental and cultural resources. Please familiarize yourself with the compliance requirements involved for federal disaster recovery grants. It is important that compliance needs are met to avoid potential loss of your project's eligibility for federal funding. A cooperative and informed process can help minimize delays in grant approval and help ensure that projects are implemented to achieve recovery goals and to protect natural and cultural resources.

What can you do for environmental & historic preservation stewardship and compliance, and to help expedite your project's approval?

- 1. Obtain all necessary permits.** Applicants have the responsibility to obtain and submit all applicable local, state and federal permits or approvals prior to construction. FEMA does not obtain permits. Permits may be required from New Jersey Department of Environmental Protection (NJDEP) or the U.S. Army Corps of Engineers (USACE), for work in waterways or wetlands. Regional approvals may be required from such agencies such as Pinelands Commission. Please be aware that failure to obtain applicable permits may jeopardize federal funding. If you have existing permits for your proposed recovery project, please provide copies to your assigned NJOEM/FEMA Project Specialists. FEMA can often expedite the federal agency environmental compliance review based upon existing permit documentation.
- 2. Adhere to permit conditions for implementing work** and also adhere to other conditions of FEMA's grant approval that may have resulted from FEMA's environmental & historic preservation compliance consultations with resource agencies.
- 3. Provide clear and complete scope of work information** for your proposed project applications. Environmental & historic preservation compliance reviews may sometimes require more detailed information for assessing potential impacts to historic properties or environmental habitats. We appreciate your cooperation in working with our team to collect necessary supplemental information. Please include any available sketches or design plans for your proposed project. Please provide site information about any proposed temporary staging areas for your project.
- 4. Provide background information about environmental or cultural resources** in your project area. We ask that you participate with the FEMA/NJOEM Project Specialist Team in filling out the Special Considerations Questionnaire for your project(s).

Major laws and executive orders commonly involved with FEMA's environmental review: National Environmental Policy Act, Endangered Species Act, National Historic Preservation Act, Coastal Zone Management Act, Rivers and Harbors Act, Coastal Barrier Resources Act, Resource Conservation and Recovery Act, Clean Water Act, Clean Air Act, Marine Mammal Protection Act, Magnuson-Stevens Fishery Conservation and Management Act, CERCLA (Superfund), Farmland Protection Policy Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Wild & Scenic Rivers Act, Executive Order 11990 Wetlands Protection, Executive Order 11988 Floodplain Management, Executive Order 12898 Environmental Justice, and Executive Order 13112 Invasive Species.

FEMA may need to do some upfront research to develop the consultation packages. Consultations can be informal or formal depending upon the extent of adverse impacts on the managed resources. Consultations may also involve phone or meeting discussions with resource agencies to arrive at an effects determination and to determine final conditions for project implementation. The goal of consultations is to obtain resource agency concurrence with FEMA's effects determination and collaboratively develop project conditions. The outcome of consultations is a coordinated project for protection of natural or cultural resources. The most common type of consultations that FEMA completes for environmental & historic preservation compliance reviews are:

- FEMA consultation with New Jersey State Historic Preservation Office (NJSHPO) in accordance with the National Historic Preservation Act.
- FEMA consultation with U.S. Fish & Wildlife Service (USFWS) in accordance with the Endangered Species Act, Migratory Bird Treaty Act, and/or Coastal Barrier Resources Act.
- FEMA consultation with National Oceanic & Atmospheric Administration-National Marine Fisheries Service (NMFS) in accordance with the Endangered Species Act, Magnuson-Stevens Fishery Conservation & Management Act, and/or the Marine Mammal Protection Act.

FEMA also consults and coordinate projects with Tribal Historic Preservation Offices (THPO) and other agencies such as the National Park Service (NPS), U.S. Department of Agriculture-Natural Resources Conservation Service, Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (USACE), and New Jersey Department of Environmental Protection (NJDEP).

The **level of review** and **associated timeline** for federal environmental compliance varies by project type. Grant proposals that do not involve physical actions (i.e. overtime hours or minor mobile equipment purchases) typically receive automatic environmental compliance approval without the involvement of FEMA's environmental or historic preservation specialists.

Projects that involve minor repairs and are anticipated to have no adverse impact on the human environment, and don't require any interagency consultations, are approved quickly by FEMA's environmental compliance team. The goal for the disaster recovery team is to review and approve the compliance for these types of no-impact/low-impact projects within three (3) business days.

Other projects may involve more complex special considerations, resource agency consultations, site investigations, or environmental assessment documentation. The grant approval time is project specific

discuss them with your assigned NJOEM/FEMA Project Specialists.

If your applicant team has the capability and interest in undertaking some component of the federal environmental and historic preservation compliance process (i.e. Phase I Archaeological Investigation or NEPA document preparation), and has available qualified professionals to conduct the work, please bring that interest to the attention of your assigned NJOEM/FEMA Project Specialists as soon as practicable. Applicants can work collaboratively with NJOEM/FEMA to complete environmental and cultural resource field investigations, information gathering, study documentation preparation, and project coordination. It is important that roles & responsibilities are reviewed early in the process to avoid duplication of efforts and to coordinate requirements so that the investigations or assessments to be undertaken will meet federal standards. If your project requires an individual permit from the U.S. Army Corps of Engineers or other federal permit/authorization, and you plan to apply for a permit early on in disaster recovery, please bring that to the attention of your assigned NJOEM/FEMA team. FEMA has the ability to work cooperatively with other federal agencies to avoid duplication of federal agency reviews and consultations.

This Greenbook is designed to provide general guidance for environmental and historic compliance, including contact information. It is not intended to be inclusive of all possible applicable laws, but attempts to list and discuss the requirements routinely encountered for this type of disaster recovery effort. To learn more about FEMA's Environmental Planning & Historic Preservation program visit: www.fema.gov/plan/ehp/ehpreview/index.shtm.

Please direct all questions through your assigned NJOEM/FEMA Project Specialist Team. NJOEM is the main point of contact for applicants and the public, oversees grant administration, and is committed to following all environmental laws and regulations in its disaster recovery operations.

NJ Office of Emergency Management, NJ State Police Division Headquarters

P.O. Box 7068, West Trenton, NJ 08286

www.ready.nj.gov or Public Assistance Program Info: <http://ready.nj.gov/plan/public-assist.html>

For more information contact the NJOEM Public Assistance staff at 609-882-2000 ext. 2500 or
email lpppau@gw.njsp.org

If technical environmental or cultural resource questions for FEMA come up after the Joint Field Office closure, please feel free to contact the FEMA Region II Regional Environmental Officer, Ms. Megan Jadrosich, at Megan.Jadrosich@dhs.gov or 212-680-3635.

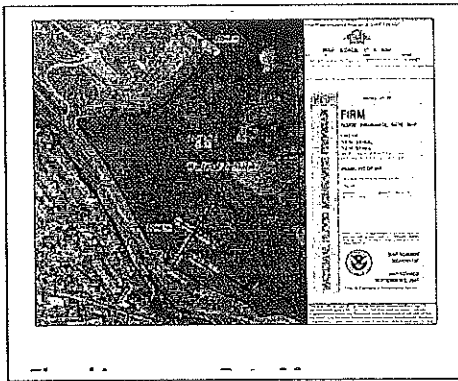
APPENDIX A. SPECIAL CONSIDERATION QUESTIONS

For the repair/recovery work for which you are requesting funding, the NJOEM/FEMA Team uses a "Special Considerations" questionnaire to help evaluate what environmental and historic resources might be involved. Eight of the nine (9) questions address environmental and historic preservation considerations. They are summarized below for your information. **Question #1** is related to Insurance. Your NJOEM/FEMA Project Specialists are trained to work with you during meetings and site visits to answer these questions. When in doubt, answer "unsure" and the NJOEM/FEMA team will evaluate.

Question #2

Is the damaged facility located within a floodplain or coastal high hazard area and/or does it have an impact on a floodplain or wetland?

Answer "Yes" if your project may be located in any of the following landscapes or regulated areas:



Floodplain: land that may be submerged by floodwaters. FEMA evaluates activities with reference to the 100-year and 500-year floodplain of a given waterway.

Coastal High Hazard Area: area of 100-year coastal flood

Wetland: an area inundated or saturated by surface or ground water frequently enough to support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include swamps, marshes, bogs, estuaries, and similar areas.

NJ Coastal Zone: an area within the delineated State Coastal Area Boundary.

Flood Insurance Rate Maps (FIRMs) delineate floodplains and coastal high hazard areas; they are available for download from www.fema.gov/hazard/map/firm.shtm. Your Project Specialists from NJOEM/FEMA will assist with obtaining Flood Insurance Rate Maps, as well as evaluating mapping for potential wetland resources and coastal zone areas. While not the official FIRM map, FEMA has available a Flood Hazard Layer available for Google Earth available for download from: <https://hazards.fema.gov/femaportal/wps/portal/NFHLWMSkmzdownload>.

Wetland Mapping is available from two online

interactive mapping websites: www.fws.gov/wetlands/Data/Mapper.html. or www.nj.gov/dep/gis/geoweb splash.htm.



Question #6

Is the damaged facility on the National Register of Historic Places or the state historic listing? Is it older than 49 years? Are there more, similar buildings near the site?

The National Historic Preservation Act (NHPA) requires that Federal agencies consider historic properties in their project planning and execution. Historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. FEMA is required to consider the impact of the agency's undertakings on all historic properties. Any structure or facility that is 50 years or older could be eligible for listing in the National Register of Historic Places. Historic structures can be buildings, bridges, dams, culverts, landscapes, historic districts, battlegrounds, fences, walls, and more.

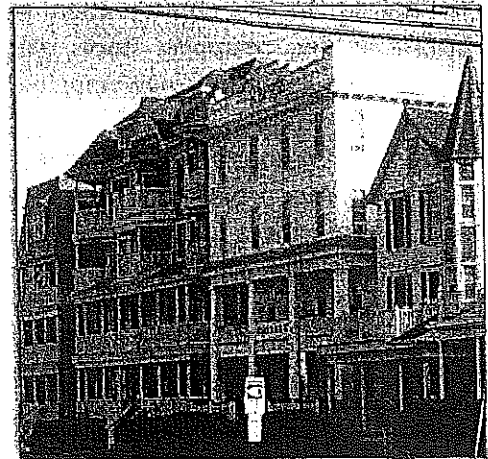
All historic properties 49 years or older will be reviewed for National Register of Historic Places eligibility during DR-4086-NJ.

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, or 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 or beaches, burial of debris, dredging activities in the near-shore or offshore, or any other activities which may impact previously undisturbed areas must be coordinated with the NJOEM/FEMA Team.

Please include the date of construction on your questionnaire for man-made structures.

Answer "Yes"

- If the facility/site is listed in the National Register of Historic Places or a National Historic Landmark;
- If the facility appears to be at least 49 years old;
- If the age of the facility is unknown but it is within an area where there are older resources;
- If the facility/site is located in an Historic District;
- If the facility/site is located in a cemetery;
- If the facility/site has any known tribal resources.



National Register of Historic Places – the list of properties already determined eligible for the National Register can be found at www.nj.gov/dep/hpo/1identify/nrsr_lists.htm. The NJDEP NJ Geo Web online interactive mapping resource can be helpful in locating historic properties and archaeologically sensitive areas at: www.nj.gov/dep/gis/geoweb splash.htm.

Answer "Yes" if your project involves development located within any of the following special areas:

- Pinelands as shown on www.nj.gov/pinelands/landuse/gis/maps/ or www.nj.gov/dep/gis/depsplash.htm#.
- Delaware & Raritan Canal Commission (www.nj.gov/dep/gis/depsplash.htm#).
- Highlands (www.nj.gov/dep/gis/depsplash.htm#).
- Hackensack Meadowlands [www.njmeadowlands.gov/applications/docs/zone05_11X17%20\(2\).pdf](http://www.njmeadowlands.gov/applications/docs/zone05_11X17%20(2).pdf)

Question #8

Are there any hazardous materials at or adjacent to the damaged facility or item of work?

Answer "Yes" if your project involves handling, transport, disposal, or storage of hazardous materials. If there are known contaminated sites adjacent to your property that could impact your project, please answer "Yes". EPA has an online mapping tool that can be used to search for known contamination sites. It is available at: www.epa.gov/emefdata/em4ef.home. Known contaminated sites are also observed through NJDEP online mapping at: www.state.nj.us/dep/gis/newmapping.htm.

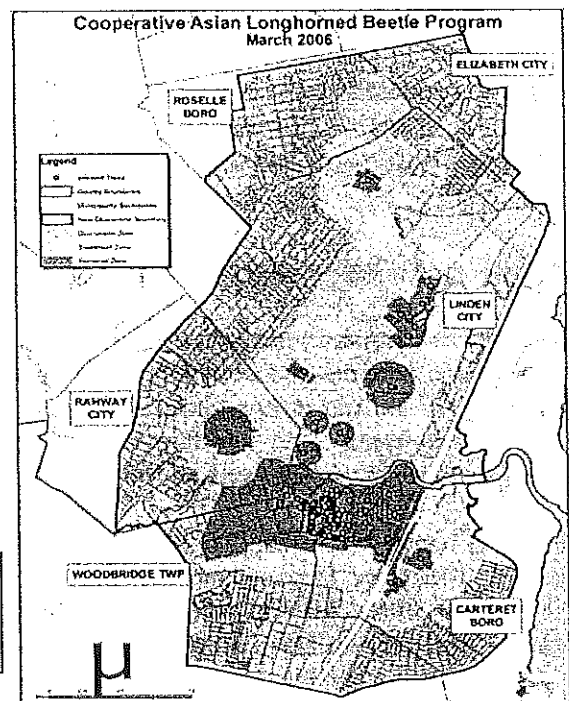
To report actual or potential spills or releases of oil or hazardous substances, immediately notify the NJDEP at 1-877-WARNDEP, and the National Response Center at 1-800-424-8802.

Question #9

Are there any other environmental or controversial issues associated with the damaged facility or item of work?

Question #9 is an opportunity to bring to your Project Specialist's attention any other environmental or cultural resource concerns you are aware of for your project and/or site. Examples include environmental justice issues, potential for public controversy, new construction on prime or protected farmland, and contamination concerns when the possible contaminants are not legally defined as "hazardous" wastes.

Asian Long Horned Beetle Quarantine Zone Map available at www.nj.gov/agriculture/divisions/pi/prog/asianlonghornbeetle.html.



Answer "Yes" if your project involves woody debris removal and is located within the Asian Long Horned Beetle Quarantine Zone in Middlesex or Union Counties.

APPENDIX C. PERMITS

New Jersey Department of Environmental Protection

The NJDEP has several tools available on their website to assist and educate before, during and after emergency events. These guidance tools provide direction in what can be conducted with or without permits for impacts to infrastructure, critical to public safety. <http://www.nj.gov/dep/special/hurricane-sandy/>

****Obtaining NJDEP Land Use Permits in an Emergency****

How to Request a Land Use Emergency Authorization In general, an emergency authorization allows an applicant to undertake a regulated activity (when conditions warrant immediate action to protect the environment and/or public health, safety and welfare), before a formal permit can be issued. This summary outlines the procedure to be followed. An applicant applying for an emergency permit shall provide the NJDEP with the following information by telephone, electronic mail or letter:

1. The nature of the emergency;
2. The cause of the emergency;
3. The date and time at which the applicant learned of the emergency;
4. The nature and extent of the proposed regulated activities;
5. The date by which the applicant expects to begin the proposed regulated activities;
6. The date by which the applicant expects to complete the proposed regulated activities;
7. The precise location of the proposed regulated activities, including lot, block, municipality, and county; (a map would be helpful)
8. The identity of the owner of the site where the regulated activities are proposed;
9. A demonstration that the property owner has given permission for the regulated activities to be performed or, in the case of a public entity intending to undertake regulated activities on private property through power of eminent domain, a written statement of the public entity's intent;
10. Photographs of the area in question;
11. A drawing or sketch of the proposed emergency activities to be undertaken; and
12. Detailed narrative of the work to be undertaken.

Guidance Information

- Flood Hazard Area Control Act Emergency Permit Information
http://www.state.nj.us/dep/landuse/fha/fha_ep.html
- Coastal Exemptions & Emergency Permitting
<http://www.state.nj.us/dep/landuse/coastalexempt.html>

The NJDEP Division of Land Use Regulation Program (LURP) has a Technical Support Center to assist you with any questions you may have regarding Land Use Regulations. This center is equipped to answer questions about Freshwater Wetland, Flood Hazard Area, Waterfront Development, Coastal Area and Highlands regulations. In addition, the Technical Support Center will assist in checking the status of all LURP permit applications. You may contact the Technical Support Center either by using our [Online Contact Form](#), email us directly at LURTechSupport@dep.state.nj.us, or by using one of the telephone numbers below:

For Freshwater Wetland or Highlands questions call (609) 777-0454.

For Waterfront Development, C.A.F.R.A. or Flood Hazard Area questions call (609) 984-0162.

To contact the Bureau of Tidelands, call (609) 292- 2573.

Assistant Commissioner, Marilyn Lennon: (609) 292-1932.

Send regular mail to this address: Mail Code 501-02A, Department of Environmental Protection, Division of Land Use Regulation, P.O. Box 420, Trenton, New Jersey 08625-0420

Send courier or hand deliveries to this address: Department of Environmental Protection, Division of Land Use Regulation, 501 E. State Street, Second Floor, Trenton, New Jersey 08609

For more information visit regarding NJDEP LURP: www.nj.gov/dep/landuse/ and for application forms visit: www.nj.gov/dep/landuse/forms/index.html.

NJDEP's "Guidelines for Stream Cleaning" is included in the Best Management and Conditions section of this Greenbook. Emergency permits are addressed in 7:7A-8.1 and 7:7A-8.2 of the Freshwater Wetlands Protection Act Rules, 7:7-1.7 of Coastal Permit Program Rules.

For general information about Mosquito Control and West Nile Virus, visit:

www.state.nj.us/dep/mosquito/ and for more information regarding permit requirements visit:

www.nj.gov/dep/enforcement/pcp/bpo-permits.htm.

Debris Disposal Requirements

Applicants are responsible for obtaining all necessary permits or clearances for debris management in accordance with local, state and federal laws and regulations. See above DEBRIS MANAGEMENT section as well as FEMA's Public Assistance Debris Management Guide available at: www.fema.gov/government/grant/pa/policy.shtm.

For more information about NJDEP Solid and Hazardous Waste Management Program, visit: www.nj.gov/dep/dshw/.

NJDEP Bureau of Landfill and Hazardous Waste Permitting has a database menu to search for debris disposal activity by type and licensed facilities that can provide debris management or disposal services at: www.nj.gov/dep/dshw/lhwp/index.html.

Delaware & Raritan Canal Commission

The D&R Canal Commission administers a land-use regulatory program within the area where new development could have drainage, visual or other ecological impact on the Canal Park. The area within which there could be a drainage impact is almost 400 square miles, including parts of Mercer, Hunterdon, Somerset, Middlesex and Monmouth Counties. Major projects (those that involve an acre or more of impervious surface as of 1980) must meet the Commission's standards for managing storm water runoff. If a project of any size is proposed for an area that is within 1,000 feet of the canal, the project is reviewed for its visual impact on the park. Further, the Commission reviews large projects that are within a mile of the park for their traffic impact, and the Commission requires the preservation of corridors along the major streams that enter the park. For more information visit: www.dandrcanal.com/drcc/regulatory.html.

New Jersey Pinelands Commission

The Pinelands region is protected through the enactment of federal and state laws which seek to preserve, protect, and enhance the environmental resources existing there. This is accomplished by The Pinelands Comprehensive Management Plan (CMP) which determines the type, amount, and location of development that can be accommodated while still ensuring that the Pinelands remain protected. The New Jersey Pinelands Commission has jurisdiction to review land use and development for consistency with the CMP. The Commission's regulations contain an "emergency provision" to address circumstances where immediate action is necessary to address a condition that is dangerous to life, health or safety.

For more information about permit requirements visit: www.state.nj.us/pinelands/appli/ and for a map of the Pinelands visit: www.nj.gov/pinelands/landuse/gis/maps/.

New Jersey Meadowlands Commission (NJMC)

The New Jersey Meadowlands Commission is the zoning and planning agency for a 30.4-square-mile area along the Hackensack River covering parts of 14 municipalities in Bergen and Hudson Counties in New Jersey.

For more information about land use requirements, visit: www.njmeadowlands.gov/applications/intro.html.

A zoning map is available at [www.njmeadowlands.gov/applications/docs/zone05_11X17%20\(2\).pdf](http://www.njmeadowlands.gov/applications/docs/zone05_11X17%20(2).pdf).
The phone contact for NJMC Land Use Management is (201) 460-1700.

New Jersey Highlands Council

All "major Highlands development," as defined by the Highlands Act, in the Highlands Preservation Area is regulated and will require NJDEP approval, unless otherwise exempted by the Act. If your property is located within the Highlands Preservation Area and your proposed project does not meet the definition



New
Jersey
Department of
Environmental
Protection

COMPLIANCE ADVISORY

Enforcement Alert

Making You Aware of Anticipated Enforcement Activities

Compliance and Enforcement

Issued: October 29, 2012

2012-14

Emergency Debris Disposal Provisions Necessitated by Hurricane Sandy

Who is affected by this initiative?

Solid waste coordinators, county and municipal staff or officials, waste transporters, disposal facility owner/operators, recycling facilities and other entities involved with waste transportation and disposal within New Jersey.

What is occurring?

Current weather forecasts predict that Hurricane Sandy may cause severe weather conditions throughout the state including heavy rains, high winds, and severe localized flooding.

To enable safe and timely disposal of the temporary but dramatic increase in waste and debris that may result from this emergency, DEP Commissioner Bob Martin signed an Administrative Order on October 28, 2012 to suspend certain regulations pertaining to waste transportation and disposal in very limited circumstances as described in authorizing documents, issued guidance or on a case-by-case basis, provided adequate environmental safeguards are maintained.

The solid waste regulated community must continue to comply with all applicable solid waste and recycling regulations found at N.J.A.C. 7:26 et seq., N.J.A.C. 7:26H-1 et seq., and N.J.A.C. 7:26A-1 et seq. respectively.

What is DEP doing?

The Department has updated its emergency debris guidance document "Dealing with Increased Waste Generation in the Aftermath of Hurricane Sandy" which helps affected entities deal quickly, efficiently, and safely with this anticipated increase in waste. The updated guidance is posted on the Department's Hurricane Sandy web site at <http://www.nj.gov/dep/special/hurricane-sandy/> (see "How can I apply for relief for a waste facility in the aftermath of Hurricane Sandy?") and can be found at <http://www.nj.gov/dep/dshw/resource/forms.htm>.

Under the guidance, and through specific authorizations, the DEP will temporarily allow for:

- Use of currently unregistered vehicles for waste transport – *see details next page*
- Exceedance of waste tonnage limits – *DEP written approval required*
- Expanded hours of facility operation – *through Nov 9th, 2012*

The guidance document also addresses such waste management issues as:

- General Waste Handling
- Solid Waste Disposal Facility Pricing
- Recycling in General
- Enforcement
- Additional Contact Information
- Emergency Storage (see also "Debris Management Fact Sheet" at <http://www.nj.gov/dep/special/hurricane-sandy/>)

For more information about **USACE Philadelphia District** Regulatory Branch and Permits visit:

www.nap.usace.army.mil/cenap-op/regulatory/permits.html (Permits)

www.nap.usace.army.mil/cenap-op/regulatory/forms.html (Forms)

USACE Philadelphia District, Regulatory Branch, 100 Penn Square East, Wanamaker Building, Philadelphia, PA 19107; Regulator of the Day: (215) 656-6728; fax (215) 656-6724.

Additional phone and email contacts for Philadelphia District are found at:

www.nap.usace.army.mil/cenap-op/regulatory/contact.html.

For more information regarding **USACE New York District** permits, visit:

www.nan.usace.army.mil/business/buslinks/regulat/index.php.

USACE New York District, Regulatory Branch, RM 1937, 26 Federal Plaza, NY, NY 10278-0090; (917) 790-8511 (Eastern Permit Section); fax (212) 264-4260; Email: cenan.publicnotice@usace.army.mil.

U.S. Coast Guard Bridge Administration

Construction of a new bridge or causeway across navigable waterways of the U.S. or reconstruction of a modification an existing bridge or causeway may require a permit from the U.S. Coast Guard (USCG). Federal law prohibits the construction of these structures unless the Coast Guard first authorizes them. The USCG authority is in accordance with Section 9 of the Rivers and Harbors Act of 1899 and the General Bridge Act of 1946. The purpose of these Acts is to preserve the public right of navigation and to prevent interference with interstate and foreign commerce. The Secretary of Transportation delegated this authority to the Commandant, USCG, by Department of Transportation Order 1100.1 dated 31 March 1967 (49 CFR 1.46(c)). If a proposed bridge project requires dredging or filling of the waterway, a Section 404 permit from USACE is likely also required.

A Bridge Permit Application Guide is available at: www.uscg.mil/hq/cg5/cg551/BPAG_2008.pdf. General information about USCG Bridge Administration is found at www.uscg.mil/hq/cg5/cg551/, including a link to District Bridge contacts.

Other Resource Agency Contacts

New Jersey State Historic Preservation Office: (609) 292-0061; fax (609) 984-0578; Mailing Address: Mail Code 501-04B, State of NJ, Department of Environmental Protection, Historic Preservation Office, PO Box 420, Trenton, NJ 08625-0420. Point of contact for FEMA reviews: Michelle Hughes (609) 984-6018 or Jonathan Kinney (609) 984-0141. Additional staff phone and email contacts at www.nj.gov/dep/hpo/whos_who_10_27_2010.pdf. Main page: www.nj.gov/dep/hpo/. or Hurricane Sandy Related information at: <http://www.nj.gov/dep/hpo/hurricane%20sandy.htm>

APPENDIX D. BEST MANAGEMENT PRACTICES AND CONDITIONS

Use of Best Management Practices during construction can make all the difference in minimizing impacts to environmental or cultural resources. Best Management Practices can include such measures as silt fences, staging heavy equipment on impervious cover, use of hand tools in sensitive landscapes, turbidity barriers, and timing of work.

If you are working in wetlands, waterways, threatened/endangered species habitats; or other sensitive areas; conditions may be required for work to be compliant with local, state and federal laws, regulations, and executive orders.

- Refer to PERMIT section of this Greenbook for general conditions and regional general permit conditions for USACE permits.
- See attached handout on “Guidelines for Stream Cleaning” issued by NJDEP dated August 26, 2011. This handout is also available online at www.nj.gov/dep/landuse/stream_cleaning_guidelines.pdf.
- Conditions exist for woody debris handling within the Middlesex or Union County Quarantine Zones to minimize the spread of an invasive tree-killing insect, the Asian Longhorned Beetle. New Jersey Department of Agriculture’s website has more information about Hurricane Irene cleanup and links: www.state.nj.us/agriculture/news/press/2011/approved/press110831.html.
- Best Management Practices for protection of Endangered Species such as the Indiana bat and Piping Plover are found under species profiles on the USFWS New Jersey Field Office website: www.fws.gov/northeast/njfieldoffice/endangered/index.html.

There are many guides and technical resources available on Best Management Practices such as:

The Heritage Emergency National Task Force has numerous publications and tips posted online on recommended practices for cultural institutions to respond and recover from storm damages, including methodologies on salvaging collections. Online videos on handling wet books and paper records are posted online. For more information visit: www.heritagepreservation.org/programs/TFresources.html.

NJDEP Stormwater Best Management Practices Manual at: www.nj.gov/dep/stormwater/.

New Jersey Department of Transportation Soil Erosion & Sediment Control Manual at: www.nj.gov/transportation/eng/documents/SESC/.

County Soil & Water Conservation Districts can be of technical assistance concerning water resource management. For more information visit: www.nj.gov/agriculture/divisions/anr/nrc/soil.html.

Rutgers Cooperative Research and Extension has fact sheets and other information on lawn and turf care, natural resources, and agriculture at: <http://njaes.rutgers.edu/extension/>.

The U.S. Department of Agriculture-Natural Resource Conservation Service (NRCS) website and field offices are also great sources of information on construction best management practices and other

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 downstream 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 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 some of New Jersey's rivers and streams. 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.

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 1-800-962-796