Tier 1 Programmatic Environmental Review Record
Community Development Block Grant – Disaster Recovery
NY Rising Bulkhead Repair Initiative:
Environmental Assessment for Residential Properties in Westchester County, NY

PREPARED FOR:
NEW YORK STATE HOMES AND COMMUNITY RENEWAL
38 – 40 STATE STREET
ALBANY, NEW YORK 12207-2804

PREPARED BY:
PROSOURCE TECHNOLOGIES, LLC.
9219 EAST RIVER ROAD
COON RAPIDS, MN 55433

AND

TETRA TECH, INC.
240 CONTINENTAL DRIVE, SUITE 200
NEWARK, DE 19713

AND

AKRF, INC.
440 PARK AVENUE SOUTH, 7TH FLOOR
NEW YORK, NY 10016

SEPTEMBER 2014

ERR Project Summary	
Responsible Entity:	New York State Homes and Community Renewal
Certifying Officer:	Thomas J. King, Esq., Governor's Office of Storm Recovery
Project Name:	NY Rising Bulkhead Repair Program
Federal Agency:	U.S. Department of Housing and Urban Development
Project Sponsor:	New York State Homes and Community Renewal
Program Name:	New York State Community Development Block Grant—Disaster Recovery
Project Site Address:	Scattered Residential Sites
Project County:	Westchester County, New York
Estimated Project Cost:	$315,000.00
Project Sponsor Address:	New York State Housing Trust Fund Corporation 38-40 State Street Albany, NY 12207
Primary Contact's Name:	Thomas J. King, Esq.
E-Mail address:	tjking@stormrecovery.ny.gov
Telephone Number:	(518) 486-7512
Project NEPA Classification:	24 CFR 58.36 Environmental Assessment
ENVIRONMENTAL FINDING:	☒ **Finding of No Significant Impact -** The project will not result in a significant impact on the quality of the human environment. ☐ **Finding of Significant Impact -** The project may significantly affect the quality of the human environment.
	The undersigned hereby certifies that New York State Housing Trust Fund Corporation has conducted an environmental review of the project identified above and prepared the attached environmental review record in compliance with all applicable provisions of the National Environmental Policy Act of 1969, as amended, (42 USC sec. 4321 et seq.) and its implementing regulations under 24 CFR Part 58. _____ **NAME:** Thomas J. King, Esq. **Title/Agency:** Certifying Officer/Governor's Office of Storm Recovery **Date:** 10 September 2014

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Acronyms and Abbreviations

ABFE	Advisory Base Flood Elevation
ASD	Acceptable Separation Distance
BFE	Base Flood Elevation
BMPs	Best Management Practices
C&D	Construction and Demolition Debris
CAA	Clean Air Act
CBRA	Coastal Barrier Resources Act
CBRS	Coastal Barrier Resource System
CDBG-DR	Community Development Block Grant for Disaster Recovery
CDC	U.S. Centers for Disease Control and Prevention
CEA	Critical Environmental Area
CEHA	Coastal Erosion Hazard Area
CEM	Coastal Erosion Management
CFR	Code of Federal Regulations
COC	Community Opportunity Center
CWA	Clean Water Act
ECL	Environmental Conservation Law
EFH	Essential Fish Habitat
EJ	Environmental Justice
EPA	U.S. Environmental Protection Agency
ERR	Environmental Review Record
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FEMA IA	Federal Emergency Management Agency Individual Assistance
FIRM	Flood Insurance Rate Maps
FONSI	Finding of No Significant Impact
GP	General Permit
HCR	New York State Homes and Community Renewal
HTFC	Housing Trust Fund Corporation
HEAP	Home Energy Assistance Program
HUD	U.S. Department of Housing and Urban Development
LWRP	Local Waterfront Revitalization Plan
MS4	Municipal Separate Storm Sewer Systems
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanographic and Atmospheric Administration
NOI	Notice of Intent
NOIRROF	Notice of Intent to Request Release of Funds
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
NWP3	Nationwide Permit 3

Acronyms and Abbreviations (continued)

NWSRS	National Wild and Scenic River System
NY	New York
NYC	New York City
NYCRR	New York Codes, Rules and Regulations
NYDGP-15	New York District General Permit 15
NYS	New York State
NYSCMP	New York State Coastal Management Program
NYSDEC	New York State Department of Environmental Conservation
NYSDOS	New York State Department of State
NYSDOT	New York State Department of Transportation
O&M	Operations and Maintenance
OPA	Otherwise Protected Area
OCR	Office of Community Renewal
OPRHP	Office of Parks, Recreation and Historic Preservation
OSHA	Occupational Safety and Health Administration
PCN	Pre-construction Notification
PEA	Programmatic Environmental Assessment
P-FIRMS	Preliminary Flood Insurance Rate Maps
$PM_{2.5}$	Particulate Matter
QEP	Qualified Environmental Professional
RE	Responsible Entity
RRP	Repair, Renovation, Painting
SEQR	New York State Environmental Quality Review Act
SFHA	Special Flood Hazard Area
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
TANF	Temporary Assistance for Needy Families
THPO	Tribal Historic Preservation Office
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 NY Rising Bulkhead Repair Initiative: Environmental Assessment for Residential Properties in Westchester County, NY

1.1 Background

In 2011, Westchester County received extensive damage from the winds and flood waters caused by Hurricane Irene. The ninth named storm and first hurricane of the 2011 Atlantic hurricane season, Irene originated east of the Lesser Antilles in the Caribbean Sea as a well-defined Atlantic tropical wave. Having formed a closed center of circulation, on August 20, 2011, the system was designated as Tropical Storm Irene. Growing in intensity, Tropical Storm Irene made landfall in the island of St. Croix the same day, then a second landfall in Puerto Rico early on August 21, 2011. While crossing Puerto Rico, Irene strengthened into a Category 1 hurricane. Shortly before making four landfalls in the Bahamas, Irene peaked as a 120 mph (195 km/h) Category 3 hurricane. Hurricane Irene lessened in intensity as it crossed the Bahamas and struck North Carolina as a Category 1 hurricane on August 27, 2011. With Hurricane Irene's path projected to strike much of the East Coast, states of emergency and hurricane warnings were declared for several states, including New York State (NYS). Governor Andrew Cuomo declared a state of emergency on August 26. Shelters were prepared, and hundreds of thousands of people across NYS were evacuated from their homes.

Rain associated with Hurricane Irene began in Westchester County on the afternoon of August 27, 2011, with flooding beginning the next morning. On August 28, 2011, Hurricane Irene made landfall in NYS with tropical storm force winds and causing disastrous flash flooding, especially in the eastern part of Upstate New York (NY). In Westchester County, flooding along the Mamaroneck River damaged houses, and fallen trees damaged buildings. Power outages were widespread and sewage from a pump station spilled into the Hudson River, mixing with the waters flooding homes. Winds were estimated to have topped 70-90 mph at about 10 a.m. on August 28, 2011, when the eye of the 300-mile wide storm moved through eastern NYS.

In total for the United States, Hurricane Irene caused widespread destruction, 49 confirmed fatalities, and according to Federal Emergency Management Agency (FEMA) estimates, nearly $15.6 billion in damage, making it the seventh costliest hurricane in United States history.

In 2012, Westchester County was again impacted by impacts of Superstorm Sandy. On October 24, 2012, the National Oceanographic and Atmospheric Administration (NOAA) predicted that there was a 90% chance that Superstorm Sandy would impact the Mid-Atlantic and New England states, including NYS. In response to this prediction, Governor Andrew Cuomo proactively requested federal emergency assistance prior to Superstorm Sandy's landfall, and President Obama signed an emergency declaration for NYS. New York City (NYC) issued the second mandatory evacuation on record on October 28, 2012, evacuating residents in flood zones A and V. NYC also opened 76 public shelters.

Superstorm Sandy, one of the largest Atlantic hurricanes to reach the United States on record, resulted in great devastation along the NYS coast on October 29, 2012. Flooding and high winds along the coast and overland flooding damaged communities throughout NYS. Fourteen counties, including Westchester County, were declared federal disaster areas.

Two million customers in NYS lost power, with some blackouts lasting up to three (3) weeks. The storm damaged or destroyed as many as 300,000 housing units in NYS, affected or closed over 2,000 miles of roads, produced catastrophic flooding in subways and tunnels, and damaged major power transmission systems. Sixty New Yorkers died as a result of Superstorm Sandy. This destruction came in the wake of Hurricane Irene, which had damaged Westchester County only one year prior to Superstorm Sandy, and was particularly devastating to an economy just recovering from the financial crisis.

In Westchester County, Superstorm Sandy came ashore as a storm expected once in about 300 years. The storm surge and flooding damaged homes and public property. Superstorm Sandy caused widespread power outages, leaving some customers in Westchester County without power for more than two weeks. Superstorm Sandy cut off power to more than 43% of Tarrytown, Sleepy Hollow, and Irvington on the western side of the county next to the Hudson River. Consolidated Edison, Inc. (Con Edison) reported more than 206,000 customers in Westchester County lost power. Coastal inundation reports between 2 and 4 feet of water was reported in the county. Hundreds of trees were knocked down and the county saw several fires from sparking power lines. Superstorm Sandy also caused three fatalities in Westchester County. One death was reported of a man who went rafting on the Croton River during the storm and two additional deaths occurred in North Salem as a tree fell on a house.

North of NYC, Superstorm Sandy overran the banks of the Hudson River flooding the basement chambers of the Yonkers Wastewater Treatment Plant cutting power to all of the plant's equipment. It released 49 million gallons of untreated sewage during fourteen hours at the peak of the storm. Another 1.2 billion gallons of partially treated sewage flowed from the plant in the ensuing four weeks.

In total for the United States, Superstorm Sandy caused catastrophic damage, 73 direct and 87 indirect fatalities, and at least $68 billion in damage, making it the second costliest hurricane in United States history.

1.2 Community Development Block Grant-Disaster Recovery

Superstorm Sandy was the catalyst for the allocation of disaster relief funds under the Community Development Block Grant—Disaster Recovery (CDBG-DR). These funds are being used to assist not only counties that were devastated by Superstorm Sandy, but also counties that were severely impacted by Hurricane Irene and/or Tropical Storm Lee in 2011. Westchester County incurred severe damage from Superstorm Sandy, as well as damage from Hurricane Irene the previous year.

Following damage assessments performed by FEMA, President Obama also signed into law the "Disaster Relief Appropriations Act, 2013" (Public Law 113-2, approved January 29, 2013), which included $16 billion in funding for necessary expenses related to disaster relief, long-term recovery, restoration of infrastructure and housing, as well as economic revitalization in the most impacted and distressed areas resulting from recent storm events.

The U.S. Department of Housing and Urban Development (HUD) is responsible for administration of the CDBG-DR program pursuant to the Disaster Relief Appropriations Act of 2013. The CDBG-DR program is designed to address the needs of NYS communities devastated by Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee. This funding was disbursed in two phases. On Tuesday, March 5, 2013, HUD published Federal Register Notice 5696-N-01, which established the requirements and processes for $1.7 billion in Federal CDBG-DR aid appropriated by the United States Congress and allocated to NYS for disaster relief. On Monday, November 18, 2013, HUD published Federal Register Notice 5696-N-06, which established the requirements and processes for $2.097 billion in Federal CDBG-DR aid to NYS.

The Disaster Relief Appropriations Act requires grantees to submit an action plan to the HUD Secretary "detailing the proposed use of all funds, including criteria for eligibility and how the use of these funds will address long-term recovery and restoration of infrastructure and housing and economic revitalization in the most impacted and distressed areas."

As required by the CDBG-DR program, NYS submitted to the HUD Secretary the *State of New York Action Plan for Community Development Block Grant Program Disaster Recovery* (Action Plan) (issued April 25, 2013, amended August 13, 2013; August 16, 2013; August 19, 2013; November 15, 2013, December 18, 2013; and May 27, 2014). The Action Plan describes the proposed use of HUD CDBG-DR funding to meet the unmet housing, economic development, community planning, and infrastructure needs of impacted communities. In the Action Plan, NYS identified more than $6 billion in damage to residential structures in the areas most impacted by Superstorm Sandy and other recent eligible disaster events, such as Hurricane Irene and Tropical Storm Lee.

The Action Plan is being used as a guide by NYS Homes and Community Renewal (HCR), through its Office of Community Renewal (OCR) and the Housing Trust Fund Corporation (HTFC), for the distribution of CDBG-DR funding. The Action Plan helps to define how NYS will effectively use any available funding to recover and rebuild, and just as importantly, to stimulate economic growth in every affected community through a community-driven planning process.

The plan is based on six key principles:

1. *Building back better and smarter* – As New Yorkers repair the significant damage wrought by Superstorm Sandy, NYS will use the opportunity not to replace damaged buildings with the same structures, but to invest in additional mitigation methods to prevent similar damage from recurring.

2. *State-led, community-driven recovery* – NYS is collaborating closely with local governments and other organizations to ensure a coordinated and holistic response, while looking to individual communities to develop forward-looking local recovery plans that meet their specific needs.

3. *Recovery from Irene and Lee* – The recovery efforts will also extend to those communities still recovering from Hurricane Irene and Tropical Storm Lee.

4. *Leveraging private dollars* – NYS will undertake programs that will help unlock capital markets and increase the amount of low-interest financing of key projects by reducing the risk for private sector lenders.

5. *Spending accountability and transparency* – To make certain that funds are spent appropriately and responsibly, NYS will put rigorous spending accountability systems in place and employ an independent auditing firm.

6. *Urgency in action* – The recovery is a long-term endeavor but people need help today, so the projects and programs have been shaped to achieve the fastest delivery and best support possible.

To meet these objectives, NYS has established a number of individual programs to provide assistance for housing, economic development, resilience and retrofit, community planning and redevelopment, and public infrastructure. The NY Rising Single Family Housing (SFH) Program assists owners of 1- and 2-unit, owner-occupied homes to repair or reconstruct their homes. The NY Rising Multifamily Program assists owners of rental and multifamily buildings to repair their properties. The Bulkhead Repair Initiative for Residential Properties is an integral component to the success of both these housing programs. It is designed to provide assistance for repairing and/or replacing or reconstructing damaged bulkheads on both owner-occupied and rental residential properties with any number of housing units, and to reimburse homeowners who have already begun repairing and/or replacing or reconstructing or have completed repairs or reconstruction of bulkheads.

HCR is acting as the Responsible Entity (RE) under 24 CFR Part 58—Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities. As the RE, HCR will complete environmental reviews for all NY Rising Programs in compliance with the National Environmental Policy Act (NEPA) and HUD environmental review standards. For the purposes of environmental reviews and in compliance with HUD rules, HCR will conduct Tier 1 Programmatic Environmental Assessments (PEAs) for the NY Rising Programs on a county-by-county basis as follows:

- 1-4 unit residential properties
- 5+ unit residential properties
- Buyouts and acquisitions[1]
- Bulkhead repairs or reconstruction for residential properties

This Tier 1 PEA evaluates the potential environmental impacts of the Bulkhead Repair Initiative of the SFH and Multifamily Programs in Westchester County (also referred to as the "proposed action"). For purposes of this Tier 1 PEA, residential properties include properties that are comprised of 1-4 and 5+ dwelling units that have a bulkhead on the property that was impacted by Hurricane Irene and/or Superstorm Sandy.

[1] The Tier 1 PEAs for Buyouts and for Acquisitions will be completed separately for the counties within NYC: Bronx, Kings, New York, Queens, and Richmond Counties.

1.3 Proposed Action Location

The geographic scope for the NY Rising Bulkhead Repair Initiative for Residential Properties described herein is the jurisdictional area of Westchester County, covering approximately 288,000 acres of land. Construction activities are expected to take place on the waterfront of individual residential properties containing bulkheads throughout the communities in Westchester County, especially those most affected by Hurricane Irene and/or Superstorm Sandy – City of Yonkers, City of New Rochelle, Town of Mamaroneck, City of Rye, and the Town of Rye. Property owners (referred to as the "Applicant" throughout this Tier 1) of any location within the county that sustained damage from Hurricane Irene and/or Superstorm Sandy are able to apply for the bulkhead repair initiative.

The number of residents in Westchester County most impacted by Superstorm Sandy's storm surge is approximately 9.6% of the county's total population, distributed across the most impacted communities (see Table 1: Westchester County Most Impacted Communities on page 6).

According to FEMA Individual Assistance Program (FEMA IA) estimates from April 2013, 2,660 owner-occupied homes were damaged, and 60 rental properties suffered damage or were destroyed in Westchester County by Hurricane Irene or Superstorm Sandy. More recent FEMA IA data from November 2013 estimates that as many as 8,151 residential properties in total sustained damage from Hurricane Irene and/or Superstorm Sandy in Westchester County. The number of potential bulkheads impacted is subject to updates and refinements as more detailed information becomes available. The actual property addresses would not be verified until applications for assistance are reviewed and determined eligible for the bulkhead repair initiative.

Table 1
Westchester County Most Impacted Communities

	Westchester County		City of Yonkers		City of New Rochelle		Town of Mamaroneck		City of Rye		Town of Rye	
	Total	Sandy Inundation Area	Total	Sandy Inundation Area	Total	Sandy Inundation Area	Total	Sandy Inundation Area	Total	Sandy Inundation Area	Total	Sandy Inundation Area
Population	949,113	11,863 *(1.3%)*	195,976	2,659 *(1.4%)*	77,062	5,100 *(6.6%)*	29,156	2,043 *(7.0%)*	15,720	1,476 *(9.4%)*	45,928	865 *(1.9%)*
Average Household Size	2.65		2.58		2.64		2.65		2.82		2.93	
Elderly 65+	14.7%		14.7%		15.2%		15.1%		15.0%		13.0%	
Below Poverty	8.2%		13.8%		10.7%		3.8%		1.3%		11.6%	
Race												
White Non-Hispanic	57.4%		41.4%		47.9%		76.0%		84.8%		48.5%	
Black Non-Hispanic	13.3%		16.0%		18.1%		2.7%		1.3%		4.1%	
Hispanic	21.8%		34.7%		27.8%		15.5%		6.5%		42.4%	
Asian Non-Hispanic	5.4%		5.8%		4.2%		3.9%		5.9%		3.2%	
American Indian & Alaska Native	0.1%		0.2%		0.1%		0.0%		0.0%		0.2%	
Native Hawaiian & Pacific Islander	0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	
Housing												
Total	370,821		80,389		29,586		11,562		5,957		16,556	
Occupied	347,232		74,550		27,953		10,849		5,520		15,469	
Owner-Occupied	213,888		34,400		14,317		7,457		4,012		8,584	
Renter-Occupied	133,344		40,150		13,636		3,392		1,508		6,885	
Vacant	23,589		5,839		1,633		713		437		1,087	
5+ Unit Housing	118,232		38,048		12,769		3,931		986		3,557	

Source: U.S. Census Bureau (census.gov) 2010 Decennial Census and 2006-2010 American Community Survey 5-year estimates. Sandy Inundation Area populations determined by selecting all Census Blocks within 100 feet of the FEMA Sandy Inundation layer provided from the February 2013 FEMA MOTF Hurricane Sandy Impact Analysis.

1.4 Current Conditions and Trends

Westchester County is located in southeastern NYS and shares its southern boundary with NYC. The county occupies a total area of approximately 450 square miles, of which 430.5 square miles are land and 19.5 square miles are water. The county, established in 1683, was named after the city of Chester in England. The county seat of Westchester is the City of White Plains. The county is bordered by NYC and Long Island Sound to the south; Putnam County to the north; Fairfield County, Connecticut to the east; and Rockland County and the state of New Jersey to the west across the Hudson River. Westchester County became the first suburban area of its scale in the world to develop. Its significance as a suburb derived mostly from the upper-middle class development of entire communities in the late 19th century, and the rapid population growth that occurred as a result.

Southern Westchester's Long Island Sound shore is generally rocky. Tidal mud flats, marshes and wetlands, as well as several natural and artificially maintained sand beaches are interspersed on the coast. The geography of interior Westchester County is generally comprised of low-lying hills and valleys. The highest elevation is a U.S. Coast and Geodetic Survey benchmark known as "Bailey" at 980 feet above sea level in Mountain Lakes Park near the Connecticut state line. Climate in the county is cooler than in neighboring NYC with temperatures sometimes as much as 15°F colder. Winters are cold throughout the county and summers are hot inland but cooler towards the coast.

According to the 2010 U. S. Census, the population of Westchester County was 949,113. Recent 2012 Census data estimates an increase in population to 961,670. From the 2010 Census, approximately 57.4% of the population identifies as White Non-Hispanic, 21.8% identifies as Hispanic, 13.3% identifies as Black or African-American Non-Hispanic, 5.4% identifies as Asian Non-Hispanic, 0.1% identifies as American Indian or Alaska Native, and 0.4% identifies as “other” (see Table 1: Westchester County Most Impacted Communities on page 6). In Westchester County, 14.7% of the population is over the age of 65. As of 2012, the average median household income of Westchester County is $80,725, and the median value of owner-occupied housing units is $547,000.

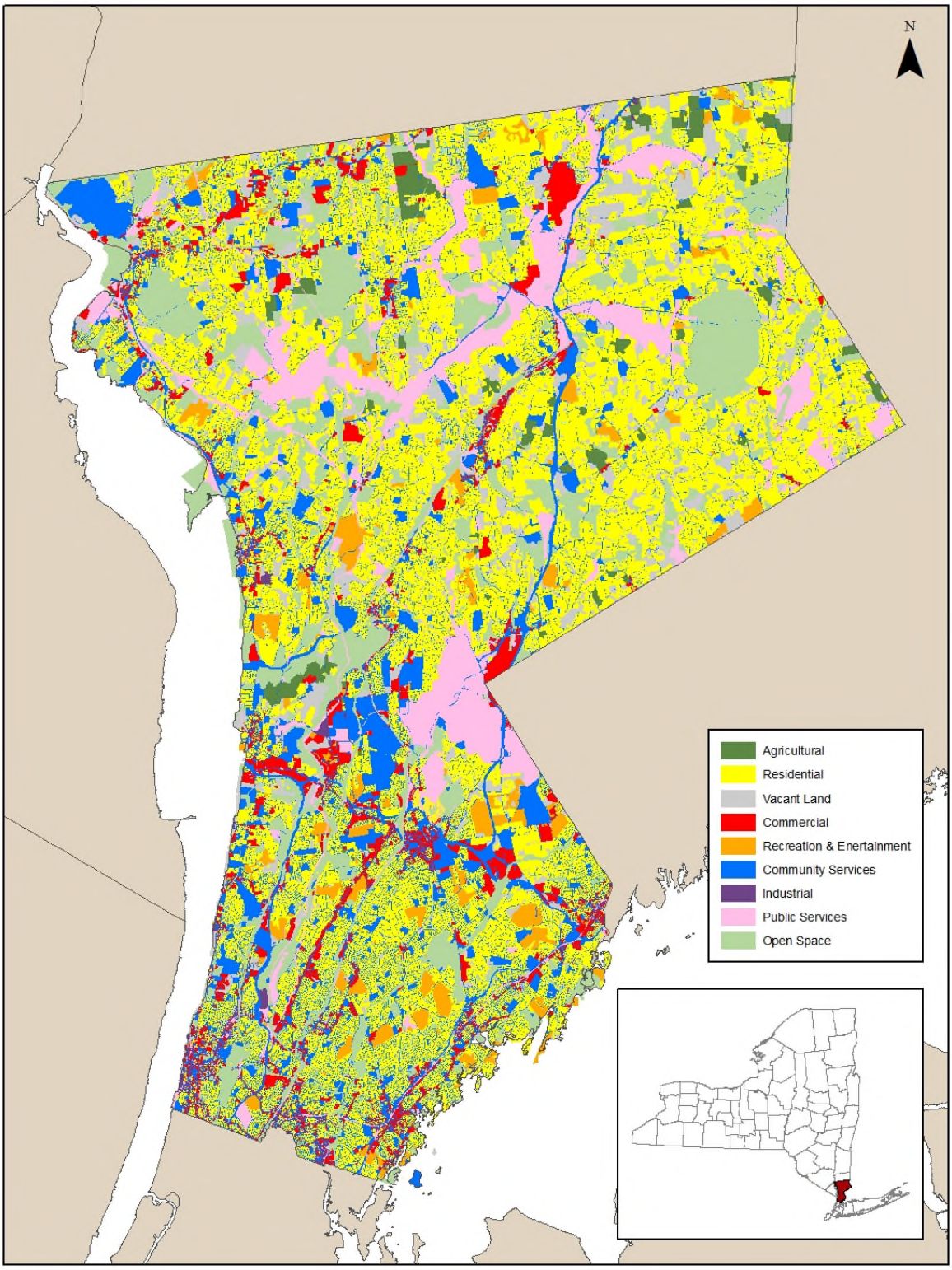
The county comprises six cities, nineteen towns and 23 villages. Approximately 43% of the county is occupied by residential land use, with single-family residential properties making up 35% of the county (see Figure 1: Westchester County Land Use Map). The densest residential areas include cities and villages in the southern parts of the county, while the northern towns remain the least dense. About 93.6% of Westchester County’s housing is occupied. Of this approximately 38.4% is renter-occupied and 61.6% is owner-occupied. About 44.8% of all housing is single-family detached housing, and 9.9% were 2-unit structures (2012 American Community Survey, 1-Year Estimates).

Dedicated open space and recreation lands occupy more than 64,000 acres, or approximately 22% of Westchester County's land area. The largest portions of protected open space are in the northern areas of the county. This recreational and open space includes Fort Slocum, which is currently unoccupied but is slated for use as passive parkland, and Glen Island, which is a county park for passive and active recreation.

Vacant and undeveloped lands make up over 22,000 acres, or 9% of the county's land area. These vacant areas include Huckleberry Island, which is largely undeveloped and has one of the largest rookeries for some shore bird species in western Long Island Sound; Columbia Island, which the former site of CBS television broadcast antennas and is currently unoccupied; Echo Island, which is used by a private yacht club; Execution Rocks, which is the site of a 19th-century lighthouse listed on the National Register of Historic Places; and Pea Island, which is owned by Huguenot Yacht Club but remains undeveloped.

Transportation rights-of-way make up 8.5% of the county's area. Institutional uses, including schools and government facilities, comprise about 7% of the total land area, and are widely dispersed throughout the county. Retail development, approximately 3% of the land area, is concentrated in the established downtown centers and along arterial roadways in local and regional-based shopping centers. Industrial uses comprising about 0.4% of land area are concentrated in the central and southern portions of the county near rail lines and major transportation corridors.

Figure 1: Westchester County Land Use Map



1.5 Damage Assessments and Need

In 2011, the severe winds, heavy rainfall, and storm surge from Hurricane Irene caused flooding, fallen trees, property damage, and power outages in Westchester County. One 99-unit apartment building had to be evacuated after an oil tank in the basement erupted due to flooding. The Westchester County Health Department reported that rains from Hurricane Irene overwhelmed the North Yonkers Pump Station and dislodged a manhole cover causing sewage to spill into the Hudson River.

Con Edison stated that more than 70,000 customers in NYC and Westchester County were without power following the storm. Efforts to restore power to Westchester County were hampered because flooding and downed trees prevented crews from reaching damaged lines.

Major roads were closed due to high flooding, with water up to four feet in depth across some roads. Road closures included the 137 miles of southbound lanes of the Thruway from Exit 24 in Albany to Exit 12 at West Nyack. Northbound lanes of the Thruway were shut for 90 miles from Exit 8 in Westchester County to Exit 20 at Saugerties in Ulster County. The flooding also forced closure of the Tappan Zee Bridge which crosses the Hudson River.

In Westchester County, an approximately 300-year-old oak tree was destroyed by Hurricane Irene in Katonah. The four-foot diameter trunk of the tree smashed into the art studio of renowned artist Edward Giobbi, destroying several priceless paintings. The 85-year old artist said that the tree wasn't knocked down but that it had shattered and looked like the bomb wreckage he had seen during World War II.

Hurricane Irene caused multiple fatalities in Westchester County. One resident was electrocuted trying to help a child who had gone into a flooded street strewn with downed wires. Westchester County Police reported that two men were swept down Croton River after their inflatable boat capsized hours after Tropical Storm Irene passed through Westchester County. One of the men was pronounced dead. Police also reported that the Croton River was moving about 40 mph when a boat carrying five boaters overturned, ejecting them into the water. Two of the men made it to shore on their own and a third was pulled to shore by police. The other two boaters were swept half a mile down river. One managed to cling to a tree until police boat emergency units from Croton and Westchester reached him.

On October 29, 2012, Superstorm Sandy made landfall over the NYS coastline. Flooding and high winds along the coast, and overland flooding damaged communities throughout NYS, adding to damage suffered by Westchester County the previous year from Hurricane Irene. Superstorm Sandy's storm surge damaged homes and infrastructure, and caused flooding and widespread power outages in the county. Data collected by the U.S. Geological Survey (USGS) shows that the storm surge along the Hudson River and Long Island Sound on Westchester County's coastline peaked just around ten feet above the primary tidal bench mark.

The storm surge severely damaged both the Glen Island and Playland parks in Westchester County. The bathhouse and half of the sand of the beach at Glen Island were swept away, and several trees were toppled by the high winds. Sections of the boardwalk at Playland were destroyed.

More than 156,000 Con Edison customers in NYC and Westchester County had lost power on October 29, 2012. The company had also preemptively shut down the grid to some customers in the state as the storm increased in intensity. More than 16,000 Westchester County residents remained without power for twelve days following Superstorm Sandy. Downed power lines around New Rochelle sparked and burned, causing a tree to catch fire. The Marina Restaurant on Davenport also had fire damage related to Superstorm Sandy.

In addition to the widespread power outages, the Yonkers Joint Wastewater Treatment Plant suffered severe damage during Superstorm Sandy. Two other treatment plants in Westchester County, Yorktown Heights and Port Chester, were off-line during the storm and did not become fully operational until power was restored. As a temporary measure, some wastewater treatment plans used pre-chlorination (adding chlorine) to the wastewater. Partially treated and untreated sewage was discharged into waterways such as the Hudson River.

During Superstorm Sandy, the Community Opportunity Center (COC) of Tarrytown opened its doors for five nights to operate as a 24-hour disaster relief shelter. COC staff worked around the clock to house, feed, and provide emergency assistance referrals to 750 people. The COC continued to operate as a warming, recharging, and emergency assistance location for residents without power. The Community Center of Northern Westchester provided emergency food, clothing, and blankets to residents affected by Superstorm Sandy. The Community Center welcomed monetary donations with which to purchase food, as well as donations of non-perishable food and clean seasonal clothing, shoes, and linens.

Superstorm Sandy was also responsible for three fatalities in Westchester County. Two juvenile boys were killed when a tree fell through the roof of their home. Another man died when his car struck a tree that had fallen across the Sprain Brook Parkway.

According to Federal Emergency Management Agency Individual Assistance (FEMA IA) estimates from April 2013, 2,660 owner-occupied homes were damaged, and 60 rental properties suffered damage or were destroyed in Westchester County by Hurricane Irene or Superstorm Sandy. More recent FEMA IA data from November 2013 estimates that as many as 8,151 residential properties in total sustained damage from Hurricane Irene and/or Superstorm Sandy in Westchester County.

It is expected that a number of these residential properties have bulkheads that are in need of repair as a result of Superstorm Sandy and/or Hurricane Irene, and may apply for funding under the proposed action. One Applicant address has been verified and mapped in Westchester County for the NY Rising Bulkhead Repair Initiative (see Figure 2: Westchester County Verified Applicant Address Map).

NYS recognizes that without federal assistance through the CDBG-DR program, residents of storm-damaged communities would be unable to repair, rehabilitate, or replace the bulkheads on their residential properties. If damaged bulkheads are not addressed, residential properties would remain more vulnerable to future storm damage and the bulkheads will remain vulnerable to structural deterioration and weathering.

As allocated to Westchester County, the CDBG-DR funds available are considered essential to recovering the county's overall vitality. For the NY Rising Bulkhead Repair Initiative for Residential Properties in Westchester County addressed in this Tier 1 PEA, the CDBG-DR funds would facilitate the repair, rehabilitation, replacement, and reimbursement for completed repairs to bulkheads on residential properties.

The purpose of the proposed action is to assist owners of residential properties in Westchester County whose bulkheads were damaged or destroyed by Hurricane Irene and Superstorm Sandy. The NY Rising Bulkhead Repair Initiative is needed to help provide adequate protection to the homes of these residents through the repair and/or replacement or reconstruction of damaged bulkheads.

Figure 2: Westchester County Verified Applicant Address Map

1.6 Recovery Measures

In January, and subsequently in April of 2013, FEMA released its Advisory Base Flood Elevation (ABFE) Maps for some counties affected by Superstorm Sandy. These maps were created to provide the "best available data" of flood risk for areas impacted by the storm and assist homeowners with decision making on how best to rehabilitate their homes. These were to be replaced by Preliminary Flood Insurance Rate Maps (P-FIRMS) once they were updated by FEMA. However, the P-FIRMS have not yet been published. In light of this fact, HUD issued its newest "best available data" as preliminary work maps, which advise that reconstruction program sites be elevated to one foot above the Base Flood Elevation (BFE) as set forth in the "best available data."

Also in response to Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee, NYS developed the Action Plan to help define how the State will effectively use all available funding to recover and rebuild. Part of the Action Plan describes the need to help affected families to rebuild and return to their homes as soon as possible by addressing unmet housing rehabilitation and repair needs and incorporating mitigation measures in order to reduce impacts of future disasters. In Westchester County, rehabilitating bulkheads located at residential properties and helping homeowners to mitigate future storm damage is of particular concern, as a majority of housing in Westchester County is located adjacent to a water body and bulkheads are necessary to protect property and prevent erosion of soils into the water bodies.

Although there was some assistance granted to the county immediately after the storms, including $3.2 million in federal funding granted to municipalities after Hurricane Irene and $332 million in FEMA Public Assistance for infrastructure repairs after Superstorm Sandy, there still remains a great need for housing recovery assistance in Westchester County. Reimbursements for bulkhead repairs and replacements are also being offered as part of the initiative, as they are an important part of the recovery and resiliency efforts.

The action covered by this PEA is to provide assistance for repair, rehabilitation, replacement and reimbursement for completed repairs to owners of residential properties in Westchester County whose bulkheads were damaged or destroyed by Hurricane Irene and Superstorm Sandy. The initiative is needed to help maintain or restore properties impacted by these storms through repair and replacement of damaged bulkhead structures, and to help prevent future damage.

Where practicable, this initiative intends to facilitate the repair and/or replacement or reconstruction of bulkheads. If an Applicant to the NY Rising Bulkhead Repair Initiative opts to undertake bulkhead work other than repair and/or replacement or reconstruction, either to achieve compliance with local building codes or to provide greater resiliency measures, such work would be considered; however, it would likely be subject to a longer permitting process due to the need for individual permits from NYSDEC and USACE, as discussed in Section 1.9 below. All Applicants would be responsible for obtaining all required permits for bulkhead repair activities.

After these storms, Westchester County updated its Hazard Mitigation Action Plan. This plan represents the collective efforts of private citizens, elected and appointed government officials, business leaders, and volunteers of non-profit organizations to initiate programs for rebuilding and increasing resiliency of communities in the event of future extreme weather events.

One of the primary objectives of this plan update is to help prioritize mitigation projects for the county as the impact and future implications of Superstorm Sandy events are becoming better understood. The goal in this undertaking is to strengthen facilities, infrastructure, and individual residences to the potential damage caused by natural disasters in the future. Under the Disaster Mitigation Act of 2000 (Public Law 106-390), state and local governments that maintain an approved Hazard Mitigation Plan will be eligible for certain pre- and post-disaster project funding to help protect their communities. These types of recovery measures taken by Westchester County will complement the repair and resiliency efforts to individual homes under the NY Rising Programs, making the repair and mitigation efforts more effective, leading to a better recovery of the county.

1.7 Bulkhead Definitions and Descriptions

Bulkheads are defined as vertical structures constructed parallel to the shoreline or banks of a waterway, with retaining walls for the purpose of preventing overtopping and flooding of the adjacent properties. Bulkheads are usually placed along an eroding bank or escarpment to hold back the land and prevent erosion. Bulkheads are a long-lasting hardy structure that can stand up to moderate to high wave energy.

Residential bulkheads protect the banks and bluffs on a residential property by completely separating land from water. These bulkheads act as retaining walls, keeping the earth or sand behind them from crumbling or slumping. They also are used to resist wave action and protect property.

Bulkheads can be built in three basic types of design. They may consist of:

1) Thin, interlocking sheet piles driven deeply into the ground;
2) Individual piles used to support an aboveground structure; or
3) Massive gravity construction resting on the shore bottom or embedded slightly into it, supported by its own weight rather than by piling.

From these three basic design types, a wide variety of bulkhead designs have been developed. Common and uncommon types of bulkheads include:

- Common bulkheads:
    - Cantilever wall – typically used where there is no room for the installation of an anchor wall;
    - Anchored wall with single layer of anchorage – most commonly used;
        - Relieving platforms may be added to reduce lateral pressure;
        - Batter piles may be driven to use as anchors behind the wall, but should only be considered if there is insufficient room for an anchor and the height of the walls exceeds the design parameters for a cantilever wall;

    - Soldier pile wall, also known as a “King” pile wall, consisting of piles added to the front of an anchored wall to help prevent deflection;
    - Soldier beams and lagging;
    - Close pile wall;
    - Double wall;
    - Various combinations can be used of the above general designs to meet the conditions of the site.
- Some uncommon bulkhead types are listed below. They are unlikely to be encountered, but are listed for reference only.
    - Railroad ties and steel H-piles
    - Treated timber
    - Untreated log
    - Hogwire fencing and sandbags
    - Used rubber tire and timber post
    - Timber cribbing
    - Stacked rubber tires
    - Used concrete pipes
    - Longard tubes
    - Stacked bags
    - Gabions

Some of these types of bulkheads, such as those using rubber tires, are listed for informational purposes only. If an Applicant to the NY Rising Bulkhead Repair Initiative has a bulkhead that is comprised of a material that is not in compliance with local, state, and/or federal laws and regulations, that bulkhead would be replaced with one made from materials that comply with all applicable laws and regulations.

Damage to Bulkheads

Bulkheads are susceptible to various forms of damage due to their presence in the interface between land and water. The action of water, both in front of the wall and behind it, can cause bulkhead damage. Waves that lap over the top can erode the land behind the structure as if the wall were not there, so the structure must be built high enough to prevent such overtopping. Groundwater and rain percolating through the soil may build up pressure behind the wall, eventually pushing it over. Scour at the toe of the bulkhead can undermine the structure and tip it over. Water flowing around the sides of the bulkhead can also cause severe erosion damage, so the structure should cover the entire surface that could be eroded.

Typical storm damage that has been seen from Superstorm Sandy and other similar events has included erosion of the toe of the bulkhead, washout of fill behind the bulkheads, impact damage to sheet piling or other sheeting, and the loss of decking and sheeting from flooding. Most references to historical storm events indicate that the damage incurred was an acceleration of typical wear to bulkheads.

1.8 Repair and Rehabilitation Activities

Residential property owners in disaster-declared counties who sustained damage to bulkheads have been invited to submit an application for assistance to repair damage caused by any of the storms identified in the Action Plan. Funding for repair and mitigation would include costs for the repair/replacement of damaged bulkheads. It would cover costs for unmet repair or replacement needs after accounting for all federal, state, local and/or private sources of disaster-related assistance. Assistance for repair, rehabilitation, replacement, and reimbursement funding would be capped at the lesser of a specified dollar amount to be determined by NYS, or the unmet repair, rehabilitation, replacement, and reimbursement need as described above. To direct sufficient levels of assistance to those most in need, especially low- or moderate-income and minority households, a higher overall dollar cap amount might be applied to those households of low- or moderate-income, where the need is justified.

The discussion below outlines the activities that would be carried out under the NY Rising Bulkhead Repair Initiative to address storm-related damage to bulkheads. The following steps would be implemented:

Inspection and Reporting

The condition of the existing bulkhead would be inspected by a professional engineer licensed in the State of New York (a licensed engineer) retained by the Applicant to determine whether to repair or replace the damaged structure. The engineer would provide photographs, sketches, and a detailed narrative of the existing site conditions and proposed method of repair or replacement, including a cost estimate.

Documentation

Documentation must be developed, by the Applicant and/or their licensed engineer, sufficient to acquire all required permits and authorizations from the United States Army Corps of Engineers (USACE), New York State Department of Environmental Conservation (NYSDEC), New York State Department of State (NYSDOS), and any local agency having jurisdiction over the work.

Activity Summary

Bulkhead repair and/or replacement or reconstruction activities would be conducted in accordance with the federally issued design criteria documents.

All bulkhead replacements would be in the existing footprint. Bulkheads may be constructed to be up to 18 inches higher than the currently existing bulkhead. Material upgrades would be permitted when deemed advisable by a licensed engineer. Alternatives to in-kind and in-place repair would be considered only when recommended by a licensed engineer.

Reimbursement for work already initiated or completed would be allowed for Applicants who have obtained all necessary permits and authorizations. Applicants for reimbursement must also demonstrate compliance with the requirements of all permits and authorizations as well as construction in accordance with approved plans, as required.

The following basic program eligibility requirements apply to the NY Rising Housing Recovery Programs:

The property must have been occupied as a primary year-round residence at the time of one of the three storms by a renter or an owner-occupant. In the case of owner-occupied properties, the Applicant must be the owner at the time of the storm. Ownership is defined as holding fee simple title supported by a deed recorded with the County Recorder.

- The home must be located in one of the counties designated a disaster area.
- The residential property was damaged as a direct result of one of these storms:
    - Hurricane Irene: (8/26/2011)
    - Tropical Storm Lee: (9/7/2011)
    - Superstorm Sandy: (10/29/2012)
- Second homes and vacation properties are not eligible.
- Homeowners of individual condo and co-op units are eligible program Applicants. Associations governing the common spaces of such buildings are also eligible Program Applicants
- If a rental property was between tenants at the time of the storm, the property must have been offered for lease on a full-time, year-round basis in order to be eligible.

As project activity begins, certain portions of the existing bulkhead that could not previously be inspected may be exposed and/or accessible, and should be assessed for additional damage. While most of these materials are unlikely to have been damaged during a storm event, depending on the age of the bulkhead, there is the potential for wear. These previously inaccessible features include:

- Tiebacks
- Anchor walls
- Batter piles
- Relieving platforms
- Backfill
- Scour protection materials

The applicability of the existing bulkhead design to the local conditions would be reviewed. It is expected that the Applicant's licensed engineer would consider the following factors in the design of repairs or replacement bulkheads under the initiative:

- Exposure to wave attack
- Foundation condition
- Scour, in particular wave reflection from vertical walls for bulkheads
- Overtopping by wave action (in particular during storm events)

During storm events, excessive waves may cause increased scour and overtopping, while debris carried in the storm event may damage bulkheads and piles. To ensure protection during storm events, it is expected that the Applicant's licensed engineer would review existing bulkheads and the design of replacements or repairs would include assessment of:

- Compartmentalization: The design of the bulkhead should be such to allow for repair only of the area damaged rather than the entire bulkhead.
- The potential for inundation of the backfill of the bulkhead, which could cause wash out or subsidence, should be reviewed and, if necessary, adequate drainage should be provided.
- Impact to the bulkhead, including storm debris.

Methods for construction or repairs of the bulkheads would vary based on site conditions. An example of construction methods for a sheet pile bulkhead is provided below:

- Where removal of soft material is contemplated, such activities should precede the driving of sheet piling. USACE's Nationwide Permit 3, discussed in detail in Section 1.9, authorizes the removal of accumulated sediments and debris in the vicinity of existing structures, provided that the removal extends no more than 200 feet in any direction from the structure and is limited to the minimum necessary to restore the waterway in the vicinity of the structure to the approximate dimensions that existed when the structure was built.
- Where existing material behind the bulkhead is to remain in place, it is advisable to remove material in front of the bulkhead after completion of the structure. This emphasizes arching in the material behind the bulkhead and reduces bending stresses. Removal of material adjacent to sheet piling after completion should be done in two or three vertical stages to avoid rapid changes and load differentials.
- Add fill behind the bulkhead in areas of broad extent so that the concentration of lateral pressure does not cause differential alignment along the length of the bulkhead.
- Consider compaction pressure due to the driving of support piles (relieving platform or track supports) behind the face of the bulkhead. If removal of material in front of the bulkhead is done after the piles are driven, deflection of the bulkhead will tend to relieve these pressures. Specify the driving sequence for such piles to avoid a progressive increase of the wedging effect.
- Concrete walls and anchor walls should be reinforced on both faces and not simply in accordance with the theoretical moment diagram. The use of high tensile steel in tie rods should be approached with caution to assure that the steel is capable of several percent elongation without fracture.
- All concrete must be placed in sealed forms that prevent loss of cementitious material to the adjacent waterway.
- Tie rods should be pre-tensioned as uniformly as is practicable.
- Where the anchorage depends on passive earth pressure, place and compact backfill around the anchorage before filling against the bulkhead.
- In a hard bottom with shallow impenetrable material, consider using soldier piles for support or trenching for the base of the bulkhead.
- Various materials are available for construction of the face of the bulkhead. For the majority of the materials, such as steel, timber, and concrete, standard pile and sheet piling techniques, as well as the manufacturer's recommendation, would ensure proper installation. More recently, newer materials, including galvanized corrugated sheet metal, corrugated fiberglass, and corrugated aluminum have become available

on the market. The use of these materials at existing locations should be reviewed by the Applicant's licensed engineer based on:
    - Freeze thaw cycles
    - Corrosion
    - Marine borers
    - Ultraviolet light reactions
    - Abrasion
    - Wave and ice forces
- It is recommended that regardless of the materials selected, the manufacturer should be consulted for proper installation techniques.
- The anchorages of all tie-backs should be properly designed for site conditions by the Applicant's licensed engineer.

1.9 Permitting

As noted above, documentation must be developed by the Applicant and/or their licensed engineer, sufficient to acquire all required permits and authorizations from USACE, NYSDEC, NYSDOS, and any local agency having jurisdiction over the work. The documents that should be consulted for guidance during the repair and rehabilitation process include those discussed below. As noted below, certain permits may apply only to Applicants seeking reimbursement for completed work.

<u>Federally Issued Design Criteria Documents</u>
Typically, federally funded projects are required to follow federal criteria (criteria are typically set forth by the USACE or the Department of Defense). These references include the typical construction specifications for bulkheads; however, some of the designs may exceed the necessary requirements for the replacement of the existing structures.

Consideration should be given to the existing conditions and uses when selecting the appropriate design. The following documents may be utilized in determining design specifications for the repair or replacements of bulkheads under the NY Rising Bulkhead Repair Initiative:
- EM 1110-2-1614: Design of Coastal Revetments, Seawalls, and Bulkheads (USACE)
- MIL-HDBK1025/4: Seawalls, Bulkheads and Quaywall
- UFC 4-150-06: Military Harbors and Coastal Facilities
- NYSDEC Website "Tidal Wetlands Permit Program: List of Sample Plans and Diagrams."
    - Provides sample plan and crossview diagram for typical bulkhead repair/replacement
    - Located at http://www.dec.ny.gov/permits/6342.html

The scope of work for repairing or replacing damaged or destroyed bulkheads in Westchester County would meet the requirements of and use the appropriate general or individual permits listed below:

<u>NYSDEC General Permits</u>
General Permit GP-0-13-006 was issued on July 16, 2013 to replace GP-0-12-006. Although counties within NYSDEC's Region 2, including Westchester County, were previously eligible

for GP-0-12-006, the new permit GP-0-13-006 is applicable only in Nassau and Suffolk Counties. There are no NYSDEC General Permits issued for storm-related work that are currently available for use in Westchester County. Applicants may apply for reimbursement for work completed under GP-0-12-006, but new or unfinished work would need to be covered under the appropriate NYSDEC individual permit.

USACE NYDGP-15[2]

In NYS, the USACE regional general permit for storm damage repair or replacement activities is NYDGP-15. NYDGP-15 expired on April 21, 2014. If this permit is not reissued, there will no longer be a Superstorm Sandy-related USACE general permit. The regular permitting process must be followed for all coastal erosion structures or structures in water with the USACE at that time.

USACE Nationwide Permit 3 – Maintenance

The USACE NWP3, which covers maintenance, repair, and replacement of currently existing, serviceable bulkheads, would be the appropriate permit for many Applicants to the NY Rising Bulkhead Repair Initiative (see Appendix T: USACE Coordination and Permits). A permit application must be completed for each program site, and all permit conditions must be met. Any program sites that do not qualify for the NWP3 must complete an individual permit application for the program site. Some program sites would also require a PCN to be submitted to the USACE in addition to the NWP3 permit application. NYSDEC has granted blanket Section 401 Water Quality Certification in NYS provided that the project complies with all the General Conditions listed for NWP3. Any activities authorized by NWP3, but that do not comply with all these conditions, must obtain an individual Section 401 Water Quality Certification from NYSDEC.

Individual Permits

An individual permit would be required if the project activities are not eligible for a NYSDEC General Permit. In New York, authorizations for in-water work are issued through the Joint Application for Permit process, which is used to apply for permits from several agencies. If a project is eligible for a USACE nationwide or regional permit, but is not eligible for a NYSDEC general permit, a Joint Application for Permit would need to be filed.

If a project is not eligible for a USACE Regional or Nationwide Permit, a USACE individual permit would be required. Individual permits issued by the USACE include Standard Permits, which are generally more complex in nature and involve notification of the public and commenting agencies, and Letters of Permission, which is issued through an abbreviated processing procedure that coordinates with appropriate agencies but does not require the publishing of a public notice. Both are issued for projects in compliance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.

[2] NYDGP-15 expired on April 21, 2014; however, the USACE proposed a re-issuance of NYDGP-15 on February 13, 2014. The re-issued permit would be valid until July 14, 2015, to coincide with the expiration date of a similar regional general permit that is in effect within the boundaries of the Buffalo District of the USACE. The comment period on the proposed re-issuance expired on March 14, 2014. If the general permit is reissued, additional activities under the proposed action may be eligible for authorization under this permit. If it is not reissued, this permit would only apply to work previously completed and seeking reimbursement under the proposed action.

Individual permits and authorizations issued through NYSDEC include: Tidal and Freshwater Wetlands permits under 6 NYCRR Part 661 and Parts 663-665, respectively; Coastal Erosion Management permit under 6 NYCRR Part 505; Wild, Scenic and Recreational Rivers permit under 6 NYCRR Part 666; and Excavation and Fill in Navigable Waters permit, Stream Disturbance permit, and Section 401 Water Quality Certification under 6 NYCRR Part 608. Depending on the specific type of permit required through NYSDEC, supplemental information may be required. Tidal and Freshwater Wetlands permits, Protection of Waters permits and Coastal Erosion Management permits are discussed in more detail below.

If the Applicant requires coastal consistency concurrence, a Federal Consistency Assessment Form must be submitted to NYSDOS with the Joint Application.

NYSDEC Tidal or Freshwater Wetlands Permit

Many areas that are not eligible for NYSDEC General Permits GP-0-13-006 or GP-1-13-001 may need to apply for a Tidal or Freshwater Wetlands Permit under 6 NYCRR Parts 661 or 663, respectively. Tidal wetlands include salt marshes, vegetated and non-vegetated flats, and shorelines subject to tides, as well as adjacent areas extending up to 300 feet inland from the wetland boundary. Freshwater wetlands are comprised of lands and submerged lands supporting aquatic or semi-aquatic vegetation and include adjacent areas extending up to 100 feet from the wetland boundary. Tidal Wetland Permits cover construction, reconstruction, and/or expansion of structures, including bulkheads, and Freshwater Wetland Permits include excavation or the placement of fill; if a permit from the USACE is required, a Water Quality Certification may also be required. Water Quality Certifications for this initiative would be granted through a USACE NWP3; if a project does not meet the conditions of NWP3, it would require an individual permit through USACE and a separate Water Quality Certification through NYSDEC.

NYSDEC Protection of Waters Permit

Areas and/or activities that are not eligible for NYSDEC General Permits GP-0-13-006 or GP-1-13-001 would need to apply for an individual permit under the Protection of Waters Program (6 NYCRR Part 608). Permits issued under the Protection of Waters Program regulate five different categories of activities including, among other, Excavation and Placement of Fill in Navigable Waters, Stream Disturbance, and Section 401 Water Quality Certification under 6 NYCRR Part 608. This permit authorizes in-water work according to site-specific conditions. Depending on which permit is appropriate for the site, supplemental information may be required.

NYSDEC Coastal Erosion Management Permit

Some program sites may be within a NYSDEC designated Coastal Erosion Hazard Area (CEHA) and would therefore require a NYSDEC Coastal Erosion Management (CEM) Permit. There are 86 coastal communities in NYS that currently fall under CEHA jurisdiction. Under the Environmental Conservation Law Article 34, local communities are allowed to administer their own CEHA program. Forty-two communities have been certified by NYSDEC and administer their own CEHA program; the remaining 44 communities are managed by NYSDEC. Program sites within CEHA jurisdiction may be required to obtain a CEM permit before any site-altering work can commence.

Other Permitting Requirements
Additional permitting, such as construction document review and obtaining construction/building permits, is typically required at a municipal or county level (or at least notifying the local authority that the work is to commence).

1.10 Alternatives to the Proposed Action

After a consideration of the following alternatives, NYS has determined that the best practicable alternative is the Proposed Action. The alternatives considered herein are limited to repair and/or replacement or reconstruction of residential bulkheads, which may be the only feasible alternative for redevelopment in these waterfront locations. However, soft edge options such as nature-based features and nonstructural measures are not precluded by this Tier 1 analysis. Rather, these features would need to be considered by the property owner, the licensed engineer, and the local municipality. The bulkhead repair initiative is intended to facilitate the repair and/or replacement or reconstruction of residential bulkheads.

The alternative actions considered are as follows:

- No Action Alternative
- Limited Action Alternative – No Reimbursement Funding
- Limited Area Alternative

No Action Alternative
Under the No Action alternative, the funding for the proposed repair and rehabilitation of bulkheads on residential properties in Westchester County would not be authorized. Without the repair and rehabilitation of the protective residential bulkheads, the associated residences would be more susceptible to future flooding.

Under the No Action alternative, the residential property owners would be responsible for the repair and rehabilitation of the residential bulkheads. Depending on the motivations of owners and their willingness and/or ability to access resources to repair and upgrade these bulkheads, there is potential that repairs would be limited, work would progress slowly or remain incomplete, create additional hazards, or work would not be completed to current building codes. The effects of leaving bulkheads unrepaired or repaired insufficiently include:

- Slumping or falling over of the bulkhead due to water pressure not being relieved through weep holes;
- Slumping or falling over of the bulkhead due to undermining by erosion;
- Erosion behind the bulkhead due to waves overtopping the structure; and
- Water flowing around the bulkhead.

The failure of the bulkheads would leave the property vulnerable to erosion, flooding, and wave damage from storms and high water levels.

The property owners may apply to other programs for financial assistance in the repair and rehabilitation of their residences that were damaged or destroyed by the storms. While these assistance programs include financial support, they also include requirements for resiliency upgrades for the residences (e.g., elevating the homes) that would reduce the potential damage from future storms. These resiliency measures may be rendered ineffective due to the reduced protection of the damaged bulkheads.

Under the No Action Alternative, reimbursements would not be made available for eligible homeowners who have already engaged in repairs to the residential bulkheads prior to applying for the initiative. Some of these residents undertook repairs with the understanding that reimbursements would eventually be made available. If relief is not granted, homeowners in future storm events may be dissuaded from making immediate and necessary repairs to their bulkheads, and instead wait for a possible recovery program. This would further delay the recovery of neighborhoods and communities, and place these areas further at risk during future storm events.

The rehabilitation of these communities, and the stabilization and resiliency of existing residential infrastructure is essential to the affected communities' economies, which are critical to the economic health of the state. Unlike the Proposed Action, the No Action Alternative would negatively impact the recovery of the affected communities.

Residents of structures that would be assisted by the proposed action support the affected communities' economies, which are critical to the economic health of the state. The No Action alternative would negatively impact the recovery of the affected communities.

The No Action alternative would neither address NYS's need for safe, decent, and affordable housing, nor would it comply with the other programs' efforts to increase the resiliency of the homes being repaired and rehabilitated.

Overall, the No Action Alternative would be less consistent with State and local land use, zoning, and public policy objectives than the Proposed Action. Compared with the Proposed Action, it would have the potential for adverse impacts to economic conditions, community character, cultural and visual resources, natural resources, and water resources. Similar to the Proposed Action, the No Action Alternative is not anticipated to result in potential impacts to air quality, energy consumption, noise, or hazardous materials.

<u>Limited Action Alternative – No Reimbursement Funding</u>

Under the Limited Action Alternative – No Reimbursement Funding, the funding for the proposed repair and rehabilitation of bulkheads on residential properties in Westchester County would be authorized. However, reimbursement for repairs and improvements that have already been implemented would not be authorized. Reimbursements would not be made available for eligible homeowners who have already engaged in repairs to and/or replacement or reconstruction of the bulkheads prior to applying for the initiative, resulting in a negative effect on the local economy.

Funding for the repair and rehabilitation of residential bulkheads would help prevent repetitive loss from future storms and aid the affected communities' efforts to increase resiliency to climate change and mitigation of severe storm risk. However, this alternative would only partially accomplish the goals of providing safe and adequate housing for residents of these homes, retaining neighborhood character over the long-term, and improving the communities' resiliency to future storms. Unlike the Proposed Action, reimbursements would not be made available for eligible owners who have already engaged in repairs and/or replacement or reconstruction prior to applying for the initiative. Some of these residents undertook repairs with the understanding that reimbursements would eventually be made available. If relief is not granted, homeowners in future storm events may be dissuaded from making immediate and necessary repairs to their bulkheads, and instead wait for a possible recovery program. This would further delay the recovery of neighborhoods and communities, as delaying repairs and rehabilitation would prolong the impacts related to community character, and take longer to restore normal conditions in affected communities.

Compared with the Proposed Action, the Limited Action Alternative – No Reimbursement Funding would have the potential for adverse impacts to land use, zoning, and public policy, economic conditions, community character, cultural and visual resources, natural resources, and water resources, as additional properties could remain in disrepair. Similar to the Proposed Action, the Limited Action Alternative – No Reimbursement Funding is not anticipated to result in potential impacts to air quality, energy consumption, noise, or hazardous materials, as it would likely be subject to the same conditions for approval as the Proposed Action.

Limited Areas Alternative

In certain limited areas with high flood risk, additional programs have been proposed for funding and are being assessed in forthcoming environmental assessments. Under the Limited Area Alternative - Buyout Option, funds would be authorized to purchase damaged residential properties, demolish any structures, and restore the property to natural conditions within Westchester County. This would help restore large parts of the floodplain to their natural state. Under this option, the bulkheads would be removed, reduced, or in other ways be made part of the natural conditions for that site.

Under the Limited Area Alternative - Acquisition Option, funding would be authorized to purchase damaged residential properties for the purpose of future resilient redevelopment within Westchester County. Following acquisition of a property, the responsible entity would make any required temporary repairs to the bulkheads prior to redevelopment. The future redevelopment would have to include long-term repair and rehabilitation of the bulkhead associated with the properties.

Both of these options would involve relocating populations to less vulnerable areas away from the shore. This would result in a dramatic change to neighborhoods and communities, with associated local economies also being affected. Thus, the cost of the Limited Area Alterative Buyout and/or Acquisition options could be far greater than the cost of repairing and rebuilding in a more resilient manner in the existing developed parcel.

By themselves, these options do not satisfy the purpose and need of providing safe and adequate housing for residents of these homes and retaining neighborhood character. Therefore, these

options have been eliminated from further consideration except in limited areas for certain counties.

NYS is evaluating the high risk flood areas where the benefits of these options outweigh the impacts to the communities. The benefits include reduced cost of future storm recovery efforts in areas with potential for severe damage, even to homes with resiliency measures incorporated, or where larger scale community resiliency measures are needed. The state will determine where these options will be presented.

Overall, the Limited Area Alternative, which involves buyout and acquisitions, could result in greater economic impacts to local communities than the Proposed Action. However, since the Limited Area Alternative would involve either the restoration of land to its natural condition, or the redevelopment of land in accordance with resiliency standards, and would likely be subject to the same conditions for approval as the Proposed Action, potential impacts to local land use, zoning, and public policy; cultural and visual resources; natural resources; water resources; air quality; energy consumption; noise; and hazardous materials would be comparable to those of the Proposed Action.

Summary

The rehabilitation activities proposed by the NY Rising Bulkhead Repair Initiative will take place on residential properties throughout Westchester County. The exact locations of these properties are not yet fully known, as the initiative is still accepting applications. After considering the alternatives, NYS has determined that there is no practical alternative other than to proceed with the Proposed Action. While there are some inherent risks to living in a floodplain or area which experiences severe weather that cannot be completely avoided, the individual actions undertaken by the described NY Rising Bulkhead Repair Initiative will contribute to a safer and more secure environment for a substantial number of its low- to moderate-income households still recovering from recent severe storms. The initiative will provide a positive financial impact on neighborhoods, communities, and Westchester County.

1.11 Cumulative Effects

Introduction

The federal Council on Environmental Quality's regulations implementing the procedural provisions of the National Environmental Policy Act (NEPA), set forth at 40 CFR Part 1500-1508, require federal agencies to consider the environmental consequences of their actions, including not only direct and indirect effects, but also cumulative effects. This section summarizes the Proposed Action's cumulative effects when considered with other planned programs in the area. For the purposes of this assessment of cumulative effects, reasonably foreseeable future actions include activities that may be authorized under other NY Rising Housing Recovery Programs within Westchester County.

Cumulative impacts result from the incremental consequences of an action (the Proposed Action) when added to other past, present, and reasonably foreseeable future actions (40 CFR 1508.7). The cumulative effects of an action may be undetectable when viewed in the individual context of direct and even indirect impacts, but nevertheless can eventually lead to a measurable environmental change.

Flood Risk

Many of the existing bulkheads in Westchester County are more than 50 years old and, therefore, the materials may have weakened over time. In addition, they were likely not to have been built to current standards and codes. The areas which experienced flood damage from the recent storms are at risk for flooding in future storms. Climate change poses increasing risk of flooding as sea levels rise and storms become more intense.

Flood risk maps have been, and are being revised to account for the projected increased flooding due to climate change. Building codes have been and are being changed to reflect these changes in flood risk. The NY Rising Housing Recovery Programs for residential repair and rehabilitation would result in the upgrade of the damaged homes to new standards and would also include resiliency measures that would mitigate the flood risk of future storms. The repair and rehabilitation of the residential bulkheads is fundamental to the mitigation of future storm damage and would complement the resiliency measures being incorporated into the residential buildings. Together, these measures would reduce the risk of flood damage from future storms.

Construction Impacts

While there is the potential for a cumulative impact from the generation of construction debris from the rehabilitation and reconstruction of the residential bulkheads through the NY Rising Housing Recovery Program, most of the impact will be mitigated. Strict requirements for the disposal of debris are in place to prevent, to the extent possible, any negative impacts to the environment. The handling and disposal of construction and demolition (C&D) debris, control of stormwater runoff, and noise impacts resulting from the NY Rising Bulkhead Repair Initiative for Residential Properties in Westchester County will be in accordance with all local and state regulations as part of the acceptance of assistance funding. The Proposed Action would increase the compliance with these regulations over the piecemeal rehabilitation that would take place without the initiative. Furthermore, the inclusion of resiliency measures in rehabilitation projects is expected to reduce the amount of reconstruction required from future storm events.

Land Use, Zoning, and Public Policy

Land use, zoning, and public policies are also changing with regards to development along the shorelines and within floodplains. Westchester County and affected community land use policies and plans regarding mitigation of flood risk have been considered as part of this assessment. Municipalities are revising building codes to incorporate requirements for flood and storm mitigation measures along shorelines and riverbanks. These resiliency measures should lead to less debris caused by storms as the rebuilt bulkheads are more able to withstand the impacts of future storms. In addition, through comprehensive planning and rezoning efforts, municipalities are also reducing the development potential of areas prone to flooding.

Furthermore, many New York communities are subject to Municipal Separate Storm Sewer Systems (MS4) regulations and are actively implementing policies to minimize and mitigate stormwater runoff. Rehabilitation activities under the NY Rising Bulkhead Repair Initiative would comply with all applicable erosion, sediment control, and stormwater management practices as regulated by NYSDEC and/or the local municipality. Since unmanaged stormwater runoff can increase the volume and rate at which water moves across the land and into lakes and streams, leading to erosion and flooding, the application of these practices would mitigate stormwater runoff from future storm events and there would be no significant adverse impacts due to cumulative effects.

Growth Inducement

The Proposed Action involves the repair, replacement, and rehabilitation of existing residential bulkheads damaged during significant storm events. It would not alter regional growth patterns, change residential settlement patterns, displace any public or publicly funded community facilities, or significantly affect the growth in employment centers. Therefore, the Proposed Action would not be expected to generate significant secondary or induced effects, or induce any significant development activity that would otherwise not occur in the region or study area.

2.0 Tiering of Environmental Review

The NY Rising Bulkhead Repair Initiative for Residential Properties is tiered for the environmental review process in accordance with HUD tiering regulations found at 24 CFR Part 58.15. A tiered approach is used when actual site locations have not yet been determined and allows the environmental review process to be streamlined by evaluating impacts from functionally and geographically aggregated activities. This Tier 1 PEA review provides guidelines for Tier 2 reviews to ensure that no extraordinary circumstances exist beyond the issues identified and evaluated in this document. Tier 2 reviews document environmental impacts on a site-specific level. In accordance with 24 CFR Part 58.22, no choice-limiting actions would take place at a particular site until a Tier 2 Checklist is completed for that site.

2.1 Tier 1 Environmental Review

Tier 1 PEAs assess the individual and cumulative environmental impacts of program activities on a specific geographical area. Tier 1 PEAs may also be prepared when the environmental impacts are generic or common to a class of actions, or to other activities that are not location-specific. The PEA can serve as a foundation and reference document to allow the efficient completion of Supplemental or Individual Environmental Assessments for the individual actions described in the PEA.

This Tier 1 PEA was specifically designed to evaluate the environmental impacts of disaster recovery activities, including repair, rehabilitation, and mitigation on residential bulkheads in Westchester County that would be included in the NY Rising Bulkhead Repair Initiative. With the PEA in place, the environmental review process required by NEPA and its associated environmental laws would be streamlined.

Under the Tier 1 environmental assessment for reimbursements, the following laws and authorities referenced under HUD's regulations at 24 CFR Part 58.5 have been fully considered and do not require a Tier 2 site-specific review:

- Sole Source Aquifers (42 USC 201, 300(f) et seq., and 21 U.S.C. 349) as amended; particularly section 1424(e)(42 USC 300h–3(e))
- Wild and Scenic Rivers (16 U.S.C. 1271, Sec. 7(b), (c))
- Clean Air Act (40 CFR Parts 6, 51, 93)
- Farmland Policy Act (7 CFR Part 658)
- Environmental Justice (Executive Order 12898)
- Noise Abatement and Control (24 CFR Part 51, Subpart B)
- Explosive and Flammable Operations (24 CFR Part 51 C)
- Airport Clear Zones and Accident Potential Zones (24 CFR Part 51D)

Based upon completion of this Tier 1 PEA, environmental review of the proposed initiative indicates there would be no significant changes to existing environmental conditions across the impact categories implemented by HUD in response to NEPA, with the possible exception of the subject areas listed in Section 2.2.

2.2 Tier 2 Environmental Review

Based on the completion of this environmental assessment, the following subject areas require Tier 2 site-specific analysis before it can be concluded that the proposed site activity would have no significant environmental impacts on an individual site. These authorities are referenced under HUD's regulations at 24 CFR Part 58.5:

- Floodplain Management (Executive Order 11988; 24 CFR Part 55)
- Excavation and Fill in Navigable Waters (Section 404; Article 15, Title 5)
- Clean Water Act Water Quality Certification (Section 401)
- Wetland Protection (Executive Order 11990)
- Historic Preservation (36 CFR Part 800)
- Endangered Species Act (50 CFR Part 402)
- Toxic Chemicals and Radioactive Materials (24 CFR Part 58, Sec 5(i)(2))
- Coastal Zone Management (Coastal Zone Management Act, 1972)

Tier 2 site-specific reviews would include desktop evaluation of the application, the proposed site activity, and its location relative to the above compliance factors. Reviews would also include direct field observation with photographs and notes for the file, as well as possible resource agency consultations. If there are no impacts identified, or if impacts would be fully mitigated through individual site actions, then the proposed initiative planned for a residential site would proceed without further notice to the public. If impacts cannot be identified and mitigated during the site-specific reviews, then that site may be subject to further studies, treated as a separate program, subject to agency consultations, and the environmental review process may require the publishing or posting of notices for that individual site. Each completed Tier 2 site-specific checklist and its supporting documents would be submitted to HCR for review and approval before individual activity site work or construction begins. A sample Tier 2 site-specific checklist and template have been included with this Tier 1 PEA (See Exhibits 3 & 4).

3.0 Conditions for Approval and Mitigation

The following mitigation measures are required as conditions for approval of the initiative. Most of the required evaluations discussed below would be completed in the Tier 2 site-specific reviews.

3.1 General

The Applicant would acquire all required federal, state and local permits before beginning construction and would comply with all permit conditions. If the scope of work of a proposed activity changes significantly, the application for funding must be revised and resubmitted for reevaluation under NEPA.

3.2 Historic Preservation

All activities must comply with Section 106 of the National Historic Preservation Act (NHPA) per the implementing regulations at 36 Code of Federal Regulations (CFR) Part 800. Compliance with Section 106 is achieved through the procedures in the Programmatic Agreement among the FEMA, the NYS Historic Preservation Office, the NYS Office of Emergency Management, the Delaware Nation, the Delaware Tribe of Indians, the Shinnecock Nation, the Stockbridge-Munsee Community Band of Mohicans, the NYC Landmarks Preservation Commission, and the Advisory Council on Historic Preservation.

In the event that archeological deposits, including any Native American pottery, stone tools, bones, or human remains are uncovered on a specific site, the work on that site must be halted, and the Applicant would take reasonable measures to avoid or minimize harm to the finds. All archeological findings would be secured and access to the sensitive area restricted. HCR will consult with the State Historic Preservation Office (SHPO), Tribal Historic Preservation Office (THPO), and Tribes, and work in sensitive areas cannot resume until consultation is completed and appropriate measures have been taken to ensure that the initiative is in compliance with the NHPA.

The qualified Historic Preservation professional is staff at NYS Office of Parks, Recreation and Historic Preservation (OPRHP). If the primary reviewer is not able to determine compliance for a site based on the Programmatic Agreement (See Appendix O: NY Historic Preservation Programmatic Agreement), the site would be sent for further review to OPRHP and all recommendations made by OPRHP would be incorporated into the program design. Each site would be reviewed for compliance with the Programmatic Agreement.

If the homeowner has requested reimbursement for work done prior to the homeowner entering the Bulkhead Repair Initiative, the work would be evaluated to determine compliance with the Programmatic Agreement. If the work conducted by the homeowner did not comply with the Programmatic Agreement, the homeowner must provide documentation that the OPRHP had been consulted prior to the work starting. If the homeowner cannot provide the documentation, the application would not be eligible for reimbursement until it has been sent for further review to OPRHP and all recommendations made by OPRHP have been completed.

3.3 Water Quality

Section 404 of the CWA authorizes the USACE to prohibit or regulate, through a permitting process, the discharge of dredged or fill material, or excavation within U.S. Waters, particularly from bulkhead repairs or replacements. In NYS, the regional general permit is NYDGP-15. NWP3 is also used by USACE to ensure compliance with Section 404 of the CWA. There would be short-term discharges of sediment to the waters, particularly associated with the removal of material and shoreline stabilization components for restoring or rebuilding of bulkheads. NWP3 authorizes the removal of accumulated sediments and debris in the vicinity of existing structures, provided that the removal extends no more than 200 feet in any direction from the structure and is limited to the minimum necessary to restore the waterway in the vicinity of the structure to the approximate dimensions that existed when the structure was built.

There are no current General Permits for storm-related work, issued by NSYDEC, that are currently available for use in Westchester County. However, Applicants requesting reimbursement for completed work may do so if the work was performed under the previously eligible GP-0-12-006. New or unfinished work would need to be covered under the appropriate NYSDEC individual permit.

For areas not covered by a General Permit, project activities would be authorized by the appropriate NYSDEC individual permit; if a permit from the USACE is required, a Water Quality Certification may also be required. Water Quality Certifications for this initiative would be granted through a USACE NWP3; if a project does not meet the conditions of NWP3, it would require an individual permit and a separate Water Quality Certification through NYSDEC.

USACE's NWP3 is available in order to ensure compliance with Section 404 of the CWA for projects involving generally minor and less complex reviews. NWP3 would be issued by USACE for proposed and completed projects whose impacts are within the standards set by the permit, and which have been completed within the eligible time period for the regional general permit NYDGP-15. Projects whose impacts are beyond the standards of the nationwide and regional general permits (NWP3 and NYDGP-15, respectively), or which would be completed outside the time frame provided for NYDGP-15, would require an individual permit (see Appendix S: USACE Coordination and Permits).

The initiative would implement and maintain erosion and sedimentation control measures to prevent deposition of sediment and eroded soil in on-site and off-site wetlands and waters. Soil compaction would be controlled by minimizing program activities in vegetated areas, including lawns.

No bulkhead repairs or replacements would use unsuitable material (trash, debris, car bodies, asphalt, etc.) and all materials used in construction would be free from toxic pollutants in toxic amounts in accordance with Section 307 of the CWA.

In compliance with NWP3, no activities would occur along a component of the National Wild and Scenic River System (NWSRS), or in a river officially designated by Congress as a "study river" for possible inclusion in the NWSRS unless the appropriate federal agency has determined in writing that the proposed activity would not adversely affect the Wild and Scenic River designation or study status. There are no Wild and Scenic Rivers within Westchester County, as designated by the U.S. Department of the Interior or NYSDEC (See Appendix I: Westchester County Wild, Scenic, and Recreational Rivers).

If a program site is located within a critical resource water, including NOAA-managed marine sanctuaries, marine monuments, and National Estuarine Research Reserves, or in wetlands adjacent to those waters, a PCN would be required and the USACE district engineer would only authorize activities under NWP3 after it is determined that the impacts to the critical resource waters would be no more than minimal.

No activities would take place in the proximity of a public water supply intake, except where the activity is necessary for adjacent bank stabilization.

On May 23, 2014, the NYSDOS determined in writing that the NY Rising Bulkhead Repair Initiative would be generally consistent with the policies and purposes of the NYS Coastal Management Program (NYSCMP) (see Appendix M: NYSDOS Coastal Consistency Consultation). The consistency concurrence finds that the following activities of the bulkhead initiative would meet NYSDOS's general consistency concurrence criteria:

- Installation of temporary structures to facilitate installation and/or retain fill repairs;
- Installation of new fill comprised entirely of material substantially equivalent to adjacent native material within the footprint of pre-storm conditions; and
- Restoration may include a change in materials or minor change in height of approximately 12 to 18 inches.

In conjunction with the State's general concurrence determination, in cases where the project is located within the jurisdiction of a Local Waterfront Revitalization Program (LWRP), the Tier II reviewer would conduct an assessment in accordance with 19 NYCRR Part 600 to determine whether the project is likely to affect the achievement of the policies and purposes of such approved LWRP and State agency programs. Project activities would be undertaken in a manner which complies with the policies of the approved LWRP.

Westchester County is not located over a sole source aquifer; however, much of northern Westchester County is located in the Croton Watershed, which is part of the NYC Watershed (See Appendix G: NYC Watershed Maps). The NYC Department of Environmental Protection has implemented the "Rules and Regulations for Protection from Contamination, Degradation and Pollution of the New York City Water Supply and Its Sources," which lays out regulations for certain activities taking place within the watershed. All program sites located within the NYC Watershed area would comply with NYC Watershed rules as appropriate. The requirements of the NY Rising Bulkhead Repair Initiative would prevent adverse impacts to the NYC Watershed.

Homeowners requesting reimbursement for work completed prior to the homeowner entering the NY Rising Bulkhead Repair Initiative must provide documentation that the work was completed pursuant to the applicable permitting requirements discussed above. If the work done prior to the homeowner entering the Bulkhead Repair Initiative does not meet these standards, such work would not be eligible for reimbursement until compliance with these standards is documented through an appropriate permit, which are required eligibility documents.

3.4 Wetlands Protection

All sites would be evaluated for the presence of wetlands in accordance with NYSDEC and the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps (see Appendix D: Westchester County Wetlands Maps). On-site wetlands inspection will occur in the Tier 2 site-specific assessment, and if program work on a specific site would impact a wetland, the eight-step decision making process outlined in 24 CFR Part 55.20, modified for wetlands, would be completed. If the wetland impacts cannot be avoided, appropriate permits would be obtained in compliance with Executive Order 11990. These include permits under Sections 401 and 404 of the CWA, as well as any applicable local or state permits.

For work yet to be initiated, this Initiative would implement and maintain erosion and sedimentation control measures to prevent deposition of sediment and eroded soil in on-site and off-site wetlands and waters. Soil compaction would be controlled by minimizing project activities in vegetated areas, including lawns. In accordance with the general conditions of NWP3, all heavy equipment working in wetlands or mudflats would be placed on mats, or other measures would be taken to minimize soil disturbance. The Applicant may also be required under NWP3 to compensate all wetland losses that exceed one-tenth of an acre and a PCN and/or mitigation plan may be required.

If the work was completed prior to the homeowner entering the Bulkhead Repair Initiative, the homeowner must provide documentation that the applicable permits or authorizations were obtained prior to the work taking place or provide other documentation deemed sufficient to document compliance or conformance with applicable laws.

3.5 Aquatic Wildlife and Endangered Species

The NYSDEC NY Natural Heritage Program, the USFWS, and the NOAA National Marine Fisheries Service (NMFS) have been contacted to initiate consultation for Bulkhead Repair Initiative compliance with state and federal threatened and endangered species laws (See Appendix N: NY Natural Heritage Program Consultation; Appendix Q: NMFS Consultation; and Appendix R: USFWS Consultation).

The Endangered Species Act (ESA) requires the action agency (HCR) to make a determination of effect on any federally listed species or designated critical habitat that may occur as a result of an action that is funded, authorized, or carried out by the action agency. HCR is acting as HUD's designated representative for this initiative.

In accordance with the August 7, 2013 letter and the February 10, 2014 email from the USFWS (See Appendix R: USFWS Consultation), each site would be reviewed to determine the level of effect. Further consultation with the USFWS would be conducted if a program may affect a listed species. In accordance with the March 14, 2014 and April 16, 2014 letters from NMFS, each site would be reviewed for proximity to aquatic species to determine the level of effect of the bulkhead repair and/or replacement or reconstruction activities (See Appendix Q: NMFS Consultation). HCR would determine if there are areas of multiple sites in close proximity that may result in an effect so that those sites can be reviewed together. Mitigation measures may include time limits for when the work may be completed, for example, work occurring in open, sandy beach areas may be required to cease by a certain time in the spring to protect potential habitat for the roseate tern and piping plover, unless otherwise authorized.

Bulkhead repair and/or replacement or reconstruction activities which are likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the ESA, or which would directly or indirectly destroy or adversely modify the critical habitat of such species, are not authorized by NWP3. If the bulkhead repairs and/or replacement or reconstruction result in a “may affect” determination by HCR, a Section 7 consultation must be completed for that site, and a PCN must be filed with the district engineer.

Bald eagles are known to occur in Westchester County (See Appendix R: USFWS Consultation). HCR would contact the USFWS for assistance in complying with the Bald and Golden Eagle Protection Act if a bald eagle is found on a site. The USFWS would be contacted to provide technical assistance to HCR to avoid and minimize impacts to birds, or their breeding areas, protected under the Migratory Bird Treaty Act. In accordance with the general conditions of the NWP3, the permittee would obtain any “take” permits required under the USFWS regulations governing compliance with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Consultation is not required under Section 7 of the ESA when CDBG-DR assistance is provided for costs incurred because physical activities were undertaken before HCR could review programs with the potential to affect biological resources. However, all properties, including reimbursement applications, would be reviewed for compliance with Section 7 of the ESA at the Tier 2 site-specific level. All parcels that may have endangered species present or provide habitat for endangered species would be sent to the USFWS for further consultation.

Essential Fish Habitat (EFH) has been designated within the program area by the New England and Mid-Atlantic Fishery Management Councils. In accordance with permit conditions given by the USACE, Applicants will be required to identify and implement measures which would avoid and minimize adverse effects of program activities to EFH resources (see Appendix Q: NMFS Consultation). Activities which do not meet regional conditions set forth by the USACE would require additional EFH consultation with NMFS.

As noted above, where practicable, this initiative is intended to facilitate the repair and/or replacement or reconstruction of residential bulkheads. This work would likely be conducted pursuant to a NWP3 authorization. In compliance with the general conditions of NWP3, no bulkhead repair or replacement activities would substantially disrupt the necessary life cycle

movements of species of aquatic life indigenous to the water body, including those species that normally migrate through the area. Bulkhead repair and/or replacement or reconstruction activities that are not covered by NWP3 would likely be required to seek an individual permit as discussed in Section 1.9. As part of that process, measures would be required to avoid and minimize impacts to protected species. Bulkhead repair and replacement activities would be conducted outside of spawning seasons to avoid adverse effects to the maximum extent practicable. The potential for impacts to managed aquatic species, including shellfish would be determined through consultation with NMFS in accordance with the guidance provided by NMFS; any program sites where there is potential for adverse effects would undergo further consultation with NMFS to avoid adverse effects to indigenous aquatic species.

3.6 Soil Erosion

Best management practices (BMPs), such as silt fence and erosion prevention, may be implemented, if required by permits or agency discretion. All synthetic erosion control features, which are intended for temporary use during construction, shall be completely removed and properly disposed of after their initial purpose has been served. Only natural fiber materials may be abandoned in place.

Work in areas of soils with high wind erosion potential may have to occur only during calm weather conditions or include additional watering and other dust suppression mitigation methods. Thorough planning and engineering review and design, through the local permitting process, would minimize soil erosion that could result from program activities on sites with marginal soil properties.

In particular, sediments should be controlled using erosion and sedimentation control measures (e.g., hay bales, filter fabric, silt fence) and seeding and mulching after work completion to prevent its release into any on-site or off-site wetlands and waters. Soil compaction would be controlled by minimizing program activities in vegetated areas, including lawns. Any exposed soil or fill, as well as any work completed below the ordinary high water mark or high tide line, would be permanently stabilized at the earliest practicable date.

Additionally, some program sites may be located within one of the 86 communities that are under CEHA jurisdiction. These communities within Westchester County under CEHA jurisdiction include the City of New Rochelle, the Village of Larchmont, the Town of Mamaroneck, the Village of Mamaroneck, and the City of Rye. The City of New Rochelle administers its own CEHA program and the remaining communities are regulated by NYSDEC. The CEHA Law (Environmental Conservation Law Article 34) gives NYSDEC the authority to identify and map coastal erosion hazard areas and adopt regulations to control activities and development in those areas. Coastal Erosion Hazard Areas are regulated under Title 6 of the New York Codes, Rules and Regulations Part 505 (Coastal Erosion Management Regulations). The purpose of the law and regulations are to minimize shore erosion and its impacts to natural protective features, other natural resources, people, and infrastructure within the identified and mapped CEHAs along NYS's coastline.

These coastlines are especially vulnerable to erosion from both natural causes, such as waves, wind, and storms, and human activities, such as construction, removal of vegetation, and runoff from impermeable surfaces. These coastlines also play an important role in providing protection from flood and erosion to inland communities.

NYS aims to reduce coastal erosion and its associated impacts by regulating the placement and construction of coastal erosion protection structures and promoting the preservation of natural protective features, which include dunes, bluffs, beaches, nearshore areas, and the vegetation associated with these features.

Each site would be reviewed during the Tier 2 Site-Specific Assessment for its location with regard to CEHAs using maps provided by NYSDEC. If it cannot be determined by the maps whether a program site is within a CEHA, a survey of the property would need to be completed before a determination can be made. All activities of the NY Rising Bulkhead Repair Initiative that take place within CEHAs would be in compliance with the laws and regulations governing activities in these areas and applicable permits would be obtained. BMPs would be implemented to prevent erosion due to program activities in CEHAs as well as other areas.

3.7 Stormwater

All sites would be evaluated for the need to comply with stormwater permitting requirements including NYSDEC general permits or local Municipal Separate Storm Sewer Systems (MS4) permits. If multiple adjacent sites are involved, the sites would be aggregated for construction stormwater compliance.

If the owner has requested reimbursement for work done prior to the homeowner entering the Bulkhead Repair Initiative, the work would be evaluated to determine if it required a NYSDEC general permit or MS4 permit. If it is determined that either permit was required, the owner must provide documentation that the permit had been obtained prior to the work being conducted, or evidence as to why the permit was not required for the work conducted. If the permit was required but was not obtained prior to the work conducted, that work will not be eligible for reimbursement. Such permitting requirements would apply only to sites requiring more than one acre of land disturbance.

3.8 Noise

Temporary increases in noise levels due to bulkhead repair and/or replacement or reconstruction activities would be minimized through compliance with local noise ordinances, including time-of-day work limitations and construction of temporary noise barriers as appropriate or required. During repair or replacement work, all equipment would be outfitted with operating mufflers.

HUD has determined that noise regulations under 24 CFR Part 51 Subpart B do not apply to disaster recovery programs which meet the definition under Part 51.101(a)(3) (see Appendix P: HUD Noise Abatement and Explosive Operations Email). Part 51.101(a)(3) states:

> The policy does not apply to research demonstration projects which do not result in new construction or reconstruction, flood insurance, interstate land sales registration, or any action or emergency assistance under disaster assistance provisions or appropriations which are provided to save lives, protect property, protect public health and safety, remove debris and wreckage, or assistance that has the effect of restoring facilities substantially as they existed prior to the disaster.

The NY Rising Bulkhead Repair Initiative provides disaster assistance using CDBG-DR funding for the purpose of saving lives and protecting property, public health, and public safety. The Bulkhead Repair Initiative would repair or replace storm-damaged bulkheads, protecting public safety and property by ensuring that these important storm-mitigation structures are functioning properly. These activities meet the definition under 24 Part 51.101(a)(3) for exempt activities and no further assessment would be required.

3.9 Air Quality

As demonstrated in the conformity screening analysis for the proposed action, emissions from construction activities would be less than de minimis levels above which a general conformity analysis or determination would be required (see Appendix L: NYSDEC Air Quality Consultation and Conformity with State Implementation Plans), and therefore a conformity assessment is not warranted. All activities would comply with applicable federal, state, and local laws and regulations regarding construction emissions, including but not limited to NY Codes, Rules and Regulations (NYCRR), NYSDEC Air Quality Management Plan, and the NY State Implementation Plan (SIP).

3.10 Hazardous Materials

HCR is charged with the overall inspection for hazardous materials (with the exception of commonly found household hazardous materials such as automotive batteries or used motor oil) for this initiative. HCR in conjunction with designated agencies or consultants under HCR's direction would provide qualified environmental professionals (QEP) to perform on-site visits as necessary. QEP are experienced persons with the skills to look for and recognize hazardous materials and their condition generally as well as the most common types of residential contamination found within this geographic area. The reports generated by the QEPs with environmental assessment experience would be reviewed by HCR or consultant under HCR's direction, to confirm that all items on the checklist are appropriately addressed. HCR will review the checklists as part of the creation and endorsement of the Tier 2 forms. Phase I Environmental Site Assessments would not be necessary for this initiative as property ownership would not change.

Site-specific inspection would likely identify the presence of toxic or radioactive substances on, adjacent to, or near target residential properties. Where site-specific inspection does not adequately reveal past land use in the vicinity of target residential properties, site-specific environmental review would include screening of historical land use to assess the potential hazard to occupants of the property.

When the target residential property is on or within 3,000 feet of a potentially hazardous site, a QEP would determine if the potential hazard requires remediation. If remediation is required, it would be appropriately scheduled and coordinated with any building rehabilitation activities. There may be some residential properties with improper storage and excessive accumulation of toxic substances (i.e. petroleum products, pesticides, cleaning substances). Initial site inspection of residential properties may document the presence of abandoned and otherwise non-working vehicles with the potential for leakage of toxic materials. Barrels or tanks with petroleum products or other potentially toxic substances may be identified.

Depending on the site-specific environmental assessment of the degree and extent of the hazard, the Applicant may be responsible for the removal of such items before the initiative can proceed.

Asbestos-containing materials (ACM) are not likely to be encountered in bulkheads. However, if asbestos is identified based on a visual survey, it would be abated by certified professionals in accordance with the applicable laws discussed below. Program activities at structures that include ACM would conform to Part 56 of Title 12 of the Official Compilation of Codes, Rules and Regulations of the State of New York Department of Labor (12 NYCRR Part 56); the National Emission Standard for Asbestos—Standard for demolition and renovation (40 CFR Part 61.145); and National Emission Standard for Asbestos—Standard for waste disposal for manufacturing, fabricating, demolition, and spraying operations (40 CFR Part 61.150).

Lead-based paint is not likely to be encountered on bulkheads. However, if lead-based paint is identified, all activities must comply with applicable federal, state, and local laws and regulations regarding lead-based paint, including but not limited to, Environmental Protection Agency (EPA) Repair, Renovation, and Painting (RRP) Rule (40 CFR 745.80 Subpart E), HUD's lead-based paint regulations in 24 CFR Part 35 Subparts A, B, H, J, and R, and HUD "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing." The Guidelines complement regulations that have been issued by HUD, the EPA, and the Occupational Safety and Health Administration (OSHA), and policies from the Centers for Disease Control and Prevention (CDC).

3.11 Solid Waste

All solid waste must be properly segregated and disposed of at any of NYS's 80 registered and regulated (permitted) construction and demolition (C&D) debris processing facilities and 280 registered C&D debris processing facilities and in accordance with applicable regulations. All hazardous waste must be segregated and disposed of at an appropriately licensed facility. Materials would be separated from C&D debris to be recycled or to be reused for a specific use. Material that is not recovered would be sent to a municipal solid waste landfill or to a C&D debris landfill.

3.12 Transportation

HCR would coordinate with local transportation authorities to identify alternate routes and/or time of day mitigations to reduce potential temporary increases in vehicular traffic during construction and/or demolition.

3.13 Airport Clear Zones and Accident Potential Zones

Based on guidance provided by HUD in Fact Sheet #D1, the National Plan of Integrated Airport Systems was reviewed for civilian, commercial service airports within the vicinity of the program area, as program sites located within 2,500 feet of a civil airport will require consultation with the appropriate civil airport operator (See Appendix H: Airport Clear Zones Map). Some program sites may be located near the Westchester County Airport. No known civil airports are located within 2,500 feet of the program area, and no known military airports are located within 15,000 feet of the program area. Furthermore, this initiative does not involve assistance to purchase residential properties, including bulkheads. Accordingly, this requirement is not applicable to any potential activities to be funded by the proposed action.

3.14 Coastal Barrier Resources

Under the Coastal Barrier Resources Act of 1982 (CBRA), project sites lying within the federally protected John C. Chaffee Coastal Barrier Resources System (CBRS) are ineligible for most new federal expenditures and financial assistance. The Coastal Barrier Improvement Act of 1990 expanded the CBRS and added a new category of otherwise protected areas (OPAs).

Most federal expenditures are prohibited for program sites lying within a system unit of the CBRS, unless the action is consistent with CBRA. Activities that would be consistent with the CBRA include actions that would revert the land back to a natural state. Rehabilitation activities are not consistent with the CRBA, and no federal money would be used on structures that lie within a CBRS system unit.

Most Federal expenditures, with the exception of federal assistance for flood insurance, are allowed in OPAs. If a program site is located within an OPA, the program Applicant would be eligible for assistance; however, the Applicant must provide proof of private flood insurance.

No portion of Westchester County lies within the federally protected CBRS or within an OPA, therefore, a Tier 2 review would not be necessary.

3.15 Explosive and Flammable Operations

Acceptable Separation Distance (ASD) requirements under 24 CFR Part 51 Subpart C do not apply to the elevation, rehabilitation, or reconstruction of housing that existed prior to the disaster where the number of dwelling units is not increased because the definition for HUD-assisted programs at 24 CFR Part 51.201 is predicated on whether the HUD program increases the number of people exposed to hazardous operations (See Appendix P: HUD Noise Abatement and Explosive Operations Email). If the initiative would increase population density, 24 CFR Part 51 is applicable, and ASD assessment must be completed. Repair and reconstruction of existing bulkhead structures would not increase the number of people being exposed to hazardous operations, therefore, 24 CFR Part 51 is not applicable.

3.16 Farmland Policy Act

The Farmland Protection Policy Act of 1981 (7 U.S.C. 4201 et seq.) discourages federal activities that would convert farmland to nonagricultural purposes. This initiative is designed to repair and reconstruct bulkheads that existed prior to Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee. Rehabilitation and reconstruction of existing bulkhead structures would not convert farmland to nonagricultural purposes and would not violate the Farmland Policy Protection Act (See Appendix K: Farmland Protection Checklist).

3.17 Environmental Justice

According to the EPA, environmental justice (EJ) is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The goal behind EJ is for all people to enjoy the same degree of protection from environmental and health hazards and to have a healthy environment in which to live, learn, and work. Applicants to the CDBG-DR program would be treated equally, regardless of origin, race, or age, etc. This initiative may have a positive impact on EJ as priority may be given to Applicants whose income is below 80% of the median income, or in the case of multi-family housing, where at least 51% of tenants are of low- or moderate-income. Approximately 45.7% of all NY Rising applications have been from low- and moderate-income individuals. These individuals are most in need of assistance in rehabilitating or reconstructing their living environment, and the initiative would help to remedy the environmental and health hazards caused by the recent storms.

HCR would pay particular attention to the needs of the most vulnerable populations: the elderly and disabled, minority populations, low- or moderate-income residents, and others. NYS and its partners would be conducting extensive outreach to ensure that available resources are made available to the populations with the greatest needs.

4.0 Eight-Step Decision Making Process

Under 24 CFR Part 55.20, an eight-step decision making process must be completed for proposed actions taking place in a floodplain. 24 CFR part 55.20 implements Executive Order 11988—Floodplain Management. The Order requires federal agencies (or a state agency implementing a federal funding program) to reduce the loss of life and property caused by floods, minimize impacts of floods on human safety, health, and welfare, and preserve the natural and beneficial functions of floodplains. Under this Order, federal agencies should first look at avoiding all actions in or adversely affecting floodplains unless no practicable alternatives exist, then federal agencies must evaluate the potential effects of the proposed action. In addition, federal agencies are required to demonstrate that all practicable alternatives have resulted in the reduction or elimination of the long- and short-term adverse impacts associated with occupancy and modifications of the floodplain. This eight-step process includes assessing all practicable alternatives and incorporating public review.

Under Executive Order 11990—Protection of Wetlands, an agency must find "that there is no practicable alternative to such construction, and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use." Furthermore, the "agency shall also provide opportunity for early public review of any plans or proposals for new construction in wetlands." HUD's current wetland protection policy to comply with Executive Order 11990 is to use the eight-step decision making process provided in 24 CFR Part 55.22 modified for wetlands.

This section demonstrates how the eight-step decision making process is applied to the NY Rising Bulkhead Repair Initiative for Residential Properties for proposed actions in a floodplain.

4.1 Eight-Step Decision Making Process for Proposed Action in a Floodplain

Floodplain management plans for all NY Rising Housing Applicants wishing to participate in the NY Rising Bulkhead Repair Initiative for Residential Properties in Westchester County would meet the requirements of 24 CFR Part 55.20 and Executive Order 11988—Floodplain Management. These floodplain management plans would document the eight-step decision making for the initiative and pertains to activities within the Special Flood Hazard Area (SFHA) as defined by FEMA, or its successors, pursuant to the National Flood Insurance Program (NFIP), or a successor program, whether advisory, preliminary, or final.

Description of Proposed Activities in the SFHA

NYS was awarded HUD CDBG-DR funding, to be administered by HCR, to provide financial assistance to homeowners whose primary residences were substantially damaged by Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee within various NYS counties, including Westchester County. HCR is awarding this funding in accordance with the Action Plan. The Action Plan provides for, among other things, assistance to owners of damaged residential properties in Westchester County, NY within the 100-year floodplain to repair those properties and mitigate against damage by future storms. The proposed activities include repair or replacement of damaged bulkheads on residential properties and reimbursement to owners who have already completed repairs.

Executive Order 11988 and 24 CFR Part 55

Projects located within a floodplain SFHA are subject to Executive Order 11988 as implemented by 24 CFR Part 55. Under 24 CFR Part 55, an eight-step decision making process must be completed for proposed actions taking place in the floodplain. Information on where SFHAs are located is available on Flood Insurance Rate Maps (FIRM) published by FEMA. FEMA uses engineering studies to determine the delineation of these areas or zones subject to flooding. The relevant data source for the SFHA is the latest issued FEMA data or guidance, which includes advisory data (such as ABFEs) or preliminary and final FIRMs.

The SFHA is the area that would be inundated by a 100-year flood: an area that has a one percent or greater chance of experiencing a flood in any single year. SFHAs are shown on FIRMs, as shaded areas labeled with the letter "A" or "V".

- "V" zones are coastal flood hazard zones subject to wave run-up in addition to storm surge.
- "A" zones include all other special flood hazard areas.
- "VE" zones, "AE" zones, "V" zones, or "A" zones followed by a number are areas with specific flood elevations, known as BFEs.
- A zone with the letter "A" or "V" by itself is an appropriately studied flood hazard area without a specific flood elevation.
- Within an "AE" zone or a numbered "A" zone, there may be an area known as the "regulatory floodway," which is the channel of a river and adjacent land areas which must be reserved to discharge a 100-year flood without causing a rise in flood elevations.

The floodplain (FEMA Zones "A", "AE", "AH", "V", & "VE") covers large areas of Westchester County (see Appendix C: Westchester County FEMA Flood Insurance Rate Map). A total of 49,500 acres of floodplain (including surface waters) is mapped within the county boundary. A total of 29,000 acres of floodplain (excluding surface waters) is mapped within the county (source: Base GIS review of FEMA BFE data).

24 CFR Section 55.1(c)

Under 24 CFR Section 55.1(c), except with respect to actions listed in Section55.12(c), no HUD financial assistance (including mortgage insurance) may be approved after May 23, 1994 with respect to:

(1) Any action, other than a functionally dependent use, located in a floodway;
(2) Any critical action located in a coastal high hazard area ("V zone") (a "critical action" is an action such as storage of volatile materials, irreplaceable record storage or construction of a hospital or nursing home); or
(3) Any non-critical action located in a coastal high hazard area, unless the action is designed for location in a coastal high hazard area or is a functionally dependent use and complies with the construction standards outlined in HUD Regulations 24 CFR Section 55(c)(3).

24 CFR Section 55.11 and 55.20

According to 24 CFR Sections 55.11 (including Table 1) and 55.20, non-critical actions are allowed in A or V zones only if the actions are reviewed in accordance with the eight-step process outlined in 24 CFR Section 55.20. An eight-step process would be conducted for the

activities of the NY Rising Bulkhead Repair Initiative for Residential Properties in Westchester County, as detailed below. This eight-step decision making process includes examination of practical alternatives and public notices. A floodplain management plan detailing the eight-step decision making process would be completed for each site, or group of adjacent sites, once the site is known and determined to be in a floodplain.

Step One: Determine if a Proposed Action is in a 100-Year Floodplain.

The geographic scope for the NY Rising Bulkhead Repair Initiative for Residential Properties described herein is the jurisdictional area of Westchester County, covering approximately 288,000 acres, of which 49,500 acres are located within floodplains. Construction activities are expected to take place on residential properties scattered throughout the communities in Westchester County, especially those most affected by Superstorm Sandy – City of Yonkers, City of New Rochelle, Town of Mamaroneck, City of Rye, and the Town of Rye. Property owners of any location within the county that sustained damage from recent Hurricane Irene or Superstorm Sandy are able to apply for the initiative.

At this time, the exact locations of the homeowner properties that will participate in this assistance program are unspecified. It is assumed that all of these bulkheads are located in the 100-year floodplain. There are approximately 49,500 acres of floodplains in Westchester County. Based on the FEMA IA data from April 2013, approximately 2,660 residential properties in Westchester County have reported damage. It is expected that these residences are within the SFHA.

Once an Applicant applies for funding, HCR or its authorized representative will determine if the project parcel is located within the SFHA by viewing the FEMA BFE Map link at www.msc.fema.gov.

Step Two: Notify the public at the earliest possible time of a proposal to consider an action in a floodplain, and involve the affected and interested public in the decision making process.

Because the Action Plan activities are located in the floodplain, HCR must publish an early notice that allows the public input into the decision to provide funding for bulkhead repairs and/or replacement or reconstruction in this area. Once the early public notice and comment period is complete, HCR would assess, consider, and respond to the comments received individually and collectively for the project file, then proceed to Step Three.

A 15-day "Notice for Early Public Review of a Proposed Activity in a 100-Year Floodplain" will be published in a widely read local newspaper for each activity site determined to be in a floodplain.

A sample “Notice for Early Public Review of a Proposed Activity in a 100-Year Floodplain” has been included in Appendix T: Sample Floodplain Management Plan and Public Notices. The notice will target local residents, including those in the floodplain.

The notice will also be sent to the following state and federal agencies: FEMA; the USFWS; the EPA; the USACE; the NPS; NOAA; NMFS; the OPRHP; NYSDEC; NYS Department of

Transportation (NYSDOT); and the NYS Office of Emergency Management. The notice will also be sent to Westchester County and the towns and villages within Westchester County.

HCR will document and respond to all public comments received on this notification. These comments will be included in the final floodplain management plan.

Step Three: Identify and evaluate practicable alternatives to locating the proposed action in a floodplain

The proposed action of the NY Rising Bulkhead Repair Initiative for Residential Properties in Westchester County will provide grant awards to eligible residential property owners for activities necessary to restore their storm-damaged bulkheads, including repair, reconstruction, and reimbursement.

The proposed activities are necessary to restore storm-damaged bulkheads, including repairs and reconstruction of bulkheads within the disturbed area of the previously developed parcel. The initiative would benefit homeowners whose primary residences included a bulkhead that sustained substantial damage from Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee. The residence must be located in Westchester County.

The alternatives to the proposed action that would be considered are as follows:

No Action Alternative

Under the No Action alternative, the residential property owners would be responsible for the repair and rehabilitation of the residential bulkheads. Depending on motivations of owners and their willingness and/or ability to access resources to repair and upgrade these bulkheads, there is the potential that repairs would be limited, work would progress slowly or remain incomplete, create hazards, or work would not be completed to current building codes.

The effects of leaving bulkheads unrepaired or repaired insufficiently include:

- Slumping or falling over of the bulkhead due to water pressure not being relieved through weep holes;
- Slumping or falling over of the bulkhead due to undermining by erosion;
- Erosion behind the bulkhead due to waves overtopping the structure; and
- Water flowing around the bulkhead.

The failure of the bulkheads would leave the property vulnerable to erosion and flooding and wave damage from storms and high water levels.

Limited Action Alternative – No Reimbursement Funding

Under this alternative, the funding for the repair or reconstruction of bulkheads on residential properties in Westchester County would be authorized; however, reimbursement for repairs or reconstruction that have already been completed would not be authorized. This alternative could cause homeowners and occupants to be dissuaded from making immediate and necessary repairs. Delaying repairs and reconstruction would delay clean-up of debris from damaged bulkheads and leave the properties vulnerable to further damage while the bulkhead remains unrepaired.

Limited Areas Alternative

In certain limited areas with high flood risk, additional programs have been proposed for funding and are being assessed in forthcoming environmental assessments.

Under the Limited Area Alternative – Buyout Option, funds would be authorized to purchase severely damaged residential properties, demolish any structures, and restore the properties to natural conditions within Westchester County. This would help restore large parts of the floodplain to their natural state. Under this option, the bulkheads would be removed, reduced, or in other ways be made part of the natural conditions for that site.

Under the Limited Area Alternative – Acquisition Option, funding would be authorized to acquire damaged residential properties for the purpose of future resilient redevelopment within Westchester County. Following acquisition of a property, the responsible entity would make any required temporary repairs to the bulkheads prior to redevelopment. The future redevelopment would have to include long-term repair and rehabilitation of the bulkhead associated with the properties.

Both of these options would involve relocating populations to less vulnerable areas away from the shore. This would result in a dramatic change to neighborhoods and communities, with associated local economies also being affected. Thus, the cost of the Limited Area Alternative Buyout and/or Acquisition options could be far greater than the cost of repairing and rebuilding in a more resilient manner in the existing developed parcel.

Conclusion

These alternatives would be reevaluated in response to any public comments received.

Step Four: Identify the potential direct and indirect impacts associated with the occupancy or modification of the floodplain.

HCR has evaluated the alternatives to taking the proposed initiative activities in the floodplain, and have determined that the proposed activities must take place in the floodplain.

Potential impacts associated with the occupancy or modification of the floodplain include some degree of ongoing risk to residents who choose to live in the floodplain. While there are some inherent risks to living in a floodplain or area which experiences severe weather that cannot be completely avoided, the individual actions undertaken by the described NY Rising Bulkhead Repair Initiative for Residential Properties would have a positive impact on Westchester County communities by ensuring that residents are able to make repairs to their bulkheads, increasing the storm-resiliency of their properties.

While there is the potential for a cumulative impact from the generation of construction debris from the repair and replacement of a large number of bulkheads through the proposed action in conjunction with the other NY Rising Programs, most of the impact would be mitigated. Direct and indirect impacts on the floodplain from repair and reconstruction activities under the NY Rising Bulkhead Repair Initiative for Residential Properties would be minimal as these program sites are already developed and the bulkheads on these properties are already in existence.

The initiative would facilitate the removal of debris and wreckage of damaged bulkheads on Applicant properties, and would protect public safety through the repair and/or replacement or reconstruction of bulkheads, making the properties less likely to damage the floodplain with debris during future storm events.

Because the initiative is for repair or replacement of only existing bulkheads, it is extremely unlikely that there would be a net increase in floodplain development in comparison to pre-hurricane conditions as a result of this initiative. In addition, the proposed activities would not likely increase floodplain occupancy, as the proposed activities would be completed by the current residents.

Step Five: Where practicable, design or modify the proposed action to minimize the potential adverse impacts within the floodplain and to restore and preserve its natural and beneficial values.

Homeowners participating in this initiative would be required to adhere to the following conditions to minimize the threat to property, minimize losses from flooding and high-wind events, and benefit floodplain values:

- The replacement of a functional and lawfully existing bulkhead (including returns and parallel capping boardwalks) must be done in the same location as the existing bulkhead.
- The bulkhead must (1) be designed and built to control long-term erosion and (2) have a reasonable probability of controlling erosion for at least 30 years (6 NYCRR Part 505.9(b)). A permit application must include a long-term maintenance program and specifications for (1) maintenance of degradable materials and (2) periodic replacement of removable materials. Materials must be strong enough to withstand waves, weathering, and storm conditions (6 NYCRR Part 505.9(c)).
- Constructing, modifying, or restoring the bulkhead structure must (1) not increase erosion and (2) minimize or prevent adverse effects to natural protective features, existing erosion protection structures, and natural resources such as significant fish and wildlife habitats. Variances from the requirements may be granted if certain criteria are met (6 NYCRR Part 505.9(e)).

Step Six: Reevaluate the proposed action to determine: (1) Whether it is still practicable in light of its exposure to flood hazards in the floodplain, the extent to which it will aggravate the current hazards to other floodplains, and its potential to disrupt floodplain values; and (2) Whether alternatives preliminarily rejected at Step Three are practicable in light of the information gained in Steps Four and Five.

HCR has reevaluated the proposed action and determined that the NY Rising Bulkhead Repair Initiative for Residential Properties is still practicable in light of its exposure to flood hazards in the floodplain. As the properties already contain a bulkhead, the initiative would not aggravate current hazards to the floodplain, nor would the initiative disrupt floodplain values.

HCR also reconsidered the alternatives discussed in Step Three and determined the best practicable alternative is the proposed action. The alternative actions considered are as follows: No Action and Limited Action Alternative—Rehabilitation with Reimbursements. These alternatives do not meet the goals of the NY Rising Bulkhead Repair Initiative. Because the proposed action is specifically designed to repair and reconstruct bulkheads on residential

properties, all of which are anticipated to be in the floodplain, there is no practicable alternative other than locating the proposed action in the floodplain.

An award under the Action Plan would require all proposed reconstruction and repair of substantially damaged bulkheads in the floodplain to adhere to acquire all required permits and authorizations from USACE, NYSDEC, NYSDOS, and any local agency having jurisdiction over the work. This process would ensure that properties with damaged bulkheads are not left vulnerable to erosion, flooding, and wave damage from storms and high water levels.

The impacts of these alternatives would be reevaluated in response to any public comments received.

Step Seven: If the reevaluation results in a determination that there is no practicable alternative to locating the proposal in the floodplain, then publish a final notice.

It is HCR's determination that there is no better alternative than to provide funding for the Action Plan activities in the floodplain. This is due to: 1) the need to protect current housing; 2) the desire to avoid displacing residents; and 3) the ability to mitigate and minimize impacts on human health, public property, and floodplain values.

In accordance with 24 CFR 55, a 7-day "Notice for Final Public Review of a Proposed Activity in a 100-Year Floodplain" will be published in widely read local newspaper. A sample "Notice for Final Public Review of a Proposed Activity in a 100-Year Floodplain" has been included in Appendix T: Sample Floodplain Management Plan and Public Notices. The ad will target local residents, including those in the floodplain.

The notice will also be sent to the following state and federal agencies: FEMA; USFWS; EPA; USACE; NPS; NOAA; NMFS; NYSDEC; OPRHP; NYSDOT; and the NYS Office of Emergency Management. The notice will also be sent to Westchester County and the towns and villages within Westchester County. The notice will describe the reasons why the project must be located in the floodplain, alternatives considered, and mitigation measures to be taken to minimize adverse impacts and preserve natural and beneficial floodplain values. All comments received will be considered.

Step Eight: Implement the Action

Step Eight is implementation of the proposed action. HCR would ensure that all mitigation measures prescribed in the steps above would be adhered to. Furthermore, HCR would conduct a NEPA review in accordance with 24 CFR Part 58 and a NY State Environmental Quality Review Act (SEQR) review in accordance with 6 NYCRR Part 617.

4.2 Eight-Step Decision Making Process for Proposed Action in a Wetland

It is HUD's current policy to use the same eight-step process for proposed action in a floodplain, modified for wetlands, to comply with Executive Order 11990 - Protection of Wetlands. This eight-step process will take place on a site-specific basis if a site is determined to be in a wetland, as defined by HUD and Executive Order 11990. Under Executive Order 11990, wetlands are defined as "those areas inundated by surface or ground water with a frequency sufficient to support and, under normal circumstances, do or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds."

Rehabilitation, reconstruction, and mitigation of bulkheads located at residential properties in Westchester County may take place in or next to wetlands. All sites would be evaluated during the Tier 2 site-specific environmental assessment for location with regard to wetlands using NYSDEC and the USFWS NWI maps. On-site wetlands delineation and coordination with NYSDEC and the USACE would take place for all sites determined to be in or near a wetland. If the on-site inspection determines that the program site would impact a wetland, the eight-step decision making process outlined in 24 CFR Part 55.20, modified for wetlands would be completed, including public notices about proposed initiative activities of the NY Rising Bulkhead Repair Initiative for Residential Properties that are in a wetland.

5.0 Summary of Findings and Conclusions and Evaluation of Effects

In 2011, Westchester County was impacted by Hurricane Irene and was again impacted by Superstorm Sandy in 2012. This Tier 1 PEA has resulted in a Finding of No Significant Impact (FONSI) for the NY Rising Bulkhead Repair Initiative: Environmental Assessment for Residential Properties in Westchester County, NY. In accordance with the December 11, 2012 HUD memorandum regarding Environmental Review Processing During Emergencies and Following Disasters under 24 CFR Part 58, the FONSI and Notice of Intent to Request Release of Funds (NOIRROF) public notices would be published together on the same date in order to combine public comment periods and facilitate the efficient review of this environmental assessment (see Appendix U: Draft Combined Finding of No Significant Impact and Notice of Intent to Request Release of Funds (FONSI/NOIRROF)).

Programmatic compliance for certain environmental factors has been evaluated at the Tier 1 level so that further review for these factors is not necessary at the Tier 2 site-specific level. This Tier 1 PEA has also identified the environmental compliance factors which must be evaluated during the Tier 2 site-specific environmental assessments, and laid out the criteria and procedures for ensuring compliance.

Certain categories evaluated in the NEPA Checklist and Environmental Assessment Worksheet may have the potential for adverse effects. Program sites would be evaluated on the Tier 2 level to determine any potential adverse effects for that site. If adverse impacts are found to exist, appropriate mitigation measures would be required in order to comply with NEPA and HUD Environmental Standards. These mitigation measures are laid out in Section 3 and may include: 1) modification of site-specific project scope to avoid or minimize effects on historic or cultural resources, 2) flood hazard prevention and mitigation, 3) wetland protection, 4) modification of site-specific project scope to avoid or minimize effects on threatened or endangered species, and 5) standard construction BMPs to minimize project generated noise.

The environmental assessment checklists used to complete this Tier 1 assessment are included in the Exhibits section of this document. Maps, agency consultations, and research supporting the Tier 1 environmental assessment are presented in the Appendices. A summary of agency consultation for the proposed initiative is provided at the end of Section 6.0.

The rehabilitation activities proposed by the NY Rising Bulkhead Repair Initiative for Residential Properties would take place on individual residential properties throughout Westchester County. The exact locations of these properties are not yet fully known, as the initiative is still accepting applications. After considering the alternatives, NYS has determined that there is no practical alternative other than to proceed with the proposed initiative. While there are some inherent risks to living in an area which experiences severe weather that cannot be completely avoided, the individual actions undertaken by the described NY Rising Bulkhead Repair Initiative for Residential Properties would contribute to a safer and more secure environment for a substantial number of its low- to moderate-income households still recovering from Hurricane Irene and Superstorm Sandy. The initiative would provide a positive financial impact on neighborhoods, communities, and Westchester County.

6.0 List of Sources, Agencies, and Persons Consulted

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3. Federal Aviation Administration. Report to Congress - National Plan of Integrated Airport Systems. Internet Website: http://www.faa.gov/airports/planning_capacity/npias/reports/media/2013/npias2013Narrative.pdf

4. Federal Emergency Management Agency. Best Available Flood Hazard Data. Internet Website: http://fema.maps.arcgis.com/home/webmap/viewer.html?webmap=2f0a884bfb434d76af8c15c26541a545

5. National Wild and Scenic Rivers System. Internet Website: http://www.rivers.gov/new-york.php

6. New York City Environmental Protection, History of New York City's Water Supply. Internet Website: http://www.nyc.gov/html/dep/html/drinking_water/history.shtml

7. New York State Department of Environmental Conservation. Wild Scenic and Recreational Rivers. Internet Website: http://www.dec.ny.gov/permits/6033.html

8. New York State Department of Environmental Conservation. Primary and Principal Aquifers. Internet Website: http://www.dec.ny.gov/lands/36119.html

9. New York State Department of Environmental Conservation. Critical Environmental Areas in Westchester County, Internet Website: http://www.dec.ny.gov/permits/25161.html

10. New York State Department of Environmental Conservation. List of Endangered, Threatened and Special Concern Fish & Wildlife Species of New York State Internet Website: http://www.dec.ny.gov/animals/7494.html#Endangered

11. New York State Department of State, Division of Coastal Resources and Waterfront Revitalization. Long Island Sound Coastal Management Program. Internet Website: http://www.dos.ny.gov/opd/programs/pdfs/LISCMP.pdf

12. New York State Department of State, Office of Communities and Waterfronts – Coastal Boundary Map. Internet Website: www.dos.ny.gov/opd/atlas/index.html

13. New York State Department of Environmental Conservation Region 2 Office: Solid Waste Landfills. Internet Website: http://www.dec.ny.gov/chemical/23681.html

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16. United States Census Bureau. State and County Quickfacts. Internet Website: http://quickfacts.census.gov/qfd/states/36/36119.html

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20. United States Department of Housing and Urban Development. Noise Abatement and Control. Internet Website: https://www.onecpd.info/environmental-review/noise-abatement-and-control/

21. United States Environmental Protection Agency. Designations for fine particulates. Internet Website: http://www.epa.gov/pmdesignations/2006standards/final/region2.htm

22. United States Environmental Protection Agency. Nonattainment Areas. Internet Website: http://www.epa.gov/oaqps001/greenbk/ancl.html

23. United States Environmental Protection Agency. Sole Source Aquifers in New York. Internet Website: http://www.epa.gov/region02/water/aquifer/

24. United States Federal Emergency Management Agency. Current FEMA issued Flood Maps. Internet Website: https://msc.fema.gov/webapp/wcs/stores/servlet/CategoryDisplay?storeId=10001&catalogId=10001&langId=-1&categoryId=12001&parent_category_rn=12001&type=1&stateId=&countyId=&communityId=&stateName=&countyName=&communityName=&dfirm_kit_id=&future=false&dfirmCatId=12009&isCountySelected=1&isCommSelected=0&userType=G&urlUserType=G&sfc=0&cat_state=13039&cat_county=14878&cat_community

25. United States Fish and Wildlife Service. Coastal Barrier Resources Act. Internet Website: http://www.fws.gov/CBRA/Maps/index.html

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27. United States Fish and Wildlife Service. National Wetlands Inventory. Internet Website: http://www.fws.gov/wetlands/Data/Mapper.html

28. Westchester County Department of Public Safety. Annual Report. Internet Website: http://publicsafety.westchestergov.com/annual-report

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30. Westchester County Major Water Suppliers. Internet Website: http://planning.westchestergov.com/images/stories/MapPDFS/MajorWaterSuppliers.pdf

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NY Rising Bulkhead Repair Initiative
Agency Consultation Record

Agency Consulted	Type of Consultation	Date of Consultation	Date of Agency Response	Consultation Details
New York State Department of Environmental Conservation (NYSDEC)	Air Quality	February 3, 2014	February 6, 2014	NYSDEC determined that the bulkhead repair initiative activities described in the February 6, 2014 letter require no air quality permits from NYSDEC.
New York State Department of State (NYSDOS)	Coastal Zone Consistency	February 3, 2014	February 7 and May 23, 2014	NYSDOS determined that the bulkhead repair initiative subject to three modifying conditions meets the Department's general consistency concurrence criteria.
New York Natural Heritage Program (NYNHP)	Threatened and Endangered Species	February 3, 2014	February 6, 2014	NYNHP could not provide a comprehensive determination of no impacts to threatened, endangered, or rare species for all sites, and requires site-specific screenings.
National Marine Fisheries Service (NMFS)	Threatened and Endangered Species and Essential Fish Habitat	February 3, 2014	March 14, 2014	NMFS determined that the only counties where bulkhead repair activities may impact EFH and species listed under the ESA are Nassau and Suffolk Counties. They further stated that the majority of activities being considered for funding will likely not need additional NMFS coordination.
United States Fish and Wildlife Service (USFWS)	Threatened and Endangered Species	February 3, 2014	February 10, 2014 (email)	USFWS responded through email that they are available to provide technical assistance and respond to requests for initiation of ESA consultation for the bulkhead repair initiative. Site-specific screenings required.
United States Army Corps of Engineers (USACE)	In-Water Construction	February 3, 2014 (letter); February 20, 2014 (meeting)	February 26, 2014	USACE provided permitting guidance for the bulkhead repair initiative, outlining which activities would require minor and less complex reviews, and which activities would involve major and more complex reviews. Details are described in the Tier 1 narrative.

Notes: See Appendices for copies of consultation letters.

Other agency coordination:

New York State Historic Preservation Office – Activities under the proposed action would comply with the Programmatic Agreement among FEMA, the NYS Historic Preservation Office, the NYS Office of Emergency Management, the Delaware Nation, the Delaware Tribe of Indians, the Shinnecock Nation, the Stockbridge-Munsee Community Band of Mohicans, the NYC Landmarks Preservation Commission, and the Advisory Council On Historic Preservation.

Environmental Protection Agency (Sole Source Aquifers) - Activities under the proposed action would be reviewed in accordance with the Memorandum of Understanding between HUD and the EPA.

Exhibit 1:

NEPA Environmental Assessment Checklist

NEPA Environmental Assessment Checklist

[Environmental Review Guide HUD CPD 782, 24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27]

HCR has evaluated the significance of the effects of the proposal on the character, features and resources of the project area. Relevant base data and verifiable source documentation to support the findings has been included in the reference section. The appropriate impact code from the following list has been incorporated to make a determination of impact. **Impact Codes**: (**1) -** No impact anticipated; (**2)** - Potentially beneficial; (**3)** - Potentially adverse; (**4)** - Requires mitigation; (**5)** - Requires project modification. Additional materials have been attached as appendices, and conditions or mitigation measures required have been noted.

Land Development	Code	Source or Documentation
Conformance with Comprehensive Plans and Zoning	1	The initiative would not require zoning changes or amendments because it would not introduce new residences, and would consist of repairing and/or replacing or reconstructing existing bulkheads damaged by Superstorm Sandy and Hurricane Irene. Contractors would obtain appropriate permits. **Reimbursement** Work conducted prior to the homeowner entering the NY Rising Bulkhead Repair Initiative would not be eligible for reimbursement if appropriate permits were not obtained or a zoning change or amendment was necessary. **Source: 31 (list of sources can be found in section 6.0)**
Compatibility and Urban Impact	2	CDBG-DR funding would result in the rebuilding of storm-damaged bulkheads located at residential properties in Westchester County. The rebuilding of these sites would provide an urban design and compatibility benefit by revitalizing the appearance and sustainability of these bulkhead structures and stabilizing the shoreline. **Source: 41**
Slope	1	The initiative would consist mainly of repair and reconstruction of bulkheads, and adverse effects to slope are not anticipated. Minor adjustment to soil slope may result for properties requiring soil amendment or preparation for bulkhead repairs or reconstruction. However, effects to slope within a localized area on a property would be considered negligible. According to the USGS topographic maps (see Appendix B: Westchester County USGS Topographic Maps), slopes generally range from 0 to 5% along the coastal areas within Westchester County (i.e., Mamaroneck). The northern portion of the county (north of white plains) does contain hills where slopes greater than 30% exist. However, areas that are currently developed are generally not located on steep slopes. The initiative would rebuild on existing footprints. Adjustment to soil slope may result from properties requiring soil amendment or filling behind bulkheads. This would preclude significant expansion of existing construction; therefore, adverse effects to slope are not anticipated. **Source: 45**

Land Development	Code	Source or Documentation
Erosion	1	According to the USGS topographic map (see Appendix B: Westchester County USGS Topographic Maps), Westchester County has slopes of less than 5% in the southeastern coastal area along the Long Island Sound. While there are areas with greater than 30% slopes as shown in the USGS topographic maps in the northern section of the county, existing development tends to exist in flatter areas between the hills. Adjustment to soil slope may result from properties requiring soil amendment or preparation for bulkhead repairs or reconstruction. BMPs, such as silt fence and erosion prevention, would be implemented, if required by permits or agency discretion. State and local permitting requirements, such as CEHA permits, would incorporate BMPs (erosion blanketing, phasing and sequencing of construction) to eliminate erosion effects for program locations that require excavation or soil modification; therefore, effects from erosion are not anticipated as a result of this initiative. **Source: 45**
Soil Suitability	1	The initiative involves the reconstruction or rehabilitation of existing, storm-damaged bulkheads located on residential properties. Reconstruction at specific properties may include the use of fill to fix the damaged bulkheads. Bulkheads repairs and replacements that would require fill would require a soil suitability analysis in accordance with NYS and local construction codes and regulations. Thorough planning and engineering review and design, through the local permitting process, would mitigate any potentially adverse effects that could result from marginal soil properties, as they relate to rehabilitation and reconstruction. In addition, the initiative would incorporate the Soil Erosion Conditions of Approval, which include BMPs such as silt fencing and erosion prevention, to address potential effects to soil suitability. **Source: 17**
Hazards and Nuisances including Site Safety	4	Typical effects of repair and/or replacement or reconstruction activities may include fugitive dust and noise, which would be addressed under existing regulations governing construction activity in NYS, Westchester County, and local municipalities. If a site is determined to have hazardous materials, measures would be implemented to minimize the exposure of workers and the public (see Conditions for Approval section). **Source: 20**
Energy Consumption	1	Fossil fuel energy consumption would occur via the use of construction equipment and the shipment of materials required for bulkhead repair and/or replacement or reconstruction. However, project activities would not increase long-term energy consumption. **Source: 31**
Noise - Contribution to Community Noise Levels	4	The repair and/or replacement or reconstruction of bulkheads located at residential properties would not result in the development of new residences, and would not result in long-term effects to ambient noise levels. The proposed activities would cause temporary increases in noise levels due to construction activities and truck traffic. Temporary increases in noise levels would be mitigated by compliance with local noise ordinances including time-of-day work limitations (see Conditions for Approval section). **Source: 20**

Land Development	Code	Source or Documentation
Air Quality Effects of Ambient Air Quality on Project, and Contribution to Community Pollution Levels	4	The proposed action would be located in Westchester County, which is within a marginal nonattainment area for both inhalable particulate matter ($PM_{2.5}$) and the eight-hour ozone standard. Section 176(c) of the Clean Air Act (CAA) requires a federal agency that funds any activity in a nonattainment or maintenance area to conform to the NY SIP. Conforming to a SIP means that an action will not: • Cause or contribute to a new violation of any standard in any area; • Increase the frequency or severity of any existing violation of any standard in any area; or • Delay timely attainment of any standard or any required interim emission reduction or other milestones in any area. As demonstrated in the conformity screening analysis for the proposed action, emissions from construction activities would be less than de minimis levels above which a general conformity analysis or determination would be required (see Appendix L: NYSDEC Air Quality Consultation and Conformity with State Implementation Plans), and therefore a conformity assessment is not warranted. Construction activities as a result of the proposed action may result in temporary increases in emissions from on-site equipment, construction-related vehicles and nonroad engines, and fugitive dust. However, all activities under the proposed action would comply with applicable federal, state, and local laws and regulations regarding construction emissions, as discussed in Section 3.0, "Conditions for Approval and Mitigation." Overall, construction activities would occur at scattered sites under the proposed action, and air pollutant concentration increments from construction activities are highly localized, i.e., almost entirely due to construction activity in close proximity to receptor locations and not due to cumulative effects from the larger area. **Source: 21, 22**
Environmental Design Visual Quality - Coherence, Diversity, Compatible Use and Scale	2	Bulkheads would be repaired or replace and would be compatible with the surrounding land uses in both visual and scale aspects. Generally, no significant changes are proposed in the footprint or height (no greater than 18 inches) for the rehabilitation of bulkheads. In some instances, repair or replacement materials may be upgraded or similar alternative stabilization methods employed. The proposed use of CDBG-DR funding would provide a benefit by improving visual appearance of neighborhoods destroyed by the recent disasters. **Source: 31, 41**

Socioeconomic	Code	Source or Documentation
Demographic Character Changes	1	The proposed use of CDBG-DR funds for the repair and/or replacement or reconstruction of storm-damaged bulkheads would not alter the demographic character of the area because it would not introduce new residential uses. The occupants of properties would most likely be the same occupants that resided in the area prior to Hurricane Irene and Superstorm Sandy. No significant effects would occur to the demographic character of Westchester County. **Source: 15, 16**
Displacement	2	One of the primary objectives of CDBG-DR funding and the State's response to Hurricane Irene, Superstorm Sandy, and Tropical Storm Lee is to avoid the permanent displacement of residents. Rehabilitation of storm-damaged bulkheads would help provide adequate protection to the homes of these residents displaced by the recent disasters so they can return to their communities. **Source: 15, 16**
Employment and Income Patterns	2	The rehabilitation of the county's bulkheads would not have a long-term effect on employment and income patterns. In addition, the proposed activities may benefit the affected areas by generating employment for the construction industry. **Source: 15, 16**

Community Facilities and Services	Code	Source or Documentation
Educational Facilities	2	The repair and replacement of residential bulkheads using the proposed CDBG-DR funding would not result in adverse effects on these schools in Westchester County. In most cases, students displaced by Hurricane Irene and Superstorm Sandy would be able to return to their local school. There would be no significant adverse effects on educational facilities as new residences are not being added only existing structures being repaired or replaced. **Source: 14**
Commercial Facilities	2	The repair and/or replacement or reconstruction of residential bulkheads using the proposed CDBG-DR funding would not result in a significant effect on existing commercial establishments. Returning residents would frequent commercial establishments in the neighborhood. This would be an economic benefit to all local businesses that experienced a loss in revenue since the storms. **Source: 18**
Health Care	1	The repair of residential bulkheads using the proposed CDBG-DR funding would not result in a large increase in demands on the health care system in Westchester County. There would be no adverse effects on health care facilities as new residences are not being added and only bulkheads are being repaired or replaced. **Source: 38**
Social Services	2	The repair and/or replacement or reconstruction of residential bulkheads using the proposed CDBG-DR funding would not result in a new demand for social services and may, in fact, reduce demand as people move back into their homes. Social services are provided by a range of non-profit, state, and federal agencies. There would be no significant adverse effects on social services as new residences are not being added and only bulkheads are being repaired or replaced. **Source: 39**
Solid Waste	3	The proposed initiative would result in generation of significant quantities of C&D waste. All solid waste must be properly segregated and disposed of at a regulated (permitted) C&D debris processing facility and in accordance with applicable regulations. As of November 2013, there were 80 regulated (permitted) C&D debris processing facilities and 280 registered C&D debris processing facilities in NY. Materials would be separated from C&D debris to be recycled or to be reused for a specific use. Material that is not recovered would be sent to a municipal solid waste landfill or to a C&D debris landfill. Facilities and landfills would be determined based on proximity to specific properties (See Conditions for Approval section). **Source: 1**
Waste Water	1	The reconstruction or repair of residential bulkheads using the proposed CDBG-DR funding would not result in a significant demand on waste water disposal/treatment services. No significant effect would occur as a result of reconstructing the bulkheads, as the housing stock would not be increased beyond pre disaster conditions. **Source: 36**

Community Facilities and Services	Code	Source or Documentation
Stormwater	1	Reconstruction or rehabilitation including repair of bulkheads would not involve a change in the existing structures footprint and should have no significant effect on stormwater systems. All sites would be evaluated for the need to comply with stormwater permitting requirements, such as NYSDEC general permits or local MS4 permits. If multiple adjacent sites are worked on, the sites would be aggregated for the purposes of construction stormwater compliance. **Reimbursement** If the homeowner has requested reimbursement for work done prior to the homeowner entering the NY Rising Bulkhead Repair Initiative, the work would be evaluated to determine if it required a NYSDEC general permit or local MS4 permit. If it is determined that either permit was required, the homeowner must provide documentation that the permit had been obtained prior to the work being conducted, or evidence as to why the permit was not required for the work conducted. If the permit was required but was not obtained prior to the work conducted, that work would not be eligible for reimbursement. **Source: 33, 43**
Water Supply	1	No additional demands would be placed on the Westchester County water supply as no new residences are being built. The reconstruction or rehabilitation of residential bulkheads using the proposed CDBG-DR funding would not result in a significant effect on water supplies. **Source: 30**
Police	3	The proposed initiative would not result in additional housing units and, thus, would not increase the demand on the local police departments. The proposed use of CDBG-DR funding for the reconstruction or repair of residential bulkheads would help displaced homeowners return to their neighborhoods, stabilizing those neighborhoods and helping restore public safety. Debris from construction activities would be managed as to not impede response time. It is possible debris or trucks may temporarily block access, though these hindrances would be minor and temporary. **Source: 28, 29**
Fire	3	The proposed initiative would not result in additional housing units and, thus, would not increase the demand on the local fire departments. The proposed use of CDBG-DR funding for the reconstruction or repair of residential bulkheads would help displaced homeowners return to their neighborhoods, which would stabilize those neighborhoods and restore public safety. Debris from construction activities would be managed as to not impede response time. It is possible debris or trucks may temporarily block access, though these hindrances would be minor and temporary. Redevelopment activities would ultimately provide potential benefits by reducing the amount of derelict properties, which pose potential fire hazards. **Source: 34, 37**
Emergency Medical	3	The proposed use of CDBG-DR funding for the reconstruction or repair of storm-damaged residential bulkheads would not result in additional housing units and, thus, would not increase the demand on the local emergency medical departments. Debris from construction activities would be managed as to not impede response time. It is possible debris or trucks may temporarily block access, though these hindrances would be minor and temporary. **Source: 34, 35, 38**

Community Facilities and Services	Code	Source or Documentation
Open Space	1	The proposed use of CDBG-DR for the reconstruction or repair of storm-damaged residential bulkheads would not introduce new residential uses or new population to neighborhoods impacted by Hurricane Irene and Superstorm Sandy; therefore, no new demand on open space would be generated. No significant adverse effects would occur. **Source: 31**
Recreation	1	The proposed use of CDBG-DR for the reconstruction or repair of storm-damaged residential bulkheads would not introduce new residential uses or new population to neighborhoods impacted by Hurricane Irene and Superstorm Sandy; therefore, no new demand on recreational facilities would be generated. No significant adverse effects would occur. **Source: 31**
Cultural Facilities	1	The proposed use of CDBG-DR for the reconstruction or repair of storm-damaged residential bulkheads would have no increased demand on cultural facilities, as there would be no increase in population or residential uses. **Source: 31**
Transportation	1	CDBG-DR funds for the reconstruction and repair of storm-damaged residential bulkheads would not generate significant levels of traffic or place a significant demand on transportation systems in the area. Population density is not expected to increase compared to pre-storm levels, since no additional housing stock is being constructed. **Source: 31, 46**

Natural Features	Code	Source or Documentation
Water Resources	1	Westchester County is not located over a sole source aquifer; however, the county does lie over the Croton Watershed, which is part of the NYC Water Supply System (see Appendix G: NYC Watershed Maps). Because this action is for the repair and/or replacement or reconstruction of existing bulkheads and water supplies are already established, no significant effects are expected to occur to the aquifers. **Reimbursement** The total impervious area of a parcel would not be increased significantly, which is considered to be 30% for Safe Drinking Water Act purposes in Region II. This authority would not be triggered because these activities would not increase the pre-existing footprint of structures, sidewalk, driveway, parking lot, or other developed areas. **Source: 6, 8, 23**

Natural Features	Code	Source or Documentation
Surface Water	1	The Croton River is located in northern Westchester County. The Croton River and its tributaries feed into the New Croton Reservoir which feeds into the New Croton Aqueduct, which supplies water to NYC. Comprehensive watershed programs for the Croton Watershed and Indian Brook-Croton Gorge Watershed were developed in 2003 to protect the quality of these drinking water resources located in northern Westchester County. Other reservoirs in northern Westchester County include the Cross River Reservoir, Titicus Reservoir, and Amawalk Reservoir, which feed into the New Croton Reservoir. Initiative activities are anticipated to remain within the general footprint of the affected bulkhead and avoid impacts to surface water resources. All sites would be evaluated for the presence of wetlands in accordance with NYSDEC and USFWS NWI maps, and if necessary, an on-site wetlands inspection and delineation would occur (see Appendix D: Westchester County Wetlands Maps and/or USFWS website). If project work on a specific site would affect a wetland, appropriate permits would be obtained, in compliance with Executive Order 11990. If Executive Order 11990 is triggered, the eight-step decision making process under 24 CFR Part 55.20 modified for wetlands would be completed. The Wetlands and Water Quality and Soil Erosion Conditions for Approval would be implemented during soil disturbing activities associated with construction. These measures would minimize deposition of sediment and eroded soil in onsite and offsite wetlands and waters and minimize erosion in onsite and offsite wetlands and waters. Earthwork associated with construction would have the potential for short-term adverse effects on surface waters from erosion, sedimentation, and hazardous materials. Implementation of BMPs would minimize these effects. There are no Wild and Scenic Rivers within Westchester County as designated by the U.S. Department of the Interior or NYSDEC (see Appendix I: Westchester County Wild, Scenic, and Recreational Rivers). **Reimbursement** If the work that was completed prior to the homeowner entering the NY Rising Bulkhead Repair Initiative is determined to have impacted a wetland, the homeowner must provide documentation that the appropriate permit was obtained prior to the work taking place. If the appropriate permits were not obtained prior to the work taking place, a Tier 2 site-specific review would determine if a project site is located within 300 feet of a tidal wetland and 100 feet of a freshwater wetland. If a project site is located within those boundaries, then a QEP would perform on-site visits to determine if the work affected a wetland. **Source: 5, 7, 27, 40, 44**

Natural Features	Code	Source or Documentation
Unique Natural Features and Agricultural Lands	1	The NYSDEC designates 42 Critical Environmental Areas (CEAs) within Westchester County. There are no NYSDEC-designated Unique Geologic Features in the County. Given the large number of CEAs throughout the county and unknown exact locations of potential repair and reconstruction bulkhead sites, there is potential for effects to Unique Natural Features. However, the initiative would be compatible with current land use. Repair and reconstruction is expected to occur within the same footprint of the affected bulkhead. No of the rehabilitation properties are expected to be identified as farmlands. If rehabilitation activities do occur on agricultural land, the rehabilitation activities would not result in agricultural land use conversion. **Source: 9, 10, 47**
Vegetation and Wildlife	1	Information has been received from NYSDEC NY Natural Heritage Program, NMFS, and the USFWS NY Field Office (see Appendix N: NY Natural Heritage Program Consultation, Appendix Q: NMFS Consultation, and Appendix R: USFWS Consultation). The ESA requires the Action Agency (HCR) to make a determination of effect to any federally listed species or designated critical habitat that may occur as a result of an action that is funded, authorized, or carried out by the Action Agency. The determination(s) of effect would be completed in the Tier 2 site-specific reviews. In accordance with the USFWS program coordination, each site would be reviewed to determine the level of adverse effect in accordance with the USFWS 7-Step Project Review Process and/or other compliance review tools as directed by USFWS. Further consultation with USFWS would be conducted in the event that an adverse effect is determined. Additionally, HCR would determine if there are areas of multiple sites in close proximity that may result in an adverse effect so that those sites can be reviewed together, if necessary. There are two federally listed species known to occur in Westchester County. There is also one species proposed for listing, and one species that is a candidate for listing, known to occur in Westchester County (see Appendix J: USFWS Natural Resources of Concern). No program sites are anticipated to include habitat for these species in their footprint. Several species of listed sea turtles and Atlantic sturgeon occur in the coastal waters of Long Island; sturgeon also occur in the Hudson River. The presence of sea turtles and sturgeon in shallow waters adjacent to the shoreline where bulkheads are typically installed would be rare (see Appendix Q: NMFS Consultation). Measures to minimize effects to these species include use of silt or turbidity curtains, construction at low tide, use of wood or vinyl piles instead of steel, use of the smallest diameter pile practicable, use of vibratory pile drivers, and avoidance of the May-October time period. **<u>Reimbursement</u>** Consultation is not required under Section 7 of the ESA when CDBG-DR assistance is provided for costs incurred, because physical activities were undertaken before HCR could review projects with the potential to affect biological resources. However, all properties would be reviewed for compliance with Section 7 of the ESA at the Tier 2 site-specific level. **Source: 10, 26, 48**

Exhibit 2

Environmental Assessment Worksheet

Environmental Assessment Work Sheet

Program Name and Description:
Program Name: NY Rising Bulkhead Repair Initiative
Location: Individual Residential Sites, Westchester County, New York

Activities included in the project: Rehabilitation of bulkheads located on residential properties in Westchester County that were damaged during Hurricane Irene and Superstorm Sandy.

Directions: New York State Homes & Community Renewal (HCR) has determined whether the activities affiliated with the project will affect the resource under consideration and trigger formal compliance consultation procedures with the appropriate oversight agency and/or subsequent mitigation, as described below. If the activity affects the resource, "**A**" is indicated in the Status Determination Column below, and a site-specific Tier 2 review will be conducted for the category. **"B**" is indicated in the column if the activity does not affect the resources under consideration. The compliance documentation column indicates what source documentation was used to make the compliance determination and copies of all necessary documentation are attached in the Environmental Review Record (ERR).

Statutes, Executive Orders, and Regulations listed at 24 CFR Sec. 58.5 and 58.6	Status Determination (A or B)	Compliance Documentation
Section 404 of the Clean Water Act	A	There may be short-term discharges of sediment to the waters, particularly associated with the removal or deposition of material and shoreline stabilization components for restoring or rebuilding of bulkheads. Section 404 of the CWA authorizes USACE to prohibit or regulate, through a permitting process, the discharge of dredged or fill material, or excavation within U.S. Waters. USACE's NWP3 is applicable to bulkhead work and ensures Section 404 compliance. In NYS, the regional general permit for storm damage repairs and replacement is NYDGP-15. There are no current General Permits for storm-related work, issued by NYSDEC, that are currently available for use in Westchester County; however, Applicants requesting reimbursement for completed work may do so if the work was performed under the previously eligible GP-0-12-006, which was replaced by GP-0-13-006 on July 16, 2013 for Nassau and Suffolk Counties only. New or unfinished work would need to be covered under the appropriate NYSDEC individual permit. If a permit from the USACE is required, a Water Quality Certification may also be required. Water Quality Certifications for this initiative would be granted through a USACE NWP3; if a project does not meet the conditions of NWP3, it would require an individual permit and a separate Water Quality Certification. USACE's NWP3 is available in order to ensure compliance with Section 404 of the CWA for projects involving generally minor and less complex reviews. NWP3 authorizes the removal of accumulated sediments and debris in the vicinity of existing structures, provided that the removal extends no more than 200 feet in any direction from the structure and is limited to the minimum necessary to restore the waterway in the vicinity of the structure to the approximate dimensions that existed when the structure was built. NWP3 would be issued by USACE for proposed and completed projects whose effects are within the standards set by the permit, and which have been completed within the eligible time period for the regional general permit NYDGP15. Projects whose effects are beyond the standards of the nationwide and regional general permits (NWP3 and NYDGP15, respectively), or which will be completed outside the time frame provided for NYDGP15, will require an individual permit (see Appendix S: USACE Coordination and Permits). Homeowners requesting reimbursement for work completed prior to the homeowner entering the NY Rising Bulkhead Repair Initiative must provide documentation that the work was completed under a permit discussed above. If the work that has been done prior to the homeowner entering the initiative does not meet these standards, that work would not be eligible for reimbursement until compliance with these standards is documented through an appropriate permit, which are required eligibility documents under this NY Rising Bulkhead Repair Initiative.
Coastal Barrier Resources Act/Coastal Barrier Improvement Act [§58.6(c)]	A	Westchester County does not lie within the CBRS or OPA. Therefore, the Coastal Barrier Improvement Act does not need further assessment.

Statutes, Executive Orders, and Regulations listed at 24 CFR Sec. 58.5 and 58.6	Status Determination (A or B)	Compliance Documentation
Airport Runway Clear Zone or Clear Zone Disclosure [§58.6(d)]	B	The initiative does not involve any site acquisitions, therefore, §58.6(d) is not applicable.
Wetland Protection [Executive Order 11990]	A	All sites would be evaluated for the presence of wetlands in accordance with NYSDEC, and the USFWS NWI maps, and if necessary, an on-site wetlands inspection and delineation would occur (See Appendix D: Westchester County Wetlands Maps and/or USFWS website). If project work on a specific site would affect a wetland, appropriate permits would be obtained in compliance with Executive Order 11990. If Executive Order 11990 is triggered, the eight-step decision making process under 24 CFR Part 55.20 modified for wetlands would be completed. **Reimbursement** If the work that was completed prior to the homeowner entering the NY Rising Bulkhead Repair Initiative is determined to have affected a wetland, the homeowner must provide documentation that the appropriate permit was obtained prior to the work taking place. If the appropriate permits were not obtained prior to the work taking place, a Tier 2 site-specific review would determine if a project site is located within 300 feet of a tidal wetland and 100 feet of a freshwater wetland. If a project site is located within those boundaries, then a QEP would perform on-site visits to determine if the work affected a wetland.
Coastal Zone Management [Coastal Zone Management Act, 1972]	B	On May 23, 2014, the NYSDOS determined in writing that the NY Rising Bulkhead Repair Initiative would be generally consistent with the policies and purposes of the NYS Coastal Management Program (NYSCMP) (See Appendix M: NYSDOS Coastal Consistency Consultation). The consistency concurrence finds that the following activities of the bulkhead initiative would meet NYSDOS's general consistency criteria: • Installation of temporary structures to facilitate installation and/or retain fill repairs; • Installation of new fill comprised entirely of material substantially equivalent to adjacent native material within the footprint of pre-storm conditions; and • Restoration may include a change in materials or minor change in height of approximately 12 to 18 inches. In conjunction with the State's general concurrence determination, in cases where the project is located within the jurisdiction of a Local Waterfront Revitalization Program (LWRP), the Tier 2 reviewer would conduct an assessment in accordance with 19 NYCRR Part 600 to determine whether the project is likely to affect the achievement of the policies and purposes of such approved LWRP and State agency programs. Project activities would be undertaken in a manner which complies with the policies of the approved LWRP.

Statutes, Executive Orders, and Regulations listed at 24 CFR Sec. 58.5 and 58.6	Status Determination (A or B)	Compliance Documentation
Historic Preservation [36 CFR Part 800]	A	A Programmatic Agreement (See Appendix O: NY Historic Preservation Programmatic Agreement) with the SHPO has been obtained and all properties will be reviewed under Section 106 of the National Historic Preservation Act for compliance with the Programmatic Agreement and forwarded to the OPRHP for further review as required by the Programmatic Agreement. The qualified Historic Preservation professional is staff at OPRHP. If the primary reviewer is not able to determine compliance from a project based on the Programmatic Agreement, the project would be sent for further review to OPRHP and all recommendations made by OPRHP would be incorporated into the project design. Each site would be reviewed for compliance with the Programmatic Agreement. **Reimbursement** If the homeowner has requested reimbursement for work done prior to the homeowner entering the NY Rising Bulkhead Repair Initiative, the work would be evaluated to determine compliance with the Programmatic Agreement. If the work conducted by the homeowner did not comply with the Programmatic Agreement, the homeowner must provide documentation that the OPRHP had been consulted prior to the work starting. If the homeowner cannot provide the documentation, the project would not be eligible for reimbursement until it has been sent for further review to OPRHP and all recommendations made by OPRHP have been completed.
Floodplain Management [Executive Order 11988; 24 CFR Part 55]	A	Project sites requiring substantial repair or reconstruction located in a 100-year floodplain will be reviewed in accordance with 24 CFR Part 55.20. A floodplain management plan would be written and public notices would be published for all sites located within the floodplain. Compliance requirements would be determined in a Tier 2 site-specific environmental review. (See Appendix T: Sample Floodplain Management Plan and Public Notices.) Executive Order 11988, "Floodplain Management," requires all federal agencies to consider alternatives to avoid adverse effects and incompatible development in the floodplains in order to reduce the risk of flood loss and to minimize the effect of floods on human safety, health and welfare.
Sole Source Aquifers [40 CFR 149]	B	There are no sole source aquifers in Westchester County. Therefore, the proposed initiative would have no effect on sole source aquifers. **Reimbursement** The total impervious area of a parcel will not be increased significantly, which is considered to be 30% for Safe Drinking Water Act purposes in EPA Region II. This authority would not be triggered since these activities would not increase the preexisting footprint of structures, sidewalk, driveway, parking lot, or other developed areas.

Statutes, Executive Orders, and Regulations listed at 24 CFR Sec. 58.5 and 58.6	Status Determination (A or B)	Compliance Documentation
Endangered Species Act [50 CFR 402]	A	Information has been received from the NYSDEC NY Natural Heritage Program, the USFWS NY Field Office, and NMFS, (See Appendix N: NY Natural Heritage Program Consultation, Appendix Q: NMFS Consultation, Appendix R: USFWS Consultation). The ESA requires the Action Agency (HCR) to make a determination of effect to any federally listed species or designated critical habitat that may occur as a result of an action that is funded, authorized, or carried out by the Action Agency. The determination(s) of effect would be completed in the Tier 2 site-specific reviews. In accordance with the coordination letters from USFWS, each site would be reviewed to determine the level of adverse effect in accordance with USFWS 7-Step Project Review Process and/or other compliance review tools as directed by USFWS. Further consultation with USFWS would be conducted in the event that an adverse effect is determined. Additionally, HCR would determine if there are areas of multiple sites in close proximity that may result in an adverse effect so that those sites can be reviewed together, if necessary. There are two federally listed species known to occur in Westchester County. There is also one species proposed for listing, and one species that is a candidate for listing, known to occur in Westchester County (see Appendix J: USFWS Natural Resources of Concern). No program sites are anticipated to include habitat for these species in their footprint. Several species of listed sea turtles and Atlantic sturgeon occur in the coastal waters of Long Island; sturgeon also occur in the Hudson River. The presence of sea turtles and sturgeon in shallow waters adjacent to the shoreline where bulkheads are typically installed would be rare (see Appendix Q: NMFS Consultation). Measures to minimize effects to these species include use of silt or turbidity curtains, construction at low tide, use of wood or vinyl piles instead of steel, use of the smallest diameter pile practicable, use of vibratory pile drivers, and avoidance of the May-October time period. Compliance requirements would be determined in a Tier 2 environmental review. **<u>Reimbursement</u>** Consultation is not required under Section 7 of the ESA when CDBG-DR assistance is provided for costs incurred, because physical activities were undertaken before HCR could review projects with the potential to affect biological resources. However, all properties, including reimbursements, would be reviewed for compliance with Section 7 of the ESA at the Tier 2 site-specific level.

Statutes, Executive Orders, and Regulations listed at 24 CFR Sec. 58.5 and 58.6	Status Determination (A or B)	Compliance Documentation
Wild and Scenic Rivers [16 U.S.C. 1271, Sec. 7(b), (c)]	B	There are no Wild and Scenic Rivers within Westchester County, as designated by the U.S. Department of the Interior (see Appendix I: Westchester County Wild, Scenic, and Recreational Rivers).
Clean Air Act [40 CFR Parts 6, 51, 93]	B	The proposed action would be located in Westchester County, which is within a marginal nonattainment area for both inhalable particulates ($PM_{2.5}$) and the 8-hour ozone standard. Project activities would be completed on existing residential developed sites and existing structures. As demonstrated in the conformity screening analysis for the proposed action, emissions due to construction activities would fall below de minimis levels for an air quality conformance (see Appendix L: NYSDEC Air Quality Consultation and Conformity with State Implementation Plans), and therefore a conformity assessment is not warranted. Air quality effects would be short-term and localized. No significant effects on air quality would result and further assessment is not required.
Farmland Policy Act [7CFR Part 658]	B	The initiative would not convert farmland to nonagricultural purposes and therefore would not violate the Farmland Policy Protection Act (see Appendix K: Farmland Protection Checklist). Further assessment is not required.
Environmental Justice [Executive Order 12898]	B	The proposed initiative is not expected to result in EJ effects as it is intended to address rehabilitation of existing homes devastated by Superstorm Sandy and Hurricane Irene. Homes/applications within EJ areas would be treated the same as homes/applications in non-EJ areas and would have equal opportunity (See Appendix F: Potential Environmental Justice Area Maps). **Reimbursement** These projects would not raise EJ issues and have no potential for new or continued disproportionately high and adverse human health and environmental effects on minority or low-income populations. NYS would pay particular attention to the needs of the most vulnerable populations; the elderly and disabled, minority populations, low- and moderate-income residents, and others. NYS and its partners would be conducting extensive outreach to ensure that available resources are made available to the populations with the greatest needs.

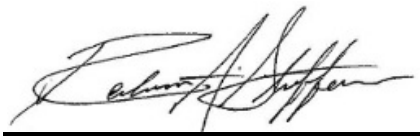
Statutes, Executive Orders, and Regulations listed at 24 CFR Sec. 58.5 and 58.6	Status Determination (A or B)	Compliance Documentation
Noise Abatement and Control [24 CFR Part 51, Subpart B]	B	The reconstruction or repair of residential bulkheads would not result in the development of new residences and would not result in long-term effects to ambient noise levels. The proposed activities would cause temporary increases in noise levels. Temporary increases in noise levels would be mitigated by complying with local noise ordinances. HUD has determined that noise abatement and control is not applicable to a disaster recovery program which meets the definition under 24 CFR Part 51.101(a)(3) for emergency assistance under disaster provisions or appropriations which are provided to save lives, protect property, protect public health and safety, remove debris and wreckage, or assistance that has the effect of restoring facilities substantially as they existed prior to the disasters (see Appendix P: HUD Noise Abatement and Explosive Operations Email). **Reimbursement** HUD's noise policy at 24 CFR part 51 subpart B is not applicable to assistance that has the effect of restoring facilities substantially as they existed prior to the disaster (See 51.101(a)(3)).
Explosive and Flammable Operations [24 CFR Part 51 C]	B	ASD requirements do not apply because the definition for HUD assisted projects in 24 CFR Part 51.201 is predicated on whether the HUD project increases the number of people exposed to hazardous operations. Environmental review for grants to rebuild or reconstruct existing bulkheads damaged by the storms is not required to apply 24 CFR Part 51 Subpart C (see Appendix P: HUD Noise Abatement and Explosive Operations Email). **Reimbursement** HUD's acceptable separation distance at 24 CFR part 51 subpart C is not applicable if the project is not adding density. If density is increased, 24 CFR Part 51 Subpart C applies.

Statutes, Executive Orders, and Regulations listed at 24 CFR Sec. 58.5 and 58.6	Status Determination (A or B)	Compliance Documentation
Toxic Chemicals and Radioactive Materials [24 CFR Part 58, Sec 5(i)(2)]	A	HUD policy requires that the proposed site and adjacent areas be free of hazardous materials (with the exception of commonly found household hazardous materials such as automotive batteries or used motor oil), contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants of the property. HCR in conjunction with designated agencies or consultants under HCR's direction would provide qualified environmental professionals (QEP) to perform on-site visits as necessary; QEP are experienced persons with the skills to look for and recognize hazardous materials and their condition generally as well as the most common types of residential contamination found within this geographic area. The reports generated by the QEPs with environmental assessment experience would be reviewed by HCR or consultant under HCR direction to confirm that all items on the checklist are appropriately addressed. If contaminants are identified, they would be remediated according to all applicable city, state and federal regulations. All solid waste materials must be managed and transported in accordance with the state's solid and hazardous waste rules.
Airport Clear Zones and Accident Potential Zones [24 CFR 51 D]	B	Based on guidance provided by HUD in Fact Sheet #D1, the National Plan of Integrated Airport Systems was reviewed for civilian, commercial service airports within the vicinity of the program area, as projects located within 2,500 feet of a civil airport will require consultation with the appropriate civil airport operator. Projects located within the City of White Plains near the New York – Connecticut border would be within close proximity to the Westchester County Airport. If the project is within the airport clear zone, the appropriate notifications would be made as per 24 CFR Part 51D (see Appendix H: Airport Clear Zones Map). No known civil airports are located within 2,500 feet of the program area, and no known military airports are located within 15,000 feet of the program area.

Determination: HCR has complied with all provisions of 24 CFR Part 58, Subpart E—Environmental Review Process: Environmental Assessments, has examined alternatives to the project itself and feasible ways to modify the project to eliminate or minimize adverse impacts, and based on steps (a) through (f) found in the regulations, has made the following determination:

(1) Finding of No Significant Impact (FONSI), whereby HCR may proceed to dissemination and publication of the FONSI, per regulations found at 24 CFR Part 58, sec. **58.43(a).**

PREPARER SIGNATURE:



PREPARER NAME:
Rebecca A. Steffen, ProSource Technologies, LLC

DATE:
1 April 2014

PREPARER SIGNATURE:

PREPARER NAME:
Matt Loscalzo, Tetra Tech, Inc.

DATE:
1 April 2014

PREPARER SIGNATURE:
Casey Grabowski

PREPARER NAME:
Casey Grabowski, Tetra Tech, Inc.

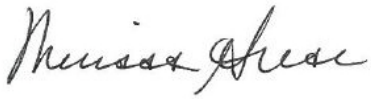
DATE:
7 February 2014

(cont'd on next page)

Determination: HCR has complied with all provisions of 24 CFR Part 58, Subpart E—Environmental Review Process: Environmental Assessments, has examined alternatives to the project itself and feasible ways to modify the project to eliminate or minimize adverse impacts, and based on steps (a) through (f) found in the regulations, has made the following determination:

(1) Finding of No Significant Impact (FONSI), whereby HCR may proceed to dissemination and publication of the FONSI, per regulations found at 24 CFR Part 58, sec. **58.43(a).**

PREPARER SIGNATURE:



PREPARER NAME:
Melissa Grese, AKRF, Inc.

DATE:
17 July 2014

Exhibit 3:
Site-Specific Checklist

Application#:	
Project Address:	

TIER 2 ENVIRONMENTAL REVIEW RECORD
SITE SPECIFIC CHECKLIST

Department of Housing and Urban Development Appropriation Act, 2013

Community Development Block Grant—Disaster Recovery
Westchester County Bulkhead Repair Initiative

☐ Reimbursement
☐ Repair
☐ Reimbursement and Repair

DESCRIPTION OF PROJECT WORK (From Engineers Cost Estimate or Scope of Work)

Repair:
Reimbursement:

Approximate bulkhead construction date (if known):

Currently existing, serviceable bulkhead? ☐ Yes ☐ No

Repair/replacement in same footprint? ☐ Yes ☐ No

If not replaced within the same footprint, will the bulkhead be constructed landward of the original footprint? ☐ Yes ☐ No

If not replaced within the same footprint, will the bulkhead be constructed waterward of the original footprint? ☐ Yes ☐ No

If Yes, and within tidal waters of the US, attach a copy of one of the following:

☐ The USACE authorization to conduct the identified repairs under Nationwide Permit 3 in response to the Pre-Construction Notification (PCN) **or**
☐ The Compliance Certification Form submitted to USACE or written notification from USACE that work was authorized under NY District Regional General Permit DGP-15.

If Yes, and if bulkhead will be constructed more than 18 inches waterward of the original footprint within nontidal waters, attach a copy of one of the following:

☐ The USACE authorization to conduct the identified repairs under Nationwide Permit 3 in response to submission of the PCN **or**
☐ The Compliance Certification Form submitted to USACE or written notification from USACE that work was authorized under NY District Regional General Permit DGP-15.

Will the use of the bulkhead be the same as prior to damage? ☐ Yes ☐ No
Will any ground disturbance be conducted landward of the bulkhead? ☐ Yes ☐ No
Will temporary structures and/or fills be necessary to enact repair? ☐ Yes ☐ No

Will the repair result in the removal of accumulated sediment/debris in the vicinity of the bulkhead to be repaired, or the placement of new or additional riprap to protect the structure? ☐ Yes ☐ No

If Yes, attach a copy of one of the following:

☐ The authorization to conduct the repairs under Nationwide Permit 3 received from the USACE in response to submission of the PCN **or**
☐ The Compliance Certification Form submitted to USACE or written notification from USACE that work was authorized under NY District Regional General Permit DGP-15.

Application#:	
Project Address:	

PERMIT REVIEW

The activity(ies) proposed in this NYS CDBG-DR project would be conducted pursuant to, and have documented receipt or conformance with, the following permits:

USACE Permit

☐ Nationwide Permit 3 Maintenance[1]

☐ Nationwide Permit 3 Maintenance with PCN

☐ NY District Regional General Permit DGP-15 (Attach a copy of the Compliance Certification Form submitted to USACE, or written notification from USACE that work was authorized under DGP-15)

☐ Individual USACE Permit (Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act)

NYSDEC General Permit GP-0-13-006 or General Permit GP-1-13-001 (Attach a copy of the written Request for Authorization Form (for GP-1-13-001) or Notice of Intent (for GP-0-13-006) submitted for the project, or written notification from NYSDEC that work was authorized under either General Permit)

☐ Yes ☐ No

Coastal Erosion Hazard Area Permit	☐ Yes	☐ No
NYSDEC Tidal Wetlands Permit	☐ Yes	☐ No
NYSDEC Freshwater Wetlands Permit	☐ Yes	☐ No
NYSDEC Protection of Waters Permit	☐ Yes	☐ No

[1] If the application is for reimbursement only and the applicant cannot provide the documentation requested above for the NY District Regional General Permit DGP-15 and NYSDEC General Permit GP-0-13-006 or General Permit GP-1-13-001, the project activities may have been conducted pursuant to Nationwide Permit 3 Maintenance and the regional conditions for New York State if the activities involved only repair and/or replacement within the existing footprint. In those cases, consult the Nationwide Permit 3 Maintenance checklist to determine whether the activities were allowable under a Nationwide Permit 3 Maintenance. If the checklist documents conformance with a Nationwide Permit 3 Maintenance and the New York State regional conditions, check the box for that permit above. In these cases, no DEC Permit would be required.

Application#:	
Project Address:	

SEQRA CLASSIFICATION

It is the finding of NYSHCR that the activity(ies) proposed in this NYS CDBG-DR project falls within the scope of the SEQR Negative Declaration for Unlisted Actions dated _____ and Amended Negative Declaration for Unlisted Actions dated _____.

NEPA CLASSIFICATION

It is the finding of NYSHCR that the activity(ies) proposed in this NYS CDBG-DR project falls within the scope of the Tier 1 and FONSI dated: _____

☐ Part or all of the project is located in an area identified as a floodplain or wetland. For projects located in a floodplain or wetland, evidence of compliance with Executive Orders 11988 and/or 11990 is required.

Finding of Tier 2 Review:

☐ The proposed activity complies with environmental requirements for funding. The closeout items must be completed. The closeout items are listed at the end of this document.

☐ The proposed activity does not comply with environmental requirements for funding for the following reasons; i.e. permanent impact to wetland or inconsistency with the coastal program.

☐ A finding cannot be made without (describe missing or needed information or documentation).

Application#:	
Project Address:	

SITE SPECIFIC STATUTORY CHECKLIST AND ADDITIONAL NYS REQUIREMENTS

Check "A" if further close-out documentation is required. Provide written discussion of compliance or necessary mitigation measures. Check "B" if the criteria review is complete. Provide written discussion and attach any supporting materials.

Area of Statutory – Regulatory Compliance	A	B	Compliance Discussion Attach Supporting Material
Procedures to comply with Related Laws at 24 CFR 58.6			
Flood Disaster Protection Act of 1973			
Coastal Barrier Resources Act		X	No program activities would occur in a system unit of the Coastal Barrier Resources System. According to the Coastal Barrier Resource System maps, the program site is not located in a Coastal Barrier Resource Area.
Runway Clear Zones (development)		X	No programs involve assistance to purchase residential properties, including bulkheads. Accordingly, this requirement is not applicable to any potential activities to be funded by these programs.
Procedures to comply with Related Laws at 24 CFR 58.5 and Other NYS Requirements			
Historic Properties			
Floodplain Management			
Wetland Protection			
Coastal Zone Management		X	This initiative has been reviewed by the New York State Department of State (NYSDOS), which made a "general concurrence determination" for the bulkhead repair initiative based on the fact that the initiative involves rehabilitation.
Local Waterfront Revitalization Plan			
Sole Source Aquifers		X	No sole source aquifers exist in Westchester County. The proposed initiative would have no effect on sole source aquifers.
Endangered Species			
Wild and Scenic Rivers		X	Not applicable. The property is not located in a component of the National Wild and Scenic River System, or a river officially designated by Congress as a "study river" for possible inclusion in the system, or a river designated Wild, Scenic, or Recreational by the New York State Department of Environmental Conservation. No impacts would result and further assessment is not required.
Air Quality		X	The initiative would not substantively affect the State Implementation Plan (SIP). No significant impacts on air quality would result and further assessment is not required.
Farmlands Protection		X	The initiative would not convert farmland to nonagricultural purposes and, therefore, would not violate the Farmland Policy Protection Act.
Noise Abatement and Control		X	Not applicable. Compliance was determined in the Tier 1 Environmental Assessment.

Application#:	
Project Address:	

Area of Statutory – Regulatory Compliance	A	B	Compliance Discussion Attach Supporting Material
Thermal/Explosive Hazards		X	Acceptable separation distance requirements do not apply because the definition for HUD assisted projects in 24 CFR Part 51.201 is predicated on whether the HUD project increases the number of people exposed to hazardous operations. Therefore, the environmental review for grants to repair bulkheads that existed prior to the disaster where the number of dwelling units is not increased, is not required to apply 24 CFR Part 51 Subpart C.
HUD Environmental Standards			
Environmental Justice		X	Not applicable. Compliance was determined in the Tier 1 Environmental Assessment.

Application#:	
Project Address:	

ADDITIONAL SEQRA REVIEW

Check "A" if further close-out documentation is required. Provide written discussion of compliance or necessary mitigation measures. Check "B" if the criteria review is complete. Provide written discussion and attach any supporting materials.

Area of Statutory – Regulatory Compliance	A	B	Compliance Discussion Attach Supporting Material
National Natural Landmark			
Significant Wildlife Habitat			
Unique or Unusual landforms			
Aesthetic Resources, Open Space and Recreation			
State Protected Waterbody			
Critical Environmental Areas			
Historic Properties			
Agricultural and Markets Law			
Coastal Erosion Hazard Areas			

Application#:	
Project Address:	

TO BE FILLED OUT BY PERSON WHO PREPARED DOCUMENT:

Prepared by:

Signature:

Date:

TO BE FILLED OUT BY HCR CERTIFYING OFFICER OR OTHER APPROPRIATELY DESIGNATED OCR OFFICIAL:

This Site Specific Checklist is determined to be acceptable.

Signature:

Printed Name:

Date:

Application#:	
Project Address:	

Closeout Items

Historic Properties review documentation NEEDED FOR ALL SITES	Document Received and Date:
Engineering Costs/Scope NEEDED FOR ALL SITES	Document Received and Date:
Coastal Barrier Resources determination needed: ☐ Yes ☐ No	Document Received and Date:
Coastal Erosion Hazard Area permit needed: ☐ Yes ☐ No	Document Received and Date:
Local Waterfront Revitalization Plan Consistency Determination ☐ Yes ☐ No	Document Received and Date:
Proof of flood insurance needed: ☐ Yes ☐ No	Document Received and Date:
NYSDEC wetlands permit needed: ☐ Yes ☐ No	Document Received and Date:
Construction plans/Engineer Report needed: ☐ Yes ☐ No	Document Received and Date:
USACE permit needed: ☐ Yes ☐ No	Document Received and Date:
NYSDEC Water Quality Certification needed: ☐ Yes ☐ No	Document Received and Date:
Other environmental mitigation measures needed: ☐ Yes ☐ No	Document Received and Date:

Exhibit 4:
Site-Specific Checklist Template

Application#:	
Project Address:	

TIER 2 ENVIRONMENTAL REVIEW RECORD
SITE SPECIFIC CHECKLIST

Department of Housing and Urban Development Appropriation Act, 2013

Community Development Block Grant—Disaster Recovery
Westchester County Bulkhead Repair Initiative

☐ Reimbursement
☐ Repair
☐ Reimbursement and Repair

DESCRIPTION OF PROJECT WORK (From Engineers Cost Estimate or Scope of Work)

Repair:
Reimbursement:

Approximate bulkhead construction date (if known):

Currently existing, serviceable bulkhead? ☐ Yes ☐ No

Repair/replacement in same footprint? ☐ Yes ☐ No

If not replaced within the same footprint, will the bulkhead be constructed landward of the original footprint? ☐ Yes ☐ No

If not replaced within the same footprint, will the bulkhead be constructed waterward of the original footprint? ☐ Yes ☐ No

If Yes, and within tidal waters of the US, attach a copy of one of the following:

☐ The USACE authorization to conduct the identified repairs under Nationwide Permit 3 in response to the Pre-Construction Notification (PCN) **or**
☐ The Compliance Certification Form submitted to USACE or written notification from USACE that work was authorized under NY District Regional General Permit DGP-15.

If Yes, and if bulkhead will be constructed more than 18 inches waterward of the original footprint within nontidal waters, attach a copy of one of the following:

☐ The USACE authorization to conduct the identified repairs under Nationwide Permit 3 in response to submission of the PCN **or**
☐ The Compliance Certification Form submitted to USACE or written notification from USACE that work was authorized under NY District Regional General Permit DGP-15.

Will the use of the bulkhead be the same as prior to damage? ☐ Yes ☐ No
Will any ground disturbance be conducted landward of the bulkhead? ☐ Yes ☐ No
Will temporary structures and/or fills be necessary to enact repair? ☐ Yes ☐ No

Will the repair result in the removal of accumulated sediment/debris in the vicinity of the bulkhead to be repaired, or the placement of new or additional riprap to protect the structure? ☐ Yes ☐ No

If Yes, attach a copy of one of the following:

☐ The authorization to conduct the repairs under Nationwide Permit 3 received from the USACE in response to submission of the PCN **or**
☐ The Compliance Certification Form submitted to USACE or written notification from USACE that work was authorized under NY District Regional General Permit DGP-15.

Application#:	
Project Address:	

PERMIT REVIEW

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USACE Permit

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☐ Nationwide Permit 3 Maintenance with PCN

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☐ Individual USACE Permit (Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act)

NYSDEC General Permit GP-0-13-006 or General Permit GP-1-13-001 (Attach a copy of the written Request for Authorization Form (for GP-1-13-001) or Notice of Intent (for GP-0-13-006) submitted for the project, or written notification from NYSDEC that work was authorized under either General Permit)

☐ Yes ☐ No

Coastal Erosion Hazard Area Permit	☐ Yes	☐ No
NYSDEC Tidal Wetlands Permit	☐ Yes	☐ No
NYSDEC Freshwater Wetlands Permit	☐ Yes	☐ No
NYSDEC Protection of Waters Permit	☐ Yes	☐ No

[1] If the application is for reimbursement only and the applicant cannot provide the documentation requested above for the NY District Regional General Permit DGP-15 and NYSDEC General Permit GP-0-13-006 or General Permit GP-1-13-001, the project activities may have been conducted pursuant to Nationwide Permit 3 Maintenance and the regional conditions for New York State if the activities involved only repair and/or replacement within the existing footprint. In those cases, consult the Nationwide Permit 3 Maintenance checklist to determine whether the activities were allowable under a Nationwide Permit 3 Maintenance. If the checklist documents conformance with a Nationwide Permit 3 Maintenance and the New York State regional conditions, check the box for that permit above. In these cases, no DEC Permit would be required.

Application#:	
Project Address:	

SEQRA CLASSIFICATION

It is the finding of NYSHCR that the activity(ies) proposed in this NYS CDBG-DR project falls within the scope of the SEQR Negative Declaration for Unlisted Actions dated _____ and Amended Negative Declaration for Unlisted Actions dated _____.

NEPA CLASSIFICATION

It is the finding of NYSHCR that the activity(ies) proposed in this NYS CDBG-DR project falls within the scope of the Tier 1 and FONSI dated: _____

☐ Part or all of the project is located in an area identified as a floodplain or wetland. For projects located in a floodplain or wetland, evidence of compliance with Executive Orders 11988 and/or 11990 is required.

Finding of Tier 2 Review:

☐ The proposed activity complies with environmental requirements for funding. The closeout items must be completed. The closeout items are listed at the end of this document.

☐ The proposed activity does not comply with environmental requirements for funding for the following reasons; i.e. permanent impact to wetland or inconsistency with the coastal program.

☐ A finding cannot be made without (describe missing or needed information or documentation).

Application#:	
Project Address:	

SITE SPECIFIC STATUTORY CHECKLIST AND ADDITIONAL NYS REQUIREMENTS

Check "A" if further close-out documentation is required. Provide written discussion of compliance or necessary mitigation measures. Check "B" if the criteria review is complete. Provide written discussion and attach any supporting materials.

Area of Statutory – Regulatory Compliance	A	B	Compliance Discussion Attach Supporting Material
Procedures to comply with Related Laws at 24 CFR 58.6			
Flood Disaster Protection Act of 1973			*Is the property located in a Special Flood Hazard Area (SFHA)?* *a) No – review concluded. Create map to document. Put an X in Column B and add text:* Not applicable. The property is not located in a Special Flood Hazard Area. *b) Yes – Create map to document. Put an X in Column **A**. Add text:* The property is located in a Special Flood Hazard Area, and proof of insurance is required. Grantees must adhere to the guidelines stipulated in the construction contract.
Coastal Barrier Resources Act		X	No program activities would occur in a system unit of the Coastal Barrier Resources System. According to the Coastal Barrier Resource System maps, the program site is not located in a Coastal Barrier Resource Area.
Runway Clear Zones (development)		X	No programs involve assistance to purchase residential properties, including bulkheads. Accordingly, this requirement is not applicable to any potential activities to be funded by these programs.

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Procedures to comply with Related Laws at 24 CFR 58.5 and Other NYS Requirements			
Historic Properties			*An architectural historian will be reviewing all program sites. The historian will make a recommendation on whether the house is eligible for the National Register and you will be provided with the report.* *a) If the historian determines it is **not** eligible for the National Register, then put an X in Column B and add text:* Based on a Section 106 project review in accordance with the Programmatic Agreement, the house and its attached structures are not eligible for the National Register. *b) If the historian determines it **is** eligible for the National Register and the activities meet the Tier II allowances, then review concluded. Put an X in Column B and add text:* The housing site is eligible for the national register; however, the project complies with Tier II Allowance(s). *A pre-construction notification (PCN) must be submitted with the Nationwide Permit 3 application.* *c) If the historian determines it **is** eligible for the National Register and the activities do **not** meet the Tier 2 allowances then: A Qualified professional will undertake a Section 106 project review in accordance with the Programmatic Agreement, coordinate with HCR, and add text documenting that review process.*
Floodplain Management			*Is the property located in a 100-year floodplain?* *a) No – review concluded. Create the Floodplain Map to document. Put an X in Column B and add text*: Not applicable. The property is not located in a 100-year floodplain. *b) Yes – Create map to document. Put an X in Column **A** and add text:* A floodplain management plan was completed for the program site on Month XX, 2014. *Documentation must be provided that the 8-Step (or 5-Step) Process in 24 CFR Part 55.20 was completed.*

Wetland Protection			*Are project activities to be conducted within wetlands identified through the National Wetlands Inventory or New York State Department of Conservation (NYSDEC) or their adjacent areas (within 100 feet of NYSDEC freshwater wetlands or 300 feet of NWI tidal/coastal wetlands)?* *a) No – review concluded. Create map to document. Put an X in Column B and add text:* Not applicable. The property boundary is greater than 300 feet from a tidal wetland and greater than 100 feet from a freshwater wetland. *i) Yes (activities in freshwater wetlands only): Coordinate with HCR regarding additional compliance steps.* *ii) Yes (activities in the **tidal/coastal wetland buffer** only) – create map to document. **Are the project activities a compatible use** under **Tidal Wetlands** Land Use Regulations (6NYCRR Part 661.5 http://www.dec.ny.gov/permits/6347.html)?* *1) Yes – Review concluded. Put an X in Column B and add text:* The property is adjacent to a wetland; however, project activities are exempt under 6 NYCRR Part 661.5. *2) No. If project activities located **in the tidal/coastal wetland buffer** are **not** a compatible use or occur in the **freshwater wetland buffer**, then determine whether only a NYSDEC permit is needed (not U.S. Army Corps jurisdictional determination).* *A) If yes, only a NYSDEC needs to be obtained, then put an X in Column **A** and add text:* Project activities will be conducted in the wetlands buffer. A New York State Department of Environmental Conservation permit will be obtained prior to conducting project activities. *B) No. Coordinate with HCR regarding additional compliance steps.*
Coastal Zone Management		X	This initiative has been reviewed by the New York State Department of State (NYSDOS), which made a "general concurrence determination" for the bulkhead repair initiative based on the fact that the initiative involves rehabilitation.

Local Waterfront Revitalization Plan			*Is the project site located within an approved LWRP?* *a) If yes, prepare an LWRP policy analysis and submit to the local Waterfront Revitalization Committee for their recommendation and allow 30 days for their recommendation. Once recommendation is received, make determination whether action would be consistent with the LWRP.* *i) If consistent, insert text:* The proposed action would be consistent with the ____ LWRP per attached letter dated _____. *ii) If not consistent, consult with HCR.* *b) If no, insert text:* The project site is not located within the jurisdiction of an approved LWRP.
Sole Source Aquifers		X	No sole source aquifers exist in Westchester County. The proposed initiative would have no effect on sole source aquifers.

Endangered Species			*Determine if the project activities will have "no effect" on or "may affect but not likely to adversely affect" any federal or state* ***protected*** *(listed or proposed) rare, threatened or endangered species nor adversely modify designated critical habitats. [This finding is to be based on the review of designated critical habitats, consultation with U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS) or NYSDEC, or through a special study completed by a biologist or botanist. A determination of "no effect" based on the well-documented absence of listed species and critical habitats does not require USFWS or NYSDEC concurrence.] To make this determination:* • *Review NYSDEC Resource Mapper for known occurrences. See list of species for your county (FWS 8/7/13 letter) and if new FWS GIS layers apply.* • *Review NMFS maps.* • *Review GAP land use maps for suitable habitat* *a) Is a protected species documented or is suitable habitat is present?* *i) No – review concluded. Create map to document. Put an X in Column B and add text:* Not applicable. According to information reviewed from the New York State Environmental Resource Mapper at http://www.dec.ny.gov/imsmaps/ERM/viewer.htm, no rare, threatened or endangered species are known to exist in the property's vicinity. The property is located in a [high/medium/low (choose one)] -density residential development and does not support or provide habitat for any rare, threatened or endangered plant or animal species. Therefore, the project would not affect any natural habitats containing such species or any designated or proposed critical habitat. *ii) Yes: Is the activity likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation as identified under the federal ESA or which will directly or indirectly destroy or adversely modify the critical habitat of such species?* *(1) No. Put an X in Column B and add text:* The program site is located within the vicinity of (description of endangered species or habitat); however, a review of the site activities has resulted in a determination of "no effect." *(2) Yes: create map to document. Coordinate with HCR for additional compliance steps. Documentation of agency coordination must be submitted. A PCN will be required for Nationwide Permit 3.*

Wild and Scenic Rivers		X	Not applicable. The property is not located in a component of the National Wild and Scenic River System, or a river officially designated by Congress as a "study river" for possible inclusion in the system, or a river designated Wild, Scenic, or Recreational by the New York State Department of Environmental Conservation. No impacts would result and further assessment is not required.
Air Quality		X	The initiative would not substantively affect the State Implementation Plan (SIP). No significant impacts on air quality would result and further assessment is not required.
Farmlands Protection		X	The initiative would not convert farmland to nonagricultural purposes and, therefore, would not violate the Farmland Policy Protection Act.
Noise Abatement and Control		X	Not applicable. Compliance was determined in the Tier 1 Environmental Assessment.
Thermal/Explosive Hazards		X	Acceptable separation distance requirements do not apply because the definition for HUD assisted projects in 24 CFR Part 51.201 is predicated on whether the HUD project increases the number of people exposed to hazardous operations. Therefore, the environmental review for grants to repair bulkheads that existed prior to the disaster where the number of dwelling units is not increased, is not required to apply 24 CFR Part 51 Subpart C.

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HUD Environmental Standards			*Is the property:* • *Listed on an EPA Superfund National Priorities or CERCLA list or equivalent State list?* • *Located within 3,000 feet of a toxic or solid waste landfill site?* • *Known to contain an underground storage tank other than a residential fuel tank?* • *Known or suspected to be contaminated by toxic chemicals or radioactive materials?* a) *No – review concluded. Create map to document. Put an X in Column B and add text:* Not applicable. The property is not listed on a U.S. Environmental Protection Agency (EPA) Superfund National Priorities or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) list or equivalent State list, is not located within 3,000 feet of a toxic or solid waste landfill site, does not have an underground storage tank other than a residential fuel tank, and is not known or suspected to be contaminated by toxic chemicals or radioactive materials. *b) Yes. Create map to document. Consult with an environmental professional to determine if the hazard could impact the residences at the property.* *i) No – review concluded. Put an X in column B and add text:* _____ [insert issue] was identified in the area of the property. However, based on _____ [insert reason why not a problem] it is not expected to pose a hazard to the residents of the property. No further review is necessary. *ii) Additional coordination with HCR required. Add text:* Additional study will be completed to assess if a hazard is present that could affect the health and safety of occupants or conflict with the intended utilization of the property.
Environmental Justice		X	Not applicable. Compliance was determined in the Tier 1 Environmental Assessment.

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ADDITIONAL SEQRA REVIEW

Check "A" if further close-out documentation is required. Provide written discussion of compliance or necessary mitigation measures. Check "B" if the criteria review is complete. Provide written discussion and attach any supporting materials.

Area of Statutory – Regulatory Compliance	A	B	Compliance Discussion Attach Supporting Material
National Natural Landmark			*Is the property located at or adjacent to a National Natural Landmark?* *a) If no, then put an X in Column B and add text:* Not applicable. There are no national natural landmarks located at or adjacent to the property. *b) If yes, then coordinate with HCR regarding additional compliance steps.*
Significant Wildlife Habitat			*Is the property located in, adjacent to, or less than 100 feet away from a Significant Coastal Fish and Wildlife Habitat?* *a) No – review concluded. Put an X in Column B and add text:* Not applicable. Based on a review of NYSDEC designated Significant Coastal Fish and Wildlife Habitats (SCFWH), no SCFWHs are located in or substantially contiguous to the property. *b) Yes – Will the project result in the removal of any portion of a significant wildlife habitat?* *i) No – review concluded. Put an X in Column B and add text:* Not applicable. The project activities will not result in the removal of any portion of a Significant Coastal Fish and Wildlife Habitat. *ii) Yes. Coordinate with HCR regarding additional compliance steps.*
Unique or Unusual Landforms			*Is the property located in, adjacent to, or less than 100 feet away from a unique or unusual landform?* *a) No – Review Concluded. Put an X in Column B and add text:* Not applicable. The property is not located in or substantially contiguous to a unique or unusual landform. *b) Yes – Create map to document.* *i) Will the project activities result in modification or destruction of, or inhibit access, to any unique or unusual land forms located on or substantially contiguous to the property?* *(1) No – review concluded. Put an X in Column B and add text:* Not applicable. The project will not affect the quantity or quality of _____ [insert name of that unique or unusual landform]. *(2) Yes. Coordinate with HCR regarding additional compliance steps.*

Aesthetic Resources, Open Space and Recreation			*Is the property located in, adjacent to, or within 100 feet away from an aesthetic resource, open space or recreational area?* *a) No – review concluded. Put an X in Column B. Add text*: Not applicable. The property is not located in or substantially contiguous to an aesthetic resource, open space or recreation area. *b) Yes – Create map to document. Will the project activities result in land use obviously different from, or in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource, or result in a loss of recreational opportunities or a reduction of an open space resource?* *i) No – review concluded. Put an X in Column B. Add text:* Not applicable. The project activities will not significantly affect the quantity or quality of _____ [insert name of that aesthetic resource, open space or recreational area] or recreational opportunities associated with it. *ii) Yes. Coordinate with HCR regarding additional compliance steps.*
State Protected Waterbody			*Is the property located in, adjacent to, or less than 100 feet away from any waterbody* (*e.g., streams, rivers, etc.) designated as protected [Article 15 the Environmental Conservation Law (ECL)]?* *a) No – review concluded. Create map to document. Put an X in Column B. Add text:* Not applicable. The property is not located in or substantially contiguous to a state protected waterbody. *b) Yes – create map to document. Will the project result in the disturbance of the waterbody or its natural bank (i.e., undeveloped land within 50 feet of mean high water (MHW) line)?* *i) No – review concluded. Put an X in Column B. Add text:* The project activities will not result in the disturbance of a waterbody located within 50 feet of the mean high water (MHW) line. *ii) Yes – Create a map to document. Coordinate with HCR regarding additional compliance steps.*

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Critical Environmental Areas			*Is the property located in, adjacent to, or less than 100 feet away from a Critical Environmental Area designated pursuant to Article 8 of the ECL and 6 NYCRR 617?* *a) No – review concluded. Put an X in Column B. Add text:* Not applicable. The property is not located in or substantially contiguous to a Critical Environmental Area designated pursuant to Article 8 of the ECL and 6 NYCRR 617. *b) Yes. Will the project activities result in:* • *A reduction in the quantity of the resource?* • *A reduction in the quality of the resource? Or* • *Affect the use, function or enjoyment of the resource?* *i) No – review concluded. Put an X in Column B. Add text:* Not applicable. The project activities will not result in a reduction in the quantity or quality of the ____ [name that CEA], nor affect the use, function or enjoyment of the ____ [name that CEA]. *ii) Yes. Coordinate with HCR regarding additional compliance steps.*
Historic Properties			*Is the house a National Register of Historic Places (NRHP)-listed property or located adjacent to a NRHP listed property or a Historical District?* *a) No – review concluded. Place X in Column B. Add text:* Not applicable. The house is not a historic property or located adjacent to a historic property; therefore, there is no potential effect on historic properties. *b) Yes. Coordinate with a qualified professional to evaluate the potential impact to adjacent historic properties and coordinate with HCR.*
Agricultural and Markets Law			*Is the property located within 500 feet of agricultural land?* *a) No – review concluded. Place X in Column B. Add text:* This project will comply with the New York State Agriculture and Markets Law. *b) Yes. Do any of the following apply?* *i) The project would sever, cross or limit access to agricultural land (including cropland, hayfields, pasture, vineyard, orchard, etc.).* *ii) Construction activity would excavate or compact the soil profile of agricultural land.* *iii) The project would irreversibly convert more than 10 acres of agricultural land or, if located in an Agricultural District, more than 2.5 acres of agricultural land.* *(1) No – review concluded. Place X in column B. Add text:* Not applicable. The project activities have no potential to affect agricultural lands. *(2) Yes. Coordinate with HCR regarding additional compliance steps.*

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Coastal Erosion Hazard Areas			*Is the property located within a Coastal Erosion Hazard Area?* *a) No: Review concluded: Place an X in Column B and add text:* The property is not located within a Coastal Erosion Hazard Area and no further review is needed. *b) Yes. Place an X in Column A and add text:* The property is located within a Coastal Erosion Hazard Area and will require a NYSDEC CEHA Permit before any site-altering activities may be performed.

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TO BE FILLED OUT BY PERSON WHO PREPARED DOCUMENT:

Prepared by:

Signature:

Date:

TO BE FILLED OUT BY HCR CERTIFYING OFFICER OR OTHER APPROPRIATELY DESIGNATED OCR OFFICIAL:

This Site Specific Checklist is determined to be acceptable.

Signature:

Printed Name:

Date:

Application#:	
Project Address:	

Closeout Items

Historic Properties review documentation NEEDED FOR ALL SITES	Document Received and Date:
Engineering Costs/Scope NEEDED FOR ALL SITES	Document Received and Date:
Coastal Barrier Resources determination needed: ☐ Yes ☐ No	Document Received and Date:
Coastal Erosion Hazard Area permit needed: ☐ Yes ☐ No	Document Received and Date:
Local Waterfront Revitalization Plan Consistency Determination ☐ Yes ☐ No	Document Received and Date:
Proof of flood insurance needed: ☐ Yes ☐ No	Document Received and Date:
NYSDEC wetlands permit needed: ☐ Yes ☐ No	Document Received and Date:
Construction plans/Engineer Report needed: ☐ Yes ☐ No	Document Received and Date:
USACE permit needed: ☐ Yes ☐ No	Document Received and Date:
NYSDEC Water Quality Certification needed: ☐ Yes ☐ No	Document Received and Date:
Other environmental mitigation measures needed: ☐ Yes ☐ No	Document Received and Date:

Exhibit 5:
DASNY Site Inspection Checklist

NEW YORK STATE HOMES & COMMUNITY RENEWAL
OFFICE OF COMMUNITY RENEWAL
SUPPLEMENTAL ENVIRONMENTAL QUESTIONAIRE

Department of Housing and Urban Development Appropriation Act, 2013

Community Development Block Grant Program Disaster Recovery Program –

NY Rising Bulkhead Repair Program

Property address: _____

_____

Application #: _____

TO BE COMPLETED BY THE FIELD INSPECTOR; ATTACH ANY SPECIFIC NOTES, PHOTOS, AND ADDITIONAL MATERIAL:

	Yes	No	Compliance Data Attach Supporting Material
1	☐	☐	Based on your observations from the site, is there any visible apparent evidence of explosive or fire-prone materials such as liquid propane, gasoline, or other storage tanks adjacent to or visible from the project site? If yes, provide details.
2	☐	☐	Based on your observations from the site, is there any visible apparent evidence that the project site is near a commercial or industrial property? If yes, which company and the approximate distance.
3	☐	☐	Based on your observations from the site, is there any visible apparent evidence of soil problems (foundations cracking or settling, basement flooding, etc.) in the area of the site? If yes, specify which.
4	☐	☐	Based on your observations from the site, there any visible apparent evidence of any natural areas or parks, or are there any ponds or parks adjacent to the site? If yes, specify what.
5	☐	☐	Is there any visible apparent indication of any of the following (check all that apply): ☐ distressed vegetation ☐ waste material/containers ☐ soil staining, pools of liquid ☐ transformers, fill/vent pipes, pipelines, drainage structures ☐ oil/chemical spills ☐ loose/empty drums, barrels ☐ abandoned machinery, cars, refrigerators, etc. If yes, attach photos and note where on the property these items are located.
6	☐	☐	Is there any visible apparent evidence of an underground or above-ground storage tank? If yes, specify which one and the location. Also specify the tank contents if possible. Please take a photograph of any tank(s).
7	☐	☐	Are there active rills and gullies on site? If yes, provide photographs.

SUPPLEMENTAL ENVIRONMENTAL QUESTIONAIRE

	Yes	No	Compliance Data Attach Supporting Material
8	☐	☐	Is there any visible apparent indication of mold? If yes, describe location and extent.
9	☐	☐	Is there any visible apparent evidence of asbestos, lead-based paint, or hazardous materials present in the structure? Are removal plans or third-party clearance reports or operations and maintenance plans available from the property owner? If yes, attach copies.
10	☐	☐	Are there other unusual conditions on site? Explain in attached supporting material. Please take photographs, if possible.

Inspector's Signature: By signing this document I agree that I performed, or am familiar with, the site inspection(s) that are described above and certify that, to the best of my knowledge, the information provided is true and correct.

Printed Name: _____

Signature: _____

Date: _____

Property address: _____

_____

Application #: _____

Appendix A:

Response to EPA Comments

Introduction

This appendix includes a letter from the United States Environmental Protection Agency (EPA) dated April 16, 2014 providing comments on the Nassau County Bulkhead Repair Initiative Tier 1 Programmatic Environmental Assessment (PEA) and responses to the comments in that letter. The EPA comments were related primarily to the program activities and alternatives. Because this Tier 1 PEA addresses the same program activities and alternatives, the EPA letter and response to comments is included for reference.

Amy Zamenick
Certifying Officer Office of Community Renewal
New York State Department of Homes & Community Renewal
38-40 State Street
Hampton Plaza Albany, NY 12207

Dear Ms. Zamenick:

The Environmental Protection Agency has reviewed the Tier 1 Programmatic Environmental Review Record (ERR) - Community Development Block Grant-Disaster Recovery (CDBG-DR) Program NY Rising Bulkhead Repair Program: Environmental Assessment for Residential Properties in Nassau County, New York. In response to the April 4, 2014 Combined Notice of Finding of No Significant Impact and Notice of Intent to Request Release of Funds, the U.S. Environmental Protection Agency (EPA) offers the following comments with regard to the Bulkhead Repair Program.

First, EPA acknowledges that the State of New York Action Plan for Community Development Block Grant Program Disaster Recovery guides the programs and projects that are being implemented. Second, we understand that the alternatives considered are of an administrative nature, i.e., No Action Alternative, Limited Action Alternative – No Reimbursement Funding, and Limited Area Options, rather than technical. However, given that one of the State Plan's key principles is "Building back better and smarter" by using this as an opportunity not only to replace structures, but to invest in measures to prevent similar damage from recurring, we recommend that different options/technologies that might deliver similar and/or better services than the existing bulkhead structures be considered. Natural-based features as well as non-structural measures should be included. We recognize that Tier 2 will provide the opportunity to analyze site specific options and offer particular alternatives for each unique location, but believe the programmatic document is the place to have a general discussion of options.

The purpose of bulkhead structures is to hold land in place through protecting high ground (immediately behind the structure) from wave action. Bulkheads do not address what is causing the erosion problem, but rather accelerate and convert the problem (reflects wave energy/backwash) into vertical erosion in front of the structure (bulkhead). Additionally, bulkheads eliminate natural processes and cannot provide an appropriate habitat for estuarine species. This erosion in front of the bulkhead creates its own impacts and the environmental analysis should consider the connection between bulkheads and their domino effect on plants, fish, etc. Additionally, bulkheads/seawalls are only recommended when beach front does not exist or when the structure will be located far from the beach as a protection from rare events where the everyday wave action is not present. (For more information on these impacts: http://www.habitat.noaa.gov/restoration/techniques/livingshorelines.html, http://chl.erdc.usace.army.mil/library/publications/chetn/pdf/cetn-iii-8.pdf).

In addition to the definitions, descriptions, types, and designs of bulkheads and potential causes of damage to these structures, include the advantages and disadvantages associated with each design and with the materials used to construct these structures; the document should also address the changes in wave action, sand suspension, beach front, etc., that bulkheads cause.

The impacts analysis should evaluate the impacts during construction as well as from operation such as short-term and long-term impacts from the type of construction materials (wood, metal, etc.) used. Further, the effects of sea level rise on the bulkheads (by using well known FEMA products) should be discussed.

The short-term/fast solution to the risk problem might be bulkheads, but the document should also address long-term solutions with better alternatives that can be both, holistic and climate resilient. Further, several States have banned the construction of bulkheads completely, and states such as Pennsylvania and Rhode Island and communities such as Southampton, Suffolk County, NY have imposed strict guidelines on them:
http://coastalmanagement.noaa.gov/initiatives/shoreline_ppr_eros_control.html

For additional information on nature-based infrastructure in reducing the impacts of coastal storm flooding, as well as other impacts at a larger scale and as a system:
http://www.nad.usace.army.mil/CompStudy.aspx

Thank you for the opportunity to comment. If you have any questions please contact Maria Clark at 212-637-3789 or clark.maria@epa.gov.

Sincerely,

Grace Musumeci, Chief
Environmental Review Section

Cc: R. Steffen, ProSource

T.S. Parker, HUD

Attachment 1: Response to EPA Comments

This attachment provides responses to comments on the Nassau County Bulkhead Repair Initiative Tier 1 Programmatic Environmental Assessment (Nassau Bulkhead Tier 1 PEA) provided by the United States Environmental Protection Agency (EPA) on April 16, 2014.

EPA COMMENTS AND RESPONSES

Comment 1: We understand that the alternatives considered are of an administrative nature, i.e., No Action Alternative, Limited Action Alternative—No Reimbursement Funding, and Limited Area Options, rather than technical. However, given that one of the State's key plan principles is "Building back better and smarter" by using this as an opportunity not only to replace structures, but to invest in measures to prevent similar damage from recurring, we recommend that different options/technologies that might deliver similar and/or better services than the existing bulkhead structures be considered. We recognize that Tier 2 will provide the opportunity to analyze site specific options and offer particular alternatives for each unique location, but believe the programmatic document is the place to have a general discussion of options.

Response: As discussed in the Nassau Bulkhead Tier 1 PEA, the proposed initiative would provide assistance for repair, rehabilitation, replacement and reimbursement for completed repairs to owners and renters of residential properties in Nassau County whose bulkheads were damaged or destroyed by Hurricane Irene and Superstorm Sandy. The initiative is needed to help maintain or restore properties impacted by these storms through repair and replacement of damaged bulkhead structures, and to help prevent future damage. Another goal of the initiative is to facilitate the provision of safe and adequate housing for residents of these communities, retain neighborhood character over the long-term, and improve the communities' resiliency to future storms.

While the alternatives considered in the Nassau Bulkhead Tier 1 PEA are limited to various funding programs for bulkheads, soft edge options such as natural based features and nonstructural measures are not precluded by the Tier 1 analysis. NYS Homes and Community Renewal (HCR) and the Governor's Office of Storm Recovery (GOSR) agree that non-structural interventions may be more appropriate in certain situations. Therefore, as discussed in Section 1.10 of the Nassau Bulkhead Tier 1 PEA, the initiative would allow for nonstructural alternatives when recommended by a licensed engineer. These approaches to bulkhead repair would need to be considered by the Applicant, the Applicant's

licensed engineer, regulatory government agencies, and the local municipality, and may require additional and/or lengthy permitting processes.

As discussed in Section 3.0 of the Nassau Bulkhead Tier 1 PEA, the proposed initiative incorporates conditions for approval and mitigation of specific sites in order to avoid significant adverse impacts to the environment, including conditions related to water quality. These conditions will be reviewed as part of the Tier 2 site-specific reviews to ensure that Applicants to the proposed initiative would comply. Therefore, the proposed initiative has been designed to avoid impacts to the environment, and the consideration of additional alternatives is not required as part of this environmental review but could be considered by individual Applicants as they move forward with bulkhead repair activities.

Comment 2: Erosion in front of the bulkhead creates its own impacts and the environmental analysis should consider the connection between bulkheads and their domino effect on plants, fish, etc. Additionally, bulkheads/seawalls are only recommended when beach front does not exist or when the structure will be located far from the beach as a protection from rare events where the everyday wave action is not present. (For more information on these impacts: http://www.habitat.noaa.gov/restoration/techniques/livingshorelines.html, http://chl.erdc.usace.army.mil/library/publications/chetn/pdf/cetn-iii-8.pdf)

Response: As discussed in the Nassau Bulkhead Tier 1 PEA, the proposed initiative would provide assistance for repair, rehabilitation, replacement and reimbursement for completed repairs to owners and renters of residential properties in Nassau County whose bulkheads were damaged or destroyed by Hurricane Irene and Superstorm Sandy. Because the affected bulkheads already exist, there would be no new impacts on plants, fish, etc. Furthermore, consultation with NYSDEC NY Natural Heritage Program, the United States Fish and Wildlife Service (USFWS), and the NOAA National Marine Fisheries Service (NMFS) has been undertaken for the Bulkhead Repair Initiative compliance with state and federal threatened and endangered species laws, and consultation with the United States Army Corps of Engineers has been undertaken with respect to permitting requirements and compliance with the Clean Water Act and the Rivers and Harbors Act of 1899, as applicable (see consultation letters provided in the appendices of the Nassau Bulkhead Tier 1 PEA). In accordance with the consultation letters provided by USFWS and NMFS, each site will be evaluated in the Tier 2 review to determine the potential level of effect on state and federal threatened and endangered species. As stated in the USACE consultation letter, USACE's Nationwide Permit 3 (NWP3) is available in order to ensure compliance with Section 404 of the CWA for projects involving generally minor and less complex reviews, provided the project complies with all of the General Conditions outlined by NWP3. A component of this permit is the identification

and implementation of measures to avoid and minimize adverse effects to essential fish habitat and other trust resources. As discussed in Section 1.9 of the Nassau Bulkhead Tier 1 PEA, program sites that do not qualify for NWP3 would need to obtain both an individual permit and Section 401 Water Quality Certification, which would also identify and implement measures to avoid and minimize adverse effects.

Comment 3: In addition to the definitions, descriptions, types, and designs of bulkheads and potential causes of damage to these structures, include the advantages and disadvantages associated with each design and with the materials used to construct these structures; the document should also address the changes in wave action, sand suspension, beach front, etc., that bulkheads cause.

Response: As discussed in the Nassau Bulkhead Tier 1 PEA, the proposed initiative would provide assistance for repair, rehabilitation, replacement and reimbursement for completed repairs to owners and renters of residential properties in Nassau County whose bulkheads were damaged or destroyed by Hurricane Irene and Superstorm Sandy. Because the affected bulkheads already exist, there would be no change to wave action, sand suspension, beach front, etc. as a result of the proposed initiative. The advantages and disadvantages of each bulkhead design relate primarily to whether it is a vertical bulkhead or a riprap revetment and in most cases it is likely that an Applicant would be required to replace their bulkhead in kind. Changes to the materials of a bulkhead (rather than its design as a vertical structure or rip rap revetment) would not be likely to substantially affect its effects on wave action, sand suspension, beach front, etc. Individual Applicants may consider the implementation to improvements in the design or materials of their bulkheads as they move forward with bulkhead repair activities facilitated by the proposed initiative, especially if the improvements can be accomplished within the same footprint.

Comment 4: The impacts analysis should evaluate the impacts during construction as well as from operation such as short-term and long-term impacts from the type of construction materials (wood, metal, etc.) used. Further, the effects of sea level rise on the bulkheads (by using well known FEMA products) should be discussed.

Response: As discussed in Section 3.0 of the Nassau Bulkhead Tier 1 PEA, the proposed program incorporates conditions for approval and mitigation of specific sites in order to avoid significant adverse impacts to the environment, including conditions related to water quality. These conditions will be reviewed as part of the Tier 2 site-specific reviews to ensure that Applicants to the proposed initiative would comply.

As noted in the Nassau Bulkhead Tier 1 PEA, a United States Army Corps of Engineers (USACE) Nationwide Permit 3, which covers maintenance, repair, and replacement of existing serviceable bulkheads would be the appropriate

permit for many Applicants to the proposed initiative. This permit covers activities already determined to have minimal individual and cumulative adverse effects on the aquatic environment.

In recognition of the potential effects of sea level rise, the proposed initiative would allow bulkheads to be constructed up to 18 inches higher than the currently existing bulkhead.

Comment 5: The short-term/fast solution to the risk problem might be bulkheads, but the document should also address long-term solutions with better alternatives that can be both holistic and climate resilient. Further, several States have banned the construction of bulkheads completely, and states such as Pennsylvania and Rhode Island and communities such as Southampton, Suffolk County, NY have imposed strict guidelines on them: http://coastalmanagement.noaa.gov/initiatives/shoreline_ppr_eros_control.html

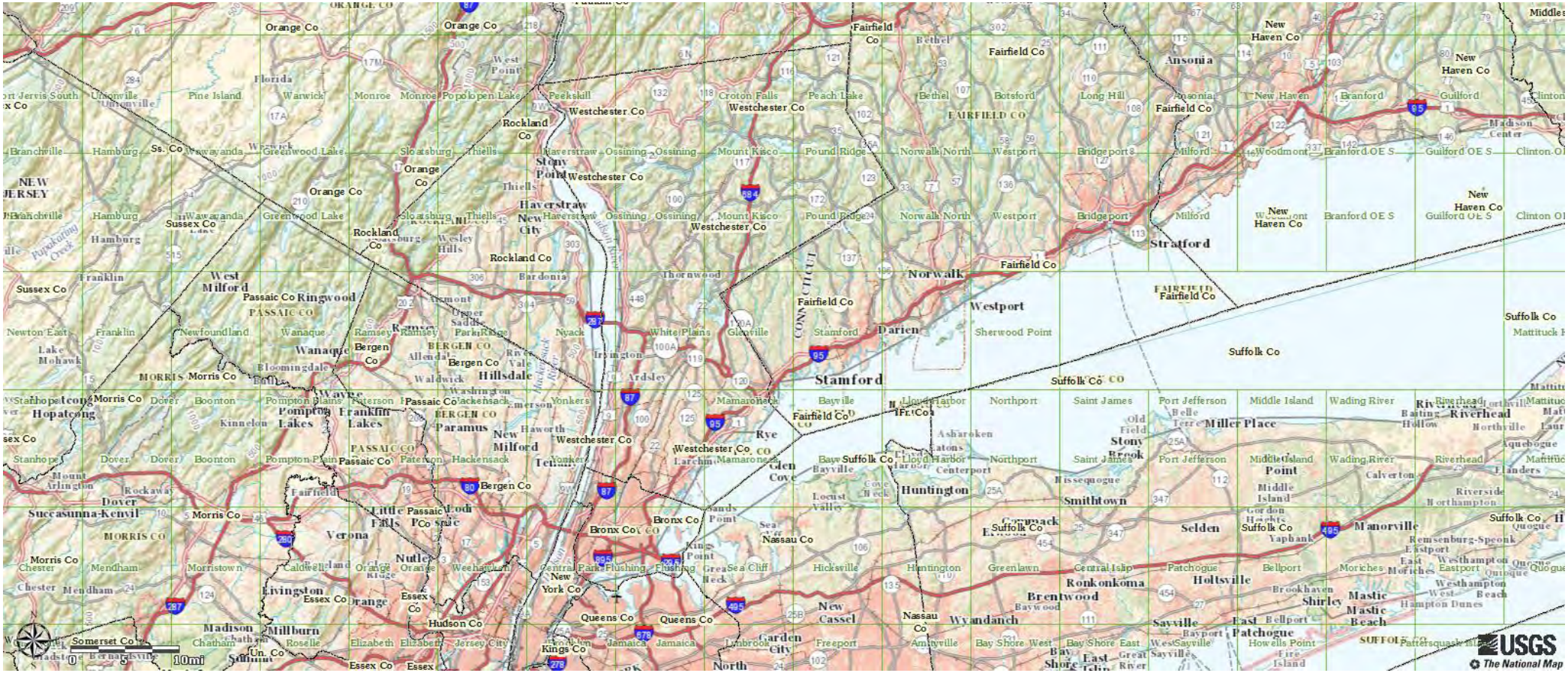
Response: The proposed initiative would not facilitate the construction of new bulkheads throughout Nassau County. As discussed in the Nassau Bulkhead Tier 1 PEA, the proposed initiative would facilitate the repair, rehabilitation, and reimbursement for completed repairs to bulkheads on residential properties. The purpose of the proposed initiative is to assist owners of residential properties in Nassau County whose bulkheads were damaged or destroyed by Hurricane Irene and Superstorm Sandy. The NY Rising Bulkhead Repair Initiative is needed to help provide adequate protection to the homes of these residents through the repair of damaged bulkheads but is not intended to facilitate construction of new bulkheads that did not exist previously.

Appendix B:

Westchester County USGS Topographic Maps

Westchester County Topographic Map

NOTES: Data available from U.S. Geological Survey, National Geospatial Program.

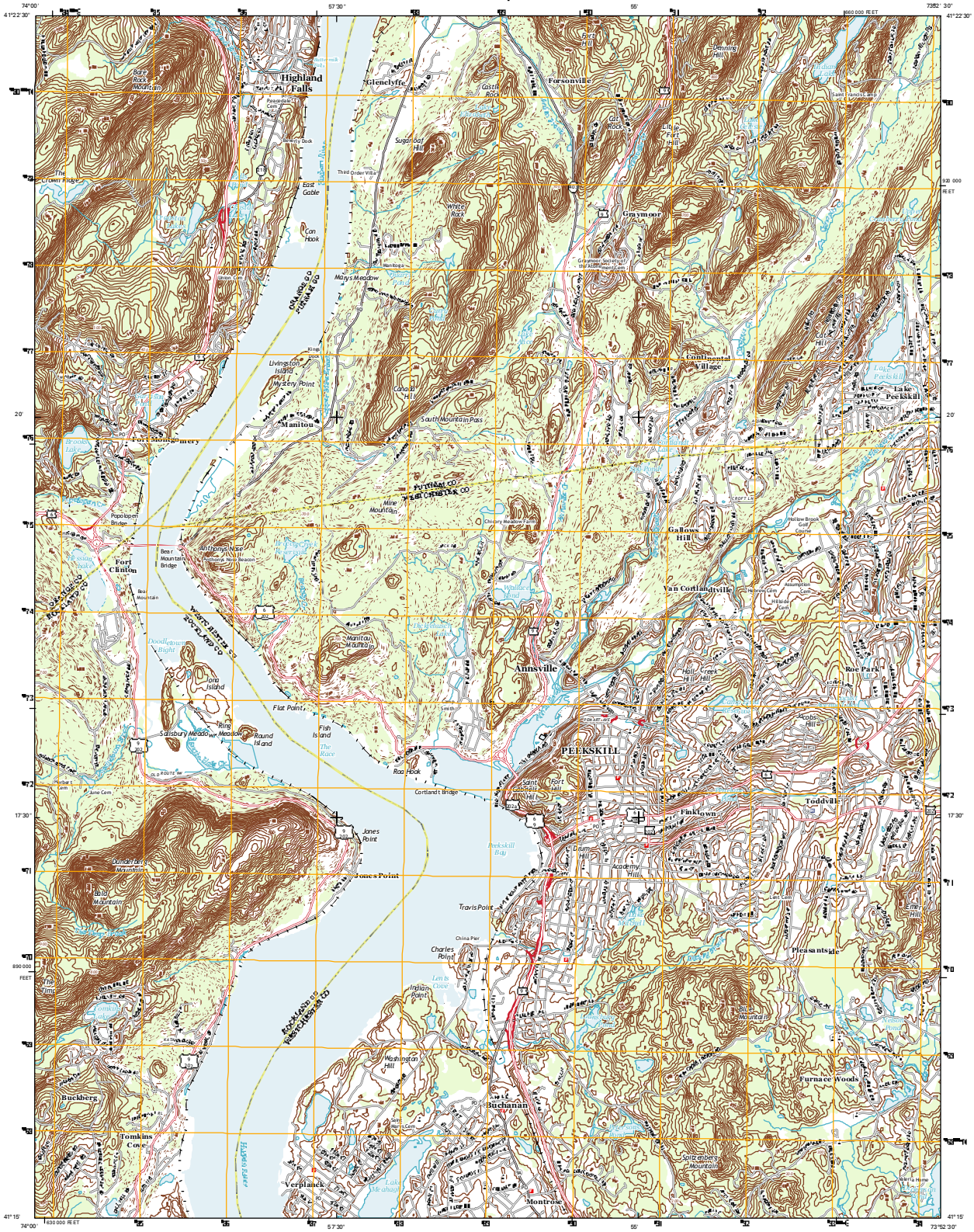


Open in The National Map Viewer

U.S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

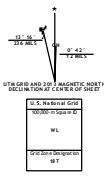
The National Map US Topo

PEEKSKILL QUADRANGLE
NEW YORK
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 18T
10 000-foot ticks: New York Coordinate System of 1983 (east zone)

Imagery.....NAIP, July 2011
Roads.....©2006-2012 TomTom
Names.....GNIS, 2012
Hydrography.....National Hydrography Dataset, 2011
Contours.....National Elevation Dataset, 1999
Boundaries.....Census, IBWC, IBC, USGS, 1972 - 2012



SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.7

ROAD CLASSIFICATION
Interstate Route
US Route
Ramp
State Route
Local Road
4WD
Interstate Route
US Route
State Route

PEEKSKILL, NY
2013

U.S. DEPARTMENT OF THE INTERIOR
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MOHEGAN LAKE QUADRANGLE
NEW YORK
7.5-MINUTE SERIES

Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 18T
10 000-foot ticks: New York Coordinate System of 1983 (east zone)

Imagery.....NAIP, July 2011
Roads.....©2006-2012 TomTom
Names.....GNIS, 2012
Hydrography.....National Hydrography Dataset, 2011
Contours.....National Elevation Dataset, 1999
Boundaries.....Census, BWC, BLC, USGS, 1972 - 2012

UTM GRID AND 2013 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-meter Square ID
VQ
WL XL
Grid Zone Designation
18T

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.7

QUADRANGLE LOCATION

ADJOINING 7.5' QUADRANGLES

West Point	Oscawana Lake	Lake Carmel
Peekskill	Mohegan Lake	Croton Falls
Hitchcock Lake	Ossining	Mount Kisco

ROAD CLASSIFICATION

Interstate Route
US Route
Ramp
State Route
Local Road
4WD

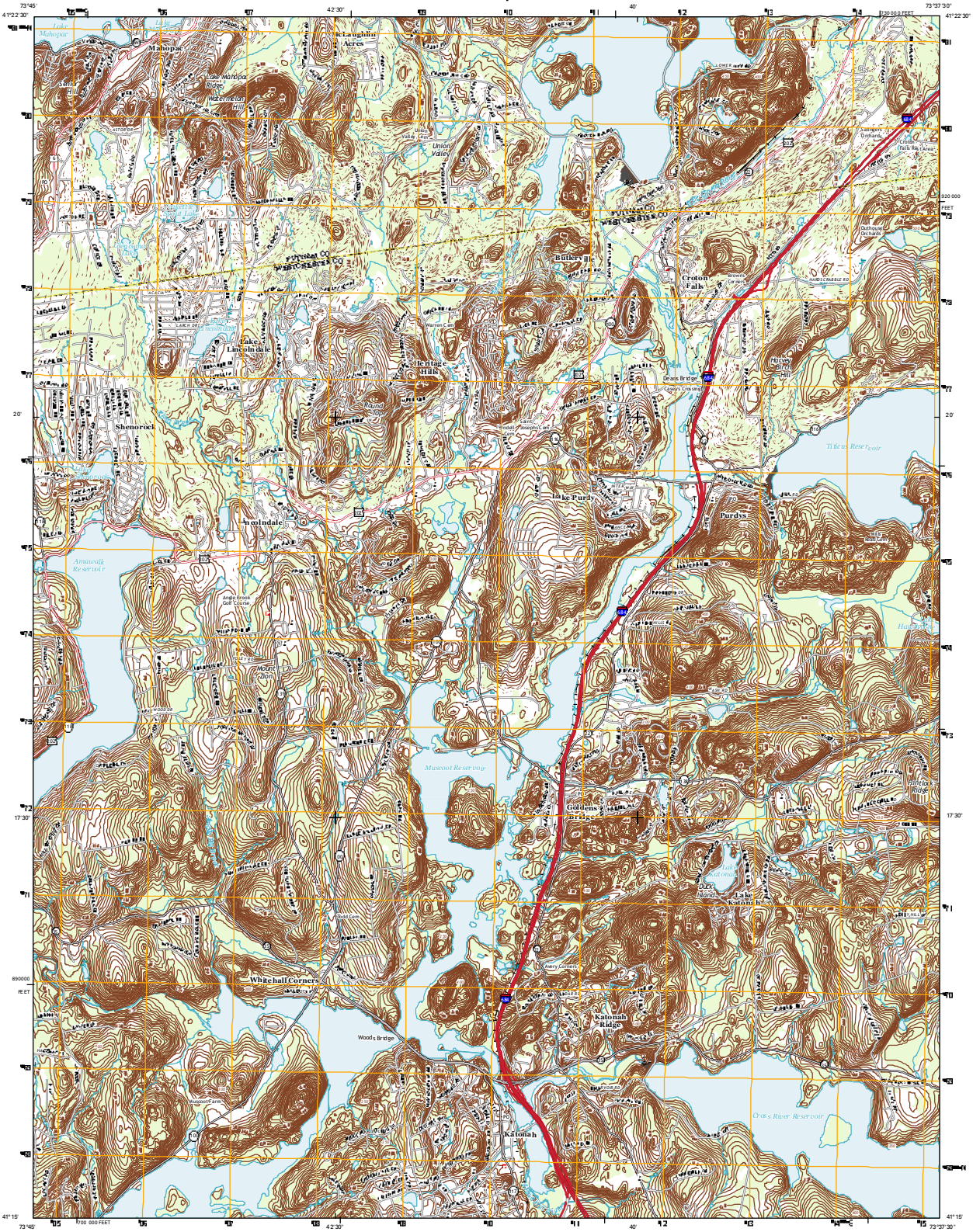
Interstate Route
US Route
State Route

MOHEGAN LAKE, NY
2013

U.S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

The National Map US Topo

CROTON FALLS QUADRANGLE
NEW YORK
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 18T
10 000-foot ticks: New York Coordinate System of 1983 (east zone)

Imagery.....NAIP, July 2011
Roads.....©2006-2012 TomTom
Names.....GNIS, 2012
Hydrography.....National Hydrography Dataset, 2011
Contours.....National Elevation Dataset, 1999
Boundaries.....Census, BWC, BLC, USGS, 1972 - 2012

UT GRID AND 2013 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
XL
Grid Zone Designation
18T

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.7

QUADRANGLE LOCATION

Ossining Lake	Lake Carmel	Brewster
Mohegan Lake	Croton Falls	Peach Lake
Ossining	Mount Kisco	Pound Ridge

ADJOINING 7.5' QUADRANGLES

ROAD CLASSIFICATION
Interstate Route
US Route
Ramp
State Route
Local Road
4WD
Interstate Route
US Route
State Route

CROTON FALLS, NY
2013

U.S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

PEACH LAKE QUADRANGLE
NEW YORK-CONNECTICUT
7.5-MINUTE SERIES

Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 18T
10 000-foot ticks: New York Coordinate System of 1983 (east zone), Connecticut Coordinate System of 1983

Imagery....................NAIP, July 2011
Roads....................©2006-2012 TomTom
Names....................GNIS, 2012
Hydrography....................National Hydrography Dataset, 2011
Contours....................National Elevation Dataset, 1999
Boundaries....................Census, IBWC, IBC, USGS, 1972 - 2012

13° 28´ 239 MILS
GN
0° 57´ 17 MILS
UTM GRID AND 2013 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
XL
Grid Zone Designation 18T

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.7

QUADRANGLE LOCATION

Lake Carmel	Brewster	Danbury
Croton Falls	Peach Lake	Bethel
Mount Kisco	Pound Ridge	Norwalk North

ADJOINING 7.5' QUADRANGLES

ROAD CLASSIFICATION

Interstate Route	State Route
US Route	Local Road
Ramp	4WD
Interstate Route	US Route
State Route	

PEACH LAKE, NY-CT
2013

U.S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

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HAVERSTRAW QUADRANGLE
NEW YORK
7.5-MINUTE SERIES

SCALE 1:24 000

Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 18T
10 000-foot ticks: New York Coordinate System of 1983 (east zone)

Imagery....NAIP, July 2011
Roads....©2006-2012 TomTom
Names....GNIS, 2012
Hydrography....National Hydrography Dataset, 2011
Contours....National Elevation Dataset, 1999
Boundaries....Census, IBWC, IBC, USGS, 1972 - 2012

UTM GRID AND 2013 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
13° 14′ 235 MILS
0° 42′ 12 MILS

U.S. National Grid
100,000-m Square ID
WL
Grid Zone Designation
18T

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.7

QUADRANGLE LOCATION

Popolopen Lake	Peekskill	Mohegan Lake
Thiells	Haverstraw	Ossining
Park Ridge	Nyack	White Plains

ADJOINING 7.5' QUADRANGLES

ROAD CLASSIFICATION
Interstate Route — State Route
US Route — Local Road
Ramp — 4WD
Interstate Route — US Route — State Route

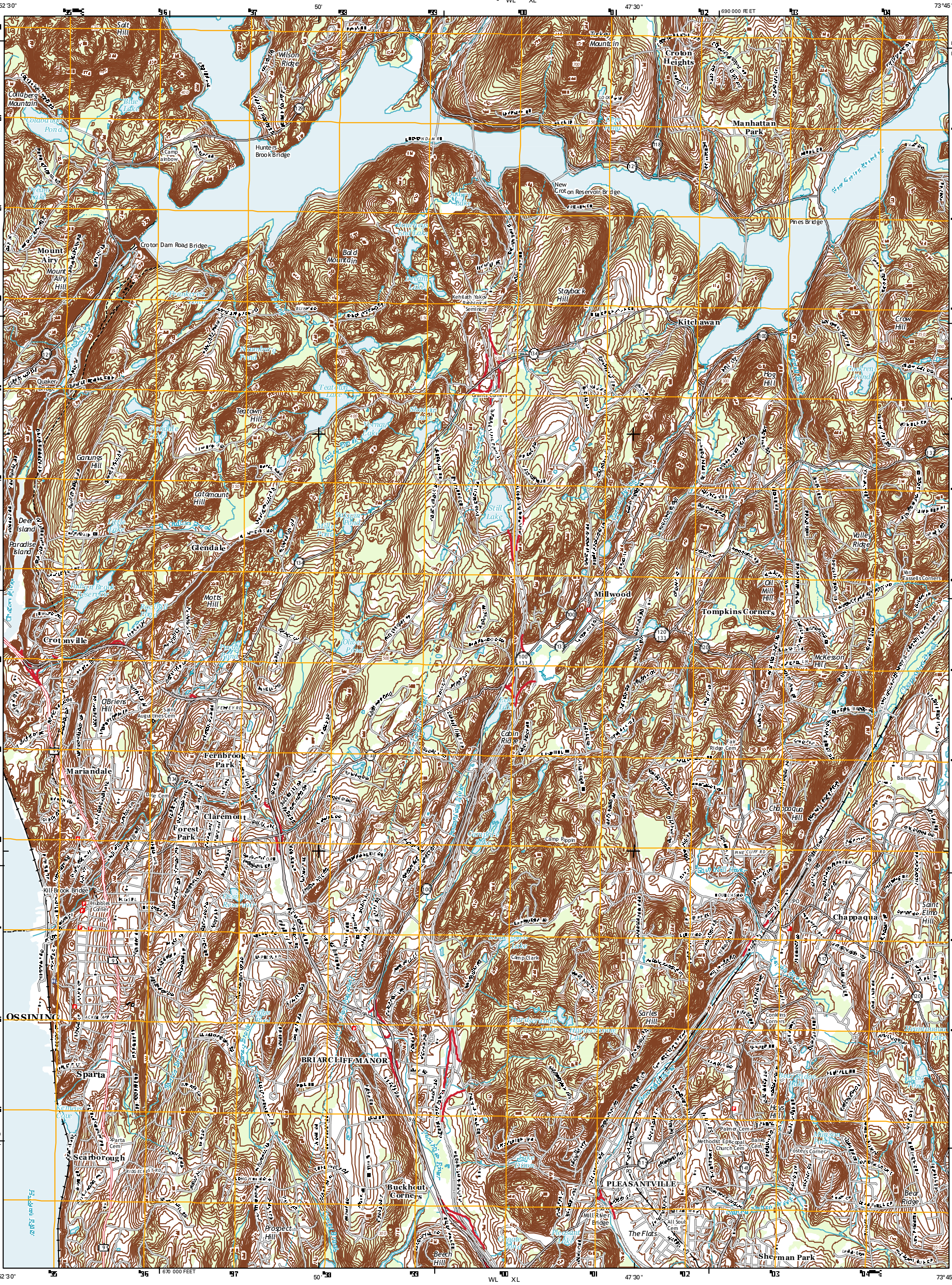
HAVERSTRAW, NY
2013

USGS
science for a changing world

U.S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

The National Map
US Topo

OSSINING QUADRANGLE
NEW YORK-WESTCHESTER CO.
7.5-MINUTE SERIES



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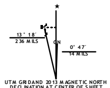
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid: Universal Transverse Mercator, Zone 18T
10 000-foot ticks: New York Coordinate System of 1983 (east zone)

Imagery..NAIP, July 2011
Roads.................................©2006-2012 TomTom
Names..GNIS, 2012
Hydrography..................National Hydrography Dataset, 2011
Contours........................National Elevation Dataset, 1999
Boundaries.................Census, IBWC, IBC, USGS, 1972 - 2012



UTM GRID AND 2013 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
WL XL
Grid Zone Designation 18T

SCALE 1:24 000

KILOMETERS
METERS
MILES
FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the
National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.7

NEW YORK

QUADRANGLE LOCATION

Peekskill	Mohegan Lake	Croton Falls
Haverstraw	Ossining	Mount Kisco
Nyack	White Plains	Glenville

ADJOINING 7.5' QUADRANGLES

ROAD CLASSIFICATION

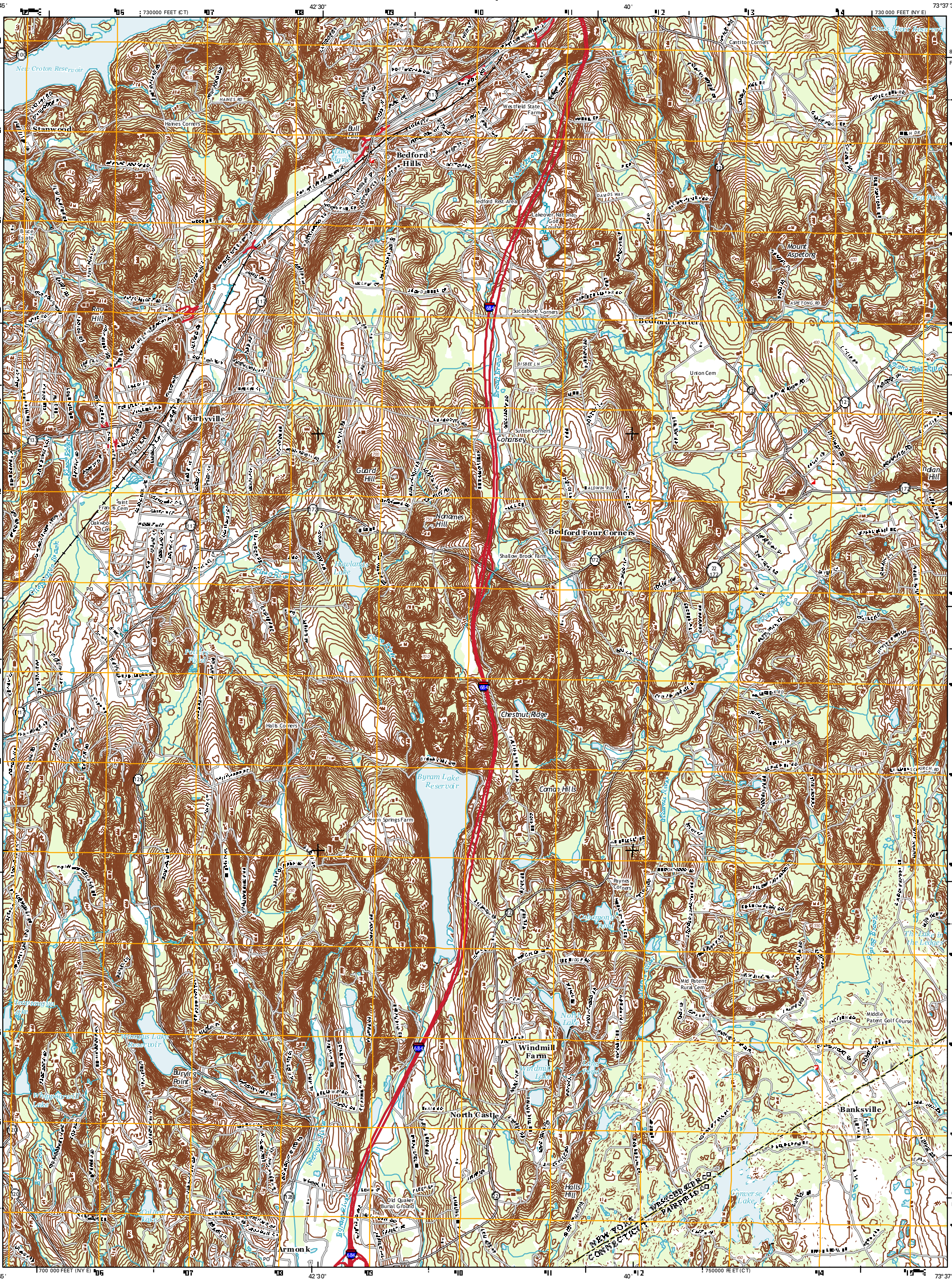
Interstate Route — State Route
US Route — Local Road
Ramp — 4WD
Interstate Route — US Route — State Route

OSSINING, NY
2013

U.S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

The National Map
US Topo

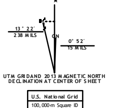
MOUNT KISCO QUADRANGLE
NEW YORK-CONNECTICUT
7.5-MINUTE SERIES



Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 18T
10 000-foot ticks: New York Coordinate System of 1983 (east zone), Connecticut Coordinate System of 1983

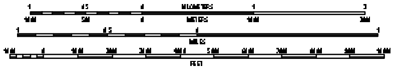
Imagery....................................NAIP, July 2011
Roads....................................©2006-2012 TomTom
Names....................................GNIS, 2012
Hydrography..................National Hydrography Dataset, 2011
Contours......................National Elevation Dataset, 1999
Boundaries................Census, IBWC, IBC, USGS, 1972 - 2012



UTM GRID AND 2013 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
XL
Grid Zone Designation 18T

SCALE 1:24 000



CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.7

QUADRANGLE LOCATION

Mohegan Lake	Croton Falls	Peach Lake
Ossining	Mount Kisco	Pound Ridge
White Plains	Glenville	Stamford

ADJOINING 7.5' QUADRANGLES

ROAD CLASSIFICATION

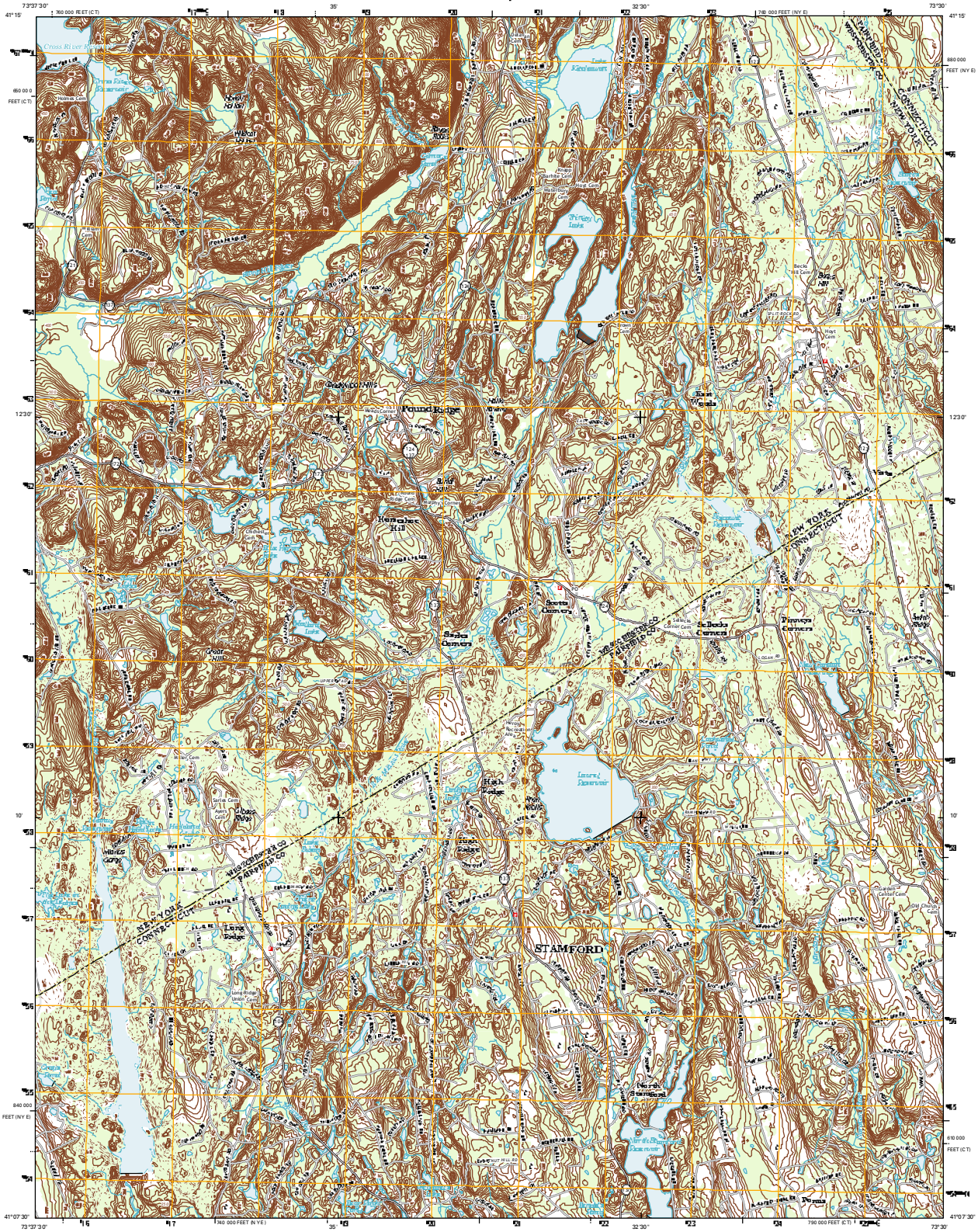
Interstate Route — State Route
US Route — Local Road
Ramp — 4WD
Interstate Route — US Route — State Route

MOUNT KISCO, NY-CT
2013

U.S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

The National Map US Topo

POUND RIDGE QUADRANGLE
NEW YORK-CONNECTICUT
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid: Universal Transverse Mercator, Zone 18T
10 000-foot ticks: New York Coordinate System of 1983 (east zone), Connecticut Coordinate System of 1983

Imagery.....NAIP, July 2011
Roads.....©2006-2012 TomTom
Names.....GNIS, 2012
Hydrography.....National Hydrography Dataset, 2011
Contours.....National Elevation Dataset, 2012
Boundaries.....Census, ESRI, IBC, USGS, 1972 - 2012

UTM GRID AND 2013 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000m Square ID
XL
Grid Zone Designator
18T

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.7

QUADRANGLE LOCATION

ROAD CLASSIFICATION
Interstate Route
US Route
Ramp
State Route
Local Road
4WD

Interstate Route
US Route
State Route

POUND RIDGE, NY-CT
2013

U.S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

The National Map US Topo

NYACK QUADRANGLE
NEW YORK-NEW JERSEY
7.5-MINUTE SERIES

Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 18T
10 000-foot ticks: New York Coordinate System of 1983 (east zone), New Jersey Coordinate System of 1983

Imagery.....NAIP, July 2011
Roads.....©2008-2012 TomTom
Names.....GNIS, 2012
Hydrography.....National Hydrography Dataset, 2011
Contours.....National Elevation Dataset, 1999
Boundaries.....Census, IBWC, BIC, USGS, 1972 - 2012

UTM GRID AND 2013 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U. S. National Grid
100,000-m Square ID
ML
Grid Zone Designation
18T

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.7

QUADRANGLE LOCATION

Tilly Bk	Haverstraw	Oradell Res
Park Ridge	Nyack	White Plains
Hackensack	Yonkers	Mount Vernon

ADJOINING 7.5' QUADRANGLES

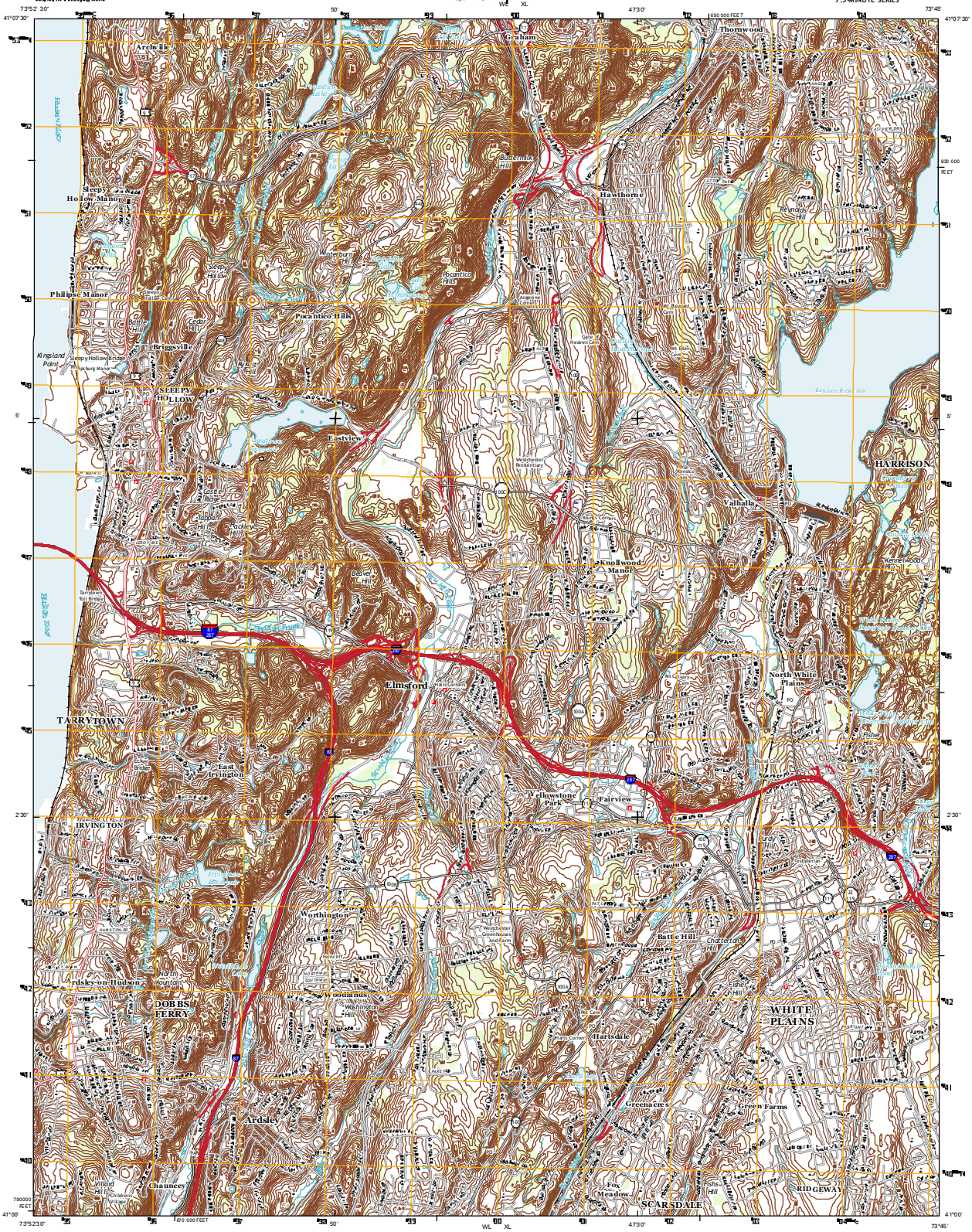
ROAD CLASSIFICATION
Interstate Route
US Route
Ramp
State Route
Local Road
4WD

Interstate Route
US Route
State Route

NYACK, NY-NJ
2013

U.S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

WHITE PLAINS QUADRANGLE
NEW YORK-WESTCHESTER CO.
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 18T
10 000-foot ticks: New York Coordinate System of 1983 (east zone)

Imagery.....NAIP, July 2011
Roads.....©2008-2012 TomTom
Names.....GNIS, 2012
Hydrography.....National Hydrography Dataset, 2011
Contours.....National Elevation Dataset, 1999
Boundaries.....Census, IBWC, BIC, USGS, 1982 - 2012

UTM GRID AND 2013 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U. S. National Grid
10,000-meter Square ID
4Q
WL XL
Grid Zone Designation
18T

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.7

QUADRANGLE LOCATION

Hastings-on-Hudson	Ossining	Mount Kisco
Nyack	White Plains	Glen Ridge
Yonkers	Mount Vernon	Mamaroneck

ADJOINING 7.5' QUADRANGLES

ROAD CLASSIFICATION

Interstate Route
U.S. Route
Ramp
State Route
Local Road
4WD

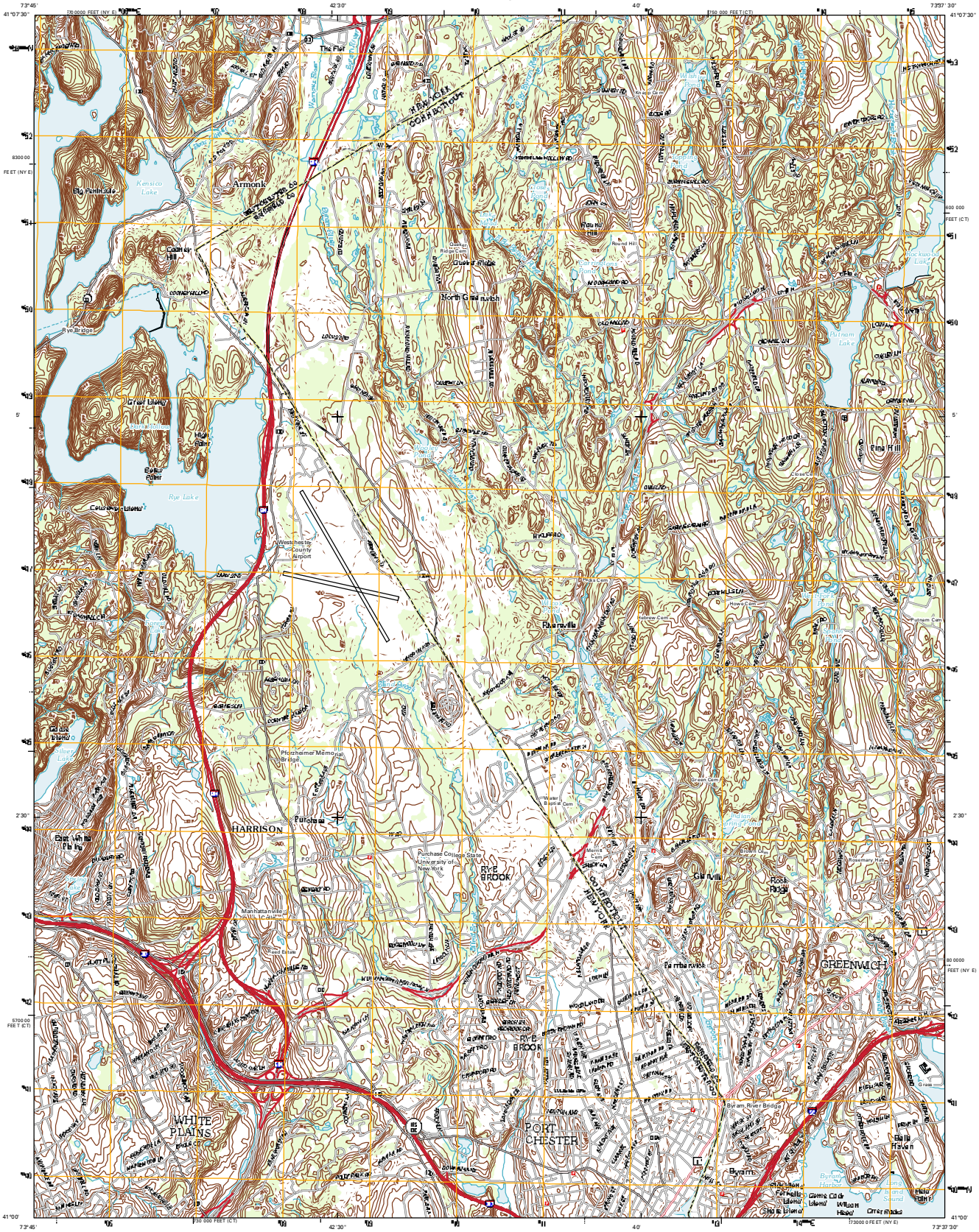
Interstate Route
U.S. Route
State Route

WHITE PLAINS, NY
2013

U.S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

The National Map US Topo

GLENVILLE QUADRANGLE
CONNECTICUT-NEW YORK
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid: Universal Transverse Mercator, Zone 18T
10 000-foot ticks: Connecticut Coordinate System of 1983,
New York Coordinate System of 1983 (east zone)

Imagery.....NAIP, August 2010
Roads.....©2006-2011 TomTom
Names.....GNIS, 2011
Hydrography.....National Hydrography Dataset, 2010
Contours.....National Elevation Dataset, 2012
Boundaries.....Census, IBWC, BLC, USGS, 1972 - 2010

MN
12°21'
23° MILS
GN
0°32'
6 MILS

UTM GRID AND 2012 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
Zone 2 are Designe for
WH

SCALE 1:24 000

KILOMETER 1 0.5 0 1 2 3
METER 1000 500 0 1000 2000 3000
MILE 1 0.5 0 1 2 3 4 5 6 7 8
FOOT 5000 4000 3000 2000 1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the
National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.2

CONNECTICUT

QUADRANGLE LOCATION

Armonk	Mount Kisco	Pound Ridge
White Plains	Glenville	Stamford
Mount Vernon	Mamaroneck	Bayville

ADJOINING 7.5' QUADRANGLES

ROAD CLASSIFICATION

Interstate Route
US Route
Ramp
State Route
Local Road
4WD

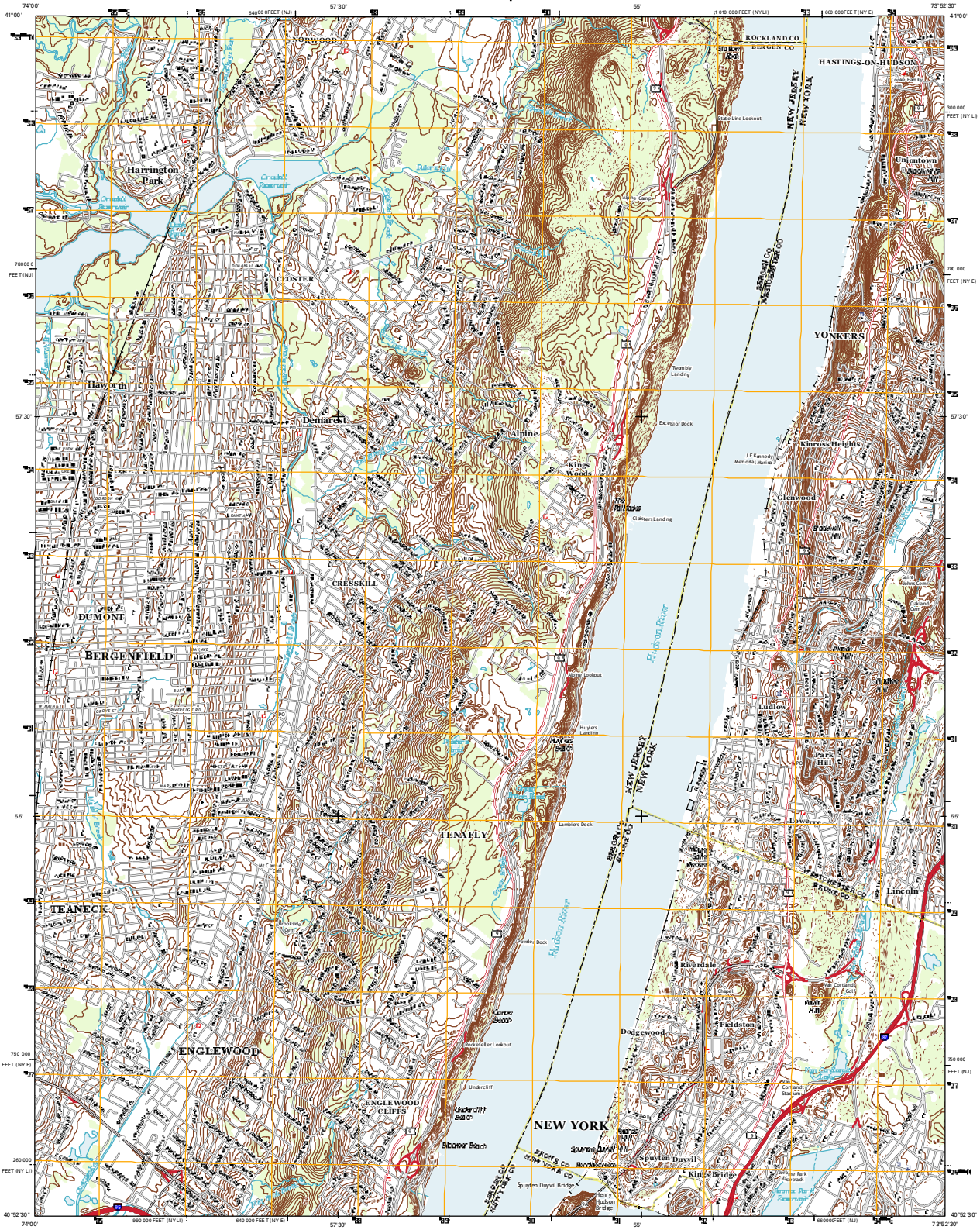
Interstate Route
US Route
State Route

GLENVILLE, CT-NY
2012

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map US Topo

YONKERS QUADRANGLE
NEW YORK-NEW JERSEY
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 18T
10 000-foot ticks: New Jersey Coordinate System of 1983, New York Coordinate System of 1983 (east and long Island zones)

Imagery.....NAIP, July 2010 - July 2011
Roads.....©2006-2012 TomTom
Names.....GNIS, 2012
Hydrography.....National Hydrography Dataset, 2010
Contours.....National Elevation Dataset, 1998
Boundaries.....Census, IBWC, BIC, USGS, 1972 - 2012

UTM GRID AND 2013 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
10 000-meter Square ID
WL
Grid Zone Designation
18T

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.7

QUADRANGLE LOCATION

Park Ridge	Nyack	White Plains
Hackensack	Yonkers	Mount Vernon
Weehawken	Central Park	Flushing

ADJOINING 7.5' QUADRANGLES

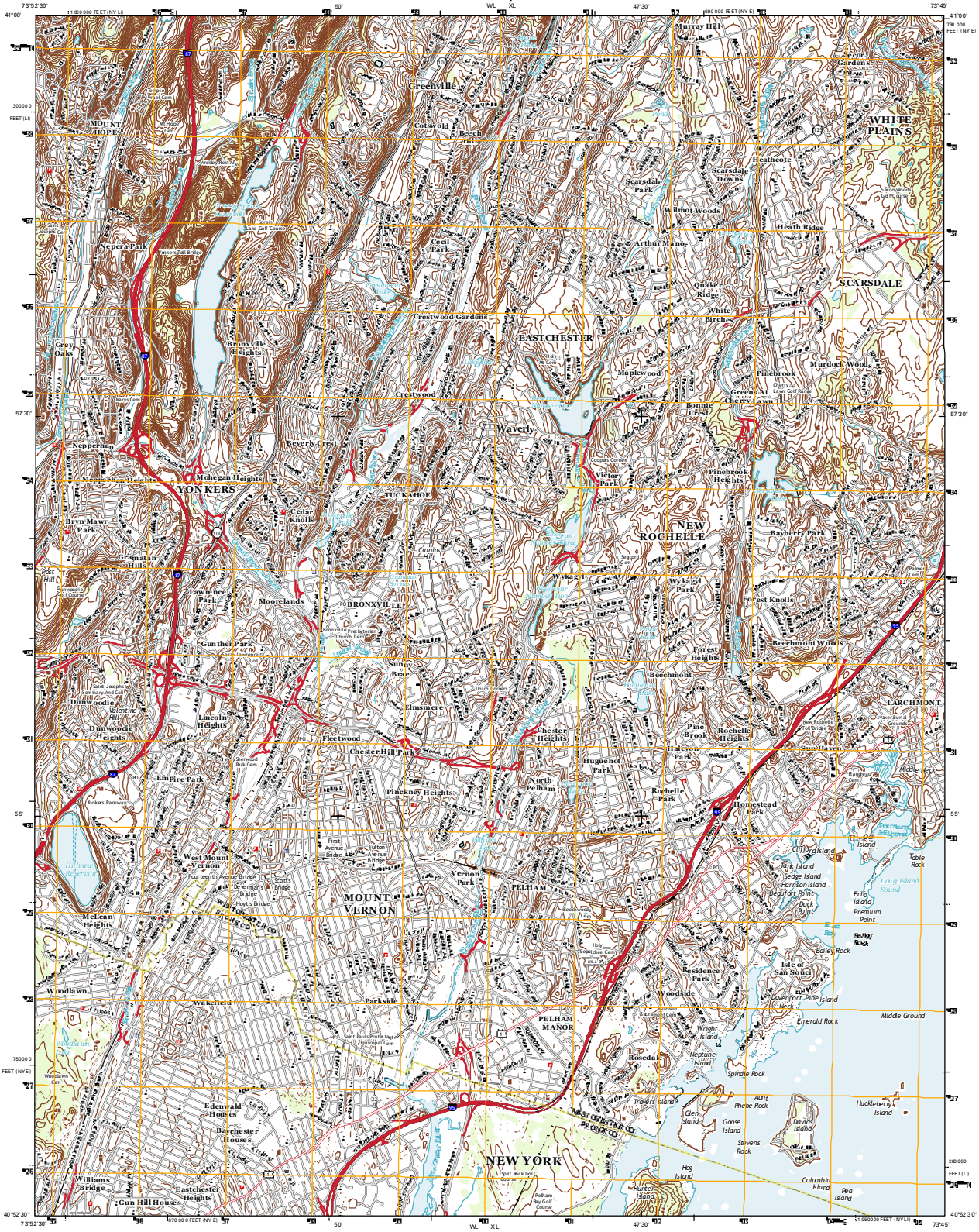
ROAD CLASSIFICATION
Interstate Route
US Route
Ramp
State Route
Local Road
4WD
Interstate Route
US Route
State Route

YONKERS, NY-NJ
2013

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map US Topo

MOUNT VERNON QUADRANGLE
NEW YORK
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 18T
10 000-foot ticks: New York Coordinate System of 1983 (east and long Island zones)

Imagery.....NAIP, July 2011
Roads.....©2006-2012 TomTom
Names.....GNIS, 2012
Hydrography.....National Hydrography Dataset, 2011
Contours.....National Elevation Dataset, 2012
Boundaries.....Census, IBWC, BIC, USGS, 1972 - 2012

UTM GRID AND 2013 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
10 000-meter Square ID
WL XL
Grid Zone Designation
18T

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.7

QUADRANGLE LOCATION

Nyack	White Plains	Glenville
Yonkers	Mount Vernon	Mamaroneck
Central Park	Hackensack	New CITY

ADJOINING 7.5' QUADRANGLES

ROAD CLASSIFICATION

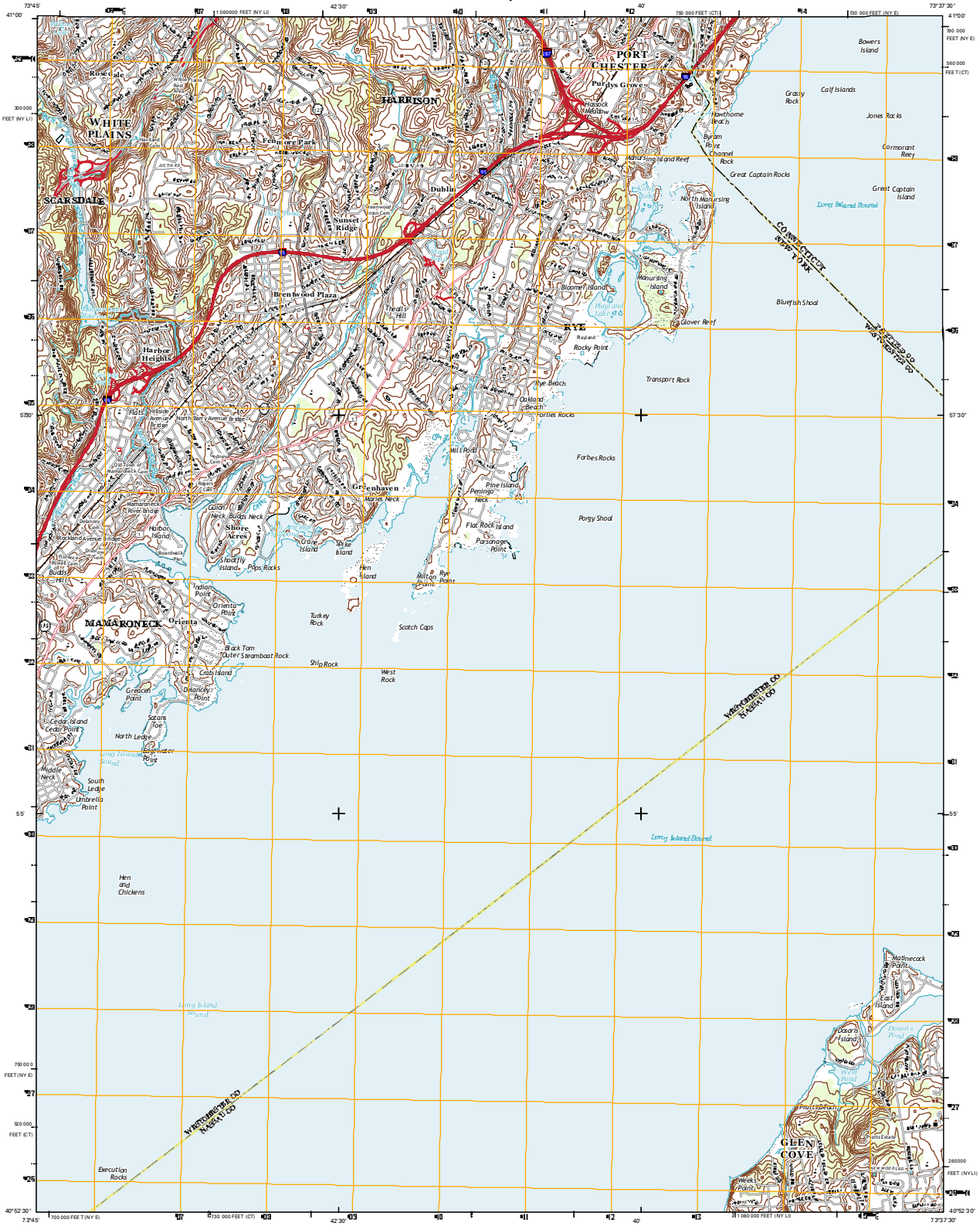
Interstate Route
US Route
Ramp
4WD
State Route
Local Road
Interstate Route
US Route
State Route

MOUNT VERNON, NY
2013

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map US Topo

MAMARONECK QUADRANGLE
NEW YORK-CONNECTICUT
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 18T
10 000-foot ticks: New York Coordinate System of 1983 (east and long Island zones), Connecticut Coordinate System of 1983

Imagery.....NAIP, July 2011
Roads.....©2006-2012 Tele Atlas
Names.....GNIS, 2012
Hydrography.....National Hydrography Dataset, 2011
Contours.....National Elevation Dataset, 1998
Boundaries.....Census, IBWC, BLC, USGS, 1972 - 2012

UTM GRID AND 2013 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
10,000-meter Square ID
XL
Grid Zone Designation
18T

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.7

QUADRANGLE LOCATION

White Plains	Glen Ville	Stamford
Mount Vernon	Mamaroneck	Rye Ville
Flushing	Sea Cliff	Hicksville

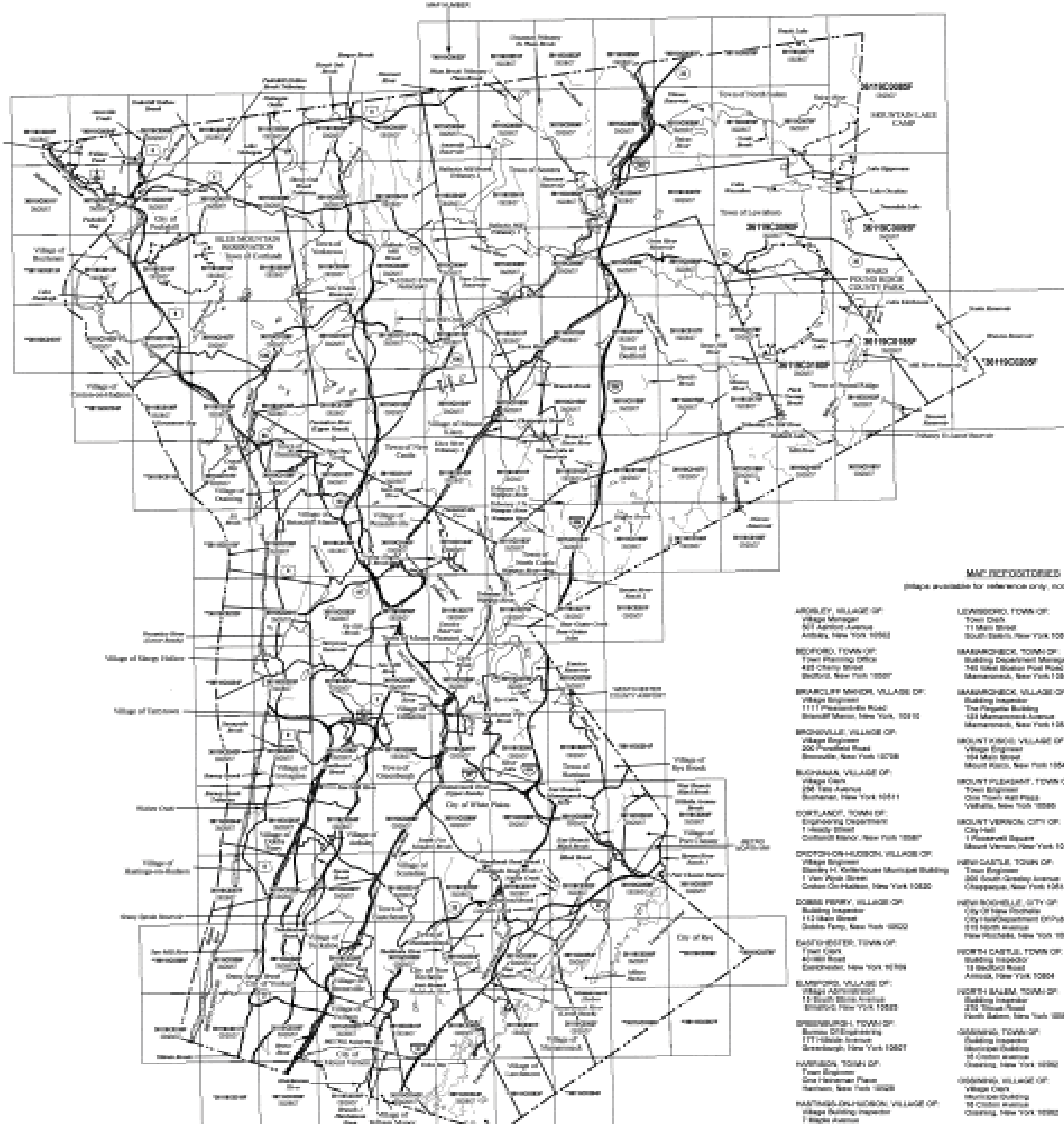
ADJOINING 7.5' QUADRANGLES

ROAD CLASSIFICATION
Interstate Route
US Route
Ramp
State Route
Local Road
4WD
Interstate Route
US Route
State Route

MAMARONECK, NY-CT
2013

Appendix C:

Westchester County FEMA Flood Insurance Rate Map



* PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS

** PANEL NOT PRINTED - OPEN WATER AREA

LISTING OF COMMUNITIES

COMMUNITY NAME	COMMUNITY NUMBER	LOCATED ON PANELS	INITIAL NFIP MAP DATE	INITIAL FIRM DATE	MOST RECENT FIRM PANEL DATE
ARDSLEY, VILLAGE OF	360902	[illegible]	APRIL 12, 1974	SEPTEMBER 28, 1979	SEPTEMBER 28, 2007
BEDFORD, TOWN OF	360903	[illegible]	MAY 31, 1974	DECEMBER 4, 1979	SEPTEMBER 28, 2007
BRIARCLIFF MANOR, VILLAGE OF	360904	[illegible]	JUNE 28, 1974	FEBRUARY 1, 1979	SEPTEMBER 28, 2007
BRONXVILLE, VILLAGE OF	360905	[illegible]	JULY 13, 1973	MARCH 1, 1979	SEPTEMBER 28, 2007
BUCHANAN, VILLAGE OF	361534	[illegible]	OCTOBER 29, 1976	[illegible]	SEPTEMBER 28, 2007
CORTLANDT, TOWN OF	360906	[illegible]	MAY 31, 1974	APRIL 17, 1985	SEPTEMBER 28, 2007
CROTON-ON-HUDSON, VILLAGE OF	360907	[illegible]	MAY 10, 1974	NOVEMBER 2, 1983	SEPTEMBER 28, 2007
DOBBS FERRY, VILLAGE OF	360908	[illegible]	MAY 17, 1974	APRIL 16, 1979	SEPTEMBER 28, 2007
EASTCHESTER, TOWN OF	360909	[illegible]	MAY 10, 1974	NOVEMBER 15, 1979	SEPTEMBER 28, 2007
ELMSFORD, VILLAGE OF	360910	[illegible]	APRIL 12, 1974	JUNE 15, 1979	SEPTEMBER 28, 2007
GREENBURGH, TOWN OF	360911	[illegible]	JUNE 21, 1974	AUGUST 15, 1980	SEPTEMBER 28, 2007
HARRISON, TOWN OF	360912	[illegible]	MARCH 5, 1976	MARCH 15, 1982	SEPTEMBER 28, 2007
HASTINGS-ON-HUDSON, VILLAGE OF	360913	[illegible]	NOVEMBER 8, 1974	APRIL 2, 1979	SEPTEMBER 28, 2007
IRVINGTON, VILLAGE OF	360914	[illegible]	JUNE 28, 1974	MARCH 15, 1979	SEPTEMBER 28, 2007
LARCHMONT, VILLAGE OF	360915	[illegible]	JUNE 14, 1973	SEPTEMBER 1, 1977	SEPTEMBER 28, 2007
LEWISBORO, TOWN OF	361527	[illegible]	NOVEMBER 1, 1974	MARCH 9, 1984	SEPTEMBER 28, 2007
MAMARONECK, TOWN OF	360917	[illegible]	[illegible]	JUNE 15, 1979	SEPTEMBER 28, 2007
MAMARONECK, VILLAGE OF	360916	[illegible]	SEPTEMBER 14, 1973	DECEMBER 1, 1977	SEPTEMBER 28, 2007
MOUNT KISCO, VILLAGE OF	360918	[illegible]	DECEMBER 6, 1977	SEPTEMBER 18, 1986	SEPTEMBER 28, 2007
MOUNT PLEASANT, TOWN OF	360919	[illegible]	MAY 3, 1974	JUNE 4, 1980	SEPTEMBER 28, 2007
MOUNT VERNON, CITY OF	360920	[illegible]	JUNE 28, 1974	OCTOBER 17, 1978	SEPTEMBER 28, 2007
NEW CASTLE, TOWN OF	360921	[illegible]	JUNE 28, 1974	SEPTEMBER 5, 1979	SEPTEMBER 28, 2007
NEW ROCHELLE, CITY OF	360922	[illegible]	DECEMBER 21, 1973	JUNE 16, 1980	SEPTEMBER 28, 2007
NORTH CASTLE, TOWN OF	360923	[illegible]	JUNE 28, 1974	DECEMBER 2, 1980	SEPTEMBER 28, 2007
NORTH SALEM, TOWN OF	361240	[illegible]	JANUARY 31, 1975	JULY 3, 1986	SEPTEMBER 28, 2007
OSSINING, TOWN OF	361241	[illegible]	OCTOBER 29, 1976	MARCH 16, 1983	SEPTEMBER 28, 2007
OSSINING, VILLAGE OF	361321	[illegible]	JULY 19, 1974	JULY 15, 1982	SEPTEMBER 28, 2007
PEEKSKILL, CITY OF	360926	[illegible]	MAY 31, 1974	AUGUST 15, 1984	SEPTEMBER 28, 2007
PELHAM MANOR, VILLAGE OF	360928	[illegible]	MAY 10, 1974	JANUARY 3, 1979	SEPTEMBER 28, 2007
PELHAM, VILLAGE OF	360927	[illegible]	MAY 17, 1974	APRIL 2, 1979	SEPTEMBER 28, 2007
PLEASANTVILLE, VILLAGE OF	360929	[illegible]	APRIL 12, 1974	FEBRUARY 15, 1979	SEPTEMBER 28, 2007
PORT CHESTER, VILLAGE OF	360930	[illegible]	MAY 3, 1974	JANUARY 16, 1980	SEPTEMBER 28, 2007
POUND RIDGE, TOWN OF	360931	[illegible]	MAY 24, 1974	MAY 25, 1984	SEPTEMBER 28, 2007
RYE BROOK, VILLAGE OF	[illegible]	[illegible]	DECEMBER 28, 1973	SEPTEMBER 28, 1979	SEPTEMBER 28, 2007
RYE, CITY OF	[illegible]	[illegible]	NOVEMBER 2, 1976	APRIL 1, 1980	SEPTEMBER 28, 2007
SCARSDALE, VILLAGE OF	[illegible]	[illegible]	DECEMBER 28, 1973	JUNE 18, 1980	SEPTEMBER 28, 2007
SLEEPY HOLLOW, VILLAGE OF	[illegible]	[illegible]	DECEMBER 10, 1974	AUGUST 17, 1981	SEPTEMBER 28, 2007
SOMERS, TOWN OF	[illegible]	[illegible]	DECEMBER 20, 1974	SEPTEMBER 4, 1986	SEPTEMBER 28, 2007
TARRYTOWN, VILLAGE OF	[illegible]	[illegible]	MAY 10, 1974	[illegible]	SEPTEMBER 28, 2007
TUCKAHOE, VILLAGE OF	[illegible]	[illegible]	MAY 10, 1974	FEBRUARY 15, 1979	SEPTEMBER 28, 2007
WHITE PLAINS, CITY OF	[illegible]	[illegible]	[illegible]	JANUARY 2, 1980	SEPTEMBER 28, 2007
YONKERS, CITY OF	[illegible]	[illegible]	JANUARY 5, 1973	AUGUST 15, 1980	SEPTEMBER 28, 2007
YORKTOWN, TOWN OF	[illegible]	[illegible]	SEPTEMBER 20, 1974	NOVEMBER 15, 1985	SEPTEMBER 28, 2007

* PANEL NOT PRINTED

MAP REPOSITORIES

(Maps available for reference only, not for distribution.)

ARDSLEY, VILLAGE OF:
Village Manager
507 Ashford Avenue
Ardsley, New York 10502

BEDFORD, TOWN OF:
Town Planning Office
425 Cherry Street
Bedford, New York 10507

BRIARCLIFF MANOR, VILLAGE OF:
Village Engineer
1111 Pleasantville Road
Briarcliff Manor, New York 10510

BRONXVILLE, VILLAGE OF:
Village Engineer
200 Pondfield Road
Bronxville, New York 10708

BUCHANAN, VILLAGE OF:
Village Clerk
236 Tate Avenue
Buchanan, New York 10511

CORTLANDT, TOWN OF:
Engineering Department
1 Heady Street
Cortlandt Manor, New York 10567

CROTON-ON-HUDSON, VILLAGE OF:
Village Engineer
Stanley H. Kellerhouse Municipal Building
1 Van Wyck Street
Croton-On-Hudson, New York 10520

DOBBS FERRY, VILLAGE OF:
Building Inspector
112 Main Street
Dobbs Ferry, New York 10522

EASTCHESTER, TOWN OF:
Town Clerk
40 Mill Road
Eastchester, New York 10709

ELMSFORD, VILLAGE OF:
Village Administrator
15 South Stone Avenue
Elmsford, New York 10523

GREENBURGH, TOWN OF:
Bureau Of Engineering
177 Hillside Avenue
Greenburgh, New York 10607

HARRISON, TOWN OF:
Town Engineer
One Heineman Place
Harrison, New York 10528

HASTINGS-ON-HUDSON, VILLAGE OF:
Village Building Inspector
7 Maple Avenue
Hastings-On-Hudson, New York 10706

IRVINGTON, VILLAGE OF:
Building Inspector
Irvington Village Hall
85 Main Street
Irvington, New York 10533

LARCHMONT, VILLAGE OF:
Building Inspector
Municipal Building
120 Larchmont Avenue
Larchmont, New York 10538

LEWISBORO, TOWN OF:
Town Clerk
11 Main Street
South Salem, New York 10590

MAMARONECK, TOWN OF:
Building Department Manager
740 West Boston Post Road
Mamaroneck, New York 10543

MAMARONECK, VILLAGE OF:
Building Inspector
The Regatta Building
123 Mamaroneck Avenue
Mamaroneck, New York 10543

MOUNT KISCO, VILLAGE OF:
Village Engineer
104 Main Street
Mount Kisco, New York 10549

MOUNT PLEASANT, TOWN OF:
Town Engineer
One Town Hall Plaza
Valhalla, New York 10595

MOUNT VERNON, CITY OF:
City Hall
1 Roosevelt Square
Mount Vernon, New York 10550

NEW CASTLE, TOWN OF:
Town Engineer
200 South Greeley Avenue
Chappaqua, New York 10514

NEW ROCHELLE, CITY OF:
City Of New Rochelle
City Hall/Department Of Public Works
515 North Avenue
New Rochelle, New York 10801

NORTH CASTLE, TOWN OF:
Building Inspector
15 Bedford Road
Armonk, New York 10504

NORTH SALEM, TOWN OF:
Building Inspector
270 Titicus Road
North Salem, New York 10560

OSSINING, TOWN OF:
Building Inspector
Municipal Building
16 Croton Avenue
Ossining, New York 10562

OSSINING, VILLAGE OF:
Village Clerk
Municipal Building
16 Croton Avenue
Ossining, New York 10562

PEEKSKILL, CITY OF:
Building Department Manager
City Hall
840 Main Street
Peekskill, New York 10566

PELHAM, VILLAGE OF:
Village Clerk
195 Sparks Avenue
Pelham, New York 10803

PELHAM MANOR, VILLAGE OF:
Village Manager
Four Penfield Place
Pelham Manor, New York 10803

PLEASANTVILLE, VILLAGE OF:
Building Inspector
Village Hall
80 Wheeler Avenue
Pleasantville, New York 10570

PORT CHESTER, VILLAGE OF:
Building Inspector
Village Hall
10 Pearl Street
Port Chester, New York 10573

POUND RIDGE, TOWN OF:
Building Department
The Town House
179 Westchester Avenue
Pound Ridge, New York 10576

RYE, CITY OF:
City Engineer
City Hall
1051 Boston Post Road
Rye, New York 10580

RYE BROOK, VILLAGE OF:
Village Engineer
938 King Street
Rye Brook, New York 10573

SCARSDALE, VILLAGE OF:
Village Manager
Village Hall
1001 Post Road
Scarsdale, New York 10583

SLEEPY HOLLOW, VILLAGE OF:
Village Administrator
28 Beekman Avenue
Sleepy Hollow, New York 10591

SOMERS, TOWN OF:
Town Engineer
Town House
335 Route 202
Somers, New York 10589

TARRYTOWN, VILLAGE OF:
Village Clerk
21 Wilson Street
Tarrytown, New York 10591

TUCKAHOE, VILLAGE OF:
Building Inspector
65 Main Street
2nd Floor, Rm #200
Tuckahoe, New York 10707

WHITE PLAINS, CITY OF:
Planning Department
City Hall
255 Main Street
White Plains, New York 10601

YONKERS, CITY OF:
City Engineer
40 South Broadway
Yonkers, New York 10701

YORKTOWN, TOWN OF:
Town Engineer
363 Underhill Avenue
Yorktown Heights, New York 10598

MAP DATES

This FIRM Index displays the map date for each FIRM panel at the time that this Index was printed. Because this Index may not be distributed to unaffected communities in subsequent revisions, users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center website at http://msc.fema.gov or by calling the Map Service Center at 1-800-358-9616.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.

NOTE TO USER

Future revisions to this FIRM Index will only be issued to communities that are located on FIRM panels being revised. This FIRM Index therefore remains valid for FIRM panels dated September 28, 2007 or earlier. Please refer to the "MOST RECENT FIRM PANEL DATE" column in the Listing of Communities table to determine the most recent FIRM Index date for each community.

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

MAP INDEX

FIRM

FLOOD INSURANCE RATE MAP

WESTCHESTER COUNTY, NEW YORK
(ALL JURISDICTIONS)

(SEE LISTING OF COMMUNITIES TABLE)

MAP INDEX

PANELS PRINTED: [illegible]

MAP NUMBER
36119CIND0A

EFFECTIVE DATE
SEPTEMBER 28, 2007

Federal Emergency Management Agency

Appendix D:

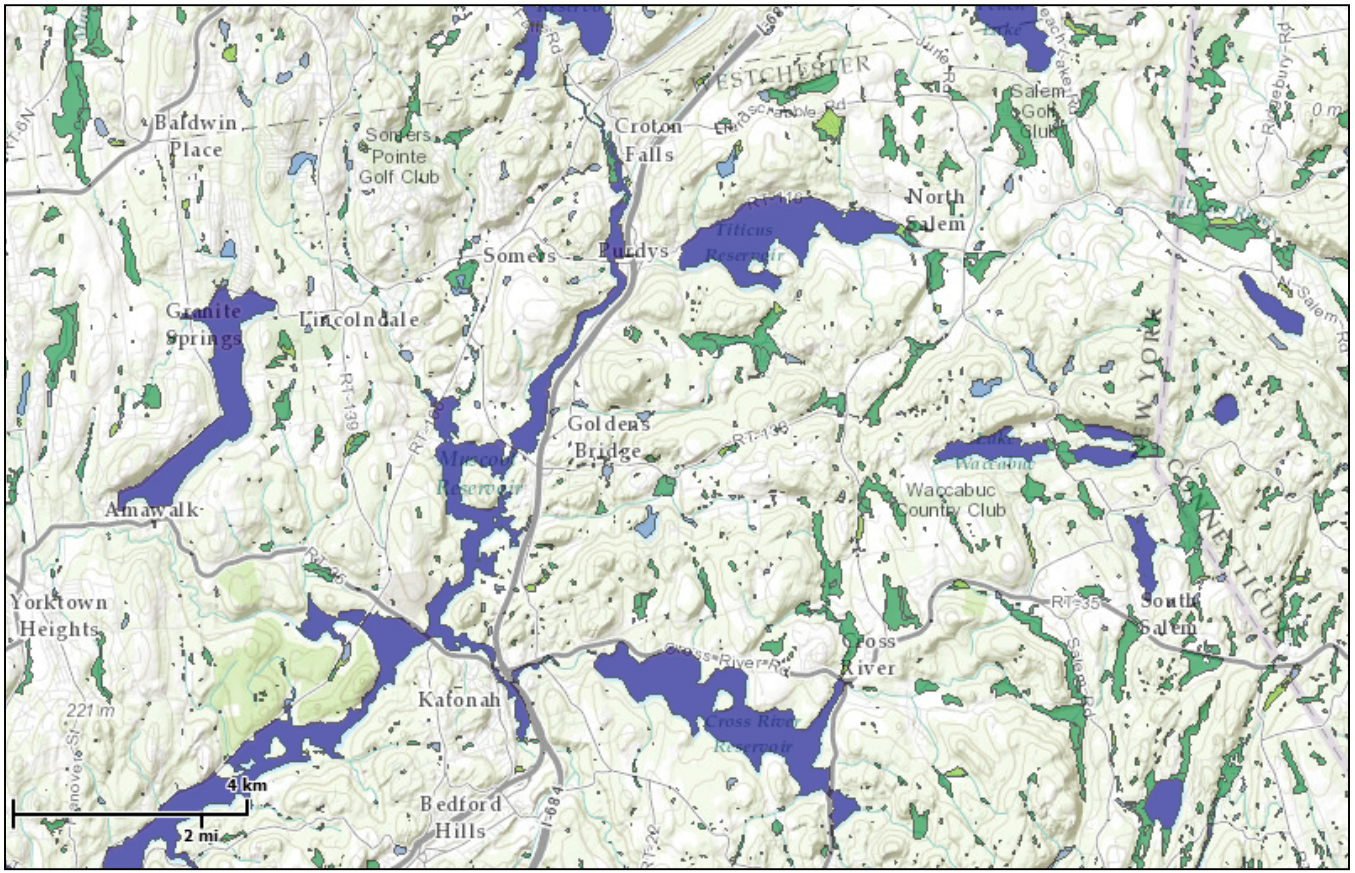
Westchester County Wetlands Maps

U.S. Fish and Wildlife Service

National Wetlands Inventory

Westchester County (North)

Aug 12, 2013



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

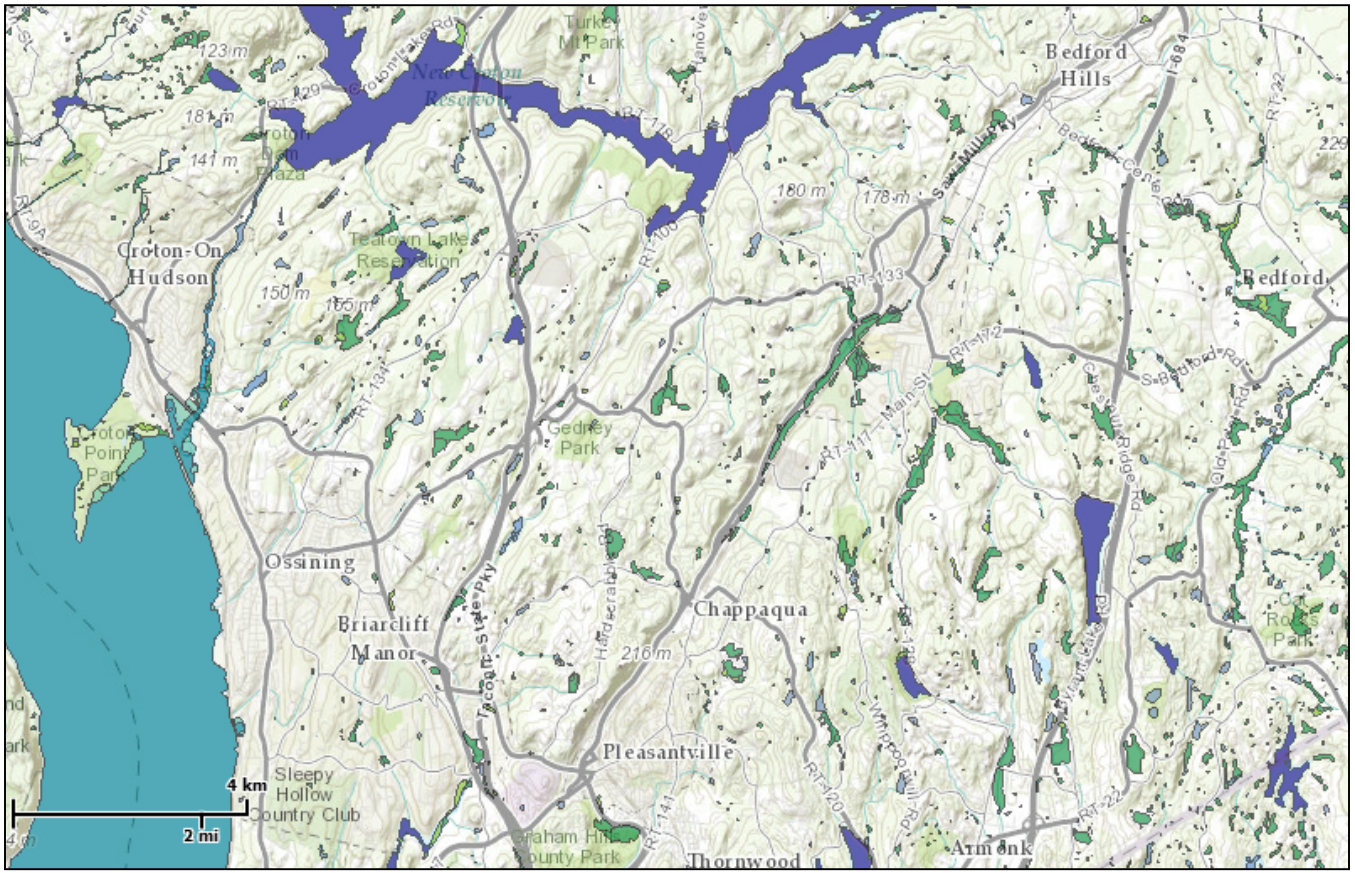
User Remarks:

U.S. Fish and Wildlife Service

National Wetlands Inventory

Westchester County (Central)

Aug 12, 2013



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

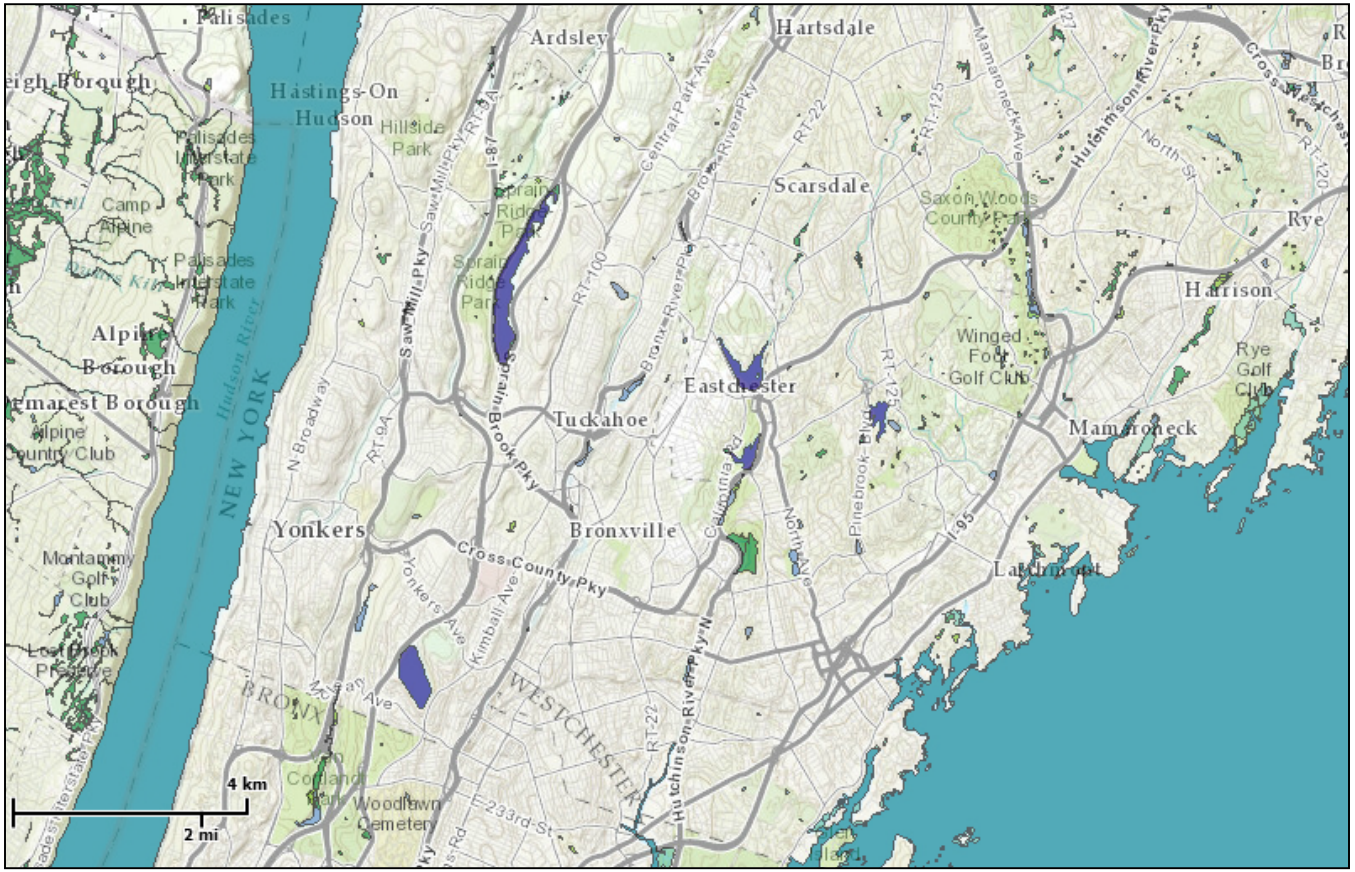
User Remarks:

U.S. Fish and Wildlife Service

National Wetlands Inventory

Westchester County (South)

Aug 12, 2013



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

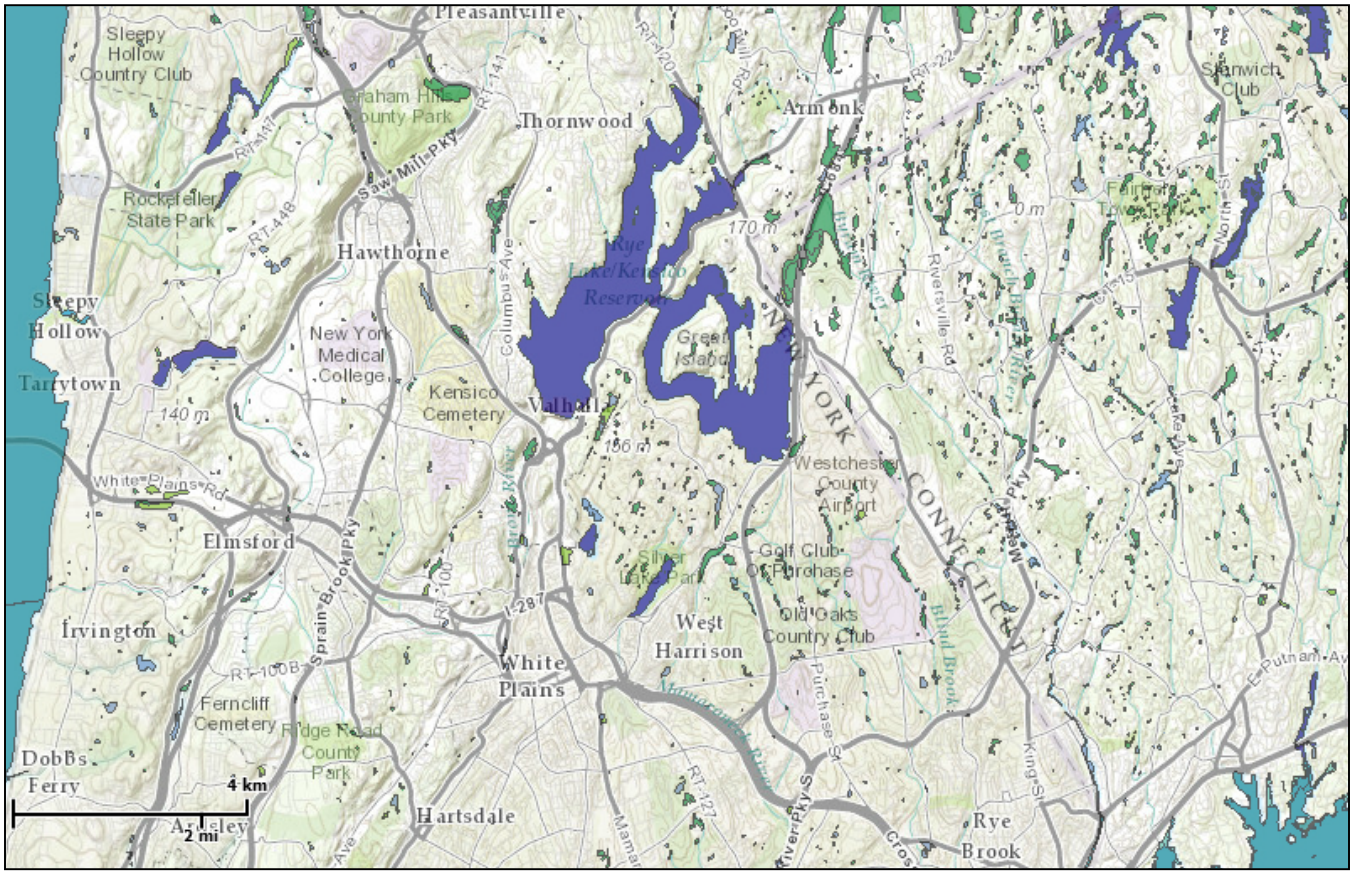
User Remarks:

U.S. Fish and Wildlife Service

National Wetlands Inventory

Westchester County (Central)

Aug 12, 2013



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

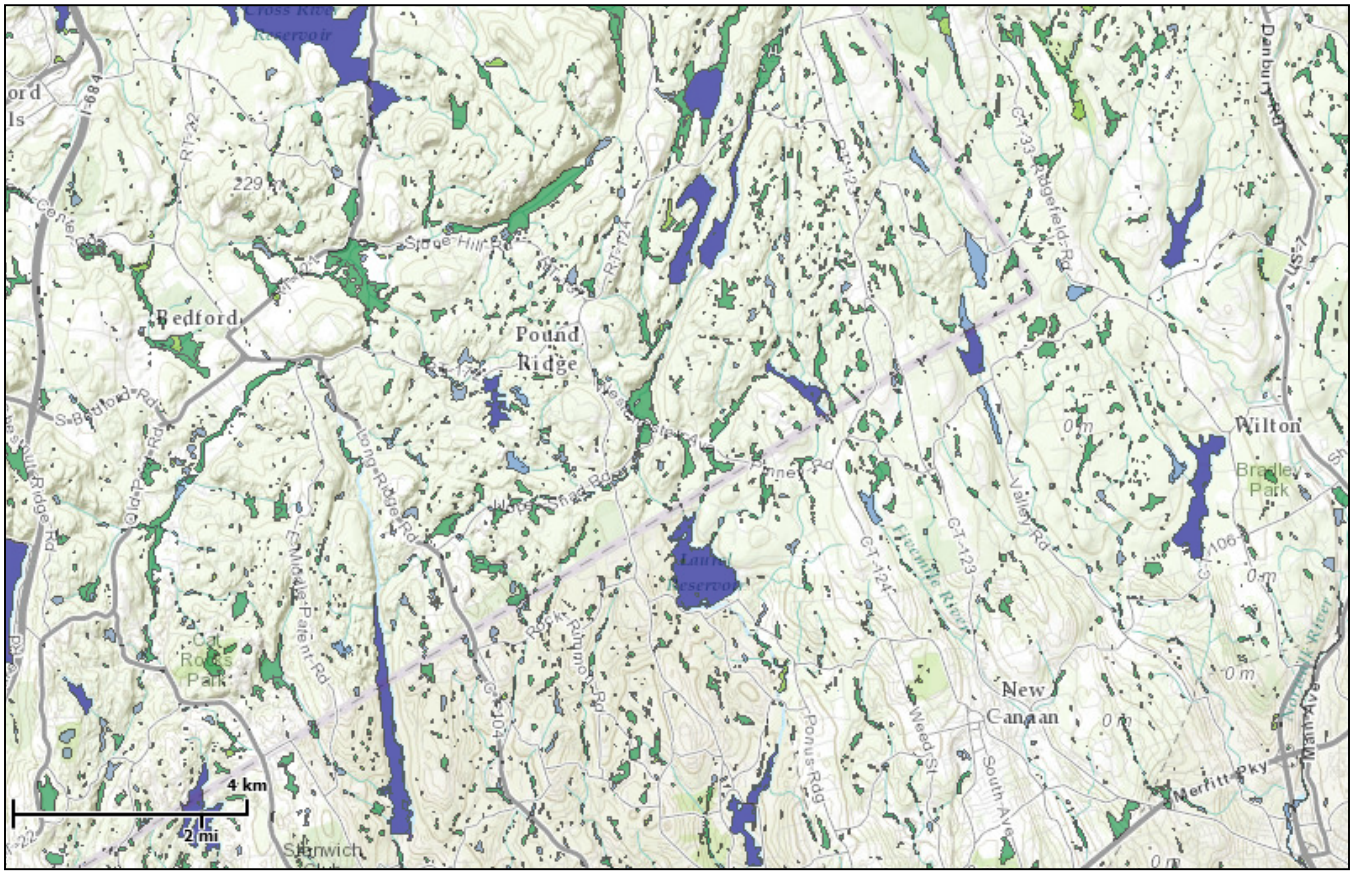
User Remarks:

U.S. Fish and Wildlife Service

National Wetlands Inventory

Westchester County (Central)

Aug 12, 2013



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

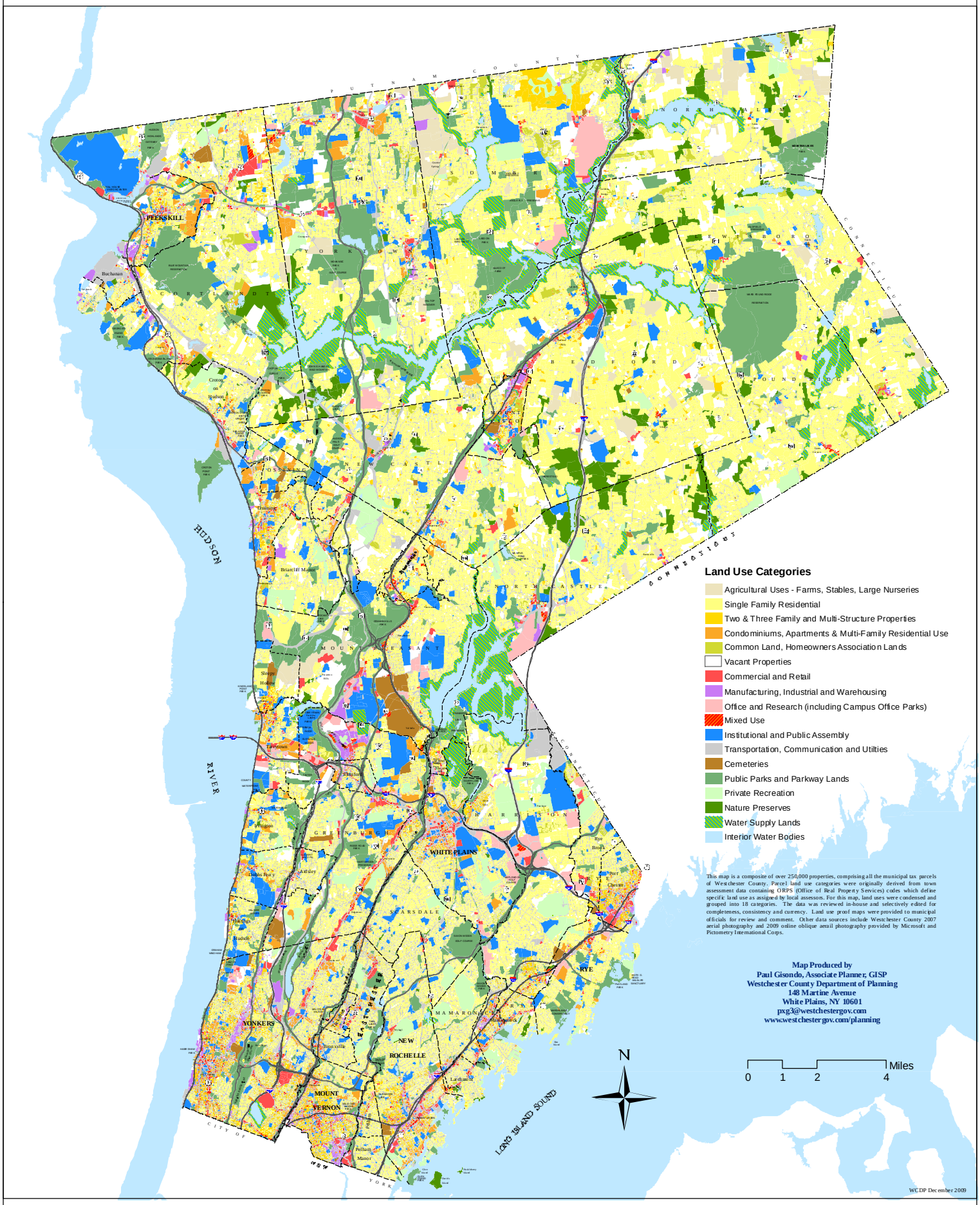
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

Appendix E:

Westchester County Land Use and Zoning Maps

WESTCHESTER COUNTY, NEW YORK



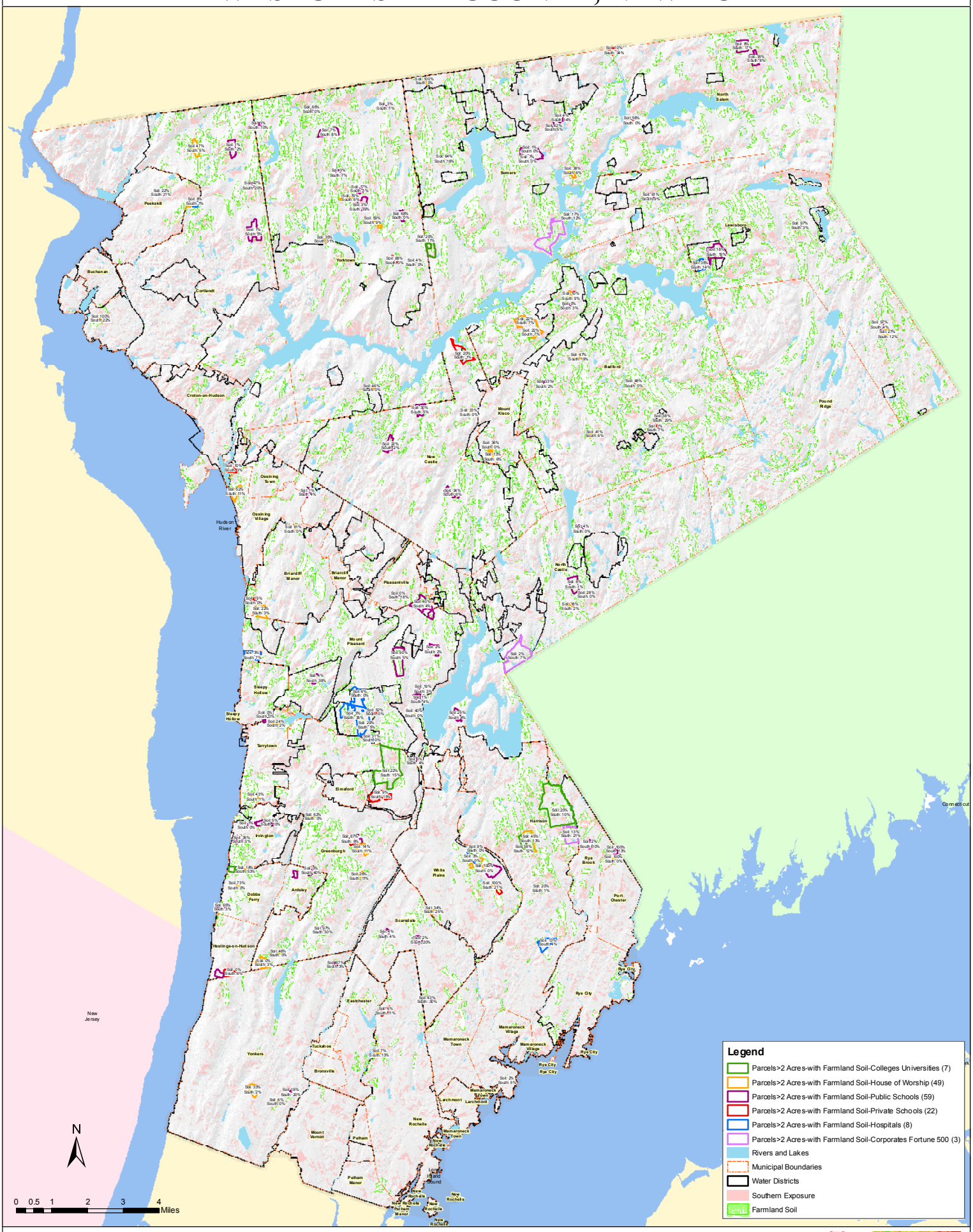
Westchester gov.com

Andrew J. Spano, Westchester County Executive
County Board of Legislators

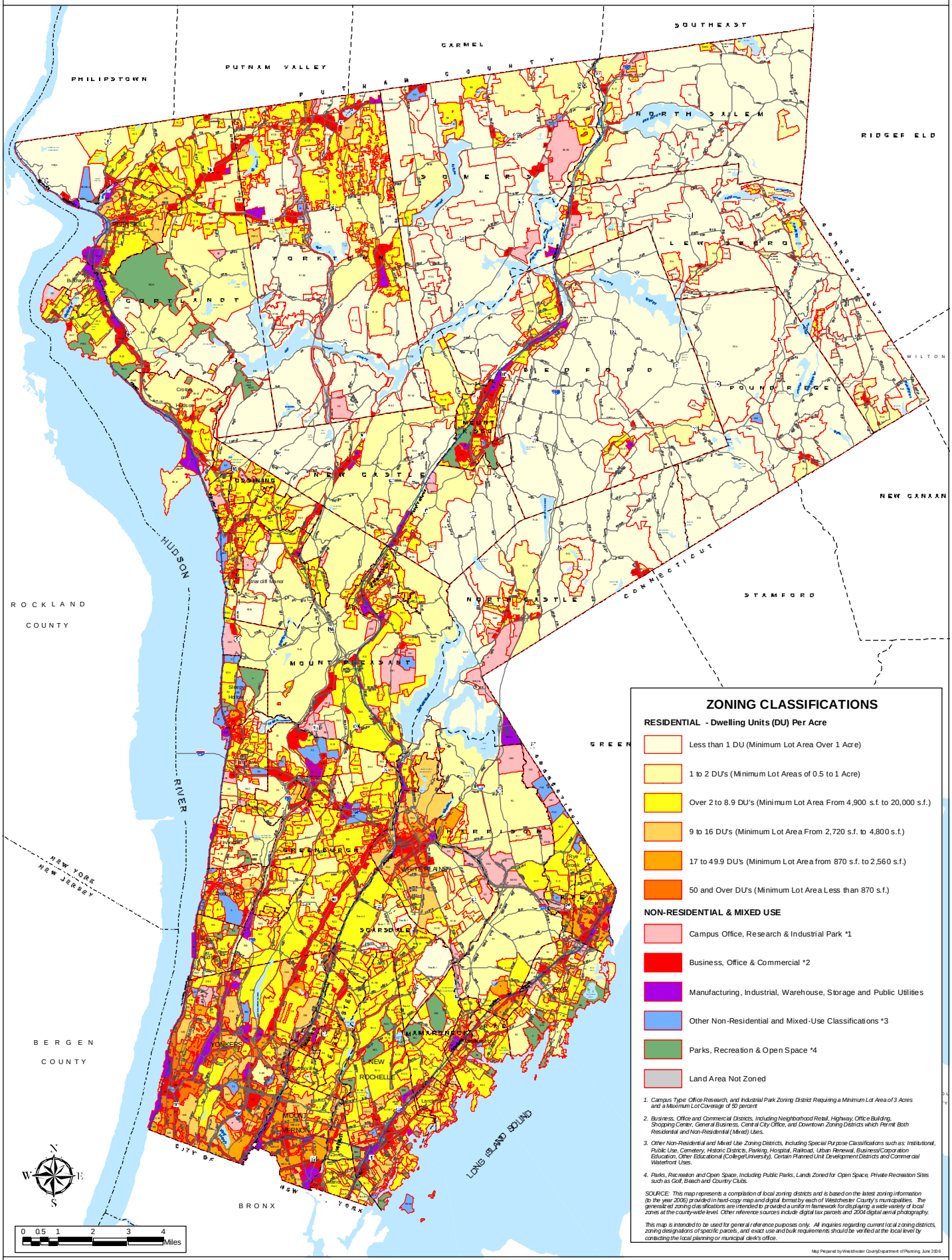
Parcel Based Land Use

432 Michaelian Office Building
148 Martine Avenue
White Plains, New York 10601
www.westchestergov.com/planning

WESTCHESTER COUNTY, NEW YORK



WESTCHESTER COUNTY, NEW YORK



ZONING CLASSIFICATIONS

RESIDENTIAL - Dwelling Units (DU) Per Acre

- Less than 1 DU (Minimum Lot Area Over 1 Acre)
- 1 to 2 DU's (Minimum Lot Areas of 0.5 to 1 Acre)
- Over 2 to 8.9 DU's (Minimum Lot Area From 4,900 s.f. to 20,000 s.f.)
- 9 to 16 DU's (Minimum Lot Area From 2,720 s.f. to 4,800 s.f.)
- 17 to 49.9 DU's (Minimum Lot Area from 870 s.f. to 2,560 s.f.)
- 50 and Over DU's (Minimum Lot Area Less than 870 s.f.)

NON-RESIDENTIAL & MIXED USE

- Campus Office, Research & Industrial Park *1
- Business, Office & Commercial *2
- Manufacturing, Industrial, Warehouse, Storage and Public Utilities
- Other Non-Residential and Mixed-Use Classifications *3
- Parks, Recreation & Open Space *4
- Land Area Not Zoned

1. *Campus Type Office Research, and Industrial Park Zoning District Requiring a Minimum Lot Area of 3 Acres and a Maximum Lot Coverage of 50 percent*
2. *Business, Office and Commercial Districts, Including Neighborhood Retail, Highway, Office Building, Shopping Center, General Business, Central City Office, and Downtown Zoning Districts which Permit Both Residential and Non-Residential (Mixed) Uses.*
3. *Other Non-Residential and Mixed Use Zoning Districts, Including Special Purpose Classifications such as: Institutional, Public Use, Cemetery, Historic Districts, Parking, Hospital, Railroad, Urban Renewal, Business/Corporation Education, Other Educational (College/University), Certain Planned Unit Development Districts and Commercial Waterfront Uses.*
4. *Parks, Recreation and Open Space, Including Public Parks, Lands Zoned for Open Space, Private Recreation Sites such as Golf, Beach and Country Clubs.*

SOURCE: This map represents a compilation of local zoning districts and is based on the latest zoning information (to the year 2006) provided in hard-copy map and digital format by each of Westchester County's municipalities. The generalized zoning classifications are intended to provide a uniform framework for displaying a wide variety of local zones at the county-wide level. Other reference sources include digital tax parcels and 2004 digital aerial photography.

This map is intended to be used for general reference puposes only. All inquiries regarding current local zoning districts, zoning designations of specific parcels, and exact use and bulk requirements should be verified at the local level by contacting the local planning or municipal clerk's office.

Map Prepared by Westchester County Department of Planning, June 2006

Westchestergov.com

Andrew J. Spano, Westchester County Executive
County Board of Legislators

Generalized Zoning

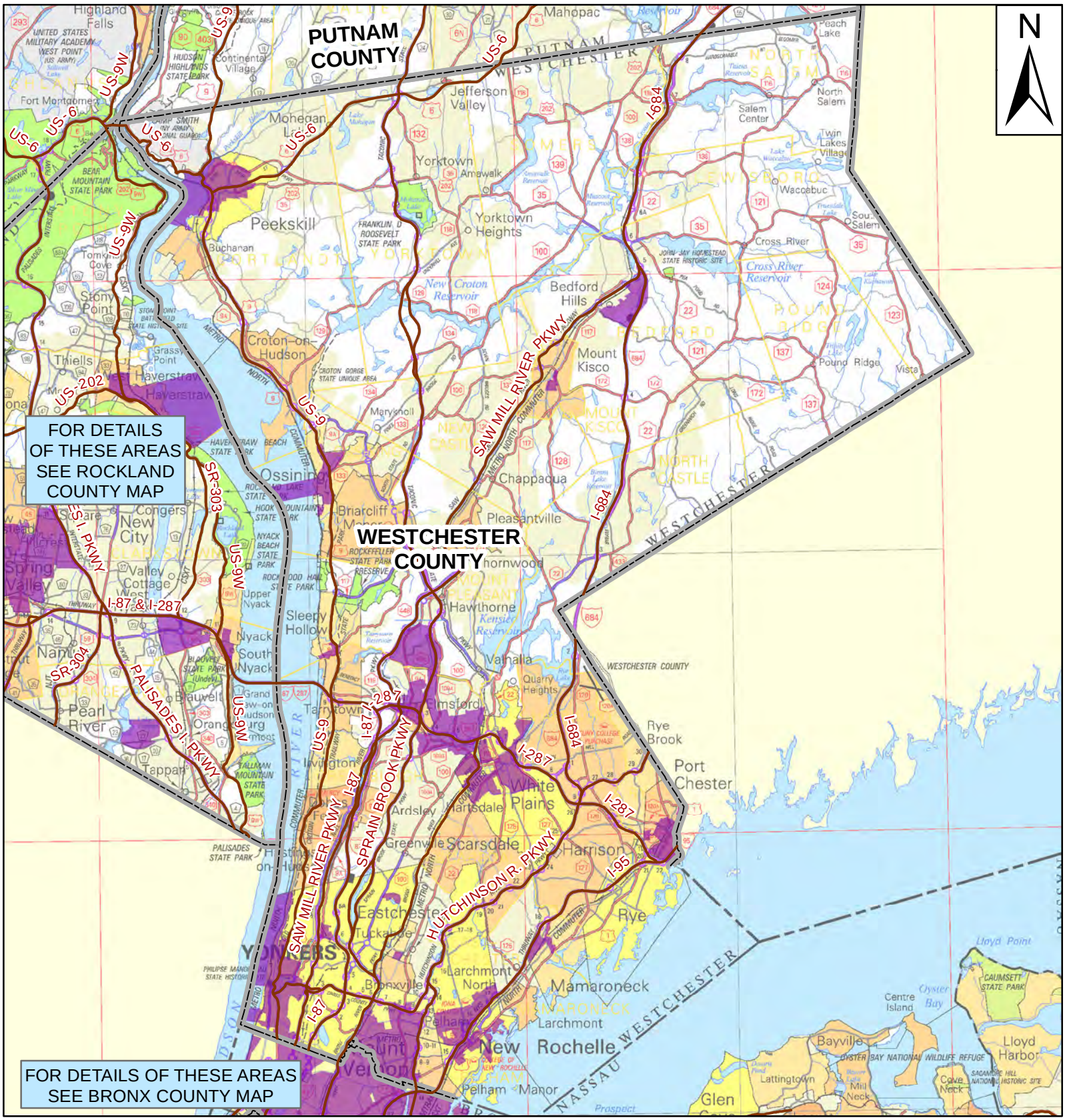
432 Michaelian Office Building
148 Martine Avenue
White Plains, New York
10601

Appendix F:

Potential Environmental Justice Area Maps

Potential Environmental Justice Areas in Westchester County, New York

Click on any Potential EJ Area outlined in blue for a detailed map



This computer representation has been compiled from supplied data or information that has not been verified by EPA or NYSDEC. The data is offered here as a general representation only and is not to be used for commercial purposes without verification by an independent professional qualified to verify such data or information.

Neither EPA nor NYSDEC guarantee the accuracy, completeness, or timeliness of the information shown and shall not be liable for any loss or injury resulting from reliance.

Data Source for Potential Environmental Justice Areas:
U.S. Census Bureau, 2000 U.S. Census

Legend

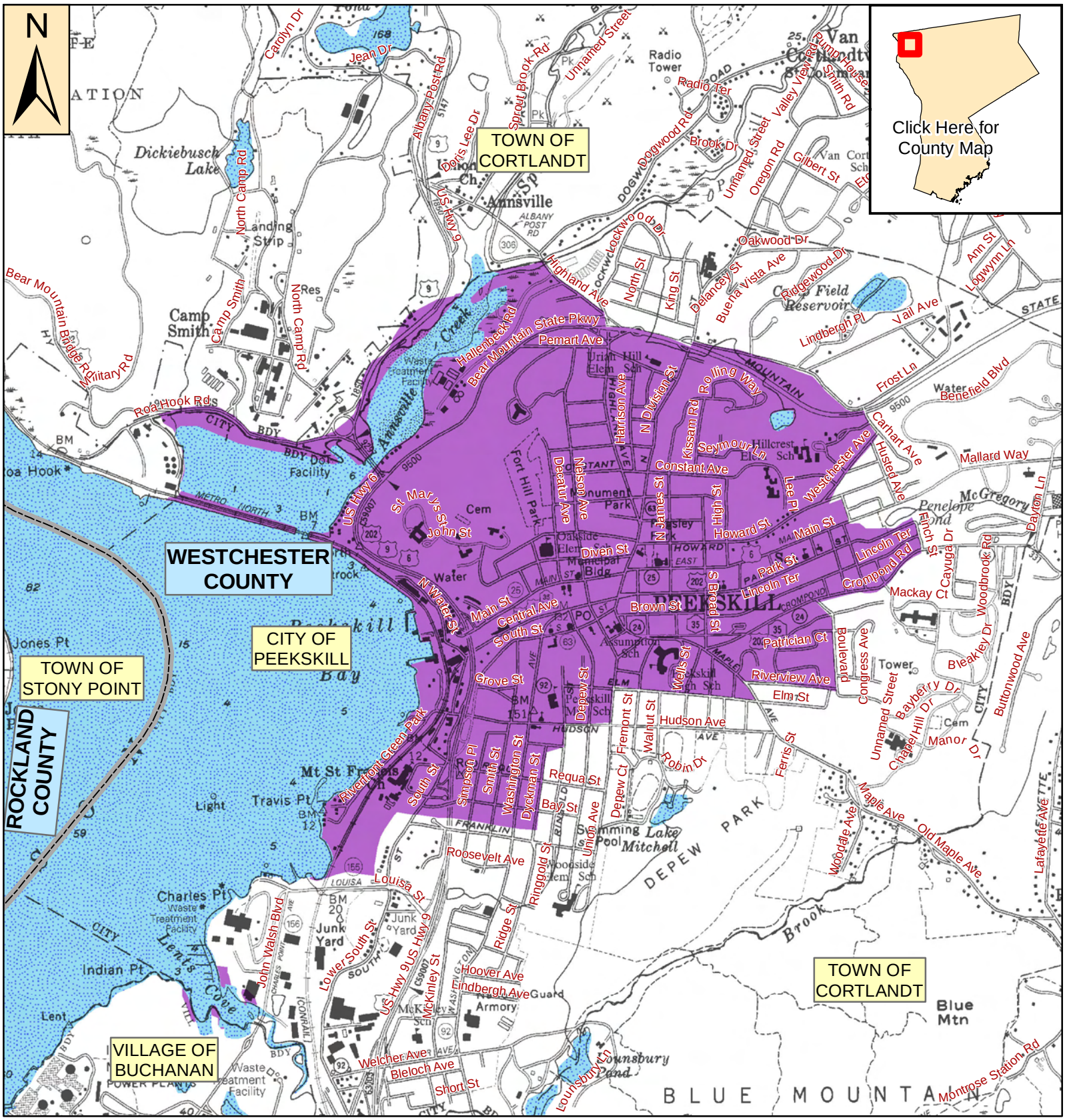
Potential EJ Area

County Boundary

Miles
0 1 2 3 4 5
SCALE: 1:250,000

For questions about this map contact:
New York State Department of Environmental Conservation
Office of Environmental Justice
625 Broadway, 14th Floor
Albany, New York 12233-1500
(518) 402-8556
ej@gw.dec.state.ny.us

Potential Environmental Justice Areas in the City of Peekskill
Westchester County, New York



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Neither EPA nor NYSDEC guarantee the accuracy, completeness, or timeliness of the information shown and shall not be liable for any loss or injury resulting from reliance.

Data Source for Potential Environmental Justice Areas:
U.S. Census Bureau, 2000 U.S. Census

Legend

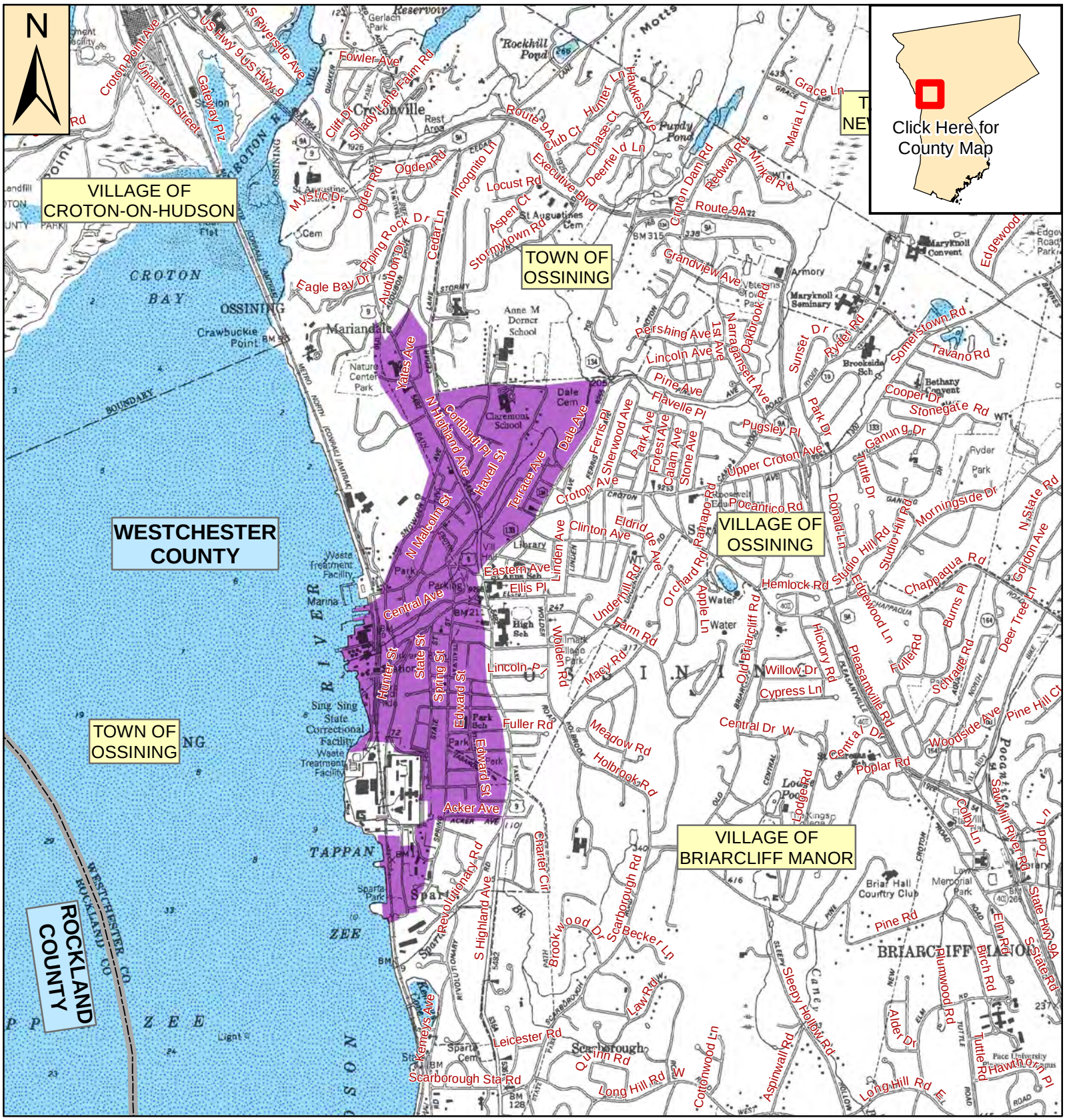
- Potential EJ Area
- County Boundary
- Waterbodies

0 0.2 0.4 0.6 0.8 1 Miles

SCALE: 1:24,000

For questions about this map contact:
New York State Department of Environmental Conservation
Office of Environmental Justice
625 Broadway, 14th Floor
Albany, New York 12233-1500
(518) 402-8556
ej@gw.dec.state.ny.us

Potential Environmental Justice Areas in the Village of Ossining
Westchester County, New York



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Neither EPA nor NYSDEC guarantee the accuracy, completeness, or timeliness of the information shown and shall not be liable for any loss or injury resulting from reliance.

Data Source for Potential Environmental Justice Areas:
U.S. Census Bureau, 2000 U.S. Census

Legend

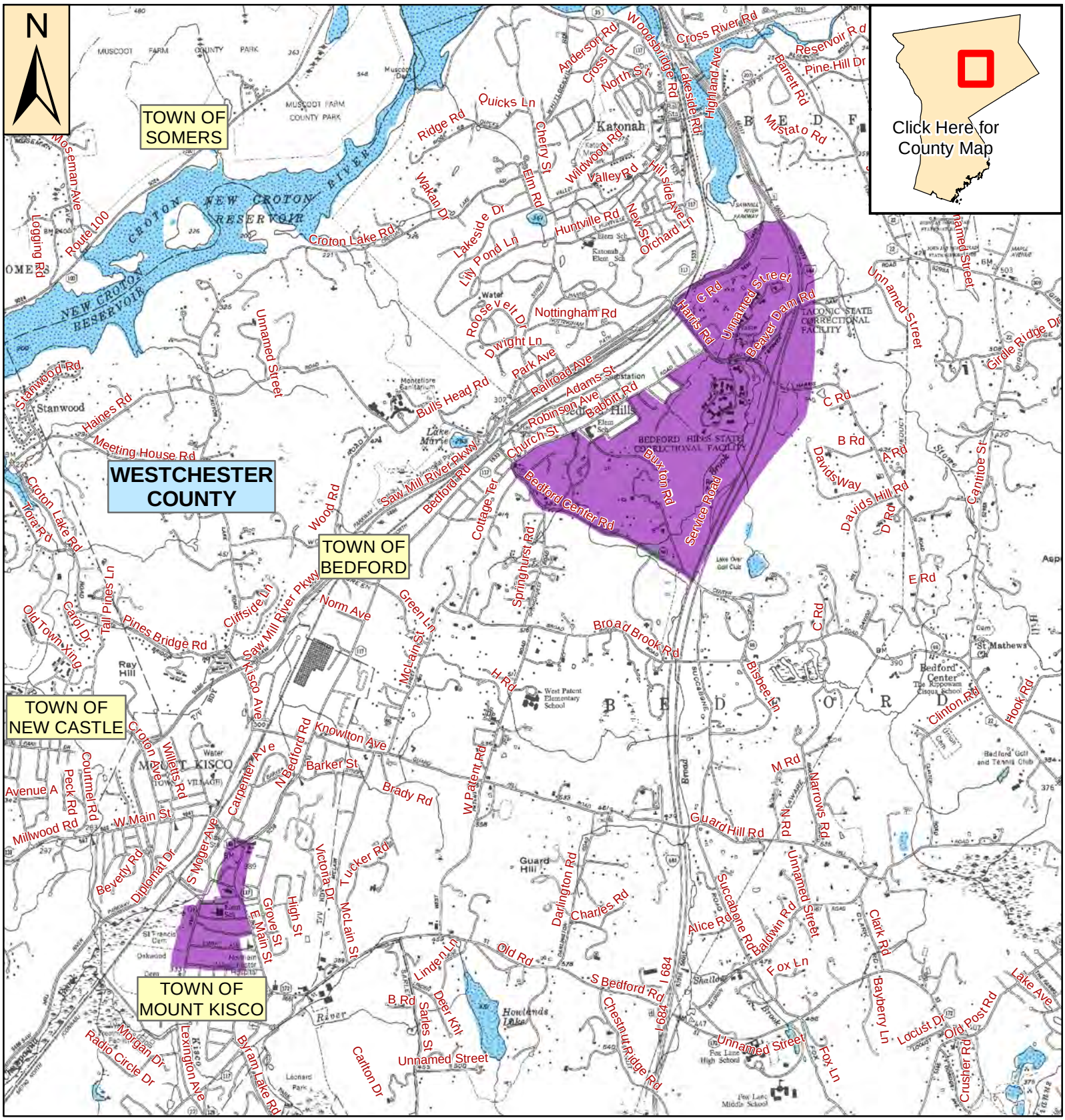
- Potential EJ Area
- County Boundary
- Waterbodies

0 0.2 0.4 0.6 0.8 1 Miles

SCALE: 1:30,000

For questions about this map contact:
New York State Department of Environmental Conservation
Office of Environmental Justice
625 Broadway, 14th Floor
Albany, New York 12233-1500
(518) 402-8556
ej@gw.dec.state.ny.us

Potential Environmental Justice Areas in the Towns of Bedford and Mount Kisco, Westchester County, New York



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Data Source for Potential Environmental Justice Areas:
U.S. Census Bureau, 2000 U.S. Census

Legend

- Potential EJ Area
- County Boundary
- Waterbodies

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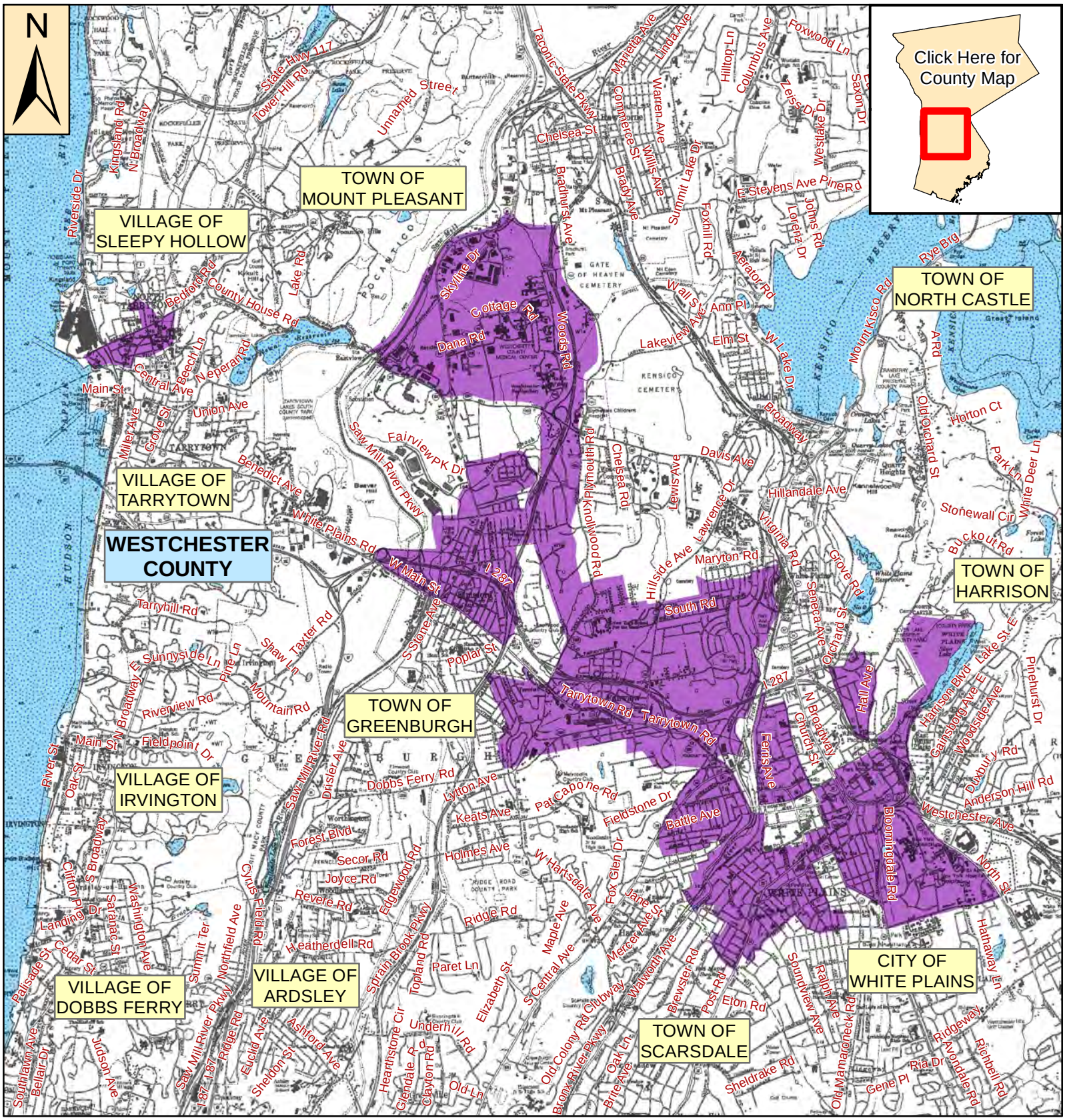
Potential Environmental Justice Areas in the City of White Plains and Towns of Greenburgh and Mt. Pleasant, Westchester County, New York



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Data Source for Potential Environmental Justice Areas:
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Legend

- Potential EJ Area
- County Boundary
- Waterbodies

Miles
0 0.5 1 1.5 2
SCALE: 1:60,000

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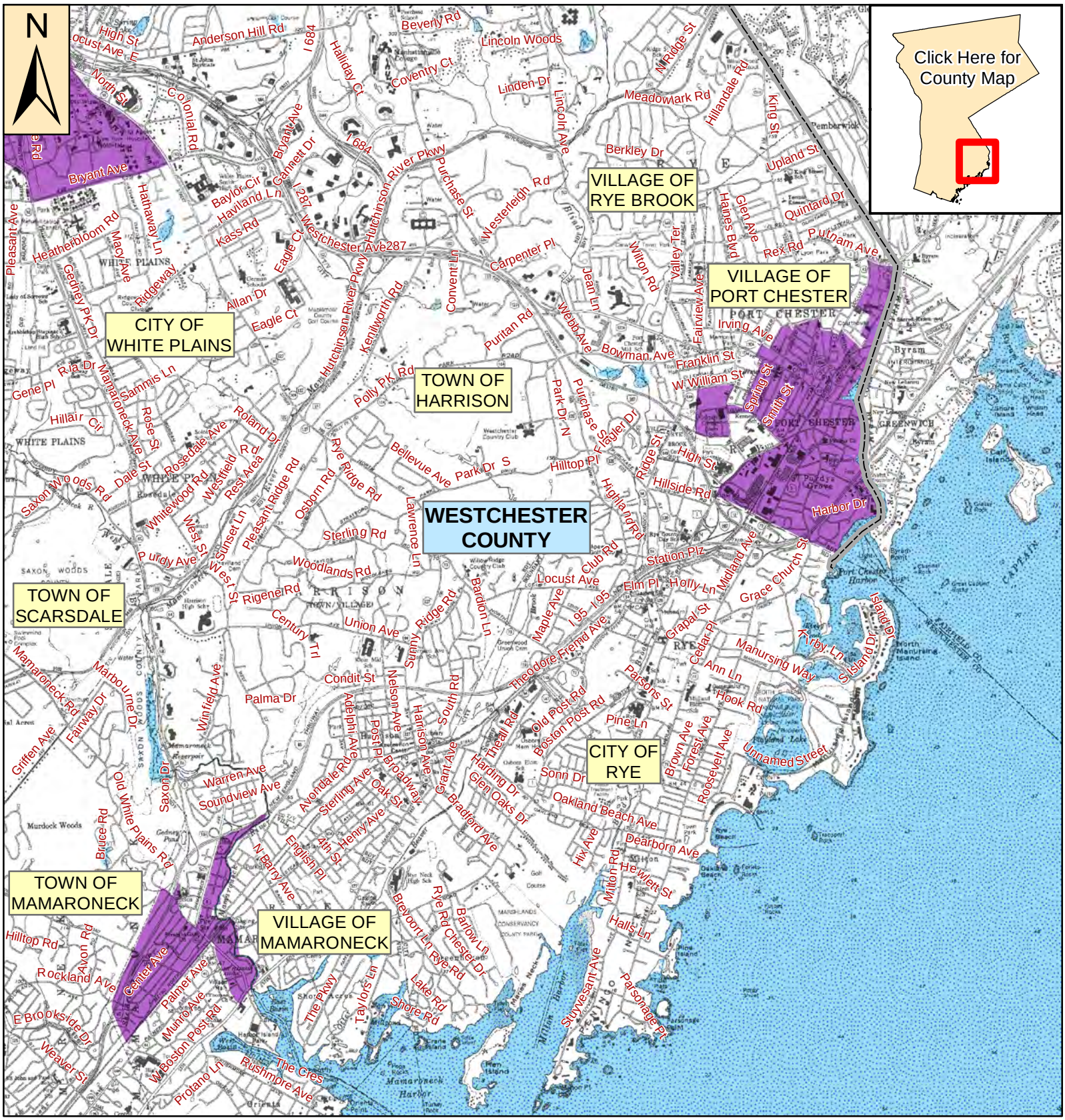
Potential Environmental Justice Areas in the Villages of Mamaroneck and Port Chester, Westchester County, New York



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Data Source for Potential Environmental Justice Areas:
U.S. Census Bureau, 2000 U.S. Census

Legend

- Potential EJ Area
- County Boundary
- Waterbodies

Miles
0 0.2 0.4 0.6 0.8 1
SCALE: 1:50,000

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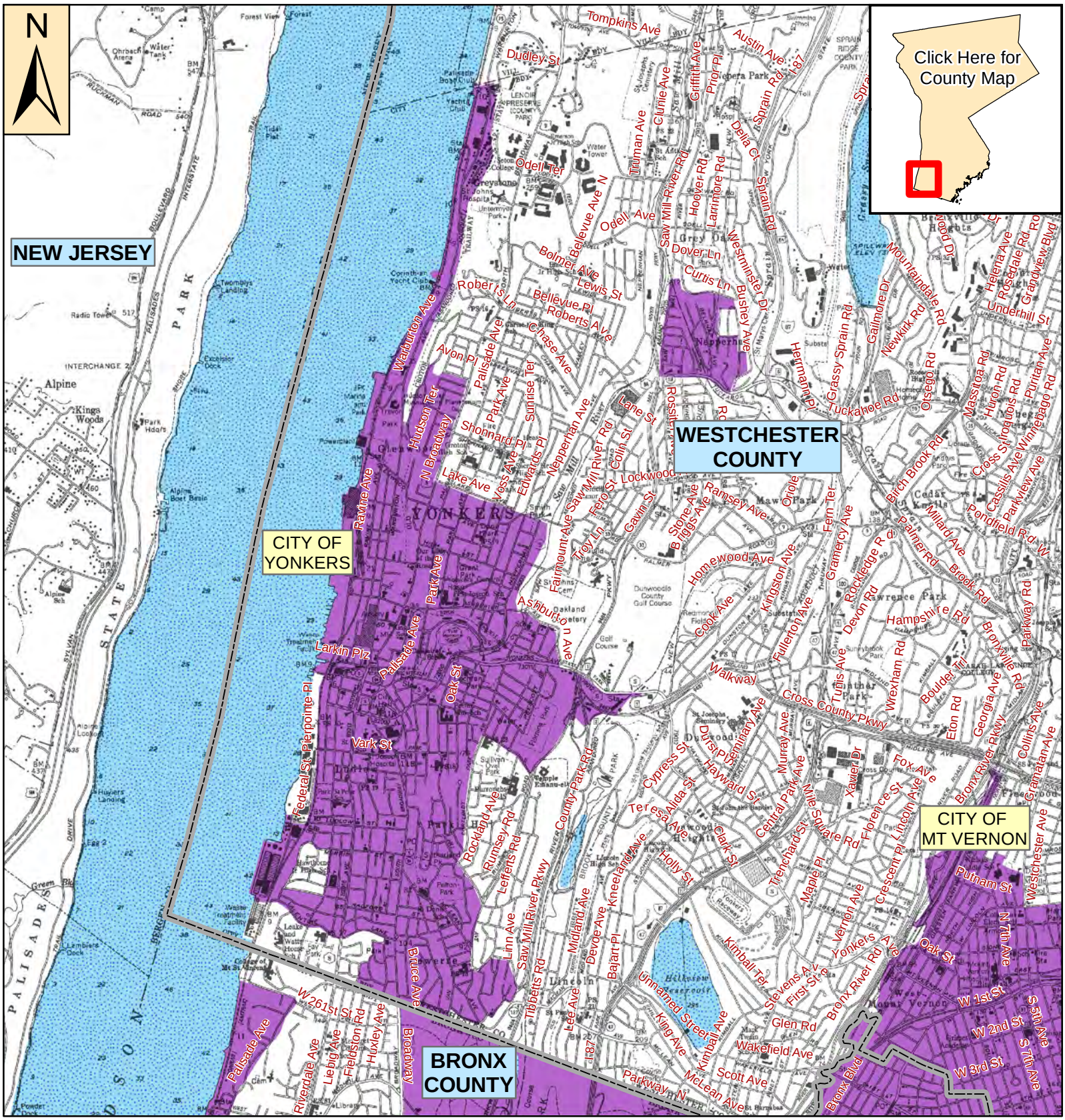
Potential Environmental Justice Areas in the City of Yonkers
Westchester County, New York



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Data Source for Potential Environmental Justice Areas:
U.S. Census Bureau, 2000 U.S. Census

Legend

- Potential EJ Area
- County Boundary
- Waterbodies

Miles
0 0.2 0.4 0.6 0.8 1
SCALE: 1:40,000

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Albany, New York 12233-1500
(518) 402-8556
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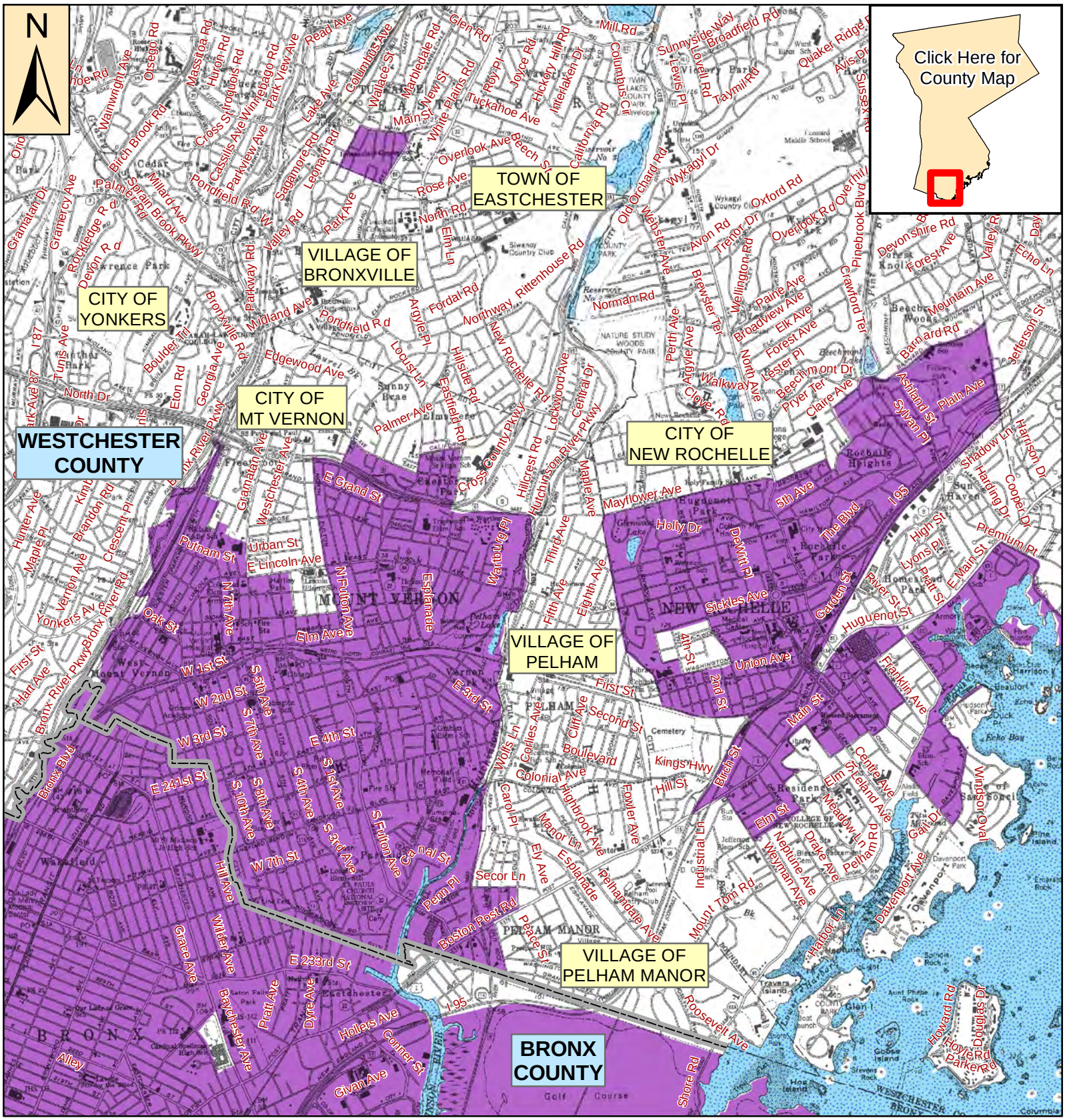
Potential Environmental Justice Areas in the Cities of New Rochelle and Mount Vernon, Westchester County, New York



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Data Source for Potential Environmental Justice Areas:
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Legend

- Potential EJ Area
- County Boundary
- Waterbodies

Miles
0 0.2 0.4 0.6 0.8 1
SCALE: 1:40,000

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Appendix G:

NYC Watershed Maps

Catskill/Delaware Watersheds
Croton Watershed
Schoharie Reservoir
Shandaken Tunnel
Pepacton Reservoir
Cannonsville Reservoir
West Branch Delaware
East Branch Delaware
West Delaware Tunnel
East Delaware Tunnel
Ashokan Reservoir
Esopus Creek
Neversink Reservoir
Rondout Reservoir
Neversink Tunnel
Delaware Aqueduct
Catskill Aqueduct
Hudson River
Delaware River
Neversink River
West Branch Reservoir
New Croton Reservoir
Kensico Reservoir
Croton Aqueduct
Bronx
Queens
Brooklyn
Staten Island
Groundwater Service Area
Long Island Sound
Atlantic Ocean
New York Bay
PENNSYLVANIA
NEW YORK
NEW JERSEY
CONNECTICUT
MASSACHUSETTS
Environmental Protection
New York City's Water Supply System
Catskill / Delaware Watershed Area
Croton Watershed Area
Rivers and Reservoirs
Catskill Aqueduct and Tunnels
Croton Aqueduct
Delaware Aqueduct and Tunnels
County Borders
State Borders
www.nyc.gov/dep

Appendix H:

Airport Clear Zones Map

Westchester County Airport
Runway Clear Zones

0 0.325 0.65 Miles

ProSource TECHNOLOGIES

Appendix I:

Westchester County Wild, Scenic, and Recreational Rivers

NEW YORK STATE
DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

Wild, Scenic and Recreational Rivers

Wild Rivers

1. Cedar River: (a) Approximately seven miles from the southwest boundary of lot 82, Township 17, Totten and Crossfield's Purchase to the Hamilton County line; and
   (b) Approximately seven and three-tenths miles from the outlet of Cedar Lakes to a point where a road crosses the river approximately one and one-half miles upstream of Cedar River flow.
2. Cold River: Approximately fourteen miles from the Duck Hole to the confluence with the Raquette River and the entire three-mile length of Ouluska Pass Brook.
3. Hudson River: Approximately ten and one-half miles from the confluence of the Cedar River to the confluence with the Boreas River.
4. Indian River: Approximately thirteen miles from Brook Trout lake to the confluence with the South Branch of the Moose River.
5. Kunjamuk River: Approximately eight miles from the outlet of South Pond to a fish barrier dam near the southwest boundary of Lot 9, Township 31, Gorton Tract.
6. Opalescent River: Approximately eleven miles from Flowed Lands to the confluence with the Hudson River.
7. Oswegatchie River, Main Branch: Approximately eighteen and one-half miles from the Partlow Mill Dam to the southernmost boundary between private and state land at Inlet.
8. Oswegatchie River, Middle Branch: Approximately fourteen and one-half miles from the north boundary of Lot 27, Watson's East Triangle to a point one mile downstream of the confluence with Wolf Creek.
9. Piseco Outlet: Approximately four and one fifth miles from a point one-half mile east of the Route 10 bridge crossing to the confluence with the West Branch of the Sacandaga River.
10. Sacandaga River, East Branch: Approximately eleven and one-half miles from Botheration Pond to a point one-half mile above the confluence with Cook Brook.
11. Sacandaga River, West Branch: (a) Approximately seven miles from the confluence of the Piseco Lake outlet to the confluence with Dugway Creek;
    (b) Approximately nine miles from the source near Silver Lake Mountain to the Silver Lake wilderness boundary near Route 10; and
    (c) Approximately two and seven-tenths miles from the confluence with Cow Creek to the confluence with Piseco outlet.
12. West Canada Creek: Approximately eight miles from Mud Lake to the Old Mitchell dam site.
13. West Canada Creek, South Branch: Approximately five and nine-tenths miles from the headwaters near T-Lake Falls to a footbridge crossing located approximately one mile upstream of the Floe.

Scenic Rivers

1. Ampersand Brook: Approximately eight miles from Ampersand Pond to the confluence with the Raquette River.
2. Ausable River: Approximately nine miles from Marcy swamp to St. Hubert's.

3. Black River: Approximately seven and eight-tenths miles from the point where Farr Road crosses the river to the point where the river intersects the Adirondack Park boundary.
4. Blue Mountain Stream: Approximately nine miles from the outlet of Clear Pond to the confluence with Pleasant Lake stream.
5. Bog River: Approximately seven and three-tenths miles from the dam below Hitchens Pond to Big Tupper Lake.
6. Boreas River: Approximately eleven and one-half miles from Cheney Pond to the confluence with the Hudson River.
7. Bouquet River: (a) Approximately six miles of the North Fork from the headwaters on Dial Mountain to the bridge on Route 73; and
   (b) Approximately five and one-half miles of the South Fork from the headwaters to the bridge on Route 73.
8. Carmens River: (a) Approximately two and one-quarter miles from its headwaters at the north boundary of Cathedral Pines Park (formerly Camp Wilderness), Suffolk County, southerly to its intersection with the southern boundary of Camp Sobaco (Girl Scout Camp);
   (b) Approximately two and one-half miles from Yaphank Avenue, Suffolk County, southerly to the Concrete Wing Dam in Southhaven Park; and
   (c) Approximately two and one-half miles from the south side of Sunrise Highway, Suffolk County, southerly to the mouth of the river (a line between Long Point and Sandy Point) at its confluence with Great South Bay.
9. Cedar River: (a) Approximately five miles from the Hamilton County line to the confluence with the Hudson River; and
   (b) Approximately ten miles from a point where a road crosses the river one and one-half miles pstream of Cedar River flow to a point where a southerly extension of the northeast state land boundary of Lot 96, Township 33, Totten and Crossfield's Purchase, would intersect the river.
10. Deer River: Approximately six and two-tenths miles from the outlet of Deer River flow to a point where the river intersects the Adirondack Park boundary.
11. East Canada Creek: Approximately twenty and nine-tenths miles from Powley Place to a point at which the creek intersects the Adirondack Park boundary near Sprite Creek at the southwest corner of Lot 45, Town of Oppenheim, Lott and Low's Patent.
12. Genesee River: Within Letchworth State Park.
13. Grasse River, Middle Branch: Approximately fourteen and one-half miles from the confluence of Blue Mountain stream and Pleasant Lake stream to the confluence of the South Branch of the Grasse River.
14. Grasse River, North Branch: Approximately twentyfive and four-tenths miles from the outlet of Church Pond to a point where the North Branch intersects the Adirondack Park boundary.
15. Grasse River, South Branch: (a) Approximately thirtyfive and two-tenths miles from the outlet of Center Pond to the confluence with the outlet of Allen Pond; and
    (b) Approximately three and seven-tenths miles from the most southerly point where the South Branch of the Grasse River intersects the Adirondack Park boundary, north to the confluence with the Middle Branch of the Grasse River.
16. Hudson River: (a) Approximately nine miles from the hamlet of Newcomb to the confluence with the Cedar River; and
    (b) Approximately four miles from the confluence with the Boreas River to a point one mile north of the hamlet of North River.

17. Independence River: Approximately twentysix miles from the outlet of Little Independence Pond to the point where the Sperryville Bridge crosses the river.
18. Jordan River: Approximately eighteen miles from the outlet of Marsh Pond to Carry Falls Reservoir.
19. Kuniamuk River: Approximately ten and four-tenths miles from a fish barrier dam near the southwest boundary of Lot 9, Township 31, Gorton Tract, to the confluence with the Sacandaga River.
20. Lonq Pond Outlet: Approximately sixteen miles from the outlet of Long Pond to the confluence with the West Branch of the St. Regis River.
21. Marion River: Approximately five miles from the outlet of Utowana lake to Raquatte Lake.
22. Moose River, Main Branch: Approximately fifteen and four-fifths miles from the confluence of the South and Middle Branches of the Moose River to a point where the Main Branch intersects the Adirondack Park boundary.
23. Moose River, North Branch: Approximately six miles from the outlet of Big Moose Lake to the confluence with the outlet of Goose Pond.
24. Moose River, South Branch: (a) Approximately eighteen miles from the east boundary of the state land immediately west of Little Moose Lake to the west boundary of the state land near Rock Dam;
    (b) Approximately six and one-half miles from the east boundary of the state land just north of Woodhull Mountain downstream to the state land boundary near the confluence with the middle branch of the Moose River; and
    (c) Approximately fourteen and two-fifths miles from the west boundary of state land near Rock Dam to the east boundary of state land north of Woodhull Mountain.
25. Nissequoque River: Approximately one and four-tenths miles from the dam at the outlet of New Mill Pond to the pedestrian bridge south of Route 25/25A including its tributaries and ponds identified as P288 Phillips Millpond, P289 Willow Pond, P290 Upper Vail Pond, P291 Webster Pond, and P291a Lower Vail Pond (on a certain map titled "Official Classifications - Surface Waters of Western Suffolk County," published by the Water Resources Council and prepared by the New York Department of Health) in Suffolk County.
26. Osweqatchie River, Middle Branch: (a) Approximately nine miles from the outlet of Walker Lake to the north boundary of Lot 27, Watson's East Triangle; and
    (b) Approximately fourteen and two-fifths miles from a point one mile downstream of the confluence with Wolf Creek to a point where the Middle Branch intersects the Adirondack Park boundary at the southeast boundary of Lot 993, Township of Diana, Macomb's Purchase, Great Tract 4.
27. Osweqatchie River, West Branch: Approximately seven miles from the outlet of Buck Pond to a point approximately one mile upstream of Round Pond at the point where a foot and snowmobile bridge crosses the West Branch.
28. Otter Brook: Approximately ten miles from the outlet of Lost Pond to the confluence with the South Branch of the Moose River.
29. Peconic River: (a) Approximately ten and one-half miles from the western boundary of the Red Maple swamp to the Long Island railroad bridge between Connecticut and Edwards Avenue; and
    (b) Approximately three miles from Middle Country Road (State Route 25) to the confluence with the previously described segment of the Peconic including tributaries T112-5, T112-6 and T112-7.

30. Raquette River: (a) Approximately twenty miles from the outlet of Long Lake to the confluence with a small stream from the northeast, located approximately one mile downstream from Trombley Landing; and
(b) Approximately thirteen and eight-tenths miles from the confluence with Dead Creek to a point where the river intersects the north boundary of Lot 1, Township 5, Tannery Lot near Carry Falls Reservoir.
31. Red River: Approximately nine and seven-tenths miles from the headwaters of the river to the confluence with the South Branch of the Moose River.
32. Rock River: Approximately six and nine-tenths miles from the O'Neil flow road crossing to the confluence with the Cedar River.
33. Round Lake Outlet: Approximately two and seven-tenths miles from the outlet of Round Lake to the confluence with the Bog River.
34. St. Reqis River, East Branch: Approximately fourteen and one-half miles from a point where Route 30 crosses the East Branch near Meacham Lake, to a point one-half mile upstream from Everton Falls.
35. St. Reqis River, Main Branch: Approximately fifteen and five-tenths miles from a point where a private road to Bay Pond crosses the Main Branch in Lot 16, Township 17, Macomb's Purchase, Great Tract 1, to the confluence with Balsam Brook.
36. St, Reqis River, West Branch: Approximately thirtyfive miles from the outlet of Little Fish Pond to a point one-half mile downstream from the confluence with Fenner Meadow Brook.
37. West Canada Creek: Approximately seventeen miles from a point where the creek intersects that state land boundary approximately two miles upstream of the Old Mitchell Dam site, to the Route 8 bridge crossing near Nobleboro.
38. West Stoney Creek: Approximately seven and seven-tenths miles from the Tannery Road crossing to the confluence with Hatch Brook.

Receational Rivers

1. Ausable River, East Branch: Approximately twenty-eight and three-tenths miles from St. Huberts to the confluence with the West Branch.
2. Ausable River, Main Branch: Approximately twenty-two miles from the confluence of the East and West Branches of the Ausable River to Lake Champlain.
3. Ausable River, West Branch: (a) Approximately five miles from the state boundary along the River Road east of Big Cherry Patch Pond downstream to the state boundary immediately west of High Falls; and
(b) Approximately twenty-nine and one-half miles from the headwaters of the West Branch near Heart Lake to the confluence with the East Branch.
4. Black River: Approximately six and three-fifths miles from the outlet of North Lake to a point where Farr Road crosses the river.
5. Bouquet River: Approximately forty-seven and seven-tenths miles from the confluence with the North Fork of the Bouquet River to Lake Champlain.
6. Carmens River: (a) Approximately two miles from its intersection with the southern boundary of Camp Sobaco (Girl Scout Camp), southerly to Yaphank Avenue, Suffolk County; and
(b) Approximately one mile southerly from the Concrete Wing Dam in Southhaven Park, Suffolk County, to Sunrise highway.

7. Cedar River: Approximately eleven miles from a point at which a southerly extension of the northeast state land boundary parallel to the southwest boundary of Lot 96, Township 33, Totten and Crossfield's Purchase would intersect the river to the southwest boundary of Lot 82, Township 17, Totten and Crossfield's Purchase.
8. Connetquot River: Approximately five and three-fourths miles from Johnson Avenue, Suffolk County, south to the Sunrise highway.
9. Fall Creek: Approximately 1.8 miles from the southern boundary of Cayuga Lake to the west face of the foot bridge running across Fall Creek, which foot bridge is located between Thurston Avenue on the west and Beebe Lake on the east (in the City of Ithaca, Tompkins County).
10. Grasse River, South Branch: Approximately five and one-fifth miles from the confluence with the outlet of Allen Pond to the most southerly point where the South Branch intersects the Adirondack Park boundary.
11. Hudson River: (a) Approximately twelve and seven-tenths miles from the confluence with the Opalescent River to a point where Route 28N crosses the Hudson Riverat Newcomb;
(b) Approximately forty-five and nine-tenths miles from a point one mile north of North River to the confluence with the Sacandaga River.
12. Independence River: Approximately one-half mile from a point where the Sperryville bridge crosses the river to a point where the river intersects the Adirondack Park boundary.
13. Indian River: Approximately eight and three-tenths miles from the outlet of Indian Lake to the confluence with the Hudson River.
14. Moose River, Middle Branch: Approximately thirteen and four-tenths miles from the confluence with the North Branch of the Moose River to the confluence with the South Branch of the Moose River.
15. Moose River, North Branch: Approximately thirteen miles from the confluence with the outlet of Goose Pond to the confluence with the Middle Branch of the Moose River.
16. Nissequogue River: (a) Approximately one and four-tenths miles from State Route 347 to the dam at the outlet of New Mill Pond including its tributaries identified as P292-1 to Brooksite Drive and two unnamed tributaries P292-2 and P292-3; and
(b) Approximately five miles from the pedestrian walkway and dam at the outlet of Phillips Millpond to its confluence with Long Island Sound including its tributaries and ponds connected therewith [specifically described as T-62 on a certain map entitled "Official Classifications - Surface Waters of Western Suffolk County," prepared by the New York State Department of Health and published by the Water Resources Council].
17. Oswegatchie River, Main Branch: Approximately two and three-tenths miles from the southernmost boundary between private and state land at Inlet to Wanakena.
18. Oswegatchie River, West Branch: Approximately six and one-tenth miles from a point approximately one mile upstream of Round Pond at the point where a foot and snowmobile bridge crosses the West Branch to a point where the river intersects the Adirondack Park boundary.
19. Peconic River: (a) Approximately five and one-half miles from the Long Island railroad bridge between Connecticut and Edwards Avenue to Grangabel Park dam in Riverhead;
(b) Approximately two miles of the Little River (tributary Tl12-2) from and including Wildwood Lake to its confluence with the Peconic River.
20. Ramapo River: Approximately three and one-half miles from the Orange County line to the site of an abandoned power dam in the hamlet of Ramapo.

21. Raquette River: (a) Approximately twenty-two miles from the outlet of Raquette Lake to the outlet of Long Lake; and
(b) Approximately seventeen miles from the confluence of the Raquette River and a small stream from the northeast, at a point approximately one mile downstream from Trombley Landing to the confluence with Dead Creek.
22. Rock River: Approximately one and one-fifth miles from the outlet of Lake Durant to the O'Neil flow road crossing.
23. St. Regis River, East Branch: Approximately six and one-tenth miles from a point one-half mile upstream of Everton Falls to the confluence with the Main Branch of the St. Regis River.
24. St. Regis River, Main Branch: (a) Approximately seven miles from the St. Regis Church to a point where a private road to Bay Pond crosses the Main Branch in Lot 16, Township 17, Macomb's Purchase, Great Tract 1; and
(b) Approximately eighteen miles from the confluence with Balsam Brook to a point at which the river intersects the Adirondack Park boundary.
25. St. Regis River, West Branch: Approximately five and one-half miles from a point one-half mile downstream of the confluence with Fenner Meadow Brook to a point where the West Branch intersects the Adirondack Park boundary.
26. Sacandaga River, East Branch: Approximately fourteen miles from a point approximately one-half mile above Cook Brook to the confluence with the Main Branch of the Sacandaga River.
27. Sacandaga River, Main Branch: Approximately thirty-one miles from the outlet of Lake Pleasant to the inlet of Great Sacandaga Lake.
28. Sacandaga River, West Branch: (a) Approximately ten and three-fifths miles from the Silver Lake wilderness boundary near the most upstream Route 10 bridge crossing to the confluence with Cow Creek; and
(b) Approximately seven and two-tenths miles from the confluence of Dugway Creek to the confluence with the Main Branch of the Sacandaga River.
29. Salmon River: Approximately twelve and three-tenths miles from the outlet of Elbow Ponds to the point where the river intersects the Adirondack Park Boundary.
30. Saranac River, Main Branch: Approximately sixty and two-fifths miles from the outlet of Upper Saranac Lake to the point where the river intersects the Adirondack Park boundary.
31. Schroon River: Approximately sixty-six and seven-tenths miles from the outlet of the former Dead Water Pond to the confluence with the Hudson River.
32. Shawangunk Kill River: From the border of Ulster and Orange Counties to its confluence with the Wallkill River.
33. West Canada Creek: Approximately eleven miles from the Route 8 bridge crossing near Nobleboro to the Harvey Road bridge crossing.
34. West Canada Creek, South Branch: Approximately nine and seven-tenths miles from the footbridge crossing one mile upstream of the Floe to the confluence with the Main Branch of the West Canada Creek.
35. West Stony Creek: (a) Approximately six miles from the Persch Road crossing (to Tannery Road Crossing); and
(b) Approximately two and seven-tenths miles from the confluence with Hatch Brook to the confluence with the Main Branch of the Sacandaga River.

New York Segments

Jamie Fosburgh
National Park Service
Rivers, Trails & Conservation Assistance
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(617) 223-5191

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Authorizations / History / Eligibility Descriptions / Outstandingly Remarkable Values / Potential Classification / Wild and Scenic Rivers System

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River	County	Reach	Length (miles)	Year Listed/ Updated	Potential Classification	ORVs	Description	Other States
Abijah River	Jefferson	Confluence with South Sandy Creek to Leepy Rd.	2	1982		O	Botanic-(Segments flow through a unique and diverse assemblage of plant communities.)	
Allegheny River	Cattaraugus	Great Valley Creek to Townsend Hollow	10	1982		H	Historic-(Segment includes the Zawatski site, an Archaic Woodland National Historic Register Site.)	
Allegheny River	Cattaraugus	Great Valley Creek to Townsend Hollow.	10	1982/ 1995		F, H	Fish-(Segment could contain several rare, threatened, or endangered fish species.) Historic-(Segment includes the Zawatski site, an Archaic	

							Archaic Woodland National Historic Register Site.)	
Ampersand Brook (Adirondack Province River System)	Franklin	Stony Creek Ponds to Ampersand Lake	8	1982		O	Historic-(The Adirondack Forest Preserve, approximately 2.5 million acres of land containing preserve forests and recreational areas, is a National Historic Register Site and a National Historic Landmark. The area was the first state forest preserve in the U.S. established under ther first comprehensive program in a state.) Hydrologic-(Area possesses a greater number of natural, free-flowing rivers and related water bodies than any other region of comparable size in the northeast, including approximately 32,000 miles of rivers and over 2,000 lakes and ponds.) Geologic-(Area includes significant portions of 3 of 7 regionally unique composite landscapes. These areas, where four or more different major lanscape patterns- landform, land use, vegetation, water- come together in juxtaposition, are the most diverse places in the	

							places in the northeast. Rivers and river segments flow through and contain numerous unique geologic features including troughs, flumes, natural rock dams, gorges, etc.) Cultural-(Certain river segments served as the habitat for a long line of celebrated Adirondack "hermits" including the "Mayor of Cold River". The area serves as a regional attraction for a variety of artists and photgraphers. Selected areas such as the upper Oswegatchie River are the focus of a fraternity of river guides from which a detailed river folklore has evolved.) Recreation- (Rivers and related water bodies are important regional recreation attractions. In the last half of the 19th century the Adirondack region was one of the nation's most popular centers of small boat travel. Certain rivers and river segments possess a unique diversity of flow gradients including Class V rapids. Other		

							river segments such as the Raquette, Moose and Saranac, with the Fulton Chain of Lakes form a regionally unique 132 mile boat trail.) Botanic-(The area reportedly contains the largest contiguous stand of vigin timber in the continental U.S. Within areas on certain selected rivers are numerous significant sites including the Everton Falls Preserve, a significant example of northern Adirondack streams and ecological systems.) Wild-(A major portion of the area's watersheds and river corridors are significantly undeveloped. Certain rivers and river segments such as the Hudson, Jordan, Cold, St. Regis and Oswegatchie are largely inaccessible and virtually undeveloped or wild in character. State "forever wild" land borders 411 miles of the 1206 miles of Adirondack rivers designated in the State's Rivers System.)	
Ausable River	Clinton, Essex	Mouth at Lake Champlain to	22	1982		S, F, O	See Ampersand Brook (Adirondack	

		confluence of East & West Branches (Au Sable Forks)					Province River System) comments.	
Ausable River, East Branch	Essex	Ausable Forks to Marcy Swamp	37	1982		S	See Ampersand Brook (Adirondack Province River System) comments.	
Ausable River, West Branch	Essex, Clinton	Ausable Forks to headwaters near Heart Lake	35	1982		S, G, F	See Ampersand Brook (Adirondack Province River System) comments.	
Ausable River, West Branch	Essex, Clinton	Ausable Forks to headwaters near Heart Lake.	35	1982/ 1995		S, R, G, F	See Ampersand Brook (Adirondack Province River System) Recreation-Segment used for downrivercanoe race each spring.	
Basher Kill	Orange, Sullivan	Confluence with Nerversink River to NY Rt. 17 at Wurstboro.	13	1995		W	Wildlife-Reach contains Bashakill Wildlife Management Area.	
Batavia Kill	Greene	Confluence with Schoharie to Windham	11	1982		S, R	See Schoharie Creek (segment from Prattsville to headwaters) comments.	
Batten Kill	Washington, Bennington	Route 22 to Arlington	18	1982		S, G, H	Historic-(Arlington Green Covered Bridge is a National Historic Register Site.) Geologic-(Free-flowing sparsely developed examples of medium order rivers in section are rare.) Scenic-(A uniquely high and diverse range of views due to variations	VT

							due to variations in landforms and river channel.)	
Bear Gulf	Jefferson, Lewis	Confluence with Sandy Creek to headwaters north of Woodard Road	3	1982		G, O	Botanic-(Segment includes a unique white cedar population.)	
Beaver Kill	Ulster, Sullivan	One mile upstream for Spring Brook to headwaters .	31	1982/ 1995		S, R	Recreation-One of the most famous Catskill trout streams. Scenic-A uniquely high and diverse range of views relating to a variety of spatial enclosures, topographic diversity and the presence of nearby low mountains.	
Beaver Kill	Ulster, Sullivan	One mile upstream from Spring Brook to headwaters	31	1982		S	Scenic-(A uniquely high and diverse range of views relating to a variety of spatial enclosures, topographic diversity and the presence of nearby low mountains.)	
Black Creek	Genesee, Monroe	Confluence with Genesee River to NY Rt. 237 near Pumpkin Hill.	29	1995		R, W	Recreation-Unique proximity to urban population of Greater Rochester area. Entire reach is easy flatwater paddling; howerver, permission is required to pass through part of Bergen Swamp Wildlife Refuge. Wildlife-Reach includes Bergen Swamp Wildlife Refuge and Churchville Park. Rare, threatened	

							Rare, threatened or endangered species of reptile present in upper part of reach.	
Black River	Jefferson	Dexter Dam to U.S. 11 Bridge in Watertown	12	1995		S, R, F	Fish-Lake sturgeon may be migrating into this segment during the spring for spawning activities. Recreation-Rafting, kayaking and related whitewater activities exist throughout the summer months. Class IV whitewater within the Black River Gorge. Outstanding fisheries for resident walley and anadromous salmon and steelhead trout occur within the segment. Scenic-Black River Gorge is part of this segment.	
Black River	Herkimer	Kayuta Lake to North Lake	15	1982		R, O	See Ampersand Brook (Adirondack Province River System) comments.	
Black River	Jefferson, Lewis	Carthage to Lyons Falls	35	1982		G, O	Geologic-(The river segment follows the nearly straight divide between the Adirondack Province and the Mohawk section.) Hydrologic-(The longest, least developed free-flowing river remaining in this section.)	
Black River	Jefferson, Lewis	Carthage to Lyons Falls	35	1982/ 1995		R, G, H, O	Geologic-The river segment	

	Lewis	Lyons Falls.		1995		R, O	river segment follows the nearly straight divide between the Adirondack province and the Tug Hill section. Historic-Several structures from the Black River Canal still exist within this segment. Hydrologic-The longest, least-developed, free-flowing river segment. Recreation-Entire segment is paddable even in summer. Outstanding walleye fishery exists throughout the segment.	
Black River	Lewis, Oneida	Norton Road upstream to Forestport Dam.	26	1995		S, R	Recreation-Class III whitewater and self-sustaining coolwater fishery occur within this segment. Scenic-A splendid gorge within this segment.	
Blue Mountain Stream	St. Lawrence	Confluence with Pleasant Lake stream to Clear Pond	9	1982		O	See Ampersand Brook (Adirondack Province Rover System) comments.	
Bog River	St. Lawrence	Tupper Lake to dam below Hitchins Pond	7	1982		S, O	See Ampersand Brook (Adirondack Province River System) comments.	
Bog River	St. Lawrence	Tupper Lake to Bog Lake	20	1982/ 1995		S, R, O	See Ampersand Brook (Adirondack Province River System) comments.	
Boreas River	Essex	Brace Dam to Boreas	6	1982		O	See Ampersand Brook	

		to Boreas Ponds					Brook (Adirondack Province River System comments.)	
Boreas River	Essex	Confluence with the Hudson River to Boreas Ponds	17	1982/ 1995		S, R, O	See Ampersand Brook (Adirondack Province River System) comments.	
Boreas River	Essex	Confluence with the Hudson River to Cheney Pond	11	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Bouquet River	Essex	Lake Champlain to the confluence with the North Fork	48	1982		S, R, F	See Ampersand Brook (Adirondack Province River System) comments.	
Bouquet River, North Branch	Essex	Confluence with Main Branch to Trout Pond	19	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Bouquet River, North Fork	Essex	Bridge at Rt. 73 to headwaters on Dial Mt.	6	1982		S, O	See Ampersand Brook (Adirondack Province River System) comments.	
Bouquet River, South Fork	Essex	Bridge at Rt. 73 to headwaters	6	1982		S, O	See Ampersand Brook (Adirondack Province River System) comments.	
Canisteo River	Steuben	Confluence with Tioga River to South Hornell Road.	46	1995		R	Recreation-Class I whitewater seasonally. Smallmouth bass and walleye fishing.	
Carmans River	Suffolk	Long Point to the Long Island Expressway	6	1982		R	Recreation-(A unique proximity to high concentrations of population.)	
Catskill Creek	Greene, Albany, Schoharie	South Cairo to headwaters	32	1982		R	Recreation- (Intensively used at present	

	Schoharie	headwaters					at present. Unique proximity to urban populations in Albany.)	
Cattaraugus Creek	Erie, Cattaraugus	Buttermilk Creek to Yorkshire.	14	1982/ 1995		R, G	Geologic-Segment flows through an area of significant topographic diversity and variation. Recreation-Class II whitewater opportunities exist within this segment.	
Cattaraugus Creek	Erie, Chautauqua, Cattaraugus	South of NY State Thruway to North Gowanda.	11	1982/ 1995		R, F	Recreation-Segment includes a diversity of flow gradients including a section of Class IV rapids. Unique proximity to urban populations of metropolitan buffalo. Fisheries-Segment contains an endangered fish species.	
Cattaraugus Creek	Erie, Chautauqua, Cattaragus	South of the NY State Thruway to North Gowanda	11	1982		R	Recreation-(Unique proximity of urban population in Buffalo. Segment includes a diversity of flow gradients including a section of Class IV rapids.)	
Cattaraugus Creek	Erie, Cattaraugus	Buttermilk Creek to Yorkshire	14	1982		G	Geologic-(Segment flows through an area of significant topographic diversity and variation.)	
Cattaraugus Creek	Cattaraugus	Gowanda to Buttermilk	20	1982		R, G, O	Botanic-(Deer Lick Nature	

		Creek					Sanctuary is unique habitat for more southernly species such as red cedar. A Registered Natural Landmark.) Recreation-(Unique proximity to urban populations in Buffalo.) Geologic-(Significant topographic diversity and variation including Zoar Valley Gorge which has steep shale walls up to 200" in height.)	
Cattaraugus Creek, South Branch	Cattaraugus	Confluence with Cattaraugus Creek to Skinner Hollow Road bridge located off NY Rt. 12 northeast of village of Cattaraugus.	12	1995		S, R	Scenic-Reach contains a narrow, 400-foot deep gorge with serveral waterfalls. Recreation-Challenging Class III-IV whitewater in an isolated deep gorge.	
Cedar River	Hamilton, Essex	Confluence with Hudson River to the outlet of Cedar Lakes	40	1982		S, G, F, W, O	See Ampersand Brook (Adirondack Province River System) comments.	
Cedar River	Hamilton, Essex	Confluence with Hudson River to the outlet of Cedar Lakes.	40	1982/ 1995		S, R, G, F, W, O	See Ampersand brook (Adirondack Province River System) comments.	
Chataqua Creek	Chatauqua	Route 20 Bridge in Westfield to Putnam Road	11	1982		S	Scenic-(Segment flows thorugh a deeply incised gorge, known as The Gulf. This area is noted for its scenic qualitites and diversity of views	

							which are related to stream channel variation, topographic variation, and the variety of land uses and vegetative cover.)	
Chateaugay River	Franklin	Pulp Mill Road to the Forge.	5	1982/ 1995		G, H	Hydrologic-One of the last remaining, relatively undeveloped, free-flowing river segments in the section from Chateaugay Lake to the Canadian border where the river drops 1000 feet in 17 miles. However, a new hydropower plant with bypass/penstock has destroyed most of the ORV's at High Falls. Geologic- Segment includes a variety of flow gradeints including the significant High Falls area.	
Chateaugay River	Franklin	Park Boundary (Lower Chateaugay Lake) to Bluff Point (Upper Chateaugay Lake)	4	1982		S	See Ampersand Brook (Adirondack Province River System) comments.	
Chateaugay River	Franklin	Canadian border to the abandoned railroad line near Chateaugay	6	1982		S, G, O	Hydrologic-(One of the last remaining, relatively undeveloped free-flowing river segments in the section. From Chateaugay Lake to the border where the river drops 1000 feet in 17 miles.) Scenic-(A unique	

							and diverse range of views related to a variety of spatial enclosures, islands, topographic diversity and vegetative cover.) Geologic-(Segment flows through the unique Chateaugay Chasin, a deep box-like gorge with near-vertical walls of 100 feet and more.)	
Chateaugay River	Franklin	Abandoned railroad line near Chateaugay to the Forge	7	1982		G, O	Hydrologic-(One of the last remaining relatively undeveloped, free-flowing river segments in the section. From Chateaugay Lake to the border where the river drops 1000 feet in 17 miles.) Geologic-(Segment includes a variety of flow gradients including the sigfificant High Falls area.)	
Chemung River	Chemung	West of South Corning Rd. to Fitch Bridge	6	1982		G	Geologic-(Corridor includes nearly 4 miles of unique steep, wooded bluffs and slopes arising to heights of more than 800 feet above the river.)	
Claverack Creek	Columbia	Stottville to Red Mills	8	1982		R	Recreation-(Segment includes a diversity of unique flow gradients including Class 4 rapids.)	
Clyde River	Wayne	West of	9	1982		H	Historic-(Within	

Clyde River	Wayne	West of Clyde to Creager Bridge	[illegible]	1982		H	Historic (Within the segment is a portion of the Erie Canal which was the first major U.S. Canal project and most important engineering undertaking of the early 19th century.)	
Cohocton River	Steuben	Confluence with Tioga River to Atlanta.	37	1995		R, G, F	Recreation-Class I whitewater seasonally. Year-round trout fishing in the upper 17 miles of reach. Seasonal trout fishing downstream of village of Avoca. Two sections with special fishing regulations within segment of reach above Bath. Geologic-Unique aquifer in vicinity of villages of Wallace and Avoca. Fish-Self-sustaining brown and brook trout populations present year-round in vicinity of special regulations section between Wallace and Avoca.	
Cold River	Hamilton, Franklin, Essex	Confluence with Raquette River to Duck Hole	14	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Conewango Creek	Chautauqua-Cattaraugus	PA Border to Clear Creek near Jamestown	33	1982		O	Botanic-(85% of the segment flows through an ecologically significant river swamp, the extent of which is unique to the section.)	

Connetquot River	Suffolk	Johnson Avenue to south of Sunrise Highway.	6	1982		R, O	Recreation-A unique proximity to high concentrations of population that offers both quality trout fishing opportunities, as well as an easy canoe paddle. Hydrologic-One of the last 3 remaining, relatively undeveloped, free-flowing river segments on Long Island.	
Deer River	Franklin, St. Lawrence	Confluence with the St. Regis River to APA boundary	36	1982		O	Hydrologic-(Longest remaining example of a relatively undeveloped, free-flowing river segment in the section.)	
Deer River	Franklin	Park boundary to Deer River Flow	6	1982		S	See Ampersand Brook (Adirondack Province River System) comments.	
Delaware River, East Branch	Delaware	Hancock to East Branch.	17	1995		R, O	Hydrologic-One of the only remaining free-flowing, undeveloped river segments in the Upper Delaware basin. Recreational-Unique fishing opportunities for native brown and rainbow trout and migratory American shad.	
Delaware River, East Branch	Delaware	Harvard to Downsville	10	1982		C, O	Hydrologic-(One of the last remaining relatively undeveloped, high order, free-flowing river segments in this	

							section.) Cultural-(Adjacent to the segment corridor is a representative example of a former river industry in Corbett. Within this hamlet is an acid factory store building, community building and 42 houses built to initiate acid production in 1912.)	
East Canada Creek	Herkimer, Fulton, Hamilton	Dolgeville to headwaters near Powley Place	13	1982		S, F	See Ampersand Creek (Adirondack Province River System) comments.	
East Canada Creek	Herkimer, Fulton, and Hamilton	Dogleville to headwaters near Powley Place.	27	1982/ 1995		S, R, F, O	See Ampersand Brook (Adirondack Province River System) comments.	
East Stony Creek	Hamilton and Warren	Great Sacandaga Lake to Lixard Pond.	25	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Esopus Creek	Ulster	Ashokan Reservoir to Winnisook Lake.	27	1995		S, R, F	Scenic-Reach located in heart of Catskill Mountains. Recreation-Water diversions by New York City from Schoharie Reservoir via the Shandaken Tunnel provide excellent trout fishing and tubing for the lower 13 miles throughout the summer. Traditional catskill trout fishery upstream of tunnel. Class	

							of tunnel. Class III whitewater also provided by directed releases up to 4 weekends each summer in section downstream of tunnel. Fish-Self-sustaining trout populations in segment of reach.	
Fall Stream	Hamilton	Piseco Lake to Mud Lake.	7	1995		S, R	See Ampersand Brook (Adirondack Province River System). Recreation-Reach provides summer flatwater paddling except for the upper Vly Lake-Mud Lake section.	
Fish Creek	Oneida	Oneida Lake to confluence of East and West Branches.	16	1995		R, F	Recreation-Flatwater paddling opportunity in close proximity of greater Syracuse area. Riverine walleye fishery after spawning season. Fish-Important walleye spawning area. Special fishing regulations for this reach.	
Fish Creek, East Branch	Oneida	Confluence with West Branch to East Branch Fish Creek Reservoir.	17	1995		S, R, F	Scenic-Reach contains a scenic gorge. Recreation-Brown and brook trout fishery in upper part of reach. Seasonal walley fishery below NY Rt. 69 bridge at Taberg. Class III-IV whitewater between	

							between Yorkland and Taberg. Fish-Walleye spawning habitat to Rt. 69 bridge at Taberg. Self-sustaining brown and brook trout populations in upper part of reach.	
Fish Creek, West Branch	Oneida	Confluence with the East Branch to NY Rt. 13 bridge above Westdale.	25	1995		R, F, W	Recreation-Class I paddling except for a little Class II water near confluence. Seasonal walleye fishing in lower part of reach. Fish-Walleye spawning habitat up to dam at McConnellesville. Wildlife-Reach includes Westdale Marsh.	
Fox Creek	Jefferson	Confluence with South Sandy Creek to the Loraine - E. Boylston Rd.	7	1982		O		
Genesee River	Allegany, Wyoming, and Livingston	Portageville to NY Route 19 Bridge at Belmont	40	1982/ 1995		R, O	Hydrologic-Unique large, undeveloped high order river. Recreational- Class I paddling through most of segment.	
Genesee River	Allegany	Rt. 19 bridge at Belmont to Rt. 19 bridge at Shongo .	25	1995		O	Recreational-Mostly Class II paddling.	
Genesee River	Wyoming	Mount Morris to Portageville	21	1982/ 1995		S, R, G	Geologic-Three significant waterfalls. The most outstanding example of representative river related topographic features in the	

							section. Recreational-Class II and III paddling for six miles between Lee's Landing (below Lower Falls) and St. Helena. Scenic-Segment is within Letchworth State Park and has a "scenic" designation under the New York State Rivers Program for its scenic qualities.	
Genesee River	Monroe, Livingston	NY State Thruway to Rt. 36 near Mount Morris	40	1982		O	Hydrologic-(Unique largely undeveloped, high order river.)	
Genesee River	Allegany, Wyoming, Livingston	Portageville to Belmont	40	1982		O	Hydrologic-(Unique large, undeveloped, high order river.)	
Genesee River	Wyoming	Mount Morris to Portageville	7	1982		G	Geologic-(Three significant waterfalls. The most outstanding example of representative river related topographic features in the section.)	
Genesee River	Monroe and Livingston	NY Route 252 to Route 36 near Mt. Morris	49	1982/ 1995		R, O	Hydrologic-Unique, largely undeveloped, high order river. Recreational-Class I paddling through entire segment except for one mile of Class II waters near NY Route 36.	
Grasse River	St. Lawrence	Northernmost Park boundary crossing to confluence of	5	1982		F	See Ampersand Brook (Adirondack Province River System)	

		Middle and South Branches					comments.	
Grasse River, Middle Branch	St. Lawrence	Confluence with the South Branch to confluence with Pleasant Lake Stream and Blue Mountain Stream	15	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Grasse River, North Branch	St. Lawrence	Park Boundary to Church Pond	25	1982		W	See Ampersand Brook (Adirondack Province River System) comments.	
Grasse River, South Branch	St. Lawrence	Confluence with the Middle Branch to Center Pond	44	1982		S, F	See Ampersand Brook (Adirondack Province River System) comments.	
Great Chazy River	Clinton	Robideau Road Bridge to Chazy Lake	6	1982		S	See Ampersand Brook (Adirondack Province River System) comments.	
Gulf Stream	Jefferson, Lewis	Confluence with Sandy Creek to the headwaters of Jacobs Creek	20	1982		G	Geologic- (Segment includes the Inman Gulf area with 200 foot gorge and two significant waterfalls.)	
Hoosic River	Rensselaer	Hoosick Falls to near North Pownal	10	1982		O	Archaeologic- (Corridor contains 10 known prehistoric archaeological sites.)	VT
Hoosic River	Rensselaer	Confluence with the Hudson River to Schaghticoke	6	1982		G, O	Geologic- (Segment includes and flows through 200' deep Hoosic River Gorge, significant plateau remnants of the pre-glacial Hoosic delta and a large bedrock island with an	

							island with an unusual forest cap.) Archeologic-(Corridor includes the 8,000 year old Schaghticoke Indian Site.) Hydrologic-(One of the last remaining, sparsely developed free-flowing river segments in this section.)	
Hudson River	Ulster, Columbia, Dutchess	North of Barrytown to south of Malden on Hudson	5	1982		F, H, O	Fish-(Corridor includes significant fish habitat areas at the confluence with Esopus Creek and the Tivoli Bay area.) Hydrologic-(The southernmost remaining free-flowing, sparsely developed segment of the Hudson River.) Historic-(Segment includes the Clermont, the home of Robert Livingston, a National Historic Landmark.)	
Hudson River	Greene, Columbia	North of Coxsackie Island to above New Baltimore	5	1982		H, O	Historic-(Segment includes the Stuyvesant Falls Mill District, a National Historic Register Site.) Hydrologic-(One of three remaining sparsely developed, free-flowing Hudson River segments outside of the Adirondack Park.)	

Hudson River	Essex, Hamilton, Saratoga, Warren	Congluence with the Sacandaga River to the confluence with the Opalescent	82	1982		S, R, G, O	See Ampersand Brook (Adirondack Province River System) comments.	
Hudson River	Greene, Columbia	North of Hudson to south of Coxsackie	4	1982		H, O	Fish-(The stockport Creek area is recognized as a significant fish habitat.) Hydrologic-(One of three remaining sparsely developed, free-flowing Hudson River segments outside of the Adirondack Park.)	
Hunger Kill	Albany	Confluence with the Normans Kill to Kydius St.	5	1982			See Normans Kill comments.	
Independence River	Lewis	Confluence with the Black River to Pine Grove Rd.	4	1982		G, O	See Black River comments.	
Independence River	Lewis, Herkimer	Park Boundary to Little Diamond Pond	20	1982		S, F, W	See Ampersand Brook (Adirondack Province River System) comments.	
Indian River	Hamilton, Herkimer	Confluence with the South Branch of the Moose River to Brook Trout Lake	16	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Indian River	Essex, Hamilton	Confluence with the Hudson River to Indian Lake	8	1982		F	See Ampersand Brook (Adirondack Province River System) comments.	
Indian River	Jefferson, Lewis	Antwerp to headwaters	32	1982		G	Geologic-(Segment includes a noted representative	

							example of straight, parallel, narrow and steep valley. Within this area, which encompasses the river and Indian Lake, is a striking fault-related lineament. Corridor also includes out-representative examples of drumlins, kames, kame terraces and outwash deposits.)	
Jordan River	St. Lawrence, Franklin	Carry Falls Reservoir to Marsh	21	1982		S, O	See Ampersand Brook (Adirondack Province River System) comments.	
Kaikout Kill	Albany	Confluence with the Hunger Kill to the headwaters pond near the City of Albany boundary	2	1982		S, C	Cultural-(River corridor reportedly served as the inspiration for Longfellow to create the famous "Hiwatha".) Scenic-(A wide variey and diversity of unique views and spatial experience realted to enclosing slopes, abrupt terraces, cove-like apertures and trough-like structures.)	
Kayaderosseras Creek	Saratoga	One mile north of Ballston Spa to Rock City Falls	7	1982		R	Recreation-(Unique proximity to urban populations in albany and Schenectady. Segment includes a diversity of flow gradients including Class IV rapids.)	

Kinderhook Creek	Columbia, Rensselaer	Confluence with Stockport Creek to NY Rt. 22 bridge.	46	1995		R, F, H	Recreation-Close proximity to Capital District region. Trout fishing throughout upper part of reach; warmwater fishing throughout lower part of reach. Variety of paddling opportunities, ranging from Class I to III within reach. Fish-Significant fish spawning and nursery habitat in lower reaches for fish migrating from Hudson River. Historic-Reach includes the Stuyvesant Falls Mill District, a National Historic Register Site, and the Martin Van Buren Home and Shaker Museum, National Historic Landmarks.	
Kunjamuk River	Hamilton	Confluence with the Sacandaga River to South Pond	20	1982		S, O	See Ampersand Brook (Adirondack Province River System) comments.	
Little Hoosic River	Rensselaer	Confluence with the Hoosic River to near Petersburg	6	1982		O	Hydrologic-(One of three remaining sparsely developed, free-flowing rivers in this section.)	
Long Pond Outlet	St. Lawrence	Confluence with the West Branch of the St. Regis River to Long Pond	16	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Mad River	Oswego,	Confluence	9	1982		O	See Salmon	

	Jefferson	with the North Branch to the headwaters near the county boundary					River (segment from Salmon Reservoir to the headwaters of the East Branch) comments.	
Marble River	Franklin	Hatchery to headwaters.	4	1995		O	Other-Principal water supply source for Chateauguay State Fish Hatchery.	
Marion River	Hamilton	Raquette Lake to Utowana Lake	5	1982		H, C	See Ampersand Brook (Adirondack Province River System) comments.	
Mill Creek	Warren	Confluence with the Hudson to Garnet Lake	13	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Mohawk River	Oneida	North of Rt. 12 to Stanwix	8	1982		O	Hydrologic-(The last remaining, relatively undeveloped, free-flowing segment of the Mohawk River.)	
Mohawk River	Oneida	Delta Reservoir upstream to confluences of East and West Branches near hamlet of West Branch.	12	1995		H	Hydrologic-One of the last remaining, relatively undeveloped, free-flowing segments of the Mohawk River.	
Mongaup Creek	Sullivan	Fish hatchery to Mongaup Pond; Henry Brook from Mongaup Creek to Hodge Pond.	5	1995		O	Other-Primary water supply source for Catskill State Fish Hatchery.	
Moose Creek	Essex	Confluence with Cold River to Moose Pond	5	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	

Moose River	Lewis, Herkimer	Park Boundary to the confluence with the Middle and South Branches	16	1982		S, R, G	See Ampersand Brook (Adirondack Province River System) comments.	
Moose River, Middle Branch	Herkimer	Confluence with the South Branch to the confluence with the North Branch	10	1982		S, R	See Ampersand Brook (Adirondack Province River System) comments.	
Moose River, North Branch	Herkimer	Confluence with the Middle Branch to Big Moose Lake	19	1982		S, O	See Ampersand Brook (Adirondack Province River System) comments.	
Moose River, South Branch	Herkimer	Confluence with the Middle Branch to Little Moose Lake	39	1982		S, O	See Ampersand Brook (Adirondack Province River System) comments.	

Conservation and Outdoor Recreation

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U.S. Department of the the Interior

New York Segments, M-Z

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River	County	Reach	Length (miles)	Year Listed/ Updated	Potential Classification	ORVs	Description	Other States
Neversink River	Ulster, Sullivan	Southwest of Cuddebackville to Rock Hill	16	1982		G	Geologic-(A strikingly uncharacteristic example of a southern New York section river. Significant water features present at High Falls, Denton Falls and Katring Falls.)	
Neversink River, East Branch	Sullivan, Ulster	Confluence with West Branch near Claryville to junction with Erts Brook near Denning.	8	1995		S, R, F, H	Scenic-Forested, Catskill headwater stream with relatively light settlement. Recreation-Entire reach is Class III whitewater. Trout and salmon fishery within reach.	

							Fish-Significant trout and possibly Atlantic salmon spawning and nursery habitat. Historic-Part of the famed Charmed Circle of Catskill trout waters and considered to be the birthplace of dry-fly fishing in America.	
Neversink River, West Branch	Sullivan, Ulster	Confluence with East Branch to junction with Biscuit Brook near Fronst Valley.	8	1995		S, R, F, H	Scenic-Forested Catskill headwater stream with relatively light settlement. Recreation-Entire reach is Class III whitewater. Trout and salmon fishery within reach. Fish-Significant trout and possibly Atlantic salmon spawning and nursery habitat. Historic-Part of the famed Charmed Circle of Catskill trout waters and considered to be the birthplace of dry-fly fishing in America.	
Nissequoque River	Suffolk	Confluence with Long Island Sound to New Mill Pond.	8	1995			Recreation-Flatwater paddling within a largely forested reach with good water quality; surrounded by developed areas.	

							Fish-Marine and anadromous fish spawning and nursery habitat in lower portion of reach.	
Normans Kill	Albany	NY State Thruway to Route 146	14	1982		R	Recreation-(Unique proximity to urban populations in Albany and Schenectady. Segment includes a diversity of flow gradients including Class IV rapids.)	
Oak Orchard Creek	Orleans	Lake Ontario to Lockport Road bridge.	44	1995		R, W	Recreation-Well-known flatwater paddle from near Ridgeway to Lake Ontario. Pacific salmon, rainbow trout and brown trout fishery near mouth. Warmwater and coolwater fisheries in the middle and upper segments of reach. Wildlife-Reach includes Iroquois National Wildlife Refuge, Oak Orchard Wildlife Managemnt Area, and Oak Orchard swamp. Rare, endangered, or threatened species of reptile present in reach.	
Opalescent River	Essex	Confluence with the Hudson River to Flowed Land	15	1982		O	See Ampersand Brook (Adirondack Province River	

							System) comments.	
Osgood River	Franklin	Jones Pond Outlet to Meacham Lake	13	1982		S, O	See Ampersand Brook (Adirondack Province River System) comments.	
Oswegatchie River	St. Lawrence	Two miles south of Heuvelton to Rt. 87 bridge	8	1982		S	Scenic- (Segment includes a unique and diverse juxtaposition and combination of land and water elements including wetlands and rock promontories.)	
Oswegatchie River	Jefferson, St. Lawrence	Route 87 bridge to Natural Dam	34	1982		S	See Ampersand Brook (Adirondack Province River System) comments.	
Oswegatchie River	St. Lawrence, Herkimer	Wanakena to Partlow Mill Dam	21	1982		S, F, C, O	See Ampersand Brook (Adirondack Province River System) comments.	
Oswegatchie River, Middle Branch	Herkimer, St. Lawrence, Lewis	Confluence with the Main Branch to the headwaters near Walker Lake	41	1982		S, F, C, O	See Ampersand Brook (Adirondack Province River System) comments.	
Oswegatchie River, West Branch	St. Lawrence, Lewis	Fullerville dam backwater to Harrisville northern boundary	12	1982		S, F, O	See Ampersand Brook (Adirondack Province River System) comments.	
Oswegatchie River, West Branch	Herkimer, Lewis	Southern boundary of Harrisville to Buck Pond	34	1982		S, F, H, O	See Ampersand Brook (Adirondack Province River	

							Province River System) comments.	
Otselic River	Chenango	South Otselic to Torpy Pond.	16	1995		O	Other-Primary water supply source for South Otselic State Fish Hatchery.	
Otter Brook	Hamilton	Confluence with the South Branch of the Moose River to Lost Pond	10	1982		S, F, W, O	See Ampersand Brook (Adirondack Province River System) comments.	
Otter Creek	Lewis	Confluence with the Black River to Pine Grove Rd.	1	1982		G, O	See Black River comments.	
Otter Creek	Lewis	Confluence with the Black & Big Otter Lake	16	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Oulaska Pass Brook	Essex, Hamilton	Confluence with Cold River to headwaters	3	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Peconic River	Suffolk	Great Peconic Bay to Red Maple Swamp near ridge.	16	1995		S, R, F	Scenic-Upper 10.5 of reach designated as scenic river and lower 5.5 miles designated as recreational river in New York State Rivers program. Recreation-Flatwater paddling throughout most of the reach. Canoe liveries within reach. Fish-Marine and anadramous fihses use lower part of	

							lower part of reach as spawning and nursery habitat.	
Piseco Lake Outlet	Hamilton	Confluence with the West Branch of the Sacandaga to State Route 10	5	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Pleasant Lake Stream	St. Lawrence	Confluence with the Middle Branch of the Grasse River to Pleasant Lake	5	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Poesten Kill	Rensselaer	West of Poesten Kill to Dyken Pond	10	1982		R, G	Hydrologic-(One of the last remaining examples of a free-flowing, undeveloped, low-order river in the section.) Geologic-(Segment includes the unique and diverse Barberville Falls.) Recreation-(Unique proximity to urban populations in Troy and Albany, New York.)	
Poultney River	Washington (NY), Rutland (VT)	Lake Champlain to headwaters near Tinmouth, VT.	50	1995		R, F	Recreation-Lower 26 miles below Carver Fall offers flatwater canoeing. Trout fishing in upper part of reach; warmwter and walleye fishing below Carver Falls. Fish-=One of New York's most endangered fish species is	VT

							species is present throughout the lower 26 miles. Other-Because water quality and quantity is important to the endangered fish species' survival, the entire watershed is listed.	
Raquette River	St. Lawrence, Franklin, Hamilton	Confluence with Carry Falls Reservoir (Jamestown Falls) to the outlet of Raquette Lake	73	1982		S, C	See Ampersand Brook (Adirondack Province River System) comments.	
Red River	Hamilton	Confluence with the South Branch of the Moose River to headwaters	10	1982		S, F, C	See Ampersand Brook (Adirondack Province River System) comments.	
Roaring Brook	Lewis	Confluence with the Black River to Martinsburg	4	1982		G, O	See Black River comments.	
Rock River	Hamilton	Confluence with the Cedar River to Lake Durant	8	1982		S	See Ampersand Brook (Adirondack Province River System) comments.	
Rondout Creek	Sullivan, Ulster	NY Rt. 55 bridge (head of Rondout Reservoir) to headwaters near Peekamoose Lake.	12	1995		S, R	Scenic-Prime Catskill Mountain scenery. The creek flows within a great cleft. Recreation-Lower 10 miles is Class IV whitewater with limited use by only experienced paddlers. Trout fishing throughout entire reach	

							entire reach.	
Rondout Creek	Ulster	Hudson River to junction with Sandberg creek near Napanoch.	39	1995		S, R, F	Scenic-Upper 30 miles of segment is a menadering river with a pastoral setting and alternating views of the Catskill and Shawangunk Mountains. Towns are small and generally removed from river. Reach includes High Falls, which is an outstanding landmark during spring flows. Recreation-Flatwater paddling for the upper 23 miles to High Falls. From High Falls to Eddyville Dam, seasonally-varying whitewater paddling ranging from Class I to IV. Flatwater paddling with tidal influence over the lower 9 miles below eddyville dam. Warmwater fishing for bass and walleye throughout reach; seasonal trout fishing in the upper part of reach. Fish-Important fish spawning and nursery habitat from Eddyville Dam to Hudson River.	
Round Lake Outlet	Hamilton, St. Lawrence	Confluence with Bog River to Round Lake	3	1982		O	See Ampersand Brook	

	Lawrence	to Round Lake					Brook (Adirondack Province River System) comments.	
Sacandaga River	Hamilton	Great Sacandaga Lake inlet to Lake Pleasant outlet	31	1982		S, R, F, H	See Ampersand Brooks (Adirondack Province River System) comments.	
Sacandaga River, East Branch	Hamilton, Warren	Confluence with the main Branch to Botheration Pond	24	1982		S, F, O	See Ampersand Brook (Adirondack Province River System) comments.	
Sacandaga River, North Branch	Hamilton	Confluence with the West Branch to headwaters (Canary Pond)	6	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Sacandaga River, West Branch	Hamilton	Confluence with the main branch to headwaters near Silver Lake Mountain	34	1982		S, R, F, O	See Ampersand Brook (Adirondack Province River System) comments.	
Salmon River	Franklin	Park Boundary to Elbow Ponds	12	1982		S, R	See Ampersand Brook (Adirondack Province River System) comments.	
Salmon River	Oswego	Salmon Reservoir to the headwaters of the East Branch	10	1982		O	Wild-(Corridor and surrounding watershed is virtually undeveloped and remote.)	
Salmon River	Oswego	Route 81 to Lower Reservoir	9	1982		R	Recreation-(Segment includes a diversity of unique flow gradients including terrace-like drops through a trough and includes Class	

							IV rapids.	
Salmon River, North Branch	Oswego	Salmon Reservoir to Castor Pond	5	1982		O	See Salmon River (segment from Salmon Reservoir to the headwaters of the East Branch) comments.	
Sandy Creek	Jefferson	Mouth at Lake Ontario to Route 81	12	1982		O	Botanic-(Segment flows through the diverse Lakeview Marsh area which includes a sand sune, 4 miles of barrier beach, 5 open water ponds, and 450 acres of marsh.)	
Sandy Creek (Sandy Creek System)	Jefferson	East of Adams to the headwaters	17	1982		O	Hydrologic-(Collectively the segments within the system are representative examples of the regionally unique Tug Hill Upland area. The plateau-like region is one of the least settled parts of NY State.)	
Sangerfield River	Madison, Oneida	Wickwire Road to NY Rt. 12 bridge.	10	1995		S, F, W	Recreation-Flatwater paddling. Generally entrance and exit both at Wickwire Road since river is not deep enough to reach upstream terminus. Wildlife-Reach includes Nine Mile Swamp, which is frequented by a variety of animals and plants. A rare, threatened or endangered reptile species	

							reptile species occurs in reach. Historic-Reach includes area where the infamous Loomis Gang kept stolen horses, captives, etc.	
Saranac River	Clinton, Franklin, Essex	Bridge crossing south of Elsinore to Upper Saranac Lake outlet	66	1982		S, R, H	See Ampersand Brook (Adirondack Province River System) comments.	
Saranac River, North Branch	Clinton, Franklin	Confluence with the main branch to Mud Pond	20	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Schoharie Creek	Greene	Prattsville to headwaters	29	1982		S, R	Recreation-(Segment includes Class 3 rapids between Tannersville and Jewett Center and between State Route 42 bridge, Lexington, to Prattsiville Dam.) Scenic-(A wide and unique variety of views related to stream channel and topographic variation including the walls of the eastern escarpment of the Catskill Mt. plateau, the Lexington and Prattsville valley, and numerous bluffs and forested mountain slopes.)	
Schoharie	Green	Near Vroman's	15	1982		C	Geologic (An	

Schoharie Creek	Green	Near Vroman's Nose to the Blenheim-Gilboa Pump Storage Project dam	15	1982		G	Geologic-(An abundance of representative geologic features throughout the segment, including Boucks, Towpath Mountain and Walhalla Rocks.)	
Schoharie Creek		New York State Thruway to Esperance	18	1982		R, G, O	Hydrologic-(The last remaining segment of a sparsely developed significant free-flowing representative river in this section.) Geologic-(An abundance of representative geologic features thorughout the segment, including 200' cliffs near Lost Valley.) Recreation-(A high diversity of flow gradients including a significant segment of Class IV rapids.)	
Schroon River	Warren, Essex	Confluence with the Hudson River to the outlet of the former Deadwater Pond	67	1982		S, G, W, O	See Ampersand Brook (Adirondack Province River System) comments.	
Scriba Creek	Oswego	Oneida Lake to headwaters near Salt Road (Rt. 183).	14	1995		F, O	Fish-Walleye spawning and nursery habitat near mouth. Other-Primary water supply source for Oneida State Fish Hatchery.	

Shawangunk Kill River	Ulster	Confluence with Wallkill River to Orange Conty line near New Vernon.	30	1995		R	Recreation-Seasonal Class I whitewater through most of reach; occasional Class II whitewater when river passes through large boulder field. Seasonal coldwater trout fishery downstream to vicinity of Red Mills and warmwater fishery throughout lower part of reach. Other-Mostly the banks have riparian vegetation; but some openings associated with agricultural uses provide a fine view of Shawangunk Mountains to the west. Segment downstream of Red Mills designated in New York State Rivers Program.	
Shingle Gulf	Jefferson, Lewis	Confluence with Sandy Creek to the headwaters east of Whitesville Road	4	1982		G, O	Geologic-(Segment includes a 2.3 mile gorge up to 200 feet deep.)	
Silver Lake Outlet	Hamilton	Confluence with the West Branch of the Sacandaga to Silver Lake	5	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
South Branch Opalescent River/Skylight Brook	Essex	Confluence with Opalescent to headwaters	5	1982		O	See Amperand Brook (Adirondack Province River System) comments.	

South Sandy Creek	Lewis, Jefferson	Mouth at Lake Ontario to the headwaters at the unnamed pond on the Lewis-Jefferson County boundary	28	1982		G	Geologic-(Segment flows through a variety of gorges including the 6 mile long, 200 feet deep Lorraine Gulf and the 3 mile long, 100 feet deep Totman Gulf.)	
Spring Creek	Livingston, Monroe	Confluence with Oatka Creek to headwaters.	6	1995		R, G, O	Recreation-Brown trout fishing in lower segment of reach. Geologic-Creek disappears in middle portion due to a large underground aquifer. Other-Primary water supply source for Caledonia State Fish Hatchery.	
St. Regis River	St. Lawrence, Franklin	Brasher Falls to Lower St. Regis Lake	46	1982		S, R, O	See Ampersand Brook (Adirondack Provine River System) comments.	
St. Regis River, East Branch	Franklin	Confluence with the main branch above Santa Clara to headwaters at Meacham Lake	18	1982		S, O	See Ampersand River (Adriondack Province River System) comments.	
St. Regis River, West Branch	St. Lawrence	Confleunce with the main branch at Winthrop to Allen Falls Reservoir	17	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
St. Regis River, West Branch	St. Lawrence, Franklin	Parishville to headwaters at Little Fish Pond	42	1982		S, F	See Ampersand Brook (Adirondack Province River	

							System) comments.	
Susquehanna River	Chenango, Delaware	NY Rt. 206 in Bainbridge to Otsego Lake outlet at Cooperstown.	57	1995		S, R	Scenic-LImited development has resulted in reach retaining most of its riparian vegetation. Wooded hillsides provide pleasant scenic views. Recreation-Only portion of this river suitable for both day and extended trips. Reach used for General Clinton canoe races held annually on Memorial Day weekend. Warmwater and coldwater fishing within various segments of reach.	
Taghkanic Creek	Columbia	Confluence with Claverack Creek to headwaters	24	1982		R	See Claverack Creek comments.	
The Branch	Essex	Confluence with Schroon River to Elk Lake	12	1982		O	See Ampersand BRook (Adirondack Province River System) comments.	
Thirteenth Brook	Warren	Confluence with Hudson River to Thirteenth Lake	5	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Tomhannock Creek	Rensselaer	Confluence with the Hoosic River to the Boston-Maine railroad bridge	2	1982		G, O	See Hoosic River (segment from the confluence with the Hudson River to Schaghticoke) comments.	

Trout Brook	Essex, Warren	Pottersville to Olmstedville	8	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Unadilla River	Ostego, Chanango, Madison	Confluence with the Susquehanna River to West Edmeston	37	1982		R, O	Hydrologic-(Segment is one of the longest remaining undeveloped, free-flowing rivers in the section.)	
Upper & Lower Twin Brooks	Essex	Confluence with Opalescent to headwaters	6	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	
Wallkill River	Orange	Hamburg, NJ to the Merritts Island, NY area	14	1982		O	Hydrologic-(One of the last remaining sparsely developed, representative free-flowing rivers in the section.) Botanic-(Over one third of the segment is dominated by wetlands, the extent of which is uncommon to the section.)	NJ
Wallkill River (including Shawangunk Kill)	Ulster (Ulster, Orange)	Sturgeon Pond to Wallkill (confluence with the Walkill River to Pine Bush)	19 (12)	1982 (1982)		H	Historic - Sement includes Perrine's Bridgem a National Historic Register Site (Historic - Segment includes the Johannes Decker Farm, a National Historic Register Site.)	NJ

Wallkill River	Orange	South of the Montgomery Airport to Route 17	7	1982		O	Hydrologic- (One of the last remaining sparsely developed, representative free-flowing rivers in the section.)	NJ
Wappinger Creek	Dutchess	Nooteming Lake to headwaters at Thompson Pond	15	1982		G	Geologic- (Segment includes Thompson Pond, a National Natural Landmark.)	
West Canada Creek	Herkimer, Hamilton	Harvey Road bridge crossing to Mud Lake	36	1982		S, R, O	See Ampersand Brook (Adirondack Province River System) comments.	
West Canada Creek, South Branch	Herkimer, Hamilton	Confluence with West Canada Creek to headwaters	18	1982		S, R, O	See Ampersand Brook (Adirondack Province River System) comments.	
West Stony Creek	Fulton, Hamilton	Confluence with the Sacandaga River to Peck's Lake	15	1982		O	See Ampersand Brook (Adirondack Province River System) comments.	

Appendix J:

USFWS Natural Resources of Concern

U.S. Fish and Wildlife Service

Natural Resources of Concern

This resource list is to be used for planning purposes only — it is not an official species list.

Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:

New York Ecological Services Field Office
3817 LUKER ROAD
CORTLAND, NY 13045
(607) 753-9334
http://www.fws.gov/northeast/nyfo/es/section7.htm

Long Island Ecological Services Field Office
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Project Name:

HUD Bulkhead EA - Westchester

Project Counties:

Westchester, NY

Project Type:

Fill

Endangered Species Act Species List (USFWS Endangered Species Program).

There are a total of **4** threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fishes may appear on the species list because a project could cause downstream effects on the species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section below for critical habitat that lies within your project area. Please contact the designated FWS office if you have questions.

Species that should be considered in an effects analysis for your project:

U.S. Fish and Wildlife Service

Natural Resources of Concern

Mammals	Status		Has Critical Habitat	Contact
Indiana bat (*Myotis sodalis*) Population: Entire	Endangered	species info		New York Ecological Services Field Office
New England Cottontail rabbit (*Sylvilagus transitionalis*)	Candidate	species info		New York Ecological Services Field Office
northern long-eared Bat (*Myotis septentrionalis*) Population:	Proposed Endangered	species info		New York Ecological Services Field Office, Long Island Ecological Services Field Office
Reptiles				
Bog Turtle (*Clemmys muhlenbergii*) Population: northern	Threatened	species info		New York Ecological Services Field Office

Critical habitats within your project area:

There are no critical habitats within your project area.

FWS National Wildlife Refuges (USFWS National Wildlife Refuges Program).

There are no refuges found within the vicinity of your project.

FWS Migratory Birds (USFWS Migratory Bird Program).

Most species of birds, including eagles and other raptors, are protected under the Migratory Bird Treaty Act (16 U.S.C. 703). Bald eagles and golden eagles receive additional protection under the Bald and Golden Eagle Protection Act (16 U.S.C. 668). The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

Migratory bird information is not available for your project location.

U.S. Fish and Wildlife Service

Natural Resources of Concern

NWI Wetlands (USFWS National Wetlands Inventory).

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may need to be considered in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate U.S. Army Corps of Engineers District.

IPaC is unable to display wetland information at this time.

Appendix K:

Farmland Protection Checklist

Farmland Protection

Checklist for HUD or Responsible Entity

General requirements	Legislation	Regulation
The Farmland Protection Policy Act discourages Federal activities that would convert farmland to nonagricultural purposes.	Farmland Protection Policy Act of 1981 (7 U.S.C. 4201 et seq.)	7 CFR Part 658

1. Does your project include new construction, acquisition of undeveloped land or change in use of land or property?

☐ Yes: PROCEED to #**2**
☒ No: STOP here. The Farmland Protection Policy Act does not apply. Record your determination

> ☐ Maintain, in your ERR, a determination that the project does not include new construction, acquisition of undeveloped land or change in use of a property

2. Does your project meet one of the following exemptions?

- Construction limited to on-farm structures needed for farm operations.
- Construction limited to new minor secondary (accessory) structures such as a garage or storage shed
- Project on land used for water storage or already in or committed urban development (this includes land with a density of 30 structures per 40 acre area. It also includes lands identified as "urbanized area" (UA) on the Census Bureau Map, or as urban area mapped with a "tint overprint" on the USGS topographical maps, or as "urban built-up" on the USDA Important Farmland Maps. Please note that land "zoned" for development, i.e. non-agricultural use, does not exempt a project from compliance with the FPPA).

☐ Yes: STOP here. The Farmland Protection Policy Act does not apply. Record your determination

> ☐ Maintain, in your ERR, documentation to evidence the project meets one of the exemptions. If the project is already in urban development provide a map as described above with your site marked or documentation from another credible source.

☐ No: PROCEED to #**3**

3. **Does "important farmland" regulated under the Farmland Protection Policy Act occur on the project site? This includes prime farmland, unique farmland and/or land of statewide or local importance**

You may use the links below to determine if important farmland occurs on the project site:

- Utilize USDA Natural Resources Conservation Service's (NRCS) Web Soil Survey http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm

- Check with your city or county's planning department and ask them to document if the project is on land regulated by the FPPA (zoning important farmland as non-agricultural does not exempt it from FPPA requirements)
- Contact NRCS at the local USDA service center http://offices.sc.egov.usda.gov/locator/app?agency=nrcs or your NRCS state soil scientist http://soils.usda.gov/contact/state_offices/ for assistance

☐ No: STOP here. The project does not convert farmland to nonagricultural purposes. Record your determination on the Statutory Worksheet and attach documentation used to make your determination

☐ Yes: PROCEED to #4

4. Consider alternatives to completing the project on important farmland and means of avoiding impacts to important farmland.

Complete form AD-1006, "Farmland Conversion Impact Rating" http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1045394.pdf and contact the state soil scientist before sending it to the local NRCS District Conservationist. Work with NRCS to minimize the impact of the project on the protected farmland.

Return a copy of Form 1006 to the USDA-NRCS State Soil Scientist or his/her designee informing them of your determination once you have finished the analysis.

Record your determination on the Statutory Worksheet and attach documentation used to make your determination. Include any mitigation required in the review.

DISCLAIMER: This document is intended as a tool to help Region X HUD grantees and HUD staff complete environmental requirements. This document is subject to change. This is not a policy statement, and the Farmland Protection Legislation and Regulations take precedence over any information found in this document.

Appendix L:

NYSDEC Air Quality Consultation and Conformity with State Implementation Plans

New York State Department of Environmental Conservation
Division of Environmental Permits, 4th Floor
625 Broadway, Albany, NY 12233-1750
Phone: (518) 402-9167 • **Fax:** (518) 402-9168
Website: www.dec.ny.gov

Joe Martens
Commissioner

February 6, 2014

Heather M. Spitzberg, Esq.
NYS Homes and Community Renewal
38-40 State Street Hampton Plaza
Albany, NY 12207

Re: CDBG-DR NY Rising Bulkhead Repair Program – Air Quality

Dear Ms. Spitzberg:

This responds to your February 3, 2014 letter to Mr. Jack Nasca of this office. Your correspondence augments your August 3, 2013 letter to Mr. Nasca concerning NYS Homes and Community Renewal (HCR) implementation of US Department of Housing and Urban Development Community Development Block Grant – Disaster Recovery (CDBG-DR) NY Rising Recovery Program.

Your February 3, 2014 letter described the NY Rising Bulkhead Repair Program, under which bulkhead repair and replacement activities will be eligible for CDBG-DR funding. HCR is preparing NEPA Tier 1 Programmatic Environmental Reviews for this program and as part of that exercise requested "initial consultation regarding Air Quality Standards" with this Department. In reply, please be advised that the activities described in your February 3, 2014 letter require no air quality permits from this Department under applicable New York Environmental Conservation Law (ECL).

Although no air quality permits are required for the program activities, as has been discussed between our offices other Department permits may be required, such as Use and Protection of Water, ECL Article 15 (implemented by 6 NYCRR Part 608); Tidal Wetlands, Article 25 (Part 661); Freshwater Wetlands, ECL Article 24 (Parts 662-663); and others that may be identified as review continues.

If you have any questions please feel free to contact me at the above number.

Respectfully,

John J. Ferguson
Chief Permit Administrator

cc: Rebecca Steffen, ProSource
Jennifer Wolff, ProSource

NEW YORK STATE
Homes & Community Renewal

ANDREW M. CUOMO
GOVERNOR

DARRYL C. TOWNS
COMMISSIONER/CEO

NEW YORK STATE DIVISION OF HOUSING & COMMUNITY RENEWAL

HOUSING TRUST FUND CORPORATION

STATE OF NEW YORK MORTGAGE AGENCY

NEW YORK STATE HOUSING FINANCE AGENCY

NEW YORK STATE AFFORDABLE HOUSING CORPORATION

STATE OF NEW YORK MUNICIPAL BOND BANK AGENCY

TOBACCO SETTLEMENT FINANCING CORPORATION

February 3, 2014

Jack Nasca
Director, Division of Environmental Permits
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-1750

Re: Introduction of CDBG-DR NY Rising Bulkhead Repair Program - Air Quality Standards

Dear Mr. Nasca,

On August 29, 2013, New York State (NYS) Homes and Community Renewal (HCR) submitted a program introduction letter regarding the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant – Disaster Recovery (CDBG-DR) NY Rising Recovery Program (Program) (referred to as Housing Assistance Program in previous coordination) for coordination of Air Quality Standards.

The purpose of this letter is to introduce the NY Rising Bulkhead Repair Program. Since submittal of the previous update letter, HCR has identified bulkhead repair and replacement as activities that are eligible for CDBG-DR funding. HCR is preparing NEPA Tier 1 Programmatic Environmental Reviews (PEAs) for the Bulkhead Repair Program in various NYS counties. HCR would like to take this opportunity to engage in initial consultation regarding Air Quality Standards with the NYS Department of Environmental Conservation (NYSDEC) for the Bulkhead Repair Program and is requesting a response letter from DEC, acknowledging the updated activities described in this letter.

Program Overview

A detailed description of the activities to be funded under the Bulkhead Repair Program has been included in **Attachment A**. A map of affected counties included in the Bulkhead Repair program, is included in **Attachment B**. As noted in previous consultation letter, the Program includes the following recovery activities:

1. Housing Recovery: This program provides funding for the repair and reconstruction of residential properties, along with funding appropriate storm mitigation measures. Rehabilitated properties within a floodplain will require raising foundations above the base flood elevation.
2. Reimbursement: As part of Housing Recover, qualifying applicants will be reimbursed for costs associated with repair of storm damaged homes that were completed before the CDBG-DR program funds were available.
3. Buyouts: Under the Buyout Program, NYS will purchase 1-2 unit storm-damaged homes, demolish existing structures on the properties, and return the properties to a natural state. These properties will remain as open space in perpetuity.
4. Acquisitions: Under the Acquisition Program, NYS will purchase 1-2 unit storm-damaged homes, leaving open the potential for future development.
5. Economic Development: Eligible businesses may receive funding for structural repairs, equipment replacement, and general economic recovery, contributing to improvement of the local economy.
6. **Bulkhead Repair: Applicants will receive funding to repair or replace storm-damaged bulkheads on residential properties. This program includes reimbursement for work that has been completed, subject to the eligibility requirements of the program.**

The *State of New York Action Plan for Community Development Block Grant Program Disaster Recovery*, dated April 2013 (Federal Register Docket # FR-5696-N-01) is available for review at http://www.nyshcr.org/Publications/CDBGActionPlan.pdf.

NYSHCR is requesting a response letter to document that coordination with DEC is underway for the Bulkhead Repair program. NYSHCR also requests DEC review the Bulkhead Repair Program information and determine whether a programmatic coverage letter for Air Quality Standards compliance can be provided.

If you have question or require additional information regarding this request, please contact me at (518) 486-3379 or hspitzberg@nyshcr.org. Thank you for your time and consideration.

Sincerely,

Heather M. Spitzberg, Esq.
NEPA Certifying Officer
NYS Homes and Community Renewal
38-40 State Street
Hampton Plaza
Albany, NY 12207

cc. Jennifer Wolff, ProSource Technologies, LLC

Attachment A – Bulkhead Repair Program Description
Attachment B – Map of affected counties included in the Bulkhead Repair program

The NY Rising Bulkhead Repair Program for Residential Properties is designed to provide assistance for repairing damaged bulkheads on residential properties with any number of housing units, including reimbursing homeowners who have already begun repairing or have completed repairs to bulkheads.

Bulkhead Definitions:

Bulkheads are defined as vertical structures constructed parallel to the shoreline or banks of a waterway, with retaining walls for the purpose preventing overtopping and flooding of the adjacent properties. Bulkheads are usually placed along an eroding bank or escapement to hold back the land and prevent erosion. Sometimes referred to as seawalls, gravity walls, quay walls, or riprap revetments, bulkheads are a long-lasting hardy structure that can stand up to moderate to high wave energy.

Residential bulkheads protect the banks and bluffs on a residential property by completely separating land from water. These bulkheads act as retaining walls, keeping the earth or sand behind them from crumbling or slumping. They also are used to resist wave action and protect property.

Bulkheads can be built in three basic types of design. They may consist of:

1) Thin, interlocking sheet piles driven deeply into the ground;
2) Individual piles used to support an aboveground structure; or
3) Massive gravity construction resting on the shore bottom or embedded slightly into it, supported by its own weight rather than by piling.

From these three basic design types, a wide variety of bulkhead designs have been developed. Common and uncommon types of bulkheads include:

- Common bulkheads:
  - Cantilever wall – typically used where there is no room for the installation of an anchor wall
  - Anchored wall with single layer of anchorage – most commonly used
    - Relieving platforms may be added to reduce lateral pressure
    - Batter piles may be driven to use as anchors behind the wall, but should only be considered if there is insufficient room for an anchor and the height of the walls exceeds the design parameters for a cantilever wall.
  - Soldier pile wall, also known as a “King” pile wall, consisting of piles added to the front of an anchored wall to help prevent deflection
  - Soldier beams and lagging
  - Close pile wall
  - Double wall
  - Various combinations can be used of the above general designs to meet the conditions of the site
- Some uncommon bulkhead types are listed below. They are unlikely to be encountered, but are listed for reference.
  - Railroad ties and steel H-piles
  - Treated timber
  - Untreated log

- Hogwire fencing and sandbags – this type would not meet the criteria provided in the general permit
- Used rubber tire and timber post
- Timber cribbing
- Stacked rubber tires
- Used concrete pipes
- Longard tubes
- Stacked bags
- Gabbions

Damage to Bulkheads

Bulkheads are susceptible to various forms of damage due to their presence in the interface between land and water. The action of water, both in front of the wall and behind it, can cause bulkhead damage. Waves that lap over the top can erode the land behind the structure as if the wall were not there, so the structure must be built high enough to prevent such overtopping. Groundwater and rain percolating through the soil may build up pressure behind the wall, eventually pushing it over. Scour at the toe of the bulkhead can undermine the structure and tip it over. Water flowing around the sides of the bulkhead can also cause severe erosion damage, so the structure should cover the entire surface that could be eroded.

Typical storm damage that has been seen from Hurricane Sandy and other similar events has included erosion of the toe of the bulkhead, washout of fill behind the bulkheads, impact damage to sheet piling or other sheeting, and the loss of decking and sheeting from flooding. Most references to historical storm events indicate that the damage incurred was an acceleration of typical wear to bulkheads.

Program description:

Residential property owners in disaster-declared counties who sustained damage to bulkheads have been invited to submit an application for assistance to repair damage caused by any of the storms identified in the Action Plan. Funding for repair and mitigation will include costs for the repair/replacement of damaged bulkheads, seawalls, quay wall, and coastal revetments. It will cover costs for unmet repair or replacement needs after accounting for all federal, state, local and/or private sources of disaster-related assistance. Assistance for repair, rehabilitation, replacement, and reimbursement funding will be capped at the lesser of a specified dollar amount to be determined by NYS, or the unmet repair, rehabilitation, replacement, and reimbursement need as described above. To direct sufficient levels of assistance to those most in need, especially low- or moderate-income and minority households, a higher overall dollar cap amount may be applied to those households of low- or moderate-income, where the need is justified.

The discussion below outlines the activities that would be carried out under the NY Rising Bulkhead Repair Program to address storm-related damage to bulkheads. The following steps will be implemented:

Inspection and Reporting

The condition of the existing bulkhead will be identified, and qualified personnel will determine whether to repair or replace the damaged structure. The inspector will provide photographs,

sketches, and a detailed narrative of the existing site conditions and proposed method of repair or replacement, including a cost estimate.

Documentation

Documentation will be prepared to satisfy General Permit GP-0-13-006, which includes plans and sections. These documents may require the signature and seal of a civil and/or structural engineer.

Activity Summary

Bulkhead repair activities will be conducted in accordance with the federally issued design criteria documents.

As project activity begins, certain portions of the existing wall that could not previously be inspected will be exposed and/or accessible, and should be assessed for additional damage. While most of these materials are unlikely to have been damaged during a storm event, depending on the age of the wall, there is the potential for wear. These previously inaccessible features include:

- Tiebacks
- Anchor walls
- Batter piles
- Relieving platforms
- Backfill
- Scour protection materials

The applicability of the existing bulkhead design to the local conditions will be reviewed. For replacement walls, the following design issues will be considered:

- Exposure to wave attack
- Foundation condition
- Scour, in particular wave reflection from vertical walls for bulkheads
- Overtopping by wave action (in particular during storm events)

During storm events, excessive waves may cause increased scour and overtopping, while debris carried in the storm event may damage walls and piles. To ensure protection during storm events, the review of existing walls and the design or replacements or repairs will include assessment of:

- Compartmentation: The design of the wall should be such to allow for repair only of the area damaged rather than the entire wall
- The potential for inundation of the backfill of the wall, which could cause wash out or subsidence, should be reviewed, and if necessary adequate drainage should be provided
- Impact to the wall, including storm debris

Methods for construction or repairs of the walls will vary based on site conditions. An example of construction methods for a sheet pile wall is provided below:

- Where removal of soft material is contemplated, dredging should precede the driving of sheet piling.

- Where existing material behind the bulkhead is to remain in place, it is advisable to dredge in front of the bulkhead after completion of the structure. This emphasizes arching in the material behind the wall and reduces bending stresses. Dredging adjacent to sheet piling after completion should be done in two or three vertical stages to avoid rapid changes and load differentials.
- Add fill behind the wall in areas of broad extent so that the concentration of lateral pressure does not cause differential alignment along the length of the wall.
- Consider compaction pressure due to the driving of support piles (relieving platform or track supports) behind the front wall. If dredging in front of the wall is done after the piles are driven, deflection of the wall will tend to relieve these pressures. Specify the driving sequence for such piles to avoid a progressive increase of the wedging effect.
- Tie rods would be pre-tensioned as uniformly as is practicable. It is emphasized, however, that uniform load in the tie rods is an unlikely occurrence. The provisions relating to allowable stresses in the anchor system are intended to provide for this situation. The implications are more general, however. The anchor system must be able to deform inelastically.
- Concrete walls and anchor walls should be reinforced on both faces and not simply in accordance with the theoretical moment diagram. The use of high steel in tie rods should be approached with caution to assure that the steel is capable of several percent elongation without fracture.
- Where the anchorage depends on passive earth pressure, place and compact backfill around the anchorage before filling against the bulkhead.

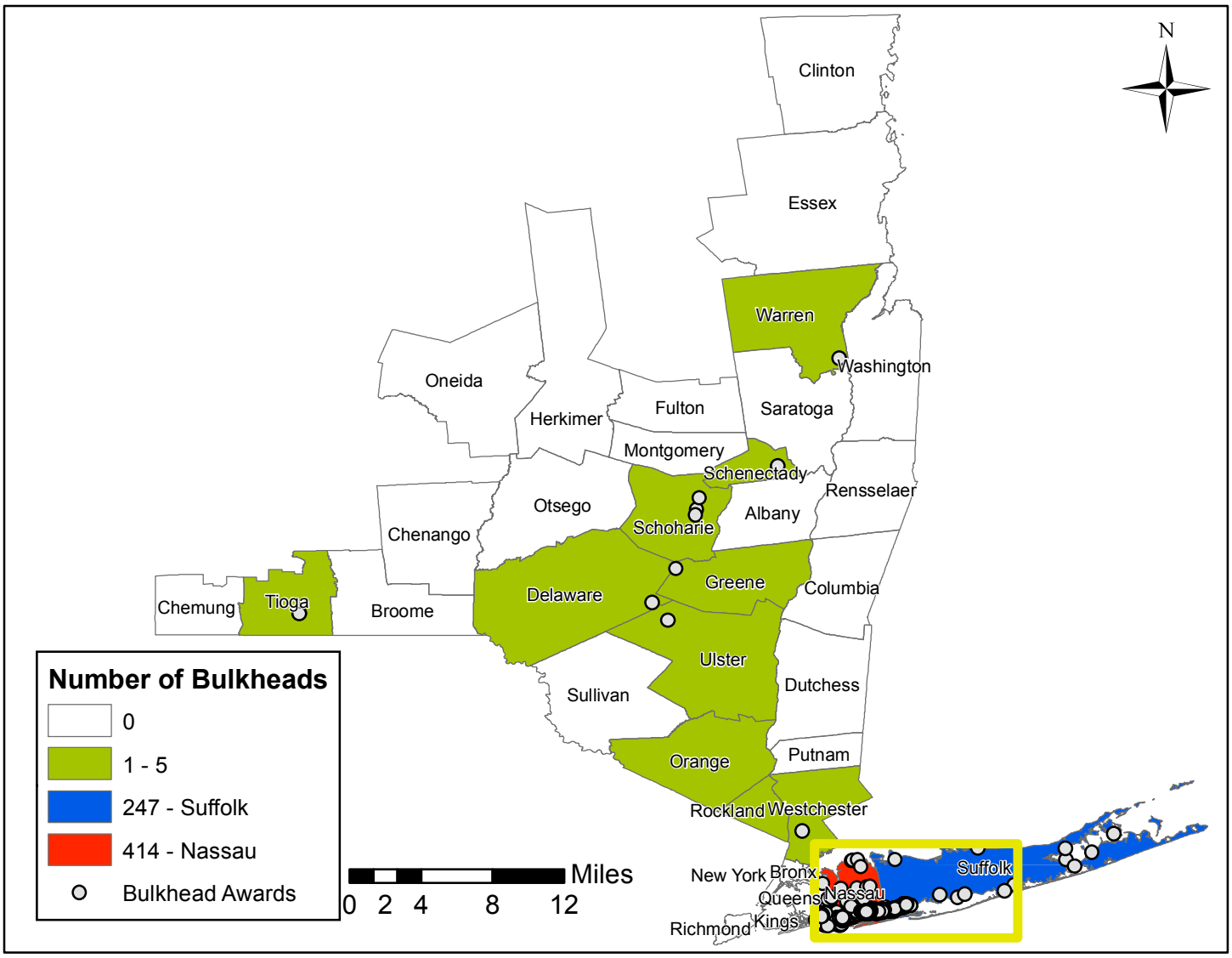
- In the filling of a relieving platform-type structure, the area at the back end of the platform should be filled to deck level, the deck placed over the batter piles, and filling continued to grade. This will provide load on the batter piles to assist in resisting the tension which will be caused by the tension in the tie rod. The deck area adjacent to the sheets may then be placed and fill completed.
- When placing hydraulic fill, the discharge line should be located on or in front of the anchorage line. Drainage openings should be provided in sheet piles at about 100 foot (30.5 meter) intervals.
    - Depending on the wall type, a coffer dam may be necessary to perform repairs or construction.
    - For the installation of sheet piles, it is important to ensure that the base of the pile has been adequately seated to prevent deflection of the wall.
- In a soft bottom, it should be possible to develop adequate toe resistance while driving the pile to adequately seat the pile. If adequate toe resistance cannot be obtained, excavating and replacing of the bottom should be considered
- In a hard bottom with shallow impenetrable material, consider using soldier piles for support or trenching for the base of the wall.
- Various materials are available for construction of the front wall. For the majority of the materials, such as steel, timber, and concrete, standard pile and sheet piling techniques, as well as the manufacturer's recommendation, will insure proper

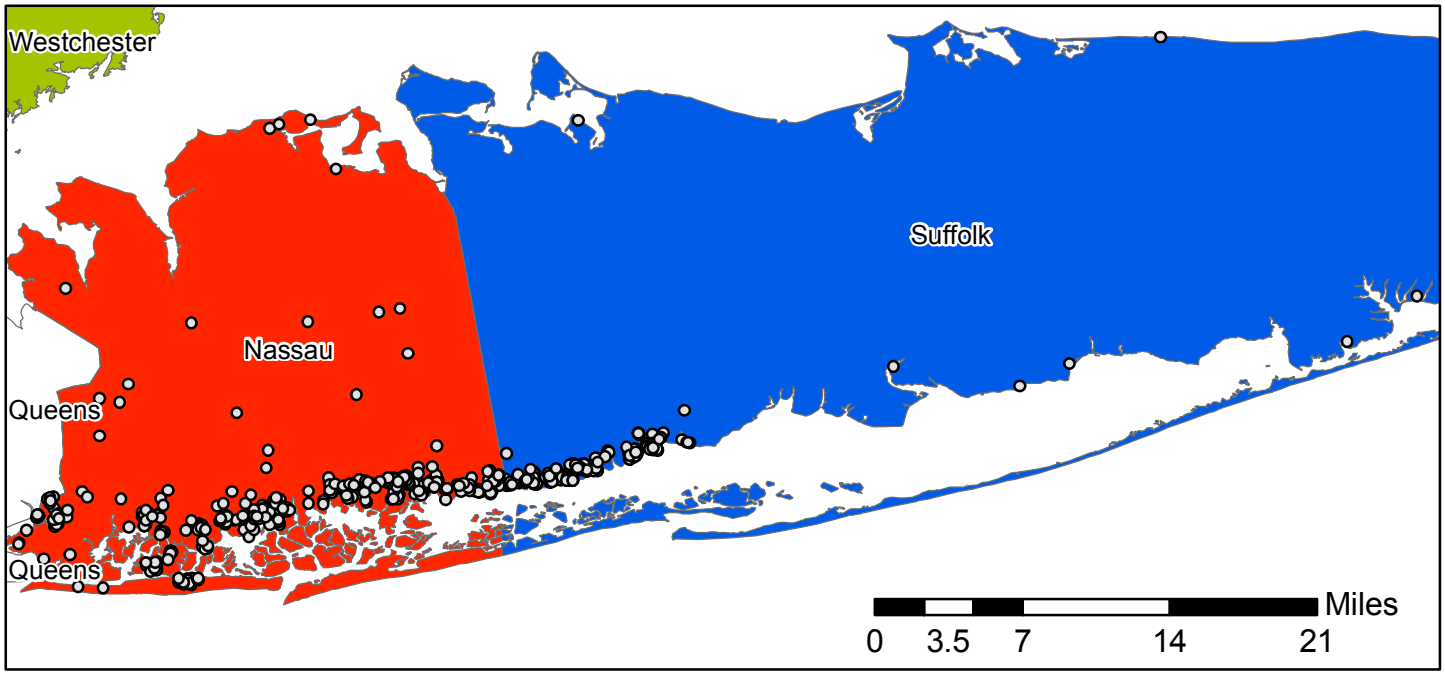
installation. More recently, newer materials, including galvanized corrugated sheet metal, corrugated fiberglass, and corrugated aluminum have become available on the market. The use of these materials at existing locations should be reviewed based on:

  - Freeze thaw cycles
  - Corrosion
  - Marine borers
  - Ultraviolet light reactions
  - Abrasion
  - Wave and ice forces

- It is recommended that regardless of the materials selected, the manufacturer should be consulted for proper installation techniques.
- For the construction of the anchorage, a simple concrete wall or sheet pile deadman should be used. If there is limited area, pile-supported anchorage (batter piles) may be used, but this should be a last resort.

Number of Bulkhead Awards by County





State maps developed by GCR Inc.

Data Source: Bulkhead data effective (11/21), Base layers - NYSGIS Clearinghouse

Evaluation of de minimis Levels for General Conformity of Construction Projects with New York State Implementation Plans

The conformity requirements of the CAA and regulations promulgated thereunder (conformity requirements) limit the ability of federal agencies to assist, fund, permit, and approve projects in non-attainment areas that do not conform to the applicable SIP. When subject to this regulation, the lead agency is responsible for demonstrating conformity for its proposed action. Conformity determinations for federal actions other than those related to transportation plans, programs, and projects that are developed, funded, or approved under title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601 et seq.) must be made according to the requirements of 40 CFR 93, Subpart B (federal general conformity regulations).

The general conformity regulations apply to those federal actions in non-attainment or maintenance areas where the action's direct and indirect emissions have the potential to emit one or more of the six criteria pollutants at rates equal to or exceeding the prescribed rates.

General conformity de minimis threshold levels for the non-attainment and maintenance areas in New York State are presented in **Table 1**.

Table 1
General Conformity Threshold Levels

Non-Attainment Area and Pollutants	Threshold (tons/year)
ozone, other non-attainment areas inside an ozone transport region:	
volatile organic compounds (VOC)	50
nitrogen oxides (NO_x)	100
carbon monoxide (CO), maintenance areas:	
direct emissions	100
inhalable particulate matter (PM_{10}), nonattainment areas:	
direct emissions	100
fine particulate matter ($PM_{2.5}$), maintenance areas:	
direct emissions	100
SO_2	100

Source: 40 CFR § 93.153(b)

Notes: NO_x and VOCs also limited at 100 tpy in $PM_{2.5}$ maintenance areas, but ozone requirements are stricter.

The general conformity requirements do not apply to federal actions that:

- Do not satisfy either one of the above conditions (where the action's direct and indirect emissions have the potential to emit one or more of the six criteria pollutants at rates

equal to or exceeding the threshold levels above within a non-attainment or maintenance area);

- Occur in an attainment area;
- Are related to transportation plans, programs, and projects developed, funded, or approved under Title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601); or
- Qualify for exemptions established at 40 CFR Part 93.153.

The regulation assumes that a proposed federal action whose criteria pollutant emissions have already been included in the local SIP's attainment or maintenance demonstrations conforms to the SIP.

Most construction work would not require a general conformity evaluation, since construction activity in general is included in the SIP estimates, based on past activity levels and assumptions regarding growth in future years. However, there may be projects which are not considered to be included in the SIP if they were beyond the scope of what was anticipated during SIP preparation. If a project is not included in the SIP or there is uncertainty regarding its inclusion, a preliminary evaluation of emissions may be sufficient to demonstrate that the project's emissions would be de minimis under the above general conformity regulations. If that is the case, a detailed conformity analysis and determination would not be required. The following analysis provides a simplified approach to preliminary evaluation, based on construction expenditure.

As a conservative estimate, the analysis below assumes that the emissions intensity per expenditure (tons per dollar) for the project would be similar to the average intensity of the construction sector in the county. This would not be applicable for projects with higher intensity (emissions per dollar) such as large infrastructure projects or intense development projects including substantial excavation and foundations work. Given this and other limitations of this analysis, it is recommended that this approach not be seen as definitive if the results are not clearly de minimis. In such cases, a more refined approach may be needed.

Construction expenditure data is available from the U.S. Census Bureau's 2007 Survey of Business Owners.[1] Since the expenditure data represent firms by their location and not necessarily the location where construction takes place, applying this data at the county level may skew the results in some cases. As a broader estimate, we have categorized the expenditure as 'upstate' and 'downstate', reflecting the higher cost of construction in the downstate area. Downstate counties include Bronx, Kings, Nassau, New York, Orange, Queens, Richmond, Rockland, Suffolk, and Westchester. Total construction expenditure in 2007 was approximately 23.1 billion dollars in the upstate area, and 71.8 billion in the downstate area.

Construction emissions by county for the year 2007 were obtained from the New York State Department of Environmental Conservation (NYSDEC).[2] The fraction each de minimis emissions level represents of total regional emissions was calculated for each pollutant and area (upstate and downstate). The fraction of construction expenditure in each area equivalent to

[1] U.S. Census Bureau. *2007 Survey of Business Owners*, Statistics for All U.S. Firms by Industry, Gender, Ethnicity, and Race for the U.S., States, Metro Areas, Counties, and Places: 2007; SB0700CSA01.

[2] NYSDEC. 2007 SIP data. (provided by DEC, 2014)

those emission fractions were then calculated, representing de minimis project construction expenditures which would be equivalent to de minimis emissions.

For example, the downstate VOC emissions were 2,401.6 tons per year (tpy), and the relevant de minimis VOC emissions are 50 tpy; therefore—

de minimis as fraction of total emissions: $50 \text{ tpy} \div 2{,}401.6 \text{ tpy} = 2.08\%$

de minimis fraction of total expenditure: $2.08\% \times \$71.8 \text{ bn} = \$\mathbf{1.5 \text{ bn}}$

The total SIP emissions by pollutant and region and the resulting average project expenditure equivalent to de minimis levels are presented in **Table 2**.

Table 2
Regional SIP Emissions and de minimis Construction Expenditure

Pollutant	Region	2007 SIP Emissions (tpy)	De Minimis (tpy)	Average Construction De Minimis Expenditure (million $)
VOC	Downstate	2,401.6	50	1,496
	Upstate	1,464.3	50	789
NOx	Downstate	16,332.1	100	440
	Upstate	9,745.2	100	237
CO	Downstate	17,522.1	100	410
	Upstate	11,746.2	100	197
PM_{10}	Downstate	1,489.6	100	4,823
$PM_{2.5}$	Downstate	1,442.3	100	4,981
SO_2	Downstate	1,251.9	100	5,738

Notes: Only relevant pollutants by area are presented; see **Table 3** for details.

Based on the above analysis, projects with projected construction expenditure substantially lower than the average construction de minimis expenditure would clearly not exceed de minimis emissions levels for general conformity purposes. **Table 3** identifies the minimum de minimis expenditure threshold in each county, based on the lowest level for all nonattainment or attainment maintenance areas within which the county is located. For example, New York County is in 4 nonattainment/maintenance areas; of all the pollutants relevant to those areas, the CO de minimis emissions have the lowest corresponding construction expenditure of 410 million dollars. Standard construction projects in Manhattan with construction expenditure substantially lower than 410 million dollars in New York County would not exceed the de minimis level for any of the relevant pollutants and would not require any further analysis or conformity determination. For projects with components in more than one county, use the lowest threshold for all counties (if that exceeds de minimis levels, this can be refined by reviewing all appropriate pollutants based on the nonattainment/maintenance areas identified in **Table 3**, the appropriate pollutant for the area type from **Table 1**, and the de minimis expenditure for each pollutant from **Table 2)**.

Table 3
De Minimis Construction Expenditure Threshold by County

County	Nonattainment / Maintenance Area				Critical Pollutant	De Minimis Expenditure Threshold (million $)
	Ozone	CO	$PM_{2.5}$	PM_{10}		
Upstate:						
Albany	√				NO_x	237
Erie	√				NO_x	237
Genesee	√				NO_x	237
Greene	√				NO_x	237
Livingston	√				NO_x	237
Monroe	√				NO_x	237
Montgomery	√				NO_x	237
Niagara	√				NO_x	237
Onondaga		√			CO	197
Ontario	√				NO_x	237
Orleans	√				NO_x	237
Rensselaer	√				NO_x	237
Saratoga	√				NO_x	237
Schenectady	√				NO_x	237
Schoharie	√				NO_x	237
Wayne	√				NO_x	237
Downstate:						
Bronx	√	√	√		CO	410
Dutchess	√				NO_x	440
Kings	√	√	√		CO	410
Nassau	√	√	√		CO	410
New York	√	√	√	√	CO	410
Orange	√		√		NO_x	440
Putnam	√				NO_x	440
Queens	√	√	√		CO	410
Richmond	√	√	√		CO	410
Rockland	√		√		NO_x	440
Suffolk	√		√		NO_x	440
Westchester	√	√	√		CO	410

✷

Appendix M:

NYSDOS Coastal Consistency Consultation and NYS Coastal Assessment Form

STATE OF NEW YORK
DEPARTMENT OF STATE
ONE COMMERCE PLAZA
99 WASHINGTON AVENUE
ALBANY, NY 12231-0001

ANDREW M. CUOMO
GOVERNOR

CESAR A. PERALES
SECRETARY OF STATE

May 23, 2014

NYS Homes and Community Renewal
Heather M. Spitzberg, Esq.
38-40 State Street
4th Floor, Hampton Plaza
Albany, New York 122007

Re: F-2013-0533
United States Department of Housing and Urban Development (NYS Homes & Community Renewal)
NY Rising - Sandy / Irene Recovery Projects
General Concurrence No objection to funding-Modification To Previously Reviewed Activity

Dear Attorney Spitzberg:

The Department of State received your proposed modification of the above-referenced activity on February 3, 2014. The Department previously reviewed the original proposal and concurred with a consistency certification for it, or otherwise indicated it had no objection to the proposed funding action.

The proposed modification involves addition of the Bulkhead Repair Program. Under this program, applicants will receive funding to repair or replace storm-damaged bulkheads on residential properties. This program includes reimbursement for work that has been completed, subject to the eligibility requirements of the program.

The Department of State has determined that this modification of the activity previously reviewed by this Department, with the following modifying conditions included and which have been agreed upon by the applicant, would not result in coastal zone effects that would be substantially different than those originally reviewed by the Department, and that the modified proposal meets the Department's general consistency concurrence criteria.

Condition No. 1: Installation of temporary structures, meaning these structure are to be removed at the conclusion of their limited purpose, to facilitate the installation of the aforementioned permanent infrastructure and/or retain fill repairs is allowed.

Condition No. 2: Installation of new fill comprised entirely of material substantially equivalent to adjacent native material within the footprint of pre-storm conditions is allowed.

Condition No. 3: Projects for the restoration of damaged facilities may include a change in materials or minor change in height of approximately 12-18 inches.

Therefore, the Department of State has no objection to the use of HUD funds for this financial assistance activity. This concurrence pertains to the financial assistance activity for this project only. If federal permits or other form

of federal agency authorization (but not including pre-construction notices) is required for this activity, the Department of State will conduct a separate review for those permit activities. In such a case, please forward a copy of the federal application for authorization, a completed Federal Consistency Assessment Form, and all supporting information to the Department at the same time it is submitted to the federal agency from which the necessary authorization is requested.

This General Concurrence is without prejudice to and does not obviate the need to obtain all other applicable licenses, permits, or other forms of authorization or approval that may be required pursuant to existing State statutes.

When communicating with us regarding this matter, please contact Jeffrey Zappieri at (518) 474-6000 (e-mail: Jeffrey.Zappieri@dos.state.ny.us) and refer to our file #F-2013-0533.

Sincerely,

Jeffrey Zappieri
Supervisor, Consistency Review Unit
Office of Planning and Development

JZ/de

STATE OF NEW YORK
DEPARTMENT OF STATE
ONE COMMERCE PLAZA
99 WASHINGTON AVENUE
ALBANY, NY 12231-0001

ANDREW M. CUOMO
GOVERNOR

CESAR A. PERALES
SECRETARY OF STATE

February 07, 2013

Ms. Heather M. Spitzberg, Esq.
NEPA Certifying Officer
NYS Homes and Community Renewal
38-40 State Street
Hampton Plaza
Albany, NY 12207

Re: U.S. Department of Housing and Urban Development Community Development Block Grant - Disaster Recovery (CDBG-DR) Housing Assistance Program, administered by New York State Homes and Community Renewal (NYSHCR) – New York Rising Bulkhead Repair Program

Letter of Program Coordination

Dear Ms. Spitzberg:

The Department of State (DOS) received your letter (February 03, 2014) requesting our agency's response affirming that ongoing programmatic coordination, with respect to the above program and, specifically, a recently added program component – the New York Rising Bulkhead Repair Program - is taking place.

The Department of State had determined (DOS letter of October 18, 2013) that the overall program as presented to DOS via communications and material submissions from NYSHCR (June 26, 2013) and via a program update letter (August 29, 2013) is generally consistent with the policies and purposes of the New York State Coastal Management Program (NYSCMP). DOS indicated as part of its determination that any substantial modifications or additions to the program will require further coordination on an ongoing basis with the Department of State.

By means of this letter, DOS acknowledges receipt of the program description for the New York Rising Bulkhead Repair Program and affirms that it is continuing to coordinate with NYSHCR in developing this program component to be consistent with the state coastal policies.

When communicating with us regarding this matter, please contact me at (518) 474-6000.

Sincerely,

Jeff Zappieri
Manager of Consistency Review
Office of Planning & Development

JZ/ts
cc: Jennifer Wolff, ProSource Technologies, LLC
Chris Leo, NYSHCR

NEW YORK STATE
Homes & Community Renewal

ANDREW M. CUOMO
GOVERNOR

DARRYL C. TOWNS
COMMISSIONER/CEO

NEW YORK STATE DIVISION OF HOUSING & COMMUNITY RENEWAL

HOUSING TRUST FUND CORPORATION

STATE OF NEW YORK MORTGAGE AGENCY

NEW YORK STATE HOUSING FINANCE AGENCY

NEW YORK STATE AFFORDABLE HOUSING CORPORATION

STATE OF NEW YORK MUNICIPAL BOND BANK AGENCY

TOBACCO SETTLEMENT FINANCING CORPORATION

February 3, 2014

Jeffrey Zappieri
Supervisor, Consistency Review Unit
Division of Coastal Resources
New York State Department of State
One Commerce Plaza
99 Washington Avenue
Albany, New York 12231-0001

Re: Introduction of CDBG-DR NY Rising Bulkhead Repair Program and Request for General Consistency Concurrence

Dear Mr. Zappieri,

On June 26, 2013, New York State (NYS) Homes and Community Renewal (HCR) submitted a letter (via email) to the NYS Department of State (DOS) requesting concurrence that the proposed activities for the 1-4 unit rehabilitation action are covered by the DOS general consistency concurrence criteria. On July 3, DOS provided a response letter (project # F-2013-0533 FA) stating that the proposed activities in the June 26 letter meet the general consistency concurrence criteria, and that the DOS has no objection to funding. On August 29, 2013, NYSHCR provided a Program update letter, which provided information on expanded activities within the program (Economic Development, Reimbursement, etc). The purpose of this letter is to introduce the NY Rising Bulkhead Repair Program and to obtain written confirmation from DOS that the proposed activities will be in compliance with general consistency concurrence criteria.

HCR has been authorized to implement the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant – Disaster Recovery (CDBG-DR) NY Rising Recovery Program (Program) (referred to as the Housing Assistance Program in previous coordination) in accordance with the *State of New York Action Plan for Community Development Block Grant Program Disaster Recovery* (April 2013, Federal Register Docket # FR-5696-N-01). This document is available for review at:
http://www.nyshcr.org/Publications/CDBGActionPlan.pdf.

Program Overview

A detailed description of the activities to be funded under the Bulkhead Repair Program has been included in **Attachment A**. A map of affected counties included in the Bulkhead Repair program, is included in **Attachment B**. As noted in previous consultation letters, the Program includes the following recovery activities:

1. Housing Recovery: This program provides funding for the repair and reconstruction of residential properties, along with funding appropriate storm mitigation measures. Rehabilitated properties within a floodplain will require raising foundations above the base flood elevation.
2. Reimbursement: As part of Housing Recover, qualifying applicants will be reimbursed for costs associated with repair of storm damaged homes that were completed before the CDBG-DR program funds were available.
3. Buyouts: Under the Buyout Program, NYS will purchase 1-2 unit storm-damaged homes, demolish existing structures on the properties, and return the properties to a natural state. These properties will remain as open space in perpetuity.
4. Acquisitions: Under the Acquisition Program, NYS will purchase 1-2 unit storm-damaged homes, leaving open the potential for future development.
5. Economic Development: Eligible businesses may receive funding for structural repairs, equipment replacement, and general economic recovery, contributing to improvement of the local economy.
6. **Bulkhead Repair: Applicants will receive funding to repair or replace storm-damaged bulkheads on residential properties. This program includes reimbursement for work that has been completed, subject to the eligibility requirements of the program.**

Compliance

NYSHCR is requesting a response letter from DOS, regarding the Bulkhead Repair Program that can be included in all Tier 1 ERRs to document that coordination with DOS is underway.

If you have any questions or require additional information regarding this request, please contact me at (518) 486-3379 or hspitzberg@nyshcr.org. Thank you for your time and consideration.

Sincerely,

Heather M. Spitzberg, Esq.
NEPA Certifying Officer
NYS Homes and Community Renewal
38-40 State Street
Hampton Plaza
Albany, NY 12207

cc. Jennifer Wolff, ProSource Technologies, LLC

Attachment A – Bulkhead Repair Program Description
Attachment B- Map of affected counties included in the Bulkhead Repair program

NEW YORK STATE DEPARTMENT OF STATE
COASTAL MANAGEMENT PROGRAM

Coastal Assessment Form

A. INSTRUCTIONS (Please print or type all answers)

1. State agencies shall complete this CAF for proposed actions which are subject to Part 600 of Title 19 of the NYCRR. This assessment is intended to supplement other information used by a state agency in making a determination of significance pursuant to the State Environmental Quality Review Act (see 6 NYCRR, Part 617). If it is determined that a proposed action will not have a significant effect on the environment, this assessment is intended to assist a state agency in complying with the certification requirements of 19 NYCRR Section 600.4.

2. If any question in Section C on this form is answered "yes," then the proposed action may affect the achievement of the coastal policies contained in Article 42 of the Executive Law. Thus, the action should be analyzed in more detail and, if necessary, modified prior to either (a) making a certification of consistency pursuant to 19 NYCRR Part 600 or, (b) making the findings required under SEQR, 6 NYCRR, Section 617.11, if the action is one for which an environmental impact statement is being prepared. If an action cannot be certified as consistent with the coastal policies, it shall not be undertaken.

3. Before answering the questions in Section C, the preparer of this form should review the coastal policies contained in 19 NYCRR Section 600.5. A proposed action should be evaluated as to its significant beneficial and adverse effects upon the coastal area.

B. DESCRIPTION OF PROPOSED ACTION

1. Type of state agency action (check appropriate response):

(a) Directly undertaken (e.g. capital construction, planning activity, agency regulation, land transaction) ☐
(b) Financial assistance (e.g. grant, loan, subsidy) ☑
(c) Permit, license, certification ☐

2. Describe nature and extent of action:

The NY Rising Bulkhead Repair Initiative for Residential Properties is designed to provide assistance for repairing and/or replacing or reconstructing damaged bulkheads on both owner-occupied and rental residential properties whose bulkheads were damaged during Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee. All bulkhead replacements would be in the existing footprint. Material upgrades would be permitted when deemed advisable by a professional engineer licensed in the State of New York (licensed engineer). In some cases, alternatives to in-kind and in-place repair would be considered when recommended by a licensed engineer. To bolster resiliency, some bulkheads may be up to 18 inches higher than the currently existing bulkhead.

3. Location of action:

Delaware, Greene, Nassau, Orange, Rockland, Schenectady, Schoharie, Suffolk, Tioga, Ulster, Warren, and Westchester	**NA**	**NA**
County	City, Town or Village	Street or Site Description

4. If an application for the proposed action has been filed with the state agency, the following information shall be provided:

(a) Name of applicant: **NA**
(b) Mailing address: **NA**
(c) Telephone Number: Area Code **NA**
(d) State agency application number: **NA**

5. Will the action be directly undertaken, require funding, or approval by a federal agency?
Yes **X** No _____ If yes, which federal agency? **Housing and Urban Development (HUD)**

C. COASTAL ASSESSMENT (Check either "YES" or "NO" for each of the following questions)

	YES	NO
1. Will the proposed activity be located in, or contiguous to, or have a significant effect upon any of the resource areas identified on the coastal area map:		
(a) Significant fish or wildlife habitats?	X	
(b) Scenic resources of statewide significance?	X	
(c) Important agricultural lands?	X	
2. Will the proposed activity have a significant effect upon:		
(a) Commercial or recreational use of fish and wildlife resources?		X
(b) Scenic quality of the coastal environment?		X
(c) Development of future, or existing water dependent uses?		X
(d) Operation of the State's major ports?		X
(e) Land and water uses within the State's small harbors?		X
(f) Existing or potential public recreation opportunities?		X
(g) Structures, sites or districts of historic, archeological or cultural significance to the State or nation?		X
3. Will the proposed activity involve or result in any of the following:		
(a) Physical alteration of two (2) acres or more of land along the shoreline, land under water or coastal waters?	X	
(b) Physical alteration of five (5) acres or more of land located elsewhere in the coastal area?		X
(c) Expansion of existing public services of infrastructure in undeveloped or low density areas of the coastal area?		X
(d) Energy facility not subject to Article VII or VIII of the Public Service Law?		X
(e) Mining, excavation, filling or dredging in coastal waters?		X
(f) Reduction of existing or potential public access to or along the shore?		X
(g) Sale or change in use of state-owned lands located on the shoreline or under water?		X
(h) Development within a designated flood or erosion hazard area?		X
(i) Development on a beach, dune, barrier island or other natural feature that provides protection against flooding or erosion?		
4. Will the proposed action be located in or have a significant effect upon an area included in an approved Local Waterfront Revitalization Program?	X	

D. SUBMISSION REQUIREMENTS

If any question in Section C is answered "Yes", AND either of the following two conditions is met:

Section B.1(a) or B.1(b) is checked; or
Section B.1(c) is checked AND B.5 is answered "Yes",

THEN one copy of the Completed Coastal Assessment Form shall be submitted to:

New York State Department of State
Office of Coastal, Local Government and Community Sustainability
One Commerce Plaza
99 Washington Avenue, Suite 1010
Albany, New York 12231-0001

If assistance of further information is needed to complete this form, please call the Department of State at (518) 474-6000.

E. REMARKS OR ADDITIONAL INFORMATION

This Coastal Assessment Form is being prepared as part of a Tier 1 Programmatic Environmental Review (PEA) to evaluate the potential environmental impacts of the NY Rising Bulkhead Repair Initiative. The NY Rising Bulkhead Repair Initiative was established by NYS Homes and Community Renewal (HCR), through its Office of Community Renewal (OCR) and the Housing Trust Fund Corporation (HTFC), for the distribution of U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant—Disaster Recovery (CDBG-DR) funding. This program is exclusively for the repair and/or replacement or reconstruction of residential bulkheads damaged by Superstorm Sandy, Hurricane Irene, and/or Tropical Storm Lee.

The geographic scope for the NY Rising Bulkhead Repair Initiative for Residential Properties is the jurisdictional area of Delaware, Greene, Nassau, Orange, Rockland, Schenectady, Schoharie, Suffolk, Tioga, Ulster, Warren, and Westchester Counties. Some municipalities within these counties have Local Waterfront Revitalization Plans (LWRPs). An individual project's compliance with a municipality's LWRP will be evaluated during the Tier 2 review process. No new bulkheads would be created by this program. The proposed action includes conditions for approval and mitigation, as discussed in the Tier 1 PEA, to avoid and minimize environmental impacts. Compliance with these conditions for approval will be evaluated for each applicant site during the Tier 2 review process.

Construction activities are expected to take place on the waterfront of residential properties scattered throughout the above counties. Residential property owners of any location within these counties that sustained damage from Superstorm Sandy, Hurricane Irene, and/or Tropical Storm Lee are able to apply for bulkhead repair. The actual property addresses will not be verified until applications for assistance are reviewed and determined eligible for the program.

Without the NY Rising Bulkhead Initiative, residents of storm-damaged communities would be unable to rehabilitate the bulkheads on their residential properties. If damaged bulkheads are not addressed, residential properties would remain vulnerable to future storm damage and the bulkheads would remain vulnerable to structural deterioration and weathering.

Please refer to Attachment A for an analysis of the NY Rising Bulkhead Repair Initiative for Residential Properties consistency with the NY State Coastal Policies.

Preparer's Name: **Thomas J. King**

(Print) (Sign)

Title: **Certifying Officer**

Agency: **NYS Homes and Community Renewal, Governor's Office of Storm Recovery**

Telephone Number: **(518) 486-7512**

Date: **June 6, 2014**

Attachment A

New York State Coastal Policy Consistency Analysis

New York State Coastal Policies	NY Rising Bulkhead Repair Initiative for Residential Properties Consistency
DEVELOPMENT POLICIES	
Policy 1	
Restore, revitalize, and redevelop deteriorated and underutilized waterfront areas for commercial, industrial, cultural, recreational, and other compatible uses.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. No new residential development or any commercial development is proposed. To the extent that the Bulkhead Repair Initiative would prevent deterioration of existing residential waterfront properties and therefore restore and revitalize said properties, the Bulkhead Repair Initiative would be consistent with this policy.
Policy 2	
Facilitate the siting of water-dependent uses and facilities on or adjacent to coastal waters.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. No new residential development or any commercial development is proposed, and therefore this policy is not applicable.
Policy 3	
Further develop the state's major ports of Albany, Buffalo, New York, Ogdensburg, and Oswego as centers of commerce and industry, and encourage the siting, in these port areas, including those under the jurisdiction of state public authorities, of land use and development which is essential to, or in support of, the waterborne transportation of cargo and people.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. No new residential development or any commercial development is proposed in the specified locations, and therefore this policy is not applicable.
Policy 4	
Strengthen the economic base of smaller harbor areas by encouraging the development and enhancement of those traditional uses and activities which have provided such areas with their unique maritime identity.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties and would positively affect the economic base of smaller harbor areas by enhancing property values through such protection activities. Therefore the Bulkhead Repair Initiative would be consistent with this policy.
Policy 5	
Encourage the location of development in areas where public services and facilities essential to such development are adequate.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. No new residential development or any commercial development is proposed. To the extent that the Bulkhead Repair Initiative would retain existing development where public services and facilities are adequate, the Bulkhead Repair Initiative would be consistent with this policy.
Policy 6	
Expedite permit procedures in order to facilitate the siting of development activities at suitable locations.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. No new residential development or any commercial development is proposed. To the extent that the Bulkhead Repair Initiative would facilitate the acquisition of the appropriate permits for bulkhead replacement or repair, the Bulkhead Repair Initiative would be consistent with this policy.
FISH AND WILDLIFE POLICIES	
Policy 7	
Significant coastal fish and wildlife habitats will be protected, preserved, and where practical, restored so as to maintain their viability as habitats.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. As such, the proposed action is not likely to alter any of the biological, physical or chemical parameters beyond the tolerance range of the organisms occupying the habitat, or otherwise significantly impair or destroy the viability of the habitat. Therefore, the Bulkhead Repair Initiative is consistent with Policy 7.

Policy 8	
Protect fish and wildlife resources in the coastal area from the introduction of hazardous wastes and other pollutants which bio-accumulate in the food chain or which cause significant sublethal or lethal effect on those resources.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. The proposed action would not generate any hazardous materials; however there is the possibility that existing hazardous materials could be encountered. New York State Homes and Community Renewal (“HCR”) is charged with the overall inspection for hazardous materials (with the exception of commonly found household hazardous materials such as automotive batteries or used motor oil) for the Bulkhead Repair Initiative. HCR in conjunction with designated agencies or consultants under HCR’s direction would provide qualified environmental professionals (QEP) to perform on-site visits as necessary; QEP are experienced persons with the skills to look for and recognize hazardous materials and their conditions generally as well as the most common types of residential contamination found within this geographic area. The reports generated by the QEPs with environmental assessment experience would be reviewed by HCR or consultant under HCR direction to confirm that all items on the checklist are appropriately addressed. Depending on the site-specific environmental assessment of the degree and extent of any hazards identified, the applicant may be responsible for the removal of such items before the repair work can proceed. Therefore, the proposed action is consistent with Policy 8 in that it would protect fish and wildlife resources in the coastal area from the introduction of hazardous wastes and other pollutants which bio-accumulate in the food chain or which cause significant sublethal or lethal effect on those resources.
Policy 9	
Expand recreational use of fish and wildlife resources in coastal areas by increasing access to existing resources, supplementing existing stocks, and developing new resources.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. No new residential development or any commercial development is proposed. As such, the policy is not applicable.
Policy 10	
Further develop commercial finfish, shellfish, and crustacean resources in the coastal area by encouraging the construction of new, or improvement of existing on-shore commercial fishing facilities, increasing marketing of the state's seafood products, maintaining adequate stocks, and expanding aquaculture facilities.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. No new residential development or any commercial development is proposed. As such, the policy is not applicable.
FLOODING AND EROSION HAZARDS POLICIES	
Policy 11	
Buildings and other structures will be sited in the coastal area so as to minimize damage to property and the endangering of human lives caused by flooding and erosion.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. All bulkhead replacements would be in the existing footprint. Bulkheads may be constructed to be up to 18 inches higher than the currently existing bulkhead. Material upgrades would be permitted when deemed advisable by a licensed engineer. Alternatives to in-kind and in-place repair would be considered only when recommended by a licensed engineer. Consistent with Policy 11, the repair or reconstruction of these bulkheads would minimize damage to property and risk to human lives caused by flooding and erosion.
Policy 12	
Activities or development in the coastal area will be undertaken so as to minimize damage to natural resources and property from flooding and erosion by protecting natural protective features including beaches, dunes, barrier islands and bluffs.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. No new bulkheads are proposed and no natural areas would be disturbed.

Policy 13	
The construction or reconstruction of erosion protection structures shall be undertaken only if they have a reasonable probability of controlling erosion for at least thirty years as demonstrated in design and construction standards and/or assured maintenance or replacement programs.	Bulkhead repair and/or replacement or reconstruction activities would be conducted in accordance with the federally issued design criteria documents. All bulkhead replacements would be in the existing footprint. Bulkheads may be constructed to be up to 18 inches higher than the currently existing bulkhead, to further protect existing residential properties. Material upgrades would be permitted when deemed advisable by a licensed engineer. Alternatives to in-kind and in-place repair would be considered only when recommended by a licensed engineer. The Bulkhead Repair Initiative would repair or replace existing bulkheads, and would protect existing development that is sited in areas that would otherwise be subject to damage or loss due to erosion. As such, the proposed action is consistent with this policy in that it will help ensure the reduction of such damage or loss.
Policy 14	
Activities and development, including the construction or reconstruction of erosion protection structures, shall be undertaken so that there will be no measurable increase in erosion or flooding at the site of such activities or development, or at other locations.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. No new bulkheads are proposed. Bulkhead repair and/or replacement or reconstruction activities would be conducted in accordance with the federally issued design criteria documents. All bulkhead replacements would be in the existing footprint. Bulkheads may be constructed to be up to 18 inches higher than the currently existing bulkhead, to further protect existing residential properties. Material upgrades would be permitted when deemed advisable by a licensed engineer. Alternatives to in-kind and in-place repair would be considered only when recommended by a licensed engineer. As such, consistent with this policy, the proposed action would not measurably increase erosion or flooding at the site of such activities or development, or at other locations.
Policy 15	
Mining, excavation or dredging in coastal waters shall not significantly interfere with the natural coastal processes which supply beach materials to land adjacent to such waters and shall be undertaken in a manner which will not cause an increase in erosion of such land.	The Bulkhead Repair Initiative may include the removal of accumulated sediments and debris in the vicinity of existing structures, associated with replacement of a bulkhead. These limited activities are not anticipated to significantly interfere with the natural coastal processes. As such, the proposed action is consistent with Policy 15.
Policy 16	
Public funds shall only be used for erosion protective structures where necessary to protect human life, and new development which requires a location within or adjacent to an erosion hazard area to be able to function, or existing development; and only where the public benefits outweigh the long term monetary and other costs including the potential for increasing erosion and adverse effects on natural protective features.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. All bulkhead replacements would be in the existing footprint. Bulkheads may be constructed to be up to 18 inches higher than the currently existing bulkhead. Material upgrades would be permitted when deemed advisable by a licensed engineer. Alternatives to in-kind and in-place repair would be considered only when recommended by a licensed engineer. Consistent with Policy 16, the repair or reconstruction of these bulkheads is necessary to protect human life and existing development from increased erosion.

Policy 17	
Non-structural measures to minimize damage to natural resources and property from flooding and erosion shall be used whenever possible.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. All bulkhead replacements would be in the existing footprint, and are designed to protect existing residential structures. Alternatives to in-kind and in-place repair, such as non-structural measures, would be considered only when recommended by a licensed engineer. As such, the proposed action is consistent with Policy 17.
GENERAL POLICY	
Policy 18	
To safeguard the vital economic, social and environmental interests of the state and of its citizens, proposed major actions in the coastal area must give full consideration to those interests, and to the safeguards which the state has established to protect valuable coastal resource areas.	The proposed action would not significantly impair valuable coastal waters or resources, or otherwise frustrate the achievement of the purposes of the safeguards the State has established to protect those waters and resources. By protecting existing residential structures, the proposed action would protect the character of established residential neighborhoods. As such, the proposed action is consistent with Policy 18.
PUBLIC ACCESS POLICIES	
Policy 19	
Protect, maintain, and increase the level and types of access to public water-related recreation resources and facilities.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. No new residential development or any commercial development is proposed. As such, the policy is not applicable.
Policy 20	
Access to the publicly-owned foreshore and to lands immediately adjacent to the foreshore or the water's edge that are publicly-owned shall be provided and it shall be provided in a manner compatible with adjoining uses.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. No new residential development or any commercial development is proposed. As such, the policy is not applicable.
RECREATION POLICIES	
Policy 21	
Water-dependent and water-enhanced recreation will be encouraged and facilitated, and will be given priority over non-water-related used along the coast.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. No new residential development or any commercial development is proposed. As such, the policy is not applicable.
Policy 22	
Development, when located adjacent to the shore, will provide for water-related recreation, whenever such use is compatible with reasonably anticipated demand for such activities, and is compatible with the primary purpose of the development.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. No new residential development or any commercial development is proposed. As such, the policy is not applicable.

HISTORIC AND SCENIC RESOURCES POLICIES	
Policy 23	
Protect, enhance and restore structures, districts, areas or sites that are of significance in the history, architecture, archaeology or culture of the state, its communities, or the nation.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. It is possible that some of these bulkheads protect historic structures, or that sensitive archaeological resources may be located in the vicinity of existing bulkheads. As such, the Bulkhead Repair Initiative requires all activities to comply with Section 106 of the National Historic Preservation Act (NHPA) per the implementing regulations at 36 Code of Federal Regulations (CFR) Part 800. Compliance with Section 106 is achieved through the procedures in the Programmatic Agreement among FEMA, the NYS Historic Preservation Officer, the NYS Office of Emergency Management, the Delaware Nation, the Delaware Tribe of Indians, the Shinnecock Nation, the Stockbridge-Munsee Community Band of Mohicans, the NYC Landmarks Preservation Commission, and the Advisory Council On Historic Preservation. In the event that archeological deposits, including any Native American pottery, stone tools, bones, or human remains are uncovered on a specific site, the work on that site must be halted, and the applicant would take reasonable measures to avoid or minimize harm to the finds. All archeological findings would be secured and access to the sensitive area restricted. HCR would consult with the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO), and Tribes, and work in sensitive areas cannot resume until consultation is completed and appropriate measures have been taken to ensure that the initiative is in compliance with the NHPA. Therefore, the proposed action is consistent with Policy 23.
Policy 24	
Prevent impairment of scenic resources of statewide significance.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. No new residential development or any commercial development is proposed. As such, the policy is not applicable.
Policy 25	
Protect, restore or enhance natural and man-made resources which are not identified as being of statewide significance, but which contribute to the overall scenic quality of the coastal area.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. Bulkheads are man-made structures which are not identified as being of statewide significance, but can contribute to the overall scenic quality of the coastal area.
AGRICULTURAL LANDS POLICY	
Policy 26	
Conserve and protect agricultural lands in the state's coastal area.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. No new residential development or any commercial development is proposed on agricultural lands.
ENERGY AND ICE MANAGEMENT POLICIES	
Policy 27	
Decisions on the siting and construction of major energy facilities in the coastal area will be based on public energy needs, compatibility of such facilities with the environment, and the facility's need for a shorefront location.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. No energy facilities are proposed. As such, the policy is not applicable.

Policy 28	
Ice management practices shall not interfere with the production of hydroelectric power, damage significant fish and wildlife and their habitats, or increase shoreline erosion or flooding.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. The Bulkhead Repair Initiative does not involve any change to ice management practices. As such, the policy is not applicable.
Policy 29	
Encourage the development of energy resources on the outer continental shelf, in Lake Erie and in other water bodies, and ensure the environmental safety of such activities.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. The Bulkhead Repair Initiative does not involve any energy resources on the outer continental shelf, in Lake Erie and in other water bodies. As such, the policy is not applicable.
WATER AND AIR RESOURCES POLICIES	
Policy 30	
Municipal, industrial, and commercial discharge of pollutants, including but not limited to, toxic and hazardous substances, into coastal waters will conform to state and national water quality standards.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. The Bulkhead Repair Initiative does not involve any municipal, industrial, and commercial discharge of pollutants. As such, the policy is not applicable.
Policy 31	
State coastal area policies and management objectives of approved local waterfront revitalization programs will be considered while reviewing coastal water classifications and while modifying water quality standards; however, those waters already overburdened with contaminants will be recognized as being a development constraint.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. The Bulkhead Repair Initiative does not involve any changes to coastal water classifications or water quality standards. As such, the policy is not applicable.
Policy 32	
Encourage the use of alternative or innovative sanitary waste systems in small communities where the costs of conventional facilities are unreasonably high, given the size of the existing tax base of these communities.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. The Bulkhead Repair Initiative does not involve any changes to sanitary waste systems. As such, the policy is not applicable.
Policy 33	
Best management practices will be used to ensure the control of stormwater runoff and combined sewer overflows draining into coastal waters.	Under the Bulkhead Repair Initiative, all sites would be evaluated for the need to comply with stormwater permitting requirements, including NYSDEC general permits or local Municipal Separate Storm Sewer Systems (MS4) permits. If multiple adjacent sites are involved, the sites would be aggregated for construction stormwater compliance. As such, the proposed action is consistent with Policy 33.
Policy 34	
Discharge of waste materials into coastal waters from vessels subject to state jurisdiction will be limited so as to protect significant fish and wildlife habitats, recreational areas and water supply areas.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. The Bulkhead Repair Initiative does not involve any discharge of waste materials into coastal waters from vessels. As such, the policy is not applicable.

Policy 35	
Dredging and filling in coastal waters and disposal of dredged material will be undertaken in a manner that meets existing State permit requirements, and protects significant fish and wildlife habitats, scenic resources, natural protective features, important agricultural lands, and wetlands.	The Bulkhead Repair Initiative may include the removal of accumulated sediments and debris in the vicinity of existing structures, associated with replacement of a bulkhead. These activities would be done in accordance with Section 404 of the Clean Water Act (CWA) and NYSDEC permit requirements. These limited activities are not anticipated to impact significant fish or wildlife habitats, scenic resources, natural protective features, important agricultural lands, or wetlands. Under the Bulkhead Repair Initiative, all solid waste must be properly segregated and disposed of at any of NYS's 80 registered and regulated (permitted) construction and demolition (C&D) debris processing facilities and 280 registered C&D debris processing facilities and in accordance with applicable regulations. All hazardous waste must be segregated and disposed of at an appropriately licensed facility. Materials would be separated from C&D waste to be recycled or to be reused for a specific use. Material that is not recovered would be sent to a municipal solid waste landfill or to a C&D debris landfill.
Policy 36	
Activities related to the shipment and storage of petroleum and other hazardous materials will be conducted in a manner that will prevent or at least minimize spills into coastal waters; all practicable efforts will be undertaken to expedite the cleanup of such discharges; and restitution for damages will be required when these spills occur.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. The Bulkhead Repair Initiative does not involve activities related to the shipment and storage of petroleum and other hazardous materials. As such, the policy is not applicable.
Policy 37	
Best management practices will be utilized to minimize the non-point discharge of excess nutrients, organics and eroded soils into coastal waters.	Best management practices (BMPs), such as silt fence and erosion prevention, may be implemented, if required by permits or agency discretion. All synthetic erosion control features, which are intended for temporary use during construction, shall be completely removed and properly disposed of after their initial purpose has been served. Only natural fiber materials may be abandoned in place. As such, the proposed action is consistent with Policy 37.
Policy 38	
The quality and quantity of surface water and groundwater supplies will be conserved and protected, particularly where such waters constitute the primary or sole source of water supply.	Under the Bulkhead Repair Initiative, all sites would be evaluated for the need to comply with stormwater permitting requirements, including NYSDEC general permits or local Municipal Separate Storm Sewer Systems (MS4) permits. If multiple adjacent sites are involved, the sites would be aggregated for construction stormwater compliance. As such, the proposed action is consistent with Policy 38.
Policy 39	
The transport, storage, treatment and disposal of solid wastes, particularly hazardous wastes, within coastal areas will be conducted in such a manner so as to protect groundwater and surface water supplies, significant fish and wildlife habitats, recreation areas, important agricultural land, and scenic resources.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. The Bulkhead Repair Initiative does not involve the transport, storage, treatment and disposal of solid wastes, particularly hazardous wastes, within coastal areas. As such, the policy is not applicable.
Policy 40	
Effluent discharged from major steam electric generating and industrial facilities into coastal waters will not be unduly injurious to fish and wildlife and shall conform to state water quality standards.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. The Bulkhead Repair Initiative does not involve effluent discharged from major steam electric generating and industrial facilities into coastal waters. As such, the policy is not applicable.

Policy 41	
Land use or development in the coastal area will not cause national or state air quality standards to be violated.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. The Bulkhead Repair Initiative will not cause national or state air quality standards to be violated. As such, the proposed action is consistent with this policy.
Policy 42	
Coastal management policies will be considered if the state reclassifies land areas pursuant to the prevention of significant deterioration regulations of the federal clean air act.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. The Bulkhead Repair Initiative does not involve the reclassification of land area. As such, the policy is not applicable.
Policy 43	
Land use or development in the coastal area must not cause the generation of significant amounts of acid rain precursors: nitrates and sulfates.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. The Bulkhead Repair Initiative will not cause the generation of significant amounts of acid rain precursors. As such, the policy is not applicable.
WETLANDS POLICY	
Policy 44	
Preserve and protect tidal and freshwater wetlands and preserve the benefits derived from these areas.	The Bulkhead Repair Initiative would repair or replace existing bulkheads to protect existing residential properties. The Bulkhead Repair Initiative would not alter tidal or freshwater wetlands. All activities funded under this program will be consistent with state environmental laws concerning tidal and freshwater wetlands and as such will be protective of the benefits derived from these areas. As such, the proposed action is consistent with this policy.
Sources: State Coastal Policies, New York State Department of State Coastal Management Program. http://www.dos.ny.gov/opd/programs/pdfs/CoastalPolicies.pdf	

Appendix N:

NY Natural Heritage Program Consultation

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov

Joe Martens
Commissioner

February 6, 2014

Shawn Williams
Permitting Specialist
ProSource Technologies, LLC
9219 East River Road NW
Minneapolis, MN 55433

Dear Mr. Williams:

We have received your request of February 3, 2014, regarding the NY Rising Bulkhead Repair Program for Residential Properties, designed to provide assistance for repairing damaged bulkheads on residential properties with any number of housing units in 12 counties in New York State, administered by New York State Homes and Community Renewal (NYS HCR)l as part of the U.S. Department of Housing and Urban Development Community Development Block Grant – Disaster Recovery Housing Assistance Program.

While the New York Natural Heritage database is not expected to have any records of state or federal endangered, threatened, or rare species at the great majority of the properties in the Bulkhead Repair Program, we cannot provide a comprehensive determination of no impacts for all sites without conducting a screening of the specific project sites.

We will explore with you and with NYS HCR the most efficient means to conduct the site-specific project screenings.

Sincerely,

Nicholas B. Conrad
Information Resources Coordinator
NY Natural Heritage Program

February 3, 2014

Nicholas Conrad
New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program- Information Services
625 Broadway, 5th Floor
Albany, New York 12233-4757

RE: Introduction of CDBG-DR NY Rising Bulkhead Repair Program

Dear Mr. Conrad,

At the request of New York State (NYS) Homes and Community Renewal (HCR) we are providing this letter to the New York Department of Environmental Conservation (DEC) Natural Heritage Program (NYNHP) to introduce the NY Rising Bulkhead Repair Program and engage agency coordination. HCR is proceeding with preparation of the Tier 1 Programmatic Environmental Assessments (PEAs) for the Bulkhead Repair Program. The current detailed program description is included in **Attachment A**. A map showing counties included in the Bulkhead Repair Program is included in **Attachment B**.

We would like to work with the NYNHP to develop a compliance process so that HCR, as the Responsible Entity (RE), can accurately determine compliance with NEPA and SEQR at the Tier 2 site-specific level. HCR is requesting information regarding whether a standardized species habitat matrix table (sorted by county) maps, or GIS data, may be adopted as the compliance tool for environmental review. Each parcel incorporated into the CDBG-DR Program will be subject to a site-specific Natural Heritage Resource review.

NYSHCR is requesting a response letter from the NYNHP, covering the Bulkhead Repair actions, which can be included in all Tier 1 ERRs to document that coordination with NYNHP is being completed, and that program compliance will be completed during Tier 2 site-specific review. We would like to work with NYNHP to develop a suitable tool for Tier 2 compliance, as soon as reasonably possible.

If you have any questions or require additional information regarding this request, please contact me at (763) 786-1445 or swilliams@prosourcetech.com.

Sincerely,

Shawn Williams, Permitting Specialist
ProSource Technologies, LLC

cc. Jennifer Wolff, ProSource Technologies, LLC

Attachment A Bulkhead Program Description
Attachment B Map of Affected Counties Included in the Bulkhead Program

The NY Rising Bulkhead Repair Program for Residential Properties is designed to provide assistance for repairing damaged bulkheads on residential properties with any number of housing units, including reimbursing homeowners who have already begun repairing or have completed repairs to bulkheads.

Bulkhead Definitions:

Bulkheads are defined as vertical structures constructed parallel to the shoreline or banks of a waterway, with retaining walls for the purpose preventing overtopping and flooding of the adjacent properties. Bulkheads are usually placed along an eroding bank or escapement to hold back the land and prevent erosion. Sometimes referred to as seawalls, gravity walls, quay walls, or riprap revetments, bulkheads are a long-lasting hardy structure that can stand up to moderate to high wave energy.

Residential bulkheads protect the banks and bluffs on a residential property by completely separating land from water. These bulkheads act as retaining walls, keeping the earth or sand behind them from crumbling or slumping. They also are used to resist wave action and protect property.

Bulkheads can be built in three basic types of design. They may consist of:

1) Thin, interlocking sheet piles driven deeply into the ground;
2) Individual piles used to support an aboveground structure; or
3) Massive gravity construction resting on the shore bottom or embedded slightly into it, supported by its own weight rather than by piling.

From these three basic design types, a wide variety of bulkhead designs have been developed. Common and uncommon types of bulkheads include:

- Common bulkheads:
  - Cantilever wall – typically used where there is no room for the installation of an anchor wall
  - Anchored wall with single layer of anchorage – most commonly used
    - Relieving platforms may be added to reduce lateral pressure
    - Batter piles may be driven to use as anchors behind the wall, but should only be considered if there is insufficient room for an anchor and the height of the walls exceeds the design parameters for a cantilever wall.
  - Soldier pile wall, also known as a “King” pile wall, consisting of piles added to the front of an anchored wall to help prevent deflection
  - Soldier beams and lagging
  - Close pile wall
  - Double wall
  - Various combinations can be used of the above general designs to meet the conditions of the site
- Some uncommon bulkhead types are listed below. They are unlikely to be encountered, but are listed for reference.
  - Railroad ties and steel H-piles
  - Treated timber
  - Untreated log

- Hogwire fencing and sandbags – this type would not meet the criteria provided in the general permit
- Used rubber tire and timber post
- Timber cribbing
- Stacked rubber tires
- Used concrete pipes
- Longard tubes
- Stacked bags
- Gabbions

Damage to Bulkheads

Bulkheads are susceptible to various forms of damage due to their presence in the interface between land and water. The action of water, both in front of the wall and behind it, can cause bulkhead damage. Waves that lap over the top can erode the land behind the structure as if the wall were not there, so the structure must be built high enough to prevent such overtopping. Groundwater and rain percolating through the soil may build up pressure behind the wall, eventually pushing it over. Scour at the toe of the bulkhead can undermine the structure and tip it over. Water flowing around the sides of the bulkhead can also cause severe erosion damage, so the structure should cover the entire surface that could be eroded.

Typical storm damage that has been seen from Hurricane Sandy and other similar events has included erosion of the toe of the bulkhead, washout of fill behind the bulkheads, impact damage to sheet piling or other sheeting, and the loss of decking and sheeting from flooding. Most references to historical storm events indicate that the damage incurred was an acceleration of typical wear to bulkheads.

Program description:

Residential property owners in disaster-declared counties who sustained damage to bulkheads have been invited to submit an application for assistance to repair damage caused by any of the storms identified in the Action Plan. Funding for repair and mitigation will include costs for the repair/replacement of damaged bulkheads, seawalls, quay wall, and coastal revetments. It will cover costs for unmet repair or replacement needs after accounting for all federal, state, local and/or private sources of disaster-related assistance. Assistance for repair, rehabilitation, replacement, and reimbursement funding will be capped at the lesser of a specified dollar amount to be determined by NYS, or the unmet repair, rehabilitation, replacement, and reimbursement need as described above. To direct sufficient levels of assistance to those most in need, especially low- or moderate-income and minority households, a higher overall dollar cap amount may be applied to those households of low- or moderate-income, where the need is justified.

The discussion below outlines the activities that would be carried out under the NY Rising Bulkhead Repair Program to address storm-related damage to bulkheads. The following steps will be implemented:

Inspection and Reporting

The condition of the existing bulkhead will be identified, and qualified personnel will determine whether to repair or replace the damaged structure. The inspector will provide photographs,

sketches, and a detailed narrative of the existing site conditions and proposed method of repair or replacement, including a cost estimate.

Documentation

Documentation will be prepared to satisfy General Permit GP-0-13-006, which includes plans and sections. These documents may require the signature and seal of a civil and/or structural engineer.

Activity Summary

Bulkhead repair activities will be conducted in accordance with the federally issued design criteria documents.

As project activity begins, certain portions of the existing wall that could not previously be inspected will be exposed and/or accessible, and should be assessed for additional damage. While most of these materials are unlikely to have been damaged during a storm event, depending on the age of the wall, there is the potential for wear. These previously inaccessible features include:

- Tiebacks
- Anchor walls
- Batter piles
- Relieving platforms
- Backfill
- Scour protection materials

The applicability of the existing bulkhead design to the local conditions will be reviewed. For replacement walls, the following design issues will be considered:

- Exposure to wave attack
- Foundation condition
- Scour, in particular wave reflection from vertical walls for bulkheads
- Overtopping by wave action (in particular during storm events)

During storm events, excessive waves may cause increased scour and overtopping, while debris carried in the storm event may damage walls and piles. To ensure protection during storm events, the review of existing walls and the design or replacements or repairs will include assessment of:

- Compartmentation: The design of the wall should be such to allow for repair only of the area damaged rather than the entire wall
- The potential for inundation of the backfill of the wall, which could cause wash out or subsidence, should be reviewed, and if necessary adequate drainage should be provided
- Impact to the wall, including storm debris

Methods for construction or repairs of the walls will vary based on site conditions. An example of construction methods for a sheet pile wall is provided below:

- Where removal of soft material is contemplated, dredging should precede the driving of sheet piling.

- Where existing material behind the bulkhead is to remain in place, it is advisable to dredge in front of the bulkhead after completion of the structure. This emphasizes arching in the material behind the wall and reduces bending stresses. Dredging adjacent to sheet piling after completion should be done in two or three vertical stages to avoid rapid changes and load differentials.
- Add fill behind the wall in areas of broad extent so that the concentration of lateral pressure does not cause differential alignment along the length of the wall.
- Consider compaction pressure due to the driving of support piles (relieving platform or track supports) behind the front wall. If dredging in front of the wall is done after the piles are driven, deflection of the wall will tend to relieve these pressures. Specify the driving sequence for such piles to avoid a progressive increase of the wedging effect.
- Tie rods would be pre-tensioned as uniformly as is practicable. It is emphasized, however, that uniform load in the tie rods is an unlikely occurrence. The provisions relating to allowable stresses in the anchor system are intended to provide for this situation. The implications are more general, however. The anchor system must be able to deform inelastically.
- Concrete walls and anchor walls should be reinforced on both faces and not simply in accordance with the theoretical moment diagram. The use of high steel in tie rods should be approached with caution to assure that the steel is capable of several percent elongation without fracture.
- Where the anchorage depends on passive earth pressure, place and compact backfill around the anchorage before filling against the bulkhead.

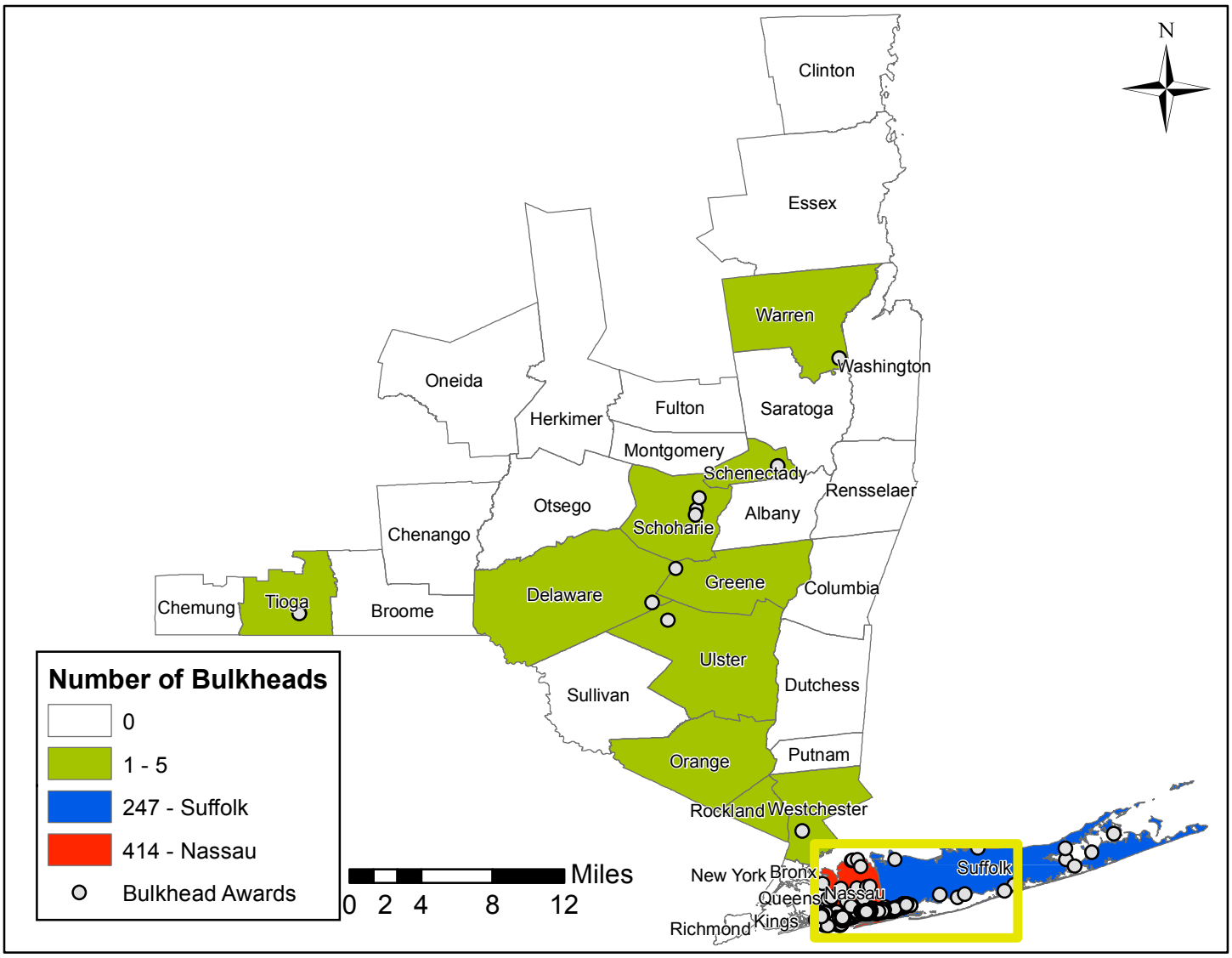
- In the filling of a relieving platform-type structure, the area at the back end of the platform should be filled to deck level, the deck placed over the batter piles, and filling continued to grade. This will provide load on the batter piles to assist in resisting the tension which will be caused by the tension in the tie rod. The deck area adjacent to the sheets may then be placed and fill completed.
- When placing hydraulic fill, the discharge line should be located on or in front of the anchorage line. Drainage openings should be provided in sheet piles at about 100 foot (30.5 meter) intervals.
    - Depending on the wall type, a coffer dam may be necessary to perform repairs or construction.
    - For the installation of sheet piles, it is important to ensure that the base of the pile has been adequately seated to prevent deflection of the wall.
- In a soft bottom, it should be possible to develop adequate toe resistance while driving the pile to adequately seat the pile. If adequate toe resistance cannot be obtained, excavating and replacing of the bottom should be considered
- In a hard bottom with shallow impenetrable material, consider using soldier piles for support or trenching for the base of the wall.
- Various materials are available for construction of the front wall. For the majority of the materials, such as steel, timber, and concrete, standard pile and sheet piling techniques, as well as the manufacturer's recommendation, will insure proper

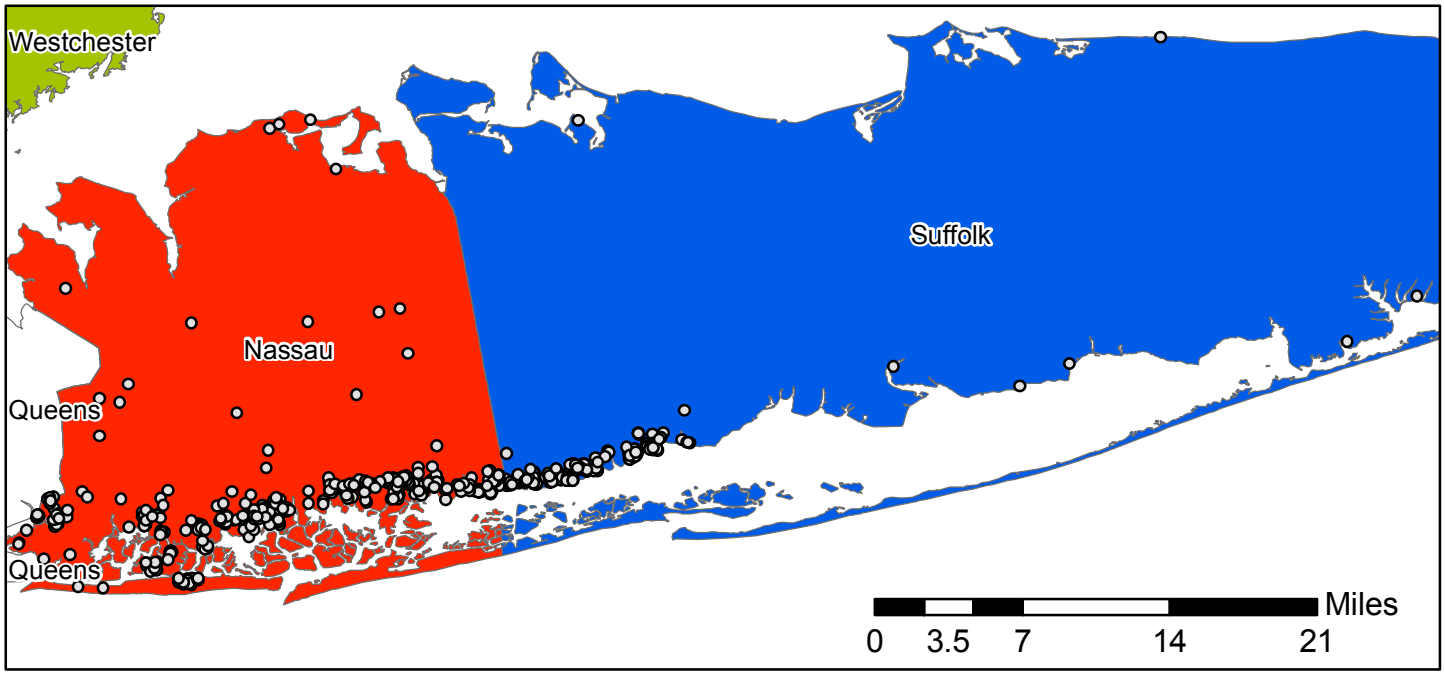
installation. More recently, newer materials, including galvanized corrugated sheet metal, corrugated fiberglass, and corrugated aluminum have become available on the market. The use of these materials at existing locations should be reviewed based on:

  - Freeze thaw cycles
  - Corrosion
  - Marine borers
  - Ultraviolet light reactions
  - Abrasion
  - Wave and ice forces

- It is recommended that regardless of the materials selected, the manufacturer should be consulted for proper installation techniques.
- For the construction of the anchorage, a simple concrete wall or sheet pile deadman should be used. If there is limited area, pile-supported anchorage (batter piles) may be used, but this should be a last resort.

Number of Bulkhead Awards by County





State maps developed by GCR Inc.

Data Source: Bulkhead data effective (11/21), Base layers - NYSGIS Clearinghouse

Appendix O:

NY Historic Preservation Programmatic Agreement

PROGRAMMATIC AGREEMENT AMONG THE FEDERAL EMERGENCY MANAGEMENT AGENCY, THE NEW YORK STATE HISTORIC PRESERVATION OFFICE, THE NEW YORK STATE OFFICE OF EMERGENCY MANAGEMENT, THE DELAWARE NATION, THE DELAWARE TRIBE OF INDIANS, THE SHINNECOCK NATION, THE STOCKBRIDGE-MUNSEE COMMUNITY BAND OF MOHICANS, THE NEW YORK CITY LANDMARKS PRESERVATION COMMISSION, AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, AS A RESULT OF HURRICANE SANDY

WHEREAS, the mission of the Federal Emergency Management Agency (FEMA) of the Department of Homeland Security is to support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards; and

WHEREAS, as a result of Hurricane Sandy (DR-4085-NY) (Disaster Declaration), FEMA proposes to administer Federal disaster assistance programs set forth in Appendix A (Programs), pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Pub. L. No. 93-288 (1974) (codified as amended at 42 U.S.C. § 5121 *et seq.*) (Stafford Act); the National Flood Insurance Act of 1968, Pub. L. No. 90-448 (1968) (as amended); the Flood Disaster Protection Act of 1973, Pub. L. No. 93-234 (1973) (as amended); the National Flood Insurance Reform Act of 1994, Pub. L. No. 103-325 (1994) (as amended); and implementing regulations contained in Title 44 of the Code of Federal Regulations (CFR).

WHEREAS, FEMA has determined that implementation of its Programs may result in Undertakings (as defined by 16 U.S.C. § 470w and 36 CFR § 800.16(y)) that may affect properties listed in or eligible for listing in the National Register of Historic Places (National Register) pursuant to 36 CFR Part 60 (historic properties), and FEMA has consulted with the New York State Historic Preservation Officer (SHPO), the New York State Office of Emergency Management (OEM), the New York City Landmarks Preservation Commission (LPC), the Delaware Nation, the Delaware Tribe of Indians, the Shinnecock Nation, the Stockbridge-Munsee Community Band of Mohicans (Participating Tribe[s]) and the Advisory Council on Historic Preservation (ACHP) pursuant to Section 106 of the National Historic Preservation Act (NHPA), Pub. L. No. 89-665 (1966) (codified as amended at 16 U.S.C. § 470f) and Section 110 of NHPA (codified as amended at 16 U.S.C. §470h-2), and the Section 106 implementing regulations at 36 CFR Part 800; and

WHEREAS, FEMA, ACHP, and SHPO have determined that FEMA's Section 106 requirements can be more effectively and efficiently implemented and delays to the delivery of FEMA

assistance minimized if a programmatic approach is used to stipulate roles and responsibilities, exempt certain Undertakings from Section 106 review, establish protocols for consultation, facilitate identification and evaluation of historic properties, and streamline the assessment and resolution of adverse effects; and

WHEREAS, in order to implement its Programs, FEMA will provide assistance to the State of New York that may provide monies and other assistance to eligible subgrantees, and as such, the New York Office of Emergency Management (OEM) that is typically responsible for administering funds provided under these Programs, has participated in this consultation, and has been invited to enter into this Agreement as an invited signatory party; and

WHEREAS, LPC is the agency responsible for identifying and designating New York City's landmarks and historic districts, regulates changes to designated buildings, and by law, issues permits under the LPC law (Charter of the City of New York §§ 3020 et seq. and the Administrative Code of the City of New York §§25-301 et seq.) for LPC designated properties in the City of New York, and therefore any FEMA Undertaking affecting such a property shall require an LPC permit prior to commencement of work or demolitions, LPC has participated in this consultation and has been invited to enter into this Agreement as a concurring party; and

WHEREAS, FEMA has determined that its Programs may result in Undertakings with the potential to affect historic properties having religious and cultural significance to Indian Tribes, including sites that may contain human remains and/or associated cultural items; and

WHEREAS, FEMA recognizes that the Participating Tribe(s) may have sites of religious and cultural significance on or off Tribal lands, and in meeting its Federal trust responsibility, FEMA has engaged in government-to-government consultation with the Participating Tribe(s), and pursuant to 36 CFR § 800.2 (c)(2)(ii)(E) has invited the Participating Tribe(s) to enter into an agreement that specifies how FEMA and the Participating Tribe(s) will carry out Section 106 responsibilities, including the confidentiality of information. The agreement may grant the Participating Tribe(s) additional rights to participate or concur in FEMA decisions in the Section 106 review process beyond the ones outlined in 36 CFR Part 800; and

WHEREAS, notwithstanding the aforementioned invitation to enter into an agreement, FEMA has invited the Participating Tribe(s) to enter into this Agreement each as an invited signatory party to fulfill the requirements of Section 106; and

WHEREAS, FEMA may invite additional Tribes that may have sites of religious and cultural significance to enter into the terms of this Agreement; and

WHEREAS, FEMA may perform direct Undertakings in order to implement its Programs; and

WHEREAS, in anticipation or in the immediate aftermath of the Disaster Declaration, impacted communities in the State of New York and/or affected Tribe(s) may conduct critical preparedness and response and recovery activities to safeguard public health and safety and to restore vital community services and functions. Some of these activities may become Undertakings requiring

Section 106 review subject to the terms of this Agreement, and FEMA shall coordinate the appropriate review as warranted; and

NOW, THEREFORE, FEMA, ACHP, SHPO, (as the signatories) OEM, Participating Tribe(s) (invited signatories), and LPC(concurring party) agree that the Programs in the State of New York shall be administered in accordance with the following Stipulations to satisfy FEMA's Section 106 responsibilities for all resulting Undertakings and effectively integrate historic preservation compliance considerations into the delivery of FEMA assistance. FEMA will not authorize implementation of an individual Undertaking until Section 106 review of the project is completed pursuant to this Agreement.

STIPULATIONS

To the extent of its legal authority, and in coordination with the other signatories, FEMA will require that the following measures be implemented:

I. GENERAL

A. Applicability

1. This Agreement applies immediately for this Disaster Declaration after execution by all signatory parties and will remain in effect for the duration of the period that the Disaster Declaration remains open for FEMA funding.

2. For FEMA undertakings that also are within the jurisdiction of the Federal Communications Commission's (FCC) and within the scope of its Section 106 Programmatic Agreements for communication facilities, FEMA defers Section 106 review in accordance with the ACHP Program Comment of October 23, 2009. The approval of funding for the FEMA Undertaking will be conditioned on the compliance of the subgrantee with FCC's applicable Section 106 review, including any required consultation with affected Tribe(s). FEMA will notify the SHPO when it applies the ACHP Program Comment to an Undertaking.

3. Other Federal agencies providing financial assistance for the type of Program activities covered under the terms of this Agreement may, with the concurrence of ACHP, FEMA, SHPO satisfy their Section 106 responsibilities by accepting and complying with the terms of this Agreement. "Other Federal Agencies" may include municipalities providing funds and acting as the Responsible Entity pursuant to 24 CFR Part 58. In such situations, the Federal Agency shall notify FEMA, SHPO and ACHP and other consulting parties to the PA, including participating tribes in writing of their intent to use this Agreement to achieve compliance with Section 106 requirements, and consult with those agencies regarding its section 106 compliance. Resumes of staff that meet the Secretary's Professional Qualifications and will review Tier II projects will be included with the notification. The Federal agency may utilize this Agreement to satisfying its Section 106 responsibilities by executing the

Addendum included in Appendix D. The Agreement will be effective for the Federal agency on the date the Addendum is executed by SHPO, FEMA and ACHP.

4. This Agreement may apply to Undertakings involving multiple Federal agencies and where some or all of the Federal agencies involved in the Undertaking may designate FEMA as the lead Federal agency pursuant to 36 CFR § 800.2(a)(2) with appropriate notification to the ACHP. FEMA will act on the collective behalf of the agencies to fulfill all Section 106 responsibilities. Federal agencies that do not designate FEMA as the lead Federal agency will be responsible for doing a separate consultation pursuant to Section 106 and 36 CFR Part 800.

5. As a result of the Disaster Declaration, State, Tribal and local governments may lack the capability to perform or to contract for emergency work, and instead request that the work be accomplished by a Federal agency. Through a mission assignment (MA), FEMA may direct appropriate Federal agencies to perform the work. This Agreement will apply to such Federal assistance undertaken by or funded by FEMA pursuant to Titles IV and V of the Stafford Act and 44 CFR Part 206.

6. If SHPO has reviewed and approved an Undertaking submitted by a subgrantee that was the result of damage from Hurricane Sandy before FEMA has established an Undertaking for that same project, and FEMA confirms that the scope and effect [as defined by 36 CFR § 800.16(i)] of the Undertaking as reviewed by the SHPO has not changed, and SHPO/Tribal concurrence is documented, FEMA shall document these findings to the project files in order to confirm that the requirements of Section 106 have been satisfied.

7. If another Federal program or Federal agency has reviewed and approved an Undertaking under Section 106 of the NHPA within the past five years, FEMA has no further requirement for Section 106 review provided that it confirms that the scope and effect [as defined by 36 CFR § 800.16(i)] of the Undertaking as reviewed by the previous agency has not changed, and SHPO/Tribal concurrence is documented. FEMA shall document these findings to the project files in order to confirm that the requirements of Section 106 have been satisfied.

8. Should FEMA, in consultation with SHPO and Participating Tribe(s), determine that the previous Section 106 review was insufficient or involved interagency disagreements on eligibility, effect, or mitigation, FEMA shall conduct additional Section 106 review in accordance with the terms of this Agreement.

9. Pursuant to 44 CFR § 206.110(m), assistance to individuals and households provided under 44 CFR Part 206, Subpart D and Section 408 of the Stafford Act, including funding for owner occupied home repair and replacement, content replacement, personal property, transportation and healthcare expenses, is exempt from the provisions of Section 106. For ground disturbing activities, and construction related to 44 CFR §§ 206.117(b)(1)(ii) (temporary housing), 206.117(b)(3) (replacement

housing), 206.117(b)(4) (permanent housing construction), and 206.117(c)(1)(vi) (privately owned access routes), FEMA will conduct Section 106 review.

10. FEMA has determined that the following types of activities have limited or no potential to affect historic properties and FEMA has no further Section 106 responsibilities, pursuant to 36 CFR § 800.3(a)(1):

    b. Administrative actions such as personnel actions, travel, procurement of services, supplies (including vehicles and equipment) for the support of day-to-day and emergency operational activities, and the temporary storage of goods provided storage occurs within existing facilities or on previously disturbed soils.

    c. Preparation, revision, and adoption of regulations, directives, manuals, and other guidance documents.

    c. Granting of variances, and actions to enforce Federal, State, or local codes, standards or regulations.

    d. Monitoring, data gathering, and reporting in support of emergency and disaster planning, response and recovery, and hazard activities.

    e. Research and development of hazard warning systems, hazard mitigation plans, codes and standards, and education/public awareness programs.

    f. Assistance provided for planning, studies, design and engineering costs that involve no commitment of resources other than staffing and associated funding.

    g. Assistance provided for training, management and administration, exercises, and mobile/portable equipment purchases; with the exception of potential ground-disturbing activities and modification of existing structures.

    h. Community Disaster Loans for funding to perform governmental functions for any eligible jurisdiction in a designated disaster area that has suffered a substantial loss of tax and other revenue.

    i. Acquisition or lease of existing facilities where planned uses conform to past use or local land use requirements.

    j. Funding the administrative action of acquiring properties in buyout projects e.g., surveys, legal fees, non-destructive abatement activities), excluding the real estate transaction and demolition. Per Item III.D, OEM shall advise its subgrantees that they may jeopardize Federal funding if work is performed without all required local, State and Federal licenses, permits or approvals, including the completion of the Section 106 process.

k. Reimbursement of a subgrantee's insurance deductible, when the deductible is the total FEMA eligible cost for the project.

l. Labor, equipment and materials used to provide security in the Disaster Declaration area, including lease, rental, purchase or repair of equipment or vehicles and payment for staff and contract labor.

m. Application of pesticides to reduce adverse public health effects, including aerial and truck-mounted spraying.

n. Unemployment assistance.

o. Distribution of food coupons.

p. Legal services.

q. Crisis counseling.

11. The terms of this Agreement will not apply to Undertakings on Tribal (reservation) lands) unless the affected Tribe(s) have concurred in writing.

12. Any FEMA Programs authorized by the United States Congress in the future may be included in this Agreement in accordance with Stipulation IV.A, Amendments. Any change in the FEMA name, Programs, or organizational structure will not affect this Agreement.

B. Roles and Responsibilities of FEMA, SHPO, OEM, and LPC

1. FEMA:

a. FEMA will use Federal, Tribal, State, subgrantee, or contractor staff whose qualifications meet the Secretary of the Interior's (Secretary's) Professional Qualifications Standards (Professional Qualifications) set forth in the Federal Register at 48 Fed. Reg. 44716-01 (September 29, 1983), as amended (Qualified), in completing identification and evaluation of historic properties and in making determinations of effects. FEMA will review any National Register eligibility determination and make its own findings of effect resulting from the performance of these activities prior to submitting such determinations to the SHPO and Participating Tribe(s).

i. FEMA acknowledges that Tribe(s) possess special expertise in assessing the National Register eligibility of properties with religious and/or cultural significance to them. Tribal leaders and, as appropriate, their representatives shall decide who meets qualifications/standards as defined by their Tribe(s) for review of undertakings affecting properties with religious and/or cultural significance to Tribe(s).

b. FEMA will coordinate with the LPC to help LPC ensure that subgrantees apply for permits.

   i. If an Undertaking as defined by 36 CFR § 800.5 has the potential to adversely affect an LPC designated property or one calendared for designation, then FEMA will provide LPC with the same documentation that is provided to SHPO and Participating Tribe(s).

   ii. When LPC notifies FEMA that an Undertaking is subject to further LPC review and permitting, FEMA EHP may approve the project and will notify the Grantee that the subgrantee is responsible for obtaining a permit from LPC.

   iii. FEMA will request LPC to be a consulting party on any Memorandum of Agreement (MOA) that is written to resolve adverse effects to buildings that are LPC designated or proposed landmarks.

c. FEMA alone shall conduct all project consultation with participating Tribes. In accordance with 36 CFR § 800.2(c)(4), FEMA may authorize the Grantee, or a subgrantee through the Grantee, to initiate the Section 106 process with the SHPO and other consulting parties, assist in identifying other consulting parties with a demonstrated interest in the Undertaking, and prepare any necessary analyses and documentation, but FEMA will remain legally responsible for determinations of National Register eligibility and findings of effect recommended by the authorized party. FEMA shall follow the process set forth in Stipulation I.B.1.a, FEMA Roles and Responsibilities, above and notify the SHPO in writing when a Grantee or subgrantee has been authorized to initiate consultation on FEMA's behalf.

d. Prior to authorizing the release of funds for individual undertakings requiring grant conditions pursuant to this Agreement, FEMA will inform OEM of all stipulations and conditions and ensure that they are understood so they can be adequately conveyed to subgrantees. FEMA will work in partnership with OEM to provide subgrantees with guidance on in-kind repair pursuant to The Secretary of the Interior's Standards for the Treatment of Historic Properties 1995 (Standards), 36 CFR Part 68, or the most updated version, and techniques to avoid or minimize adverse effects to historic properties.

e. FEMA shall provide the signatories and invited signatories with bi-annual reports for the previous six months by July 1st and December 31st of each year that this Agreement is in effect. This annual report will summarize the actions taken to implement the terms of this Agreement, statistics on Undertakings reviewed, and recommend any actions or revisions to be considered, including updates to the appendices.

f. FEMA will confer bi-annually and as necessary with signatories and invited signatories to this Agreement within 30 days after issuance of the annual report, to review the report and/or discuss issues and concerns in greater detail.

g. FEMA shall convene the an initial scoping meeting with the signatories and invited signatories as soon as practicable following the Disaster Declaration and provide specific points of contact and other pertinent information about the Disaster Declaration.

h. FEMA shall ensure that all documentation resulting from Undertakings reviewed pursuant to this Agreement shall be consistent with applicable SHPO and Tribal guidelines and the confidentiality provisions of 36 CFR § 800.11(c).

2. SHPO:

a. SHPO shall review FEMA's determination of the Areas of Potential Effect (APE), National Register eligibility determinations, and FEMA's effect findings and provide comments within timeframes required by this Agreement.

b. Upon request, the SHPO will provide FEMA/and or its designee(s) with available information about historic properties (such as access to online systems or site files, GIS data, survey information, geographic areas of concern). Such data sharing may be memorialized in an agreement. Only Qualified FEMA staff and/or its designee(s) shall be afforded access to protected cultural resources information.

c. The SHPO will identify staff or consultants to assist FEMA staff with its Section 106 responsibilities, and identify, in coordination with FEMA, specific activities that SHPO may perform for specific undertakings as agreed in writing with FEMA.

d. As requested, SHPO staff will be available as a resource and for consultation through site visits, written requests, telephone conversations or electronic media. In those instances where consultation with SHPO has occurred, a written notice (via e-mail or regular mail) will be sent to SHPO to confirm any decisions that were reached.

e. FEMA and the SHPO may agree to delegate some or all of the SHPO's responsibilities under this Agreement to supplementary SHPO staff assigned to FEMA-DR-4085-NY that are physically located in FEMA's Joint Field Office or SHPO offices in order to help expedite project review or other responsibilities under this Agreement. FEMA, SHPO and OEM will consult about the selection of the supplementary SHPO staff, the scope of responsibilities delegated, and the implementing procedures related to the actions and decisions delegated. FEMA and SHPO shall formally document their agreement regarding the supplementary SHPO staff.

f. The SHPO shall participate in an initial scoping meeting for the Disaster Declaration.

g. The SHPO may assist local jurisdictions or OEM with advance planning efforts to consider historic properties related to their preparedness, homeland security, response, recovery, and mitigation programs, for which FEMA funding may be requested.

h. The SHPO will coordinate with FEMA, to identify consulting parties, including any communities, organizations, or individuals that may have an interest in a specific Undertaking and its effects on historic properties.

3. LPC

a. LPC will review FEMA Undertakings that have the potential to adversely affect an LPC designated property or one calendared for designation using FEMA consultation documents that are provided to SHPO and Participating Tribe(s) so that LPC may notify FEMA whether or not an LPC property may be affected by the Undertaking and will require a LPC permit.

b. LPC understands that if it does not respond to FEMA's submittal of Undertakings to them within the timeframes outlined in Stipulation I.E, i.e. within 4 days under emergency conditions, 15 days for IA and PA Undertakings and 30 days for HMGP Undertakings, FEMA will assume that none of the Undertakings are subject to LPC review and permitting and will proceed with the Undertaking.

4. OEM:

a. OEM shall ensure that its subgrantees understand and acknowledge conditions and potential requirements that may be placed upon Undertakings as a result of Section 106 consultation and the provisions of this Agreement.

b. Subgrantee government and private non-profit agencies are advised in OEM applicant briefings and program materials that FEMA funding may be jeopardized unless all local, State and Federal permits, licenses and approvals are received. NYC LPC reviews and permits were discussed in briefings held for NYC agencies and private non-profits. The official notice to a subgrantee that an Undertaking is subject to further LPC review will be the project approval document specifying the project scope and limits, and containing all conditions and caveats, including an approved Project Worksheet (PW) for a Public Assistance project, and an approved Application for an HMGP project.

c. OEM will participate in an initial scoping meeting for the Disaster Declaration.

d. OEM shall ensure that subgrantees understand that failure to comply with the terms of this Agreement and any project-specific conditions could jeopardize FEMA funding.

e. OEM will notify FEMA as soon as possible of any proposed change to the approved scope of work and direct the subgrantee not to implement the changes to the proposed scope of work until any additional review required by this Agreement is complete.

f. OEM shall ensure that its subgrantees are made aware that in the event of an unexpected discovery involving an Undertaking that has affected a previously unidentified historic property, human remains, or affected a known historic property in an unanticipated manner, the subgrantee will comply with Stipulation III.B, Unexpected Discoveries.

g. When issued as a FEMA condition, OEM shall ensure that in its subgrant agreements, any scope of work involving ground disturbance, and resultant contracts to execute said work, provide for the protection of and notification protocols for unexpected discoveries of cultural material and human remains.

h. If the Tribe assumes the role of Grantee for projects on Tribal lands, it will assume the same responsibilities as outlined in Stipulation I.B.3 of this Agreement, Roles and Responsibilities of the Signatories.

C. Tribal Consultation

1. For Tribes that have assumed the responsibilities of the SHPO through appointment of a Tribal Historic Preservation Officer (THPO) per Section 101 of the NHPA, FEMA shall consult with the THPO in lieu of the SHPO for undertakings occurring on or affecting tribal lands.

2. Where no Tribal-specific consultation agreements or protocols are in place, FEMA shall consult with affected Tribe(s) in accordance with 36 CFR Part 800. In determining who the affected Tribe(s) may be, FEMA will first establish that an Undertaking has the potential to affect historic properties with religious or cultural importance. FEMA may consult with the SHPO, affected Tribe(s), any State Tribal Agency, and access the National Park Service (NPS) Native American Consultation Database to identify Tribal geographic interests.

3. FEMA shall ensure that its consultations with other consulting parties shall not include the dissemination of information, when advised of data sensitivity by the affected Tribe(s), that might risk harm to an American Indian site or property of religious or cultural significance or that might impede the use of such a site by the affected Tribe(s) in accordance with Section 304 of the NHPA and other applicable laws. Information provided is exempt from public knowledge and disclosure under the Freedom of Information Act (FOIA) by both Section 304 of the NHPA and Section 9 of the Archaeological Resources Protection Act (ARPA) (16 U.S.C. §470aa – 470mm).

D. Public Participation

1. FEMA recognizes that the views of the public are essential to informed decision making throughout the Section 106 review process. FEMA will notify the public of proposed Undertakings in a manner that reflects the nature, complexity, and effect(s) of the Undertaking, the likely public interest given FEMA's specific involvement, and any confidentiality concerns of affected Tribe(s), and private individuals and businesses.

2. FEMA will consult with OEM, the subgrantee, SHPO, and Participating Tribe(s), to determine if there are individuals or organizations with a demonstrated interest in historic properties that should be made aware of an Undertaking. If such parties are identified or identify themselves to FEMA, FEMA will provide them with information regarding the Undertaking and its effect on historic properties, consistent with the confidentiality provisions of 36 CFR § 800.11(c).

3. In accordance with the outreach strategy developed for an Undertaking in consultation with the SHPO and Participating Tribe(s), for involving the public, FEMA will identify the appropriate stages for seeking public input during the Section 106 process.

4. FEMA will consider all views provided by the public regarding an Undertaking and will consider all written requests of individuals and organizations to participate as consulting parties, and in consultation with the SHPO and Participating Tribe(s), determine which should be consulting parties. FEMA will invite any individual or organization that will assume a specific role or responsibility outlined in a Section 106 agreement document to participate as an invited signatory party in that agreement document.

5. FEMA also may provide public notices and the opportunity for public comment or participation in an Undertaking through the public participation process of the National Environmental Policy Act (NEPA) and its implementing regulations set out at 44 CFR Part 10, and/or Executive Orders 11988 and 11990 relating to floodplains and wetlands as set out in 44 CFR Part 9, and Executive Order 12898, Environmental Justice, provided such notices specifically reference Section 106 as a basis for public involvement.

E. Timeframes

All time designations will be in calendar days unless otherwise stipulated. If any signatory or invited signatory does not object to FEMA's determination related to a proposed action within an agreed upon timeframe, FEMA may proceed to the next step in the review process as described in Stipulation II, Project Review. Due to the varied nature of Undertakings, the individual response times to FEMA's requests for comment/concurrence will vary.

1. Under emergency conditions, the SHPO and Participating Tribe(s) will respond to any FEMA request for comments within three (3) days after receipt, unless FEMA determines the nature of the emergency action warrants a shorter time period.

2. For Undertakings associated with the Individual Assistance (IA) and Public Assistance (PA) programs, the review time shall be a maximum of fifteen (15) days for delineation of the Area of Potential Effect (APE), determinations of National Register eligibility and findings of effect.

3. For the Hazard Mitigation Grant Program (HMGP), the response time for each request for concurrence shall be a maximum of thirty (30) days.

II. PROJECT REVIEW

A. Programmatic Allowances

1. If FEMA determines an Undertaking conforms to one or more of the allowances in Appendix B of this Agreement, FEMA will complete the Section 106 review process by documenting this determination in the project file, without SHPO and Tribal review or notification.

2. If the Undertaking involves a National Historic Landmark (NHL), FEMA shall notify the SHPO and Participating Tribe(s) and the NHL Program Manager in the NPS Northeast Regional Office that the Undertaking conforms to one or more allowances. FEMA will provide information about the proposed scope of work for the Undertaking and the allowance(s) enabling FEMA's determination.

3. If an Undertaking is not composed entirely of an allowance listed in Appendix B, FEMA will conduct Section 106 review for the entire Undertaking.

4. For an Undertaking that FEMA determines does not meet the allowance criteria, FEMA shall complete the Section 106 review process in accordance with Stipulation II.C, Standard Project Review, as applicable.

5. Allowances may be revised and new allowances may be added to this Agreement in accordance with Stipulation IV.A.3, Amendments.

B. Expedited Review for Emergency Undertakings

1. As part of the Disaster Declaration process, FEMA will define the time interval during which the disaster causing incident occurs (the incident period, as defined in 44 CFR § 206.32(f)). FEMA may approve Federal assistance and/or funding for emergency work (as defined in 44 CFR § 206.201(b)) that occurs during the incident period, including work already completed, in response to an immediate threat to human health and safety or improved property. FEMA will conduct expedited review of emergency Undertakings from October 27, 2012, the beginning of the incident period, until January 27, 2013.

2. Should FEMA determine that it is necessary to extend the expedited review period beyond January 27, 2012, FEMA will request in writing, prior to the expiration of the expedited review period, an extension of the period of applicability in 30-day increments in accordance with 36 CFR § 800.12(d).

3. For all emergency Undertakings, FEMA will determine the following:

   a. If the Undertaking is an immediate rescue and salvage operations conducted in response to an event to preserve life and property, FEMA has no Section 106 review responsibilities in accordance with 36 CFR § 800.12(d); or

   b. If the Undertaking meets one or more of the Allowances in Appendix B of this Agreement, FEMA will complete the Section 106 review process pursuant to Stipulation II.A.1, Programmatic Allowances.

   c. If FEMA determines that the emergency Undertaking will adversely affect a historic property during this expedited review period, to the extent practicable FEMA may propose treatment measures that would address adverse effects during implementation, and request the comments of the SHPO and/or the affected Tribe(s) within 3 days of receipt of this information unless FEMA determines the nature of the emergency warrants a shorter time period. FEMA may elect to consult with the SHPO and/or the affected Tribe(s) regarding the emergency Undertaking at any point before or during the implementation of an emergency Undertaking if FEMA determines circumstances are appropriate for expedited consultation.

   d. FEMA may provide this information through written requests, telephone conversations, meetings, or electronic media. In all cases, FEMA will clarify that an "expedited Undertaking review" is being requested.

   e. FEMA will take into account any timely comments provided by SHPO and/or the affected Tribe(s) and notify the parties of how their comments were taken into consideration by FEMA, OEM, and subgrantee.

f. Should the SHPO and/or Participating Tribes not comment within 7 days, FEMA may fund the emergency Undertaking based on the available information. This will complete the Section 106 review for the Undertaking.

C. Emergency Demolition and Debris Removal of Privately-Owned Properties

FEMA may need to carry out debris removal activities involving the demolition and removal of buildings and structures that are damaged beyond repair or that are completely collapsed and/or disassembled by the actions of the declared event and therefore must be removed for health and safety reasons. Damage to historic properties by the effects of natural disasters to such a degree that demolition is required for health and safety reasons is not an adverse effect as defined under Section 106 of NHPA. However, FEMA is required by the NHPA to determine if its specific actions in response to disasters will cause adverse effects to any historic properties. After FEMA Public Assistance Program (PA) determines a property initially eligible for demolition, FEMA EHP will review these projects using the following expedited emergency process outlined below.

1. FEMA EHP will evaluate all properties proposed for demolition to determine if they are listed in the National Register or have previously been determined to be eligible for the National Register. If a property has not been previously evaluated for National Register eligibility, FEMA will make a determination whether or not the property is eligible for the National Register. Historic properties include both those above the ground (buildings and structures) and below the ground (archaeological sites and artifacts).

2. FEMA's evaluation will include a data base/GIS review of SHPO information to identify previously-identified historic properties, field review and photography, and additional research of properties that are more than 45 years of age, including archaeological analysis if necessary.

3. FEMA EHP will evaluate all properties proposed for demolition to determine if they are LPC designated or calendared for designation. This will include a database review at http://geo.nycnet/doitt/nycgovmap/ for designated properties and http://a810-bisweb.nyc.gov/bisweb/bsqpm01.jsp (New York City Buildings Department) for calendared properties.

4. FEMA will conduct an analysis of effects for any historic property identified for demolition or for any demolition that will affect other historic properties within an Area of Potential Effects (APE) and will determine if the project will result in adverse effects. The APE shall include properties within the view shed of the Undertaking that are LPC designated or calendared. The APE for historic properties that are not located within a designated National Register or LPC historic district, or within a geographic area that is eligible as a National Register district, will be the building footprint. For all others, FEMA will determine a project-specific APE. FEMA will also provide information to the SHPO for these properties that describes the specific nature of the damage to each property

5. FEMA will document its findings concerning each property that is proposed for demolition and will submit a report to the SHPO and other consulting parties, as appropriate that includes two (2) photographs of each property (more if associated resources are present) and text that briefly but adequately explains FEMA's determination of National Register eligibility and effects. These reports will be submitted via the SHPO's dedicated electronic mail account at femarecovery@parks.ny.gov.

6. SHPO will review the reports, provide its concurrence or ask for more information via electronic mail within three (3) business days. If SHPO does not concur with FEMA's finding for any property, both agencies will conduct further consultation as soon as possible to clarify FEMA's determinations or to resolve any disagreements.

7. To the extent practicable, demolition of every structure will be carried out following low impact protocols – limiting disturbance to the footprint of the existing structure, limiting the use of heavy equipment on the property, pushing all foundation materials into the building basement and emphasizing that the contractors make reasonable efforts to avoid or minimize harm to any archaeological deposits. In addition, FEMA's PA Program does not fund the removal of slabs, further ensuring that these undertakings will likely have minimal impact on archaeological resources. In most instances FEMA will make the determination that no historic properties will be affected by the demolition.

8. In cases where a demolition site is considered to be archaeologically sensitive monitoring will be required by an archaeologist who meets the Secretary's Professional Qualifications Standards. This determination will be made on a case-by case-basis by FEMA in consultation with the SHPO and other consulting parties. Eligibility determinations, assessment of effects and resolution of adverse effects will be made subsequent to identification of an archeological property. Uprooted trees and exposed stumps will be removed in accordance with the Stump Removal Policy in Appendix E.

9. Demolition of eligible historic buildings/structures may be adverse and may require development of a Memorandum of Agreement (MOA) to mitigate any adverse effects. If FEMA determines that any property demolition is an Undertaking that will result in adverse effects, it will enter into consultation with the SHPO and other appropriate consulting parties to develop an MOA to mitigate the adverse effects as required under Section 106. FEMA may choose to identify, in consultation with the SHPO, standard treatment measures to mitigate adverse effects to multiple properties.

10. This agreement only pertains to the residential structure itself and does not include the demolition or removal of any other infrastructure on these properties, including sidewalks, driveways, pools, retaining walls or similar structures that would not be eligible for FEMA Public Assistance funding.

D. Standard Project Review

For Undertakings not exempt from further Section 106 review, FEMA will ensure that the following standard project review steps are implemented. In the interest of streamlining, FEMA may combine some of these steps during consultation.

1. Consulting Parties: FEMA will consult as appropriate with the SHPO and affected Tribe(s) to identify any other parties that meet the criteria to be consulting parties and invite them to participate in the Section 106 review process. FEMA may invite others to participate as consulting parties as the Section 106 review proceeds.

2. Area of Potential Effects: For standing structures, qualified staff shall define the APE as the individual structure when the proposed Undertaking is limited to the repair or rehabilitation (as defined in 36 CFR § 68.3(b)(6) and 36 CFR § 68.2(b)) of a structure located outside of a National Register listed or eligible historic district. For all other undertakings, qualified staff will determine the APE in consultation with the SHPO and Participating Tribes. FEMA may also consider information provided by other parties, such as local governments, LPC, local preservation advocacy organizations, and the public, when establishing the APE.

3. Identification and Evaluation: Qualified staff shall determine, in consultation with the SHPO and Participating Tribes if the APE contains historic properties, including archaeological sites or properties of religious or cultural significance, that are listed in or potentially eligible for the National Register, or LPC designated and calendared properties. This may include the review of preliminary documentation collected by OEM or the subgrantee in coordination with the SHPO.

   a. Archaeological Properties, FEMA may consult with the SHPO to determine the level of effort and methodology necessary to identify and define the limits of archaeological properties. For historic properties of religious and cultural significance to Participating Tribe(s), FEMA shall consult with the Tribe(s) to identify geographic areas where properties may be affected by an Undertaking in order so that FEMA may determine the necessary level of effort required to avoid or protect any such properties. FEMA may also consult with LPC regarding identification and treatment of archaeological properties.

   b. National Historic Landmarks: When FEMA determines an Undertaking has the potential to affect an NHL, FEMA shall notify the Secretary through the NHL Program Manager in the NPS Northeast Regional Office in addition to the SHPO and Participating Tribe(s).

c. Determinations of Eligibility: FEMA shall review or determine National Register eligibility based on identification and evaluation efforts, and consult with SHPO and Participating Tribe(s) regarding these determinations. Should the SHPO or Participating Tribe(s) disagree with the determination of eligibility, FEMA may elect to either continue consultation, treat the property as eligible for the National Register, or to obtain a determination of eligibility from the Keeper of the National Register in accordance with 36 CFR § 63.2(d)-(e) and 36 CFR § 800.4(c)(2).

d. Findings of No Historic Properties Affected: FEMA shall make a finding of "no historic properties affected" if no historic properties are present in the APE; the Undertaking is designed to avoid historic properties, including archaeological sites or properties of religious or cultural significance to Participating Tribe(s); or the Undertaking does not affect the character defining features of a historic property.

i. FEMA shall notify the SHPO, Participating Tribes(s), and any other consulting parties of this finding and provide supporting documentation in accordance with 36 CFR § 800.11(d) and applicable documentation standards. Unless the SHPO or Participating Tribe(s) objects to the finding pursuant to the appropriate timeframe outlined in Stipulation I.E.2 or I.E.3, Timeframes, FEMA shall complete the Section 106 review.

ii. If the SHPO or Participating Tribe(s) objects to a finding of "no historic properties affected", FEMA may elect to consult with the objecting party to resolve the disagreement. If the objection is resolved, FEMA may proceed with the action in accordance with the resolution. FEMA also may elect to reconsider effects on the historic property by applying the criteria of adverse effect pursuant to Stipulation II.D.4, Application of the Criteria of Adverse Effect. If FEMA is unable to resolve the disagreement, it will forward the finding and supporting documentation to the ACHP and request that the ACHP review FEMA's finding in accordance with 36 CFR § 800.4(d)(1)(iv)(A) through 36 CFR § 800.4(d)(1)(iv)(C). FEMA will consider the ACHP's recommendation in making its final determination.

4. Application of the Criteria of Adverse Effect: If FEMA finds an Undertaking may affect identified historic properties in the APE, including properties of religious or cultural significance to Participating Tribe(s), or if a consulting party objects to the finding of "no historic properties affected," FEMA will apply the criteria of adverse effect to historic properties within the APE(s), taking into account the views of the consulting parties and public concerning effects in accordance with 36 CFR § 800.5(a).

a. If FEMA determines that an Undertaking does not meet the adverse effect criteria or, for a standing structure, that the Undertaking meets the *Standards*, FEMA shall propose a finding of "no adverse effect" in accordance with 36 CFR § 800.5(b).

b. FEMA shall notify the SHPO, Participating Tribe(s), and all other consulting parties of its finding and provide supporting documentation pursuant to 36 CFR §800.11(e) and applicable documentation standards. Unless a consulting party objects within the appropriate timeframe, FEMA will proceed with its "no adverse effect" determination and complete the Section 106 review.

c. If FEMA finds the Undertaking may have an adverse effect, FEMA shall request through OEM that the subgrantee revise the scope of work to substantially conform to the Standards for standing structures, or avoid or minimize adverse effects for archaeological properties, in consultation with the SHPO, Participating Tribe(s), and any other consulting parties. If the subgrantee modifies the scope of work to address the adverse effect, FEMA shall notify the consulting parties, and provide supporting documentation. Unless a consulting party makes a timely objection, FEMA shall proceed with its "no adverse effect" determination and complete the Section 106 review.

d. If a consulting party objects to a finding of "no adverse effect," FEMA will elect to consult with the objecting party to resolve the disagreement. If the objection is resolved, FEMA will proceed with the undertaking in accordance with the resolution, or;

e. If the objection cannot be resolved, FEMA will forward its findings and supporting documentation to the ACHP and request that the ACHP review the findings in accordance with 36 CFR. § 800.5(c)(3)(i-ii). FEMA will consider the ACHP's comments in making its final determination, or;

f. If an Undertaking cannot be modified to avoid adverse effects FEMA will initiate consultation to resolve the adverse effect(s) in accordance with Stipulation II.D.5, Resolution of Adverse Effects.

5. Resolution of Adverse Effects: If FEMA determines that an Undertaking will adversely affect a historic property, it shall resolve the effects of the Undertaking in consultation with the SHPO, OEM, participating Tribes, subgrantee, ACHP, if participating, and any other consulting parties, by one of the following methods depending upon the nature and scale of the adverse effect as well as the determination of the historic property's significance on a local, state or national level:

a. Abbreviated Consultation Process: After taking into consideration the nature of the historic properties affected and the severity of the adverse effect(s), FEMA may propose to resolve the adverse effect(s) of the Undertaking through the application of Treatment Measures outlined in Appendix C as negotiated with the SHPO, OEM, and Participating Tribe(s). FEMA will not propose use the Abbreviated Consultation Process if the Undertaking may affect an NHL. The application of these Treatment Measures will not require the execution of a Memorandum of Agreement (MOA) or Programmatic Agreement.

1. FEMA will notify the consulting parties in writing of its proposed use of a specific Treatment Measure, or combination of Treatment Measures with the intent of expediting the resolution of adverse effects and provide documentation as required by 36 CFR §800.11(e) and subject to the confidentiality provisions of 36 CFR §800.11(c), as well as provide the ACHP with an adverse effect notice in accordance with 36 CFR §800.6(a)(1) and notify them of FEMA's intent to apply the Treatment Measure(s). Unless a consulting party or the ACHP objects within fifteen (15) days of receipt of FEMA's proposal, FEMA will proceed with the use of Treatment Measure(s) and will complete Section 106 review.

2. If any of the consulting parties or the ACHP objects within the 15 day review and comment period to the resolution of adverse effects through the application of the Abbreviated Consultation Process, FEMA shall consult further with the consulting parties to explore options for resolution of the adverse effect(s). If consultation is not successful after an additional 15 day period, FEMA shall request that the ACHP arbitrate the consultation and help identify a final resolution of the adverse effect(s). If no consensus is reached, FEMA shall resolve the adverse effect(s) using procedures outlined below in Stipulation II.E.5.b, Memorandum of Agreement.

3. Because funding and implementation details of Treatment Measure(s) for specific Undertakings may vary by program, FEMA will provide written notice to the consulting parties within sixty (60) days of the completion of the Treatment Measure(s). This written notice will serve as confirmation that the Treatment Measure(s) for a specific Undertaking have been implemented. FEMA will also include information pertaining to the completion of Treatment Measures in the annual report pursuant to Stipulation I.B.1,d, FEMA Roles and Responsibilities.

b. Memorandum of Agreement (MOA): If the Abbreviated Consultation Process is determined infeasible or is objected to by any of the consulting parties, FEMA, in consultation with the other consulting parties, will develop an MOA in accordance with 36 CFR § 800.6(c) to stipulate treatment measures to avoid, minimize, and/or mitigate adverse effects on historic properties If the ACHP was not previously notified of the adverse effect, FEMA will provide the documentation outlined in 36 CFR§8000.(e), and the ACHP will have 15 days to review the undertaking and determine if its participation is necessary to complete the consultation process. The MOA may also include feasible treatment measures that serve an equal or greater public benefit in promoting the preservation of historic properties in lieu of more traditional treatment measures. Should the execution of an MOA not be appropriate given the nature and significance of historic properties, scale of adverse effects, or include one or more complex Undertakings, FEMA shall resolve the adverse effects using the procedures outlined below in Stipulation II.E.5.c, Programmatic Agreement.

c. Programmatic Agreement: FEMA, the SHPO, OEM, Participating Tribe(s), the ACHP, as appropriate, and any other consulting party may consult to develop a Programmatic Agreement in accordance with 36 CFR § 800.14(b) to identify programmatic conditions or treatment measures to govern the resolution of potential or anticipated adverse effects from certain complex project situations for an Undertaking or for multiple but similar Undertakings by a single subgrantee.

d. Objections: Should any signatory, invited signatory, consulting party, or member of the public object within the timeframes established by this Agreement to any plans, specifications, or actions pursuant to resolving an adverse effect, FEMA shall consult further with the objecting party to seek resolution. If FEMA determines the objection cannot be resolved, FEMA shall address in accordance with Stipulation IV.B, Dispute Resolution.

e. National Historic Landmarks: When FEMA determines an Undertaking will adversely affect an NHL, FEMA also will notify and invite the Secretary and ACHP to participate in consultation, pursuant to 36 CFR § 800.10. When the ACHP participates in consultation related to an NHL, the ACHP will report the outcome of the consultation to the SecretaryOI and the FEMA Administrator.

III. OTHER CONSIDERATIONS

A. Changes to an Approved Scope of Work: OEM is required to notify FEMA and will require its subgrantees to notify it immediately when there are proposed changes to an approved scope of work for an Undertaking. When notified by OEM of any proposed substantive change to the approved scope of work for an Undertaking, FEMA may authorize the OEM or subgrantee to proceed with the change once the required review is completed.

B. Unexpected Discoveries: Upon notification by a subgrantee of an unexpected discovery in accordance with Stipulation I.B.3.d, OEM Roles and Responsibilities, OEM will immediately notify FEMA and require the subgrantee to:

1. Stop construction activities in the vicinity of the discovery; and,

2. Notify the local law enforcement office and coroner/medical examiner if human remains are discovered, in accordance with applicable New York State statute(s);

3. Take all reasonable measures to avoid or minimize harm to the property until FEMA has completed consultation with the SHPO, Participating Tribe(s), and any other consulting parties. Upon notification by OEM of a discovery, FEMA will immediately notify the SHPO, Participating Tribe(s), and any other consulting parties that may have an interest in the discovery, and consult to evaluate the discovery for National Register eligibility.

4. FEMA will consult with the consulting parties in accordance with the review process outlined in Stipulation II, Project Review, to develop a mutually agreeable action plan

with timeframes to identify the discovery, take into account the effects of the Undertaking, resolve adverse effects if necessary, and ensure compliance with applicable Federal and State statutes.

5. In cases where discovered human remains are determined to be American Indian, FEMA shall consult with the appropriate Tribal representatives and SHPO. In addition, FEMA shall follow the guidelines outlined in the ACHP's *Policy Statement Regarding the Treatment of Burial Sites, Human Remains, and Funerary Objects* (2007).

6. FEMA will coordinate with OEM and the subgrantee regarding any needed modification to the scope of work for the Undertaking necessary to implement recommendations of the consultation and facilitate proceeding with the Undertaking.

C. Curation

1. FEMA and OEM shall ensure that all records and materials (collections) produced during the course of an archaeological survey, testing, and any data recovery operations for the implementation of its Undertakings are curated at a facility, preferably in-state, that meets the standards of, and in accordance with the applicable provisions of 36 CFR Part 79, "Curation of Federally Owned and Administered Archaeological Collections," and applicable State law and guidelines.

2. In cases where the survey, testing, or data recovery are conducted on private land, any recovered collections remain the property of the land owner and FEMA will return the collections to them with the assistance of the SHPO. In such instances, FEMA and OEM, in coordination with the SHPO or Participating Tribe(s), shall encourage land owners to donate the collection(s) to an appropriate public or Tribal entity. In cases where the property owner declines to accept responsibility for the collection(s) and wishes to transfer ownership of the collection(s) to a public or Tribal entity, FEMA and OEM will ensure curation of the collection(s) in accordance with Stipulation III.C.1 above.

D. Anticipatory Actions and After the Fact Review

1. OEM shall advise its subgrantees that they may jeopardize Federal funding if work is performed without all required local, State and Federal licenses, permits or approvals, including the completion of the Section 106 process. FEMA also shall document this requirement in its Record of Environmental Consideration, as applicable, as well as all project approval documents specifying the project scope and limits, and containing all conditions and caveats, including an approved Project Worksheet (PW) for a Public Assistance project, and an approved Application for an HMGP project.

2. In accordance with Section 110(k) of the NHPA, FEMA shall not grant assistance to a subgrantee who, with intent to avoid the requirements of this Agreement or Section 106 of the NHPA, has intentionally significantly and adversely affected a historic

property to which the assistance would relate, or having legal power to prevent it, allowed an adverse effect to occur. However, if after consultation with the SHPO, Participating Tribes(s), and ACHP, FEMA determines that extraordinary circumstances justify granting assistance despite the adverse effect created or permitted by the subgrantee, FEMA shall complete consultation for the Undertaking pursuant to the terms of this Agreement.

3. In circumstances where FEMA determines a subgrantee has initiated an Undertaking without willful intent to avoid the requirements of this Agreement or Section 106 of NHPA, FEMA will determine if the Undertaking would have required Section 106 review in accordance with Stipulation II.D, Standard Project Review.

4. If FEMA determines no Section 106 review or consultation with SHPO and Participating Tribe(s) would have been required pursuant to Stipulation II.D, Standard Project Review, FEMA will document this determination to the project files and consider the project Section 106 compliant.

5. If FEMA determines the Undertaking would have required Section 106 review, FEMA will coordinate with SHPO and Participating Tribe(s) to determine if consultation is feasible.

   a. If after coordination with the SHPO and affected Tribes, FEMA determines that consultation is feasible, FEMA will review the Undertaking in accordance with Stipulation II.D, Standard Project Review.

   b. If after coordination with the SHPO and Participating Tribe(s), FEMA determines that review is infeasible, FEMA will document that the project is noncompliant with Section 106, and the FEMA program then will make a funding eligibility decision.

6. FEMA will ensure that all Undertakings considered for after the fact review in accordance with this stipulation are included in the bi-annual reports.

IV. IMPLEMENTATION OF AGREEMENT

A. Amendments

1. If any signatory or invited signatory to the terms of the Agreement determines that the Agreement cannot be fulfilled, or that an amendment to the terms of this agreement must be made, the signatories and the invited signatories will consult for no more than 30 days to seek amendment of the Agreement.

2. This Agreement may be amended only upon the written consensus of the signatories. This Stipulation does not apply to amendments made to Appendices A, B, and C pursuant to Stipulation IV.A.3, Amendments, below.

3. Appendix A (FEMA Programs), Appendix B (Programmatic Allowances) and Appendix C (Treatment Measures) may be amended at the request of FEMA, a signatory party, or an invited signatory party in the following manner:

   a. FEMA, on its own behalf or on behalf of another signatory or invited signatory, shall notify all signatory and invited signatory parties to this Agreement of the intent to add to or modify the current Appendix or Appendices and shall provide a draft of the updated Appendix or Appendices to all signatory and invited signatory parties.

   b. If no signatory or invited signatory object in writing within 15 days of receipt of FEMA's proposed addition or modification, FEMA will date and sign the amended Appendix and provide a copy of the amended Appendix to all signatory and invited signatory parties.

B. Dispute Resolution

1. Should any signatory or invited signatory to this Agreement object in writing within 30 days to the terms of this Agreement, FEMA will consult with the objecting party for not more than 30 days to resolve the objection.

2. If the objection is resolved within 30 days, FEMA shall proceed in accordance with the resolution.

3. If FEMA determines within 30 days that the objection cannot be resolved, FEMA will forward to ACHP all documentation relevant to the objection, including FEMA's proposed resolution. Within 30 days of receipt, ACHP will:

   a. Concur in FEMA's proposed resolution; or

   b. Provide FEMA with recommendations, which FEMA will take into account in reaching a final decision regarding the objection; or

   c. Notify FEMA that the objection will be referred for comment in accordance with 36 CFR § 800.7(a)(4), and proceed to do so. FEMA will take the resulting comment into account.

4. FEMA will take into account any ACHP recommendations or comments, and any comments from the other signatories and invited signatories, in reaching a final decision regarding the objection in accordance with 36 CFR § 800.7(c)(4). The signatories will continue to implement all other terms of this Agreement that are not subject to objection.

5. Should ACHP not respond within 30 days, FEMA may assume ACHP has no comment and proceed with its proposed resolution to the objection.

6. FEMA will provide the signatories and invited signatories with its final written decision regarding any objection brought forth pursuant to this Stipulation.

7. FEMA may authorize any disputed action to proceed, after making its final decision.

8. At any time while this Agreement is in effect, should a member of the public object in writing to implementation of its terms, FEMA will notify the other signatories and invited signatories in writing and take the objection into consideration. FEMA will consult with the objecting party and, if that party so requests, the other signatories and invited signatories, for not more than 21 days. In reaching its decision regarding the objection, FEMA will take into consideration all comments from these parties. Within 15 days after closure of this consultation period, FEMA will provide the other parties with its final decision in writing. FEMA's decision will be final.

9. Any dispute regarding National Register eligibility that is not resolved pursuant to this Stipulation will be resolved in accordance with Stipulation II.D.3.c, Determinations of Eligibility.

C. Severability and Termination

1. In the event any provision of this Agreement shall be deemed contrary to, or in violation of, any applicable existing law or regulation of the United States of America and/or the State New York, only the conflicting provision(s) shall be deemed null and void, and the remaining provisions of the Agreement shall remain in effect.

2. FEMA, the SHPO, OEM, or Participating Tribe(s) may terminate this Agreement by providing 30 days' written notice to the other signatory and invited signatory parties, provided that the parties consult during this period to seek amendments or other actions that would prevent termination. If this Agreement is terminated, FEMA will comply with 36 CFR Part 800. Upon such determination, FEMA will provide all other signatories and invited signatories with written notice of the termination of this Agreement.

3. A Participating Tribe may notify the other signatories and invited signatories that it is fully withdrawing from participation in the Agreement. Following such a withdrawal, FEMA will review undertakings that may affect historic properties of religious and cultural significance to the Tribe in accordance with 36 CFR §§ 800.3 through 800.7 or an applicable alternative under 36 CFR § 800.14. Withdrawal from this Agreement by a Participating Tribe does not terminate the Agreement. A Tribe that has withdrawn from the Agreement may at any time that this Agreement remains in effect notify FEMA, OEM, and SHPO in writing that it has rescinded its notice withdrawing from participation in the Agreement.

4. This Agreement may be terminated by the implementation of a subsequent Agreement that explicitly terminates or supersedes this Agreement, or by FEMA's implementation of Alternate Procedures, pursuant to 36 CFR § 800.14(a).

D. Duration and Extension

1. Unless terminated in accordance with Stipulation IV.C.2 or IV.C.4, Severability and Termination, this Agreement shall remain in effect until FEMA, in consultation with all other signatories, determines that all undertakings related to 4085-DR-NY have been completed.

2. If another federally-declared disaster occurs within the State of New York while this PA is effective, the signatories and invited signatories will consult to determine whether it would be appropriate to extend the PA. If the parties agree that the extension of this PA is an acceptable mechanism for reviewing undertakings as a result of the new disaster, its duration shall be extended pursuant to Stipulation IV.A.

E. Execution and Implementation

1. This Agreement may be implemented in counterparts, with a separate page for each signatory, invited signatory and concurring party and will become effective on the date of the final signature, and will become effective on the date of signature by FEMA, SHPO, and ACHP. FEMA will ensure that each signatory, invited signatory and concurring party is provided with a complete copy.

2. Execution and implementation of this Agreement evidence that FEMA has afforded ACHP a reasonable opportunity to comment on FEMA's administration of all referenced Programs, and that FEMA has satisfied its Section 106 responsibilities for all individual Undertakings of the Programs.

PROGRAMMATIC AGREEMENT AMONG
THE FEDERAL EMERGENCY MANAGEMENT AGENCY,
THE NEW YORK STATE HISTORIC PRESERVATION OFFICER,
THE NEW YORK STATE OFFICE OF EMERGENCY MANAGEMENT,
THE DELAWARE NATION,
THE DELAWARE TRIBE OF INDIANS,
THE SHINNECOCK NATION,
THE STOCKBRIDGE-MUNSEE COMMUNITY BAND OF MOHICANS,
THE NEW YORK CITY LANDMARKS PRESERVATION COMMISSION,
AND THE
ADVISORY COUNCIL ON HISTORIC PRESERVATION,
AS A RESULT OF HURRICANE SANDY

Signatory:
FEDERAL EMERGENCY MANAGEMENT AGENCY

By: _____ Date: 5/6/13
By: MaryAnn Tierney
Acting Regional Administrator, Region II

PROGRAMMATIC AGREEMENT AMONG
THE FEDERAL EMERGENCY MANAGEMENT AGENCY,
THE NEW YORK STATE HISTORIC PRESERVATION OFFICER,
THE NEW YORK STATE OFFICE OF EMERGENCY MANAGEMENT,
THE DELAWARE NATION,
THE DELAWARE TRIBE OF INDIANS,
THE SHINNECOCK NATION,
THE STOCKBRIDGE-MUNSEE COMMUNITY BAND OF MOHICANS,
THE NEW YORK CITY LANDMARKS PRESERVATION COMMISSION,
AND THE
ADVISORY COUNCIL ON HISTORIC PRESERVATION,
AS A RESULT OF HURRICANE SANDY

Signatory:
NEW YORK STATE HISTORIC PRESERVATION OFFICER

By: Ruth Pierpont Date: 5/3/13
By: Ruth Pierpont
New York Deputy Commissioner/New York Deputy State Historic Preservation Officer

PROGRAMMATIC AGREEMENT AMONG
THE FEDERAL EMERGENCY MANAGEMENT AGENCY,
THE NEW YORK STATE HISTORIC PRESERVATION OFFICER,
THE NEW YORK STATE OFFICE OF EMERGENCY MANAGEMENT,
THE DELAWARE NATION,
THE DELAWARE TRIBE OF INDIANS,
THE SHINNECOCK NATION,
THE STOCKBRIDGE-MUNSEE COMMUNITY BAND OF MOHICANS,
THE NEW YORK CITY LANDMARKS PRESERVATION COMMISSION,
AND THE
ADVISORY COUNCIL ON HISTORIC PRESERVATION,
AS A RESULT OF HURRICANE SANDY

Signatory:
ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: John M. Fowler Date: 5/10/13
John M. Fowler
Executive Director

PROGRAMMATIC AGREEMENT AMONG
THE FEDERAL EMERGENCY MANAGEMENT AGENCY,
THE NEW YORK STATE HISTORIC PRESERVATION OFFICER,
THE NEW YORK STATE OFFICE OF EMERGENCY MANAGEMENT,
THE DELAWARE NATION,
THE DELAWARE TRIBE OF INDIANS,
THE SHINNECOCK NATION,
THE STOCKBRIDGE-MUNSEE COMMUNITY BAND OF MOHICANS,
THE NEW YORK CITY LANDMARKS PRESERVATION COMMISSION,
AND THE
ADVISORY COUNCIL ON HISTORIC PRESERVATION,
AS A RESULT OF HURRICANE SANDY

Invited Signatory:
NEW YORK STATE OFFICE OF EMERGENCY MANAGEMENT

_____ Date: 5/1/13
By: Jerome M. Hauer
Commissioner

PROGRAMMATIC AGREEMENT AMONG
THE FEDERAL EMERGENCY MANAGEMENT AGENCY,
THE NEW YORK STATE HISTORIC PRESERVATION OFFICER,
THE NEW YORK STATE OFFICE OF EMERGENCY MANAGEMENT,
THE DELAWARE NATION,
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THE SHINNECOCK NATION,
THE STOCKBRIDGE-MUNSEE COMMUNITY BAND OF MOHICANS,
THE NEW YORK CITY LANDMARKS PRESERVATION COMMISSION,
AND THE
ADVISORY COUNCIL ON HISTORIC PRESERVATION,
AS A RESULT OF HURRICANE SANDY

Invited Signatory:
THE DELAWARE NATION

By: _____ Date: _____
C. J. Watkins
Vice President

**PROGRAMMATIC AGREEMENT AMONG
THE FEDERAL EMERGENCY MANAGEMENT AGENCY,
THE NEW YORK STATE HISTORIC PRESERVATION OFFICER,
THE NEW YORK STATE OFFICE OF EMERGENCY MANAGEMENT,
THE DELAWARE NATION,
THE DELAWARE TRIBE OF INDIANS,
THE SHINNECOCK NATION,
THE STOCKBRIDGE-MUNSEE COMMUNITY BAND OF MOHICANS,
THE NEW YORK CITY LANDMARKS PRESERVATION COMMISSION,
AND THE
ADVISORY COUNCIL ON HISTORIC PRESERVATION,
AS A RESULT OF HURRICANE SANDY**

Invited Signatory:
THE DELAWARE NATION

By: _____ Date: _____
Paula Pechonick
Chief

PROGRAMMATIC AGREEMENT AMONG
THE FEDERAL EMERGENCY MANAGEMENT AGENCY,
THE NEW YORK STATE HISTORIC PRESERVATION OFFICER,
THE NEW YORK STATE OFFICE OF EMERGENCY MANAGEMENT,
THE DELAWARE NATION,
THE DELAWARE TRIBE OF INDIANS,
THE SHINNECOCK NATION,
THE STOCKBRIDGE-MUNSEE COMMUNITY BAND OF MOHICANS,
THE NEW YORK CITY LANDMARKS PRESERVATION COMMISSION,
AND THE
ADVISORY COUNCIL ON HISTORIC PRESERVATION,
AS A RESULT OF HURRICANE SANDY

Invited Signatory:
THE SHINNECOCK NATION

_____ Date: _____
By: [name]
[title]

_____ Date: _____
By: [name]
[title]

PROGRAMMATIC AGREEMENT AMONG
THE FEDERAL EMERGENCY MANAGEMENT AGENCY,
THE NEW YORK STATE HISTORIC PRESERVATION OFFICER,
THE NEW YORK STATE OFFICE OF EMERGENCY MANAGEMENT,
THE DELAWARE NATION,
THE DELAWARE TRIBE OF INDIANS,
THE SHINNECOCK NATION,
THE STOCKBRIDGE-MUNSEE COMMUNITY BAND OF MOHICANS,
THE NEW YORK CITY LANDMARKS PRESERVATION COMMISSION,
AND THE
ADVISORY COUNCIL ON HISTORIC PRESERVATION,
AS A RESULT OF HURRICANE SANDY

Invited Signatory:
THE STOCKBRIDGE-MUNSEE COMMUNITY BAND OF MOHICANS

_____ Date: _____

By: Robert Chicks
President of Tribal Council

**PROGRAMMATIC AGREEMENT AMONG
THE FEDERAL EMERGENCY MANAGEMENT AGENCY,
THE NEW YORK STATE HISTORIC PRESERVATION OFFICER,
THE NEW YORK STATE OFFICE OF EMERGENCY MANAGEMENT,
THE DELAWARE NATION,
THE DELAWARE TRIBE OF INDIANS,
THE SHINNECOCK NATION,
THE STOCKBRIDGE-MUNSEE COMMUNITY BAND OF MOHICANS,
THE NEW YORK CITY LANDMARKS PRESERVATION COMMISSION,
AND THE
ADVISORY COUNCIL ON HISTORIC PRESERVATION,
AS A RESULT OF HURRICANE SANDY**

Concurring Party:
NEW YORK CITY LANDMARKS PRESERVATION COMMISSION

_____ Date: _____
By: Robert B. Tierney
Chair, The New York City Landmarks Preservation Commission

Appendix A

FEMA Program Summaries

This Appendix may be amended in accordance with Stipulation IV.A, Amendments.

Disaster Response and Recovery Programs

The following programs are authorized under Titles IV and V of the Stafford Act.

Public Assistance Program (PA)
This program assists States, Tribal and local governments, and certain types of private nonprofit organizations quickly respond to and recover from major disasters or emergencies declared by the President. Grants are provided for debris removal (Public Assistance Category A), emergency protective measures (Public Assistance Category B), and the repair, replacement, or restoration of disaster-damaged, publicly owned and certain private non-profit facilities (Public Assistance Categories C-G).

Individual Assistance Programs (IA)
These programs helps ensure that individuals and families that have been affected by disasters have access to the full range of FEMA assistance including: crisis counseling (Section 416), disaster legal services (Section 415), essential assistance (Section 403), emergency sheltering assistance (Section 403), transportation (Section 419), funeral services, minor home repairs (Section 408), and temporary housing assistance (Section 408). It should be noted that other Federal agencies provide disaster assistance to individuals as well, such as the US Small Business Administration, Department of Agriculture, and Department of Labor and that this assistance is not subject to the terms of this agreement.

Fire Management Assistance Grant Program (FMAG)

The FMAG is available to State, Tribal, and local governments for the mitigation, management, and control of fires on publicly or privately owned lands. Eligible costs may include expenses for field camps, equipment use, repair and replacement, materials and supplies, and mobilization and demobilization activities.

Hazard Mitigation Grant Program (HMGP)
The HMGP provides grants to States, Territories, Tribes, and local governments to implement long-term hazard mitigation measures after a Disaster Declaration. Activities may include buyouts, retrofits, relocations, elevations, and minor flood control projects.

Appendix B

Programmatic Allowances

This list of Allowances enumerates FEMA funded activities that based on FEMA experience have no effect or limited effect on historic properties if implemented as specified in this Appendix and will not require review by the SHPO and Participating Tribe(s) pursuant to Stipulation II.A.1, Programmatic Allowances.

The allowances consist of two tiers – Tier I and Tier II. Staff may apply Tier I allowances without meeting any professional historic preservation qualification standards, while only staff meeting the applicable Secretary's Professional Qualifications Standards in accordance with Stipulation I.B.1.a of this Agreement may apply Tier II allowances.

When referenced in the allowances, "in-kind" shall mean that it is either the same or a similar material, and the result shall match all physical and visual aspects, including form, color, and workmanship. The in-kind repair provided for in both Tiers I and Tier II allowances in Appendix B should be limited to pre-existing architectural features and physical components of buildings and structures and in general should not be utilized when a building or structure has been substantially altered.

When referenced in the allowances, "previously disturbed soils" will refer to soils that are not likely to possess intact and distinct soil horizons and have the reduced likelihood of possessing archaeological artifacts, features, and phenomena within their original depositional contexts.

Tier I Allowances

I. **GROUND DISTURBING ACTIVITIES AND SITE WORK,** when proposed activities described below substantially conform to the original footprint and/or are performed in previously disturbed soils and the area proposed to be disturbed does not exceed the previous disturbance in depth or footprint, including the area where the activity is staged.

A. Debris and Snow Removal

1. Debris removal and collection, including removal of snow, uprooted trees, limbs and branches from public rights of way, public area and the transport and disposal of such waste to existing licensed waste facilities or landfills. Uprooted trees and exposed stumps must be removed in accordance with the stump removal policy in Appendix E. This includes the temporary establishment and expansion of non-hazardous debris staging, reduction, and disposal areas at licensed transfer stations, or existing hard-topped or graveled surfaces (e.g. parking lots, roads, athletic courts) but not the creation of new or temporary access roads.

2. Removal of debris from private property provided that buildings are not affected, ground disturbance is minimal and in-ground elements, such as driveways, walkways or swimming pools are left in place.

3. Chipping and disposal of woody debris by broadcasting within existing rights-of-way.

4. Sediment removal from man-made drainage facilities, including retention/detention basins, ponds, ditches, and canals, in order to restore the facility to its pre-disaster condition. The sediment may be used to repair eroded banks or disposed of at an existing licensed or permitted spoil site.

5. Dewatering flooded developed areas by pumping.

B. Temporary Structures and Housing

1. Installation of temporary structures for uses such as school classrooms, offices, or shelters for essential public service agencies, such as police, fire, rescue and medical care, as well as temporary housing for disaster personnel and victims, at the following types of locations:

   a. Single units on private residential sites when all utilities are installed above ground or tie into pre-existing utility lines.

   b. Existing multi-family units.

   c. Existing RV/Mobile Home Parks and campgrounds with pre-existing utility hookups.

   d. Paved areas, such as parking lots and paved areas at such facilities as conference centers, shopping malls, airports, business parks, military bases when all utilities are installed above ground or tie into pre-existing utility lines.

   e. Sites that have been previously cleared and prepared for planned construction, such as land being developed for public housing, office buildings, city parks, ball fields, military bases, schools, etc. when all utilities are installed above-ground or tie into pre-existing utility lines.

f. Areas previously filled to depths of at least six feet so that subsurface utilities can be installed.

C. Recreation and Landscaping

1. Installation of temporary removable barriers.

2. In-kind repairs or replacement, and minor upgrades/mitigation of bollards and associated protective barriers when in previously disturbed areas.

II. BUILDINGS

A. Repair or retrofit of buildings less than 45 years old.

B. Removal of water by physical or mechanical means.

C. Installation of grab bars and other such minor interior modifications required for compliance with the Americans with Disabilities Act (ADA).

D. Installation of security bars over windows on rear elevations.

E. Sheltering and Temporary Essential Power (STEP) Pilot Program: The STEP program provides essential power to affected residents and thereby reduces the demand for other shelter options by allowing individuals to return to or remain in their home while awaiting major repairs. STEP accomplishes this by 3 measures:

1. Residential Meter Repairs: Repairs to exterior weather head, service cable, and meter box.

2. Temporary Essential Electric Measures: Repairs to restore temporary power to residences where the utility will not turn the power back on due to damages in order to restore a minimal amount of power to allow heat and/or hot water and some power to targeted appliances, including installation of a temporary power supply, outlet panels, and other equipment that will be removed when permanent repairs are made.

3. Rapid Temporary Exterior Repairs: Securing broken windows, covering damaged exterior walls and patching or otherwise securing damaged exterior doors. These repairs utilize raw, unfinished materials for temporary emergency repairs, such as plywood secured with a padlock.

III. TRANSPORTATION FACILITIES, when proposed activities substantially conform to the original footprint and/or performed in previously disturbed soils, including any staging areas.

A. Roads and Roadways

1. Repair of roads to pre-disaster geometric design standards and conditions using in-kind materials, shoulders medians, clearances, curbs, and side slopes. This allowance does not include improvement to existing roadways and appurtenances.

2. Construction of temporary emergency access roads in previously disturbed soils to allow for passage of emergency vehicles.

3. Repairs to road slips and landslides that do not require grading of undisturbed soils on the up-hill side of the slip.

4. Re-establishment, armoring and/or upgrading of existing roadway ditches.

5. In-kind repair or replacement of traffic control devices such as traffic signs and signals, delineators, pavement markings, traffic surveillance systems.

6. Installation and removal of temporary traffic control devices, including pre-formed concrete barriers and fencings.

7. In-kind repair or replacement of roadway safety elements such as barriers, guardrails, and impact-attenuation devices. In the case of guardrails, the addition of safety end treatments is allowed.

B. Airports

1. In-kind repair or replacement of existing runway surfaces and features (e.g. asphalt, concrete, gravel, and dirt) and associated air transportation safety components and systems (e.g. lighting bars, beacons, signage and weather sensors).

C. Rail Systems

1. In-kind repair or replacement of safety components.

2. In-kind repair or replacement of existing track system and passenger loading areas.

Tier II Allowances

I. GROUND DISTURBING ACTIVITIES AND SITE WORK, when proposed activities described below substantially conform to the original footprint and/or are performed in previously disturbed soils, including the area where the activity is staged.

A. Footings, Foundations, Retaining Walls, Slopes, and Slope Stabilization Systems

1. In-kind repair, replacement, and reinforcement of footings, foundations, retaining walls, slopes, and slope stabilization systems (e.g., gabion baskets, crib walls, soldier pile and lag walls) if related ground disturbing activities are within the boundary of previously disturbed soils.

2. Installation of perimeter drainage (e.g. French drains) when performed in previously disturbed soils.

B. Recreation and Landscaping

1. In-kind repairs or replacement, and minor upgrades to recreational facilities and features (e.g. playgrounds, campgrounds, fire pits, dump stations and utility hook-ups, swimming pools, athletic fields and signage, batting cages, basketball courts, swing sets, pathways, simple wooden/wire stream crossings).

2. In-kind repair, replacements, and minor upgrades to landscaping elements (e.g., fencing, free standing walls, paving, planters, irrigation systems, lighting elements, signs, flag poles, ramps, steps).

C. Piers, Docks, Boardwalks, Boat Ramps, and Dune Crossovers

1. In-kind repair and replacement and minor upgrades to existing piers, docks, boardwalks, boat ramps and dune crossovers in areas of previously disturbed soils.

D. Cemeteries

1. Removal of woody debris such as branches, limbs, and uprooted trees from cemeteries, provided that heavy equipment and other machinery are not operated or staged on areas potentially containing human remains. Uprooted trees and exposed stumps must be removed in accordance with the stump removal policy in Appendix E. If this condition does not adequately protect human remains, then monitoring will be required by an archaeologist who meets the Secretary's Professional Qualifications Standards to oversee stump removal.

II. BUILDINGS

1. **Interior Work: Floors, Walls, Stairs, Ceilings and Trim**

1. In-kind repair and replacement of floors, walls, stairs, ceilings, and/or trim. The allowance does not apply to decorative finishes, including murals, glazed paint, gold leaf, or ornamental plaster.

2. Interior cleaning of surfaces using a weak solution of household bleach and water, mold remediation, or mold removal. The allowance applies to interior finishes, including plaster and wallboard, provided the cleaning is restricted to damaged areas and does not affect adjacent materials.

3. Non-destructive or concealed testing for hazardous materials (e.g., lead paint, asbestos) or for assessment of hidden damages.

B. Utilities and Mechanical, Electrical, and Security Systems

1. In-kind repair or replacement, or limited upgrading of interior utility systems, including mechanical (e.g., heating, ventilation, air conditioning), electrical, and plumbing systems. This allowance does not provide for the installation of new exposed ductwork.

2. Elevation of heating, ventilation, and air conditioning system (HVAC) and mechanical equipment as long as it is placed or located where it is not highly visible from the street.

3. Replacement or installation of interior fire detection, fire suppression, or security alarm systems. The allowance does not apply to surface mounted wiring, conduits, piping, etc., unless previously existing, provided that installation of the system hardware does not damage or cause the removal of character-defining architectural features and can be easily removed in the future.

4. Installation of building communication and surveillance security systems, such as cameras, closed-circuit television, alarm systems, and public address systems, provided that installation of the system hardware does not damage or cause the removal of character defining architectural features and can be easily removed in the future.

5. Installation of building access security devices, such as card readers, enhanced locks, and security scanners (e.g., metal detectors), provided the device does not damage or cause the removal of character-defining architectural features and can be removed in the future without impacts to significant architectural features.

C. Windows and Doors

1. In-kind repair of damaged or severely deteriorated windows and window frames,, shutters, storm shutters, doors and door frames, and associated hardware, where profiles, elevations, details and materials match those of the originals.

2. In-kind replacement of window panes. Clear plate, double, laminated or triple insulating glazing can be used, provided it does not result in altering the existing window material, tint, form, muntin profiles, or number of divided lights. This allowance does not apply to the replacement of existing intact archaic or decorative glass.

3. Replacement of exterior, utilitarian, non-character-defining metal doors and frames leading into non character-defining spaces with metal blast resistant doors and frames.

D. Exterior Walls, Cornices, Porches, and Foundations

1. In-kind repainting of surfaces, provided that destructive surface preparation treatments are not used, such as water blasting, sandblasting, power sanding and chemical cleaning.

2. In-kind repair of walls, porches, foundations, columns, cornices, siding, balustrades, stairs, dormers, brackets, trim, and their ancillary components or in-kind replacement of severely deteriorated or missing or lost features, as long as the replacement pieces match the original in detail and material. Any ground disturbance will be limited to previously disturbed soils.

3. In-kind repair or replacement of signs or awnings.

4. Installation of temporary stabilization bracing or shoring, provided such work does not result in additional damage.

5. Anchoring of walls to floor systems, provided the anchors are embedded and concealed from exterior view.

6. In-kind repair of concrete and masonry walls, columns, parapets, chimneys, or cornices or limited in-kind replacement of damaged components including comparable brick, and mortar that matches the color, strength, content, rake, and joint width.

7. Bracing and reinforcing of walls, chimneys and fireplaces, provided the bracing and reinforcing are either concealed from exterior view or reversible in the future.

8. Strengthening of foundations and the addition of foundation bolts, provided that visible new work is in-kind, including mortar that matches the color, content, strength, rake, and joint width where occurring.

9. Repairs to and in-kind replacement of elements of curtain wall assemblies or exterior cladding that is hung on the building structure, usually from floor to floor, and when the color, size reflectivity, materials, and visual patterns are unaltered.

E. Roofing

1. Installation of scaffolding, polyethylene sheeting, or tarps, provided such work will not result in additional damage or irreversible alterations to character defining features.

2. In-kind repair or replacement of roofing, of roofing, rafters, fascia, soffits, gutters, verge boards, leader boxes, downspouts, or other damaged roof system components.

3. Repairs to a flat roof cladding, including changes in roofing materials, where the repairs are not highly visible from the ground level.

F. Weatherproofing and Insulation

1. Caulking and weather-stripping to complement the color of adjacent surfaces or sealant materials.

2. In-kind repair or replacement of insulation systems, provided that existing interior plaster, woodwork, exterior siding, or exterior architectural detail is not altered.

G. Structural Retrofits

1. The installation of the following retrofits/upgrades, provided that such upgrades are not visible on the exterior: attic bracing, cross bracing on pier and post foundations; fasteners; collar ties; gussets; tie downs; strapping and anchoring of mechanical, electrical, and plumbing equipment; concealed anchoring of furniture; installation of plywood diaphragms beneath first floor joists, above top floor ceiling rafters, and on roofs; and automatic gas shut off valves.

2. Replacement, repair or installation of lightning rods.

III. TRANSPORTATION FACILITIES, when proposed activities substantially conform to the original footprint and/or performed in previously disturbed soils, including the area where the activity is staged.

A. Roads and Roadways

1. Repair of roads to pre-disaster geometric design standards and conditions using in-kind materials, shoulders, medians, clearances, curbs, and side slopes. This allowance permits minor improvement to meet current code and standards or hazard mitigation measures, such as those designed to harden exposed surfaces, including the application of gravel armoring to side slopes and ditches.

2. In kind repair to historic paving materials for roads and walkways.

3. In-kind repair or replacement, or minor upgrade of culvert systems and arches beneath roads or within associated drainage systems, including provision of headwalls, riprap and any modest increase in capacity for the purposes of hazard mitigation or to meet current codes and standards, provided that the work substantially conforms to the existing footprint. For stone or brick culverts or arches beneath roadways, this allowance only applies to in-kind repair.

4. In-kind repair or replacement of road lighting systems, including period lighting fixture styles.

5. In-kind repair or replacement of road appurtenances such as curbs, berms, fences, and sidewalks.

B. Bridges

1. Installation of a temporary (Bailey-type) bridge over an existing structure or at a previously disturbed location, such as a former bridge location, to allow passage of emergency vehicles.

2. In-kind repair or replacement of bridges and bridge components (e.g. abutments, wing walls, piers, decks, and fenders in previously disturbed soils).

IV. UTILITIES, COMMUNICATIONS SYSTEMS AND TOWERS, when proposed activities substantially conform to the original footprint and/or performed in previously disturbed soils, including the area where the activity is staged.

A. General

1. In-kind repair or replacement, or minor upgrading, small scale realignment, and elevation of utilities and associated features and structures within previously disturbed soils of rights-of-way or utility corridors.

2. Installation of new utilities and associated features within existing rights-of-way.

3. Directional boring of new/replacement service line and related appurtenances involving boring or silt trenches within previously disturbed soils of rights-of-way or utility corridors.

4. In-kind repair or replacement, or minor upgrade of water towers provided activities take place within previously disturbed soils. Ground-level facilities may be added or expanded in previously disturbed areas. This allowance does not apply to masonry water towers.

B. Generators and Utilities

1. In-kind repair or replacement, or minor upgrades elevation, and/or installation of generators, HVAC systems, and similar equipment provided activities occur within previously disturbed soils and any roof mounted equipment is not visible from the ground level.

C. Communication Equipment/Systems and Towers

1. Acquisition, installation, or operation of communication and security equipment/systems that use existing distribution systems, facilities, or existing infrastructure right-of-way.

2. The collocation of communication and security equipment on existing towers and buildings/structures less than 45 year in age, provided that the work does not increase existing tower height or footprint by more than 10% and occurs within previously disturbed soils.

3. Enhancement, repair or replacement of existing communication towers and antenna structures provided the work does not increase existing tower height or footprint by more than 10%and occurs within previously disturbed soils.

4. Installation of new temporary (not to exceed 12 months) communications towers and antenna structures provided that the work occurs does not require modification of buildings/structures older than 45 years and occurs within previously disturbed soils.

5. Installation of new communication towers, less than 200 feet tall, in previously developed urban complexes when the work does not require modification of buildings/structures older than 45 years, occurs within previously disturbed soils and is not within 500 feet of the boundaries of a historic property.

V. WATER RESOURCE MANAGEMENT AND CONTROLS, when proposed activities substantially conform to the original footprint and/or performed in previously disturbed soils, including the area where the activity is staged.

A. Canal Systems

1. In-kind repairs or replacement to canal systems and associated elements.

B. Breakwaters, Seawalls, Revetments, and Berms

1. In-kind repair or replacement of breakwaters, seawalls, and revetments, provided the work occurs in previously disturbed soils.

C. Dams, Levees, and Floodwalls

1. In-kind repair of dams, levees, floodwalls and related features, including spillways, tide gates, and fuse plugs, provided the work occurs in previously disturbed soils.

D. Fish Hatcheries

1. In-kind repair or replacement of fish hatcheries and fish ladders.

E. Waste-Water Treatment Lagoon Systems

1. In-kind repair or replacement, or minor upgrades of waste-water treatment lagoon systems.

VI. OTHER PROGRAM ACTIVITIES

A. Elevation, Demolition, and Reconstruction

1. Activities related to the elevation, demolition and/or reconstruction of buildings or structures less than 45 years of age so long as the proposed activities substantially

conform to the original footprint and/or are performed in previously disturbed soils including any staging area, and the buildings or structures are not located within or adjacent to a National Register or LPC historic district.

B. Safe Rooms

1. Installation of individual safe rooms within the property limits of a residence where the installation will occur within an existing structure or building that is less than 45 years of age and has been determined by FEMA not to be significant under Criterion G, or within previously disturbed soils.

Appendix C

Treatment Measures

[to be negotiated on a state-by-state basis]

The following Treatment Measures are suggested for the resolution of Adverse Effects:

If Undertakings result or will result in adverse effects, FEMA, the SHPO, OEM, and Participating Tribes(s), may develop a treatment measure plan that includes one or more of the following Treatment Measures, depending on the nature of historic properties affected and the severity of adverse effects. If an Undertaking will adversely affect a LPC designated or calendared properties, LPC may participate in development of a treatment measure plan. This Appendix may be amended in accordance with Stipulation IV.A.3 of this Agreement, Amendments.

A. Recordation Package

1. Digital Photography Package: Prior to project implementation, the designated responsible party shall oversee the successful delivery of a Digital Photography Package prepared by staff or contractors that meet the Secretary's Professional Qualifications for Architectural History, History, Architecture, or Historic Architecture, as appropriate. The Digital Photography Package will meet the standards cited in the National Park Service's *National Register of Historic Places Photographic Policy March 2010* or subsequent revisions (http://www.nps.gov/nr/publications/bulletins/photopolicy/index.htm).

   a. The Digital Photography Package shall include a comprehensive collection of photographs of both interior and exterior views showing representative spaces and details of significant architectural features and typical building materials. Exterior photographs shall include full oblique and contextual images of each elevation. Exterior views shall be keyed to a site plan while interior views shall be keyed to a floor plan of the building/structure. The photographs shall be indexed according to the date photographed, site number, site name, site address, direction, frame number, subject matter and photographer's name recorded on the reverse side in pencil.

   b. The Digital Photography Package shall include printed color copies of the digital photographs (on appropriate paper, per *NPS Photographic Policy*), a CD/DVD of the digital photographs, a completed state architectural inventory form, and a written site history of the historic property.

   c. The designated responsible party shall submit the Digital Photography Package to the SHPO and Participating Tribe(s) for review and approval. Once approved by the SHPO and Participating Tribe(s), the designated responsible party shall submit full copies of the approved Digital Photography Package to _____for permanent retention.

2. 35 mm Black and White Film Photography Package: Prior to project implementation, the designated responsible party shall oversee the successful delivery of a 35 mm Black and White Film Photography Package prepared by staff or contractors that meet the Secretary's Professional Qualifications for Architectural History, History, Architecture, or Historic Architecture, as appropriate.

   a. The 35 mm Black and White Film Photography Package shall include a comprehensive collection of photographs of both interior and exterior views showing representative spaces and details of significant architectural features and typical building materials. Exterior photographs shall include full oblique and contextual images of each elevation. Exterior views shall be keyed to a site plan while interior views shall be keyed to a floor plan of the building/structure. The photographs shall be indexed according to the date photographed, site number, site name, site address, direction, frame number, subject matter and photographer's name recorded on the reverse side in pencil.

   b. The 35 mm Black and White Film Photography Package shall include one (1) full set of 35mm film black and white photographs printed on acid free paper, the corresponding 35mm film negatives in acid free sleeves, a completed state architectural inventory form, and a written site history of the historic property.

   c. The designated responsible party shall submit the 35 mm Black and White Film Photography Package to the SHPO and Participating Tribe(s) for review and approval. Once approved by the SHPO and Participating Tribe(s), the designated responsible party shall submit full copies of the approved 35 mm Black and White Film Photography Package to _____ for permanent retention.

3. Large Format Film Photography Package: Prior to project implementation, the designated responsible party shall oversee the successful delivery of a Large Format Film Photography Package prepared by staff or contractors that meet the Secretary's Professional Qualifications for Architectural History, History, Architecture, or Historic Architecture, as appropriate.

   a. The Large Format Film Photography Package shall include a comprehensive collection of photographs of both interior and exterior views showing representative spaces and details of significant architectural features and typical building materials. Exterior photographs shall include full oblique and contextual images of each elevation. Exterior views shall be keyed to a site plan while interior views shall be keyed to a floor plan of the building/structure. The photographs shall be indexed according to the date photographed, site number, site name, site address, direction, frame number, subject matter and photographer's name recorded on the reverse side in pencil.

b. The Large Format Film Photography Package shall include one (1) full set of 4 x 5 or 5 x 7-inch photographs printed on acid free paper, the corresponding 4 x 5 or 5 x 7-inch negatives in acid free sleeves, a completed state architectural inventory form, and a written site history of the historic property.

c. The designated responsible party shall submit the Large Format Film Photography Package to the SHPO and Participating Tribe(s) for review and approval. Once approved by the SHPO and affected Tribe(s), the designated responsible party shall submit full copies of the approved Large Format Film Photography Package to _____ for permanent retention.

B. Design Review by SHPO and Participating Tribe(s)

Prior to project implementation, FEMA, the Grantee, and subgrantee shall work with the SHPO and Participating Tribe(s) to develop a historically compatible design. Plans and specifications will, to the greatest extent feasible, preserve the basic character of a building. Primary emphasis shall be given to the major street elevations that are visible. Significant contributing features (e.g. trim, windows, doors, porches) will be repaired or replaced with either in-kind materials or materials that come as close as possible to the original materials in basic appearance. Aesthetic camouflaging treatments such as use of veneers, paints, texture compounds and other surface treatments and/or use of sympathetic infill panels and landscaping features will be employed to the greatest extent feasible. Final construction drawings used in the bidding process will be submitted to the SHPO and Participating Tribe(s) for review and comment prior to the award of a construction contract and the initiation of construction activities.

C. Tribal Treatment Plan

FEMA shall work with the Participating Tribe(s) to develop a plan for the protection and treatment of, including but not limited to, Native American remains, funerary objects, cultural and religious landscapes, ceremonial items, traditional gathering areas and cultural items, for known sites and in the event that any are discovered in conjunction with the Undertaking, including archaeological studies, excavation, geotechnical investigations, grading, and all ground-disturbing activity. The plan will also formalize procedures for Tribal monitoring during archaeological studies, grading, and ground disturbing activities for the Undertaking. No photography of Native Americans human remains or funerary objects will be allowed. No photography of Native Americans human remains or funerary objects will be allowed.

D. Public Interpretation

Prior to project implementation, FEMA, OEM, and the subgrantee will work with the SHPO and Participating Tribe(s) to design an educational interpretive plan. The plan may include signs, displays, educational pamphlets, websites, workshops and other similar mechanisms to educate the public on historic properties within the local community, state, or region. Once an interpretive plan has been agreed to by the parties, SHPO, Participating

Tribe(s), and the designated responsible party will continue to consult throughout implementation of the plan until all agreed upon actions have been completed by the designated responsible party.

E. Historical Context Statements and Narratives

Prior to project implementation, FEMA, OEM, and the subgrantee will work with the SHPO and Participating Tribe(s) to determine the topic and framework of a historic context statement or narrative the designated responsible party shall be responsible for completing. The statement or narrative may focus on an individual property, a historic district, a set of related properties, or relevant themes as identified in the statewide preservation plan. Once the topic of the historic context statement or narrative has been agreed to, the designated responsible party shall continue to coordinate with the SHPO and Participating Tribe(s) through the drafting of the document and delivery of a final product. The SHPO and Participating Tribe(s) shall have final approval over the end product. The designated responsible party will use staff or contractors that meet the Secretary's Professional Qualifications for the appropriate discipline.

F. Oral History Documentation

Prior to project implementation, FEMA, OEM, and the subgrantee will work with the SHPO and Participating Tribe(s) to identify oral history documentation needs and agree upon a topic and list of interview candidates. Once the parameters of the oral history project have been agreed upon, the designated responsible party shall continue to coordinate with the SHPO and Participating Tribe(s) through the data collection, drafting of the document, and delivery of a final product. The SHPO and Participating Tribe(s) shall have final approval over the end product. The designated responsible party will use staff or contractors that meet the Secretary's Professional Qualifications for the appropriate discipline.

G. Historic Property Inventory

Prior to project implementation, FEMA, OEM, and the subgrantee will work with the SHPO and Participating Tribe(s) to establish the appropriate level of effort to accomplish a historic property inventory. Efforts may be directed toward the resurvey of previously designated historic properties and/or districts which have undergone change or lack sufficient documentation, or the survey of new historic properties and/or districts that lack formal designation. Once the boundaries of the survey area have been agreed upon, the designated responsible party shall continue to coordinate with the SHPO and Participating Tribe(s) through the data collection process. The designated responsible party will use SHPO and Participating Tribe(s) standards for the survey of historic properties and SHPO and Participating Tribe(s) forms as appropriate. The designated responsible party will prepare a draft inventory report, according to SHPO and Participating Tribe(s) templates and guidelines, and work with the SHPO and Participating Tribe(s) until a final property inventory is approved. The designated responsible party will use staff or contractors that meet the Secretary's Professional Qualifications for the appropriate discipline.

H. National Register and National Historic Landmark Nominations

Prior to project implementation, FEMA, OEM, and the subgrantee will work with the SHPO, and Participating Tribe(s) to identify the individual properties that would benefit from a completed National Register or National Historic Landmark nomination form. Once the parties have agreed to a property, the designated responsible party shall continue to coordinate with the SHPO and Participating Tribe(s) through the drafting of the nomination form. The SHPO and Participating Tribe(s) will provide adequate guidance to the designated responsible party during the preparation of the nomination form and shall formally submit the final nomination to the Keeper for inclusion in the National Register. The designated responsible party will use staff or contractors that meet the Secretary's Professional Qualifications for the appropriate discipline.

I. Geo-References of Historic Maps and Aerial Photographs

Prior to project implementation, FEMA, OEM, and the subgrantee will work with the SHPO and Participating Tribe(s) to identify the historic maps and/or aerial photographs for scanning and geo-referencing. Once a list of maps and/or aerial photographs have been agreed upon, the designated responsible party shall continue to coordinate with the SHPO and Participating Tribe(s) through the scanning and geo-referencing process and shall submit drafts of paper maps and electronic files to them for review. The SHPO and Participating Tribe(s) shall have final approval on the quality of the documentation provided by the designated responsible party. The final deliverable shall include a paper copy of each scanned image, a geo-referenced copy of each scanned image, and the metadata relating to both the original creation of the paper maps and the digitization process.

APPENDIX D

**TO THE PROGRAMMATIC AGREEMENT AMONG
THE FEDERAL EMERGENCY MANAGEMENT AGENCY,
THE NEW YORK STATE HISTORIC PRESERVATION OFFICER,
THE NEW YORK STATE OFFICE OF EMERGENCY MANAGEMENT,
THE DELAWARE NATION,
THE DELAWARE TRIBE OF INDIANS,
THE SHINNECOCK NATION,
THE STOCKBRIDGE-MUNSEE COMMUNITY BAND OF MOHICANS,
THE NEW YORK CITY LANDMARKS PRESERVATION COMMISSION,
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
AS A RESULT OF HURRICANE SANDY**

WHEREAS, as a result of Hurricane Sandy (DR-4085-NY) (Disaster Declaration), the Federal Emergency Management Agency (FEMA) of the Department of Homeland Security, pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Pub. L. No. 93-288 (1974) (codified as amended at 42 U.S.C. § 5121 *et seq.)* (Stafford Act); the National Flood Insurance Act of 1968, Pub. L. No. 90-448 (1968) (as amended); the Flood Disaster Protection Act of 1973, Pub. L. No. 93-234 (1973) (as amended); the National Flood Insurance Reform Act of 1994, Pub. L. No. 103-325 (1994) (as amended); and implementing regulations contained in Title 44 of the Code of Federal Regulations (C.F.R.), proposes to provide assistance through the New York State Office of Emergency Management (OEM); and

WHEREAS, FEMA consulted with OEM, the New York State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation (ACHP) and the New York City Landmarks Preservation Commission (LPC) to develop and execute a Programmatic Agreement (Agreement) for its disaster recovery activities, executed on May 9, 2013; and

WHEREAS, under the Disaster Relief Appropriations Act of 2013 (Public Law 113-2, January 29, 2013) , the U.S. Department of Housing and Urban Development (HUD) has allocated funds for disaster recovery activities to New York State and New York City, each of which is executing a separate Appendix D Addendum to the Agreement; and

WHEREAS, New York State Homes and Community Renewal (NYS HCR) as the Responsible Entity for New York state activities outside New York City has assumed HUD's environmental responsibilities and is responsible for environmental review, decision-making and action, pursuant to Section 104(g) of the Housing and Community Development Act of 1974 and 24 CFR Part 58, and proposes to administer Community Development Block Grant – Disaster Recovery (CDBG-DR) funds pursuant to the Disaster Relief Appropriations Act of 2013 (Public Law 113-2, January 29, 2013; and

WHEREAS, the CDBG-DR funds will support activities that fall within the scope of programs authorized under the terms of this Agreement and Appendix A (Program activities); and

WHEREAS, to efficiently and expeditiously deliver disaster recovery assistance to those affected by Hurricane Sandy, there is an opportunity to coordinate and align Section 106 reviews of disaster recovery projects that may have multiple funding sources; and

WHEREAS, Stipulation I.A.3. of this Agreement allows other Federal agencies to fulfill their Section 106 responsibilities for those types of undertakings addressed in this Agreement by fully accepting all the terms of the Agreement and executing this Addendum; and

WHEREAS, NYS HCR will ensure that staff who meet the Secretary's Professional Qualification Standard will review Tier II projects and will provide resumes of such staff to the signatories to this Addendum;

NOW, THEREFORE, NYS HCR agrees to assume the federal agency role and accept the terms and conditions of the Agreement, as appropriate under HUD's authorizing legislation and regulations, and thereby take into account the effect of its undertakings and satisfy its Section 106 responsibilities for the CDBG-DR program for activities in New York state outside New York City.

EXECUTION AND IMPLEMENTATION of this Addendum to the Agreement evidences that New York State Homes and Community Renewal (NYS HCR) has taken into account the effects of its undertakings on historic properties, and that through the execution of this Addendum and implementation of the Agreement, NYS HCR will satisfy its responsibilities under Section 106 of the National Historic Preservation Act and its implementing regulations for the referenced CDBG-DR program for activities in New York state outside New York City.

SIGNATORY PARTIES:

FEDERAL EMERGENCY MANAGEMENT AGENCY

By: Timothy P. Crowley for Date: 7/25/13
By MaryAnn Tierney
Acting Regional Administrator, Region II

NEW YORK STATE HISTORIC PRESERVATION OFFICER

By: Ruth Pierpont Date: 8/1/13
By: Ruth Pierpont
New York Deputy Commissioner/New York Deputy State Historic Preservation Officer

NEW YORK STATE HOMES AND COMMUNITY RENEWAL

By: Date:
By: Darryl C. Towns
Commissioner/CEO

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: John M. Fowler Date: 8/6/13
By: John M. Fowler
Executive Director

Appendix E

Stump Removal Guidance

Removal of stumps will be accomplished by attaching a chain to the stump and a piece of heavy equipment which will then pull the unexposed portion of the stump from the ground. If this method is not practicable, then the bucket of the machine will be used to grab and pull the stump out. Additional excavation in the surrounding soil will be avoided whenever possible and minimized when it is necessary. Void spaces will be backfilled with fill soil and any original loose native soil from the rootball when possible. Locations for proposed stump removal that are proposed to occur in areas with known archeological sites will undergo further evaluation and consultation. An archeologist will be present during the removal of rootballs within or adjacent to previously recorded archeological sites or when there are unexpected discoveries. If any potential archeological resources are discovered, work will immediately cease, and the Subgrantee or contractor will notify the Grantee and FEMA.

Preserving America's Heritage

August 6, 2013

Mr. Matthew Nelson
President
New York State Office of Community Renewal
38-40 State Street
Albany, NY 12207

Ref: *Addendum to the Programmatic Agreement for Disaster Response Activities as a Result of Hurricane Sandy in the City of New York*

Dear Mr. Nelson:

Enclosed is a copy of the executed Appendix D for the referenced programmatic agreement. By carrying out the terms of the agreement, you will fulfill your responsibilities under Section 106 of the National Historic Preservation Act and the regulations of the Advisory Council on Historic Preservation, "Protection of Historic Properties" (36 CFR Part 800). The original agreement will remain on file in our office.

We commend the New York State Office of Community Renewal for working closely with the New York State Historic Preservation Officer, the U.S. Department of Housing and Urban Development and the Federal Emergency Management Agency to develop and execute this addendum which will administer Hurricane Sandy response activities using Community Development Block Grant-Disaster Recovery funds.

We are available to provide any assistance you may need while implementing the agreement. If you have any questions, please contact Ms. Jaime Loichinger at (202) 606-8529, or via e-mail at jloichinger@achp.gov.

Sincerely,

for Jaime Loichinger

Charlene Dwin Vaughn, AICP
Assistant Director
Federal Permitting, Licensing, and Assistance Section
Office of Federal Agency Programs

ADVISORY COUNCIL ON HISTORIC PRESERVATION

1100 Pennsylvania Avenue NW, Suite 803 • Washington, DC 20004
Phone: 202-606-8503 • Fax: 202-606-8647 • achp@achp.gov • www.achp.gov

Appendix P:

HUD Noise Abatement and Explosive Operations Email

From: Schopp, Danielle L [mailto:Danielle.L.Schopp@hud.gov]
Sent: Monday, March 18, 2013 12:32 PM
To: Sullivan, Neil
Cc: Potter, James M; Rivera, Nelson A; Furda, Michael R; Fretwell, Therese J; Sanders, Jerimiah J
Subject: RE: Noise and above ground storage tanks - New Jersey

Neil,
As discussed, noise is not applicable for a disaster recovery program including reconstruction and rehabilitation that meets the requirement at 24 CFR 51.101(a)(3). In addition, ASD requirements do not apply because the definition for HUD assisted projects at 24 CFR Part 51.201 is predicated on whether the HUD project increases the number of people exposed to hazardous operations; therefore, the environmental review for grants to elevate, rehabilitate, or reconstruct housing that existed prior to the disaster where the number of dwelling units is not increased is not required to apply 24 CFR Part 51 Subpart C. Mike Furda, as the FEO for New Jersey, is available for questions, follow up or additional guidance.

Thanks,
Danielle
Danielle Schopp, JD, MPA
Director, Office of Environment and Energy
Department of Housing and Urban Development
451 7th Street SW, Room 7250
Washington, DC 20410
phone (202) 402-4442
fax (202) 708-3363
http://portal.hud.gov/portal/page/portal/HUD/topics/environment
Please consider the environment before printing this e-mail

From: Sullivan, Neil [mailto:Neil.Sullivan@icfi.com]
Sent: Monday, March 18, 2013 10:26 AM
To: Schopp, Danielle L
Subject: Noise and above ground storage tanks - New Jersey
Danielle,
Just to follow up on our call on Thursday, NJ DEP requested that I e-mail you and confirm that there is no need to conduct a noise analysis for rehab and reconstruction projects (as defined by HUD) for 1-4 unit homes (the subject of NJ's first Tier 1 EA). Your comment that the analysis is unnecessary is based on the citation below at 24 CFR Part 51.101(a)(3). Can you please confirm that NJ can just cite the highlighted text below and avoid doing noise and AST analysis for both rehab and reconstruction projects?
Thanks
Neil

24 CFR Part 51.101(a)(3)
HUD support for new construction. HUD assistance for the construction of new noise sensitive uses is prohibited generally for projects with unacceptable noise exposures and is discouraged for projects with normally unacceptable noise exposure. (Standards of acceptability are contained in § 51.103(c).) This policy applies to all HUD programs providing assistance, subsidy or insurance for housing, manufactured home parks, nursing homes, hospitals, and all programs providing assistance or insurance for land

development, redevelopment or any other provision of facilities and services which are directed to making land available for housing or noise sensitive development. The policy does not apply to research demonstration projects which do not result in new construction or reconstruction, flood insurance, interstate land sales registration, or any action or emergency assistance under disaster assistance provisions or appropriations which are provided to save lives, protect property, protect public health and safety, remove debris and wreckage, or assistance that has the effect of restoring facilities substantially as they existed prior to the disaster.

NEIL SULLIVAN | Senior Manager | 703.218.2533 (o) | Neil.Sullivan@icfi.com | icfi.com
ICF INTERNATIONAL | 9300 Lee Highway, Fairfax, VA 22031 | 703.975.8853 (m)

Appendix Q:

NMFS Consultation

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

MAR 14 2014

Heather M. Spitzberg
NYS Homes and Community Renewal
38-40 State Street
Hampton Plaza
Albany, New York 12207

Re: NY Rising Bulkhead Program

Dear Ms. Spitzberg,

New York State (NYS) Homes and Community Renewal is working with the U.S. Department of Housing and Urban Development to provide funds to homeowners for repair and replacement of bulkheads at residential properties damaged during storm events, including superstorm Sandy. You are currently preparing a Tier 1 Programmatic Environmental Review for the Bulkhead Repair Program in various New York counties. You have requested technical guidance to help you determine which activities funded by the program may require additional coordination with NOAA's National Marine Fisheries Service, including consultation pursuant to Section 7 of the Endangered Species Act (ESA) of 1973, as amended, and the Essential Fish Habitat (EFH) provisions of the Magnuson-Stevens Fishery Conservation and Management Act.
Based on maps provided by you, we have determined that the only counties considered where activities may impact EFH and species listed under the ESA are Nassau and Suffolk counties on Long Island. The guidelines provided below are intended to be incorporated into your environmental review process so that you can determine which bulkhead projects require additional coordination with NMFS. We expect the majority of activities being considered for funding will not need additional coordination with us.

Endangered Species Act Guidance
Several species of listed sea turtles and Atlantic sturgeon occur in the coastal waters of Long Island. More information on these species, including distribution maps, is available on our website (http://www.nero.noaa.gov/protected/section7/listing/index.html). Because these species only occur in the water, they would not be exposed to any effects of activities that occur solely on land or above the high tide line. Therefore, activities occurring out of the water do not require additional coordination with us.

We expect the majority of bulkhead repair and replacement to occur along the shoreline. Typical bulkhead repair and replacement methodologies include sheet pile installation, individual piles used to support an aboveground structure, or, gravity construction resting on the shore bottom supported by its own weight. The presence of sea turtles and sturgeon in shallow waters adjacent to the shoreline where bulkheads are typically installed would be rare. Impacts to these species are more likely from farfield effects such as increased turbidity (due to sediment disturbance)

and noise resulting from the installation of piles. Measures that can be implemented to minimize the potential exposure of these species to these stressors include the use of turbidity or silt curtains, construction at low tide when water is absent from the area, use of wood or vinyl piles (as opposed to steel), use of the smallest diameter piles practicable, and use of vibratory pile drivers. Avoidance of the May-October time period would also reduce the likelihood of impacts to listed species.

The lead action agency, or their designated non-Federal representative, is responsible for determining if a proposed action may affect a listed species. If you determine that listed species will not be exposed to any effects of a proposed activity, no additional coordination with us is necessary. For any activities that may affect a listed species, section 7 consultation is required. We expect the projects that will require additional coordination would be any that result in negative impacts to submerged aquatic vegetation (SAV), shellfish resources or involve installation of steel piles with an impact hammer. More information on the consultation process can be found on our website (http://www.nero.noaa.gov/protected/section7/guidence/consultation/index.html).

Although an ESA consultation is not in place for the ACOE Nationwide Permit program we encourage you to follow the guidance of the relevant permit conditions (e.g. #3 (maintenance), 13 (Bank Stabilization), 23 (NEPA CE exclusions), as well as general and regional specific conditions for NY.

Essential Fish Habitat

EFH has been designated within the proposed project area by the New England and Mid-Atlantic Fishery Management Councils. Additional information on EFH designations and the EFH consultation process can be found at http://www.nero.noaa.gov/habitat/#

We anticipate that the majority of the proposed work will occur along the shoreline and adjacent to nearshore coastal waters. These projects will likely require federal authorizations by the US Army Corps of Engineers (ACOE) pursuant to Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act, potentially through the Nationwide permit program. We have previously coordinated with the New York District of the ACOE on the development of regional conditions for the Nationwide permit program. One aspect of the regional conditions is to identify and implement measures which would avoid and minimize adverse effects to EFH and other trust resources, therefore avoiding the need for additional consultation with us. In order to avoid and minimize impacts to EFH, we encourage you to design shoreline structures in accordance with these regional conditions. Activities that do not meet these regional conditions will require additional EFH consultation with our office.

We look forward to continuing to work with you on this program. Should you have any questions regarding the ESA comments, please contact Julie Crocker in our Protected Resources Division (978-282-8480 or Julie.Crocker@noaa.gov). For questions regarding EFH, please contact Christopher Boelke at 978-281-9131 or Christopher.boelke@noaa.gov

Sincerely,

Mary A. Colligan
Assistant Regional Administrator
for Protected Resources

EC: Crocker, Murray-Brown – F/NER3
Boelke – F/NER4

File Code: Sec 7 HUD NY Rising Bulkhead Program

NEW YORK STATE
Homes & Community Renewal

ANDREW M. CUOMO
GOVERNOR

DARRYL C. TOWNS
COMMISSIONER/CEO

NEW YORK STATE DIVISION OF HOUSING & COMMUNITY RENEWAL

HOUSING TRUST FUND CORPORATION

STATE OF NEW YORK MORTGAGE AGENCY

NEW YORK STATE HOUSING FINANCE AGENCY

NEW YORK STATE AFFORDABLE HOUSING CORPORATION

STATE OF NEW YORK MUNICIPAL BOND BANK AGENCY

TOBACCO SETTLEMENT FINANCING CORPORATION

February 3, 2014

Mr. John Bullard
Regional Administrator
National Marine Fisheries Service-Northeast Region
55 Great Republic Drive
Gloucester, Massachusetts 01930-2276

Re: Introduction of NY Rising Bulkhead Repair Program for Section 7 and Essential Fish Habitat Consultation

Dear Mr. Bullard,

On July 19, 2013, New York State (NYS) Homes and Community Renewal (HCR) submitted a program introduction letter regarding the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant – Disaster Recovery (CDBG-DR NY Rising Recovery Program (Program) (referred to as Housing Assistance Program in previous coordination). A response letter acknowledging the Program was provided by the National Marine Fisheries Service-Northeast Region (NMFS) on July 31, 2013. This coordination was reviewed by Ms. Mary Colligan of NMFS-Northeast Region.

The purpose of this letter is to introduce the NY Rising Bulkhead Repair Program which was not specified in the initial letter to NMFS. Since submittal of the previous two coordination letters (dated September 19, 2013 and July 19, 2013), HCR has identified bulkhead repair and replacement as activities that are eligible for CDBG-DR funding. HCR is preparing NEPA Tier 1 Programmatic Environmental Reviews (PEAs) for the Bulkhead Repair Program in various NYS counties. HCR would like to take this opportunity to engage in initial Section 7 and EFH consultation for the Bulkhead Repair Program, and is requesting a response letter from NMFS, acknowledging the updated activities described in this letter.

Program Overview

The CDBG-DR Program is large-scale and encompasses several counties throughout NYS. A detailed description of the activities to be funded under the Bulkhead Repair Program has been included in **Attachment A**. A map of affected counties included in the Bulkhead Repair program, is included in **Attachment B**. Specific Actions of the CDBG-DR program include:

1. Housing Recovery: This program provides funding for the repair and reconstruction of residential properties, along with funding appropriate storm mitigation measures. Rehabilitated properties within a floodplain will require raising foundations above the base flood elevation.
2. Reimbursement: As part of Housing Recover, qualifying applicants will be reimbursed for costs associated with repair of storm damaged homes that were completed before the CDBG-DR program funds were available.
3. Buyouts: Under the Buyout Program, NYS will purchase 1-2 unit storm-damaged homes, demolish existing structures on the properties, and return the properties to a natural state. These properties will remain as open space in perpetuity.
4. Acquisitions: Under the Acquisition Program, NYS will purchase 1-2 unit storm-damaged homes, leaving open the potential for future development.
5. Economic Development: Eligible businesses may receive funding for structural repairs, equipment replacement, and general economic recovery, contributing to improvement of the local economy.
6. **Bulkhead Repair: Applicants will receive funding to repair or replace storm-damaged bulkheads on residential properties. This program includes reimbursement for work that has been completed, subject to the eligibility requirements of the program.**

The *State of New York Action Plan for Community Development Block Grant Program Disaster Recovery*, dated April 2013 (Federal Register Docket # FR-5696-N-01) is available for review at http://www.nyshcr.org/Publications/CDBGActionPlan.pdf.

NYSHCR is requesting a response letter to document that coordination with NMFS is underway for the Bulkhead Repair program and is requesting guidance regarding the process to be followed for Section 7 and EFH compliance at the site-specific Tier 2 review. Each property receiving funding will be subject to a site-specific checklist review. GIS layers and review conditions may be adopted for HCR to complete the Tier 2 reviews, with the goal of keeping the review and consultation workload for NMFS to a minimum. We look forward to working with NMFS to identify a Tier 2 compliance process.

If you have question or require additional information regarding this request, please contact me at (518) 486-3379 or hspitzberg@nyshcr.org. Thank you for your time and consideration.

Sincerely,

Heather M. Spitzberg, Esq.
NEPA Certifying Officer
NYS Homes and Community Renewal
38-40 State Street
Hampton Plaza
Albany, NY 12207

cc. Mary Colligan, NMFS
Christopher Boelke, NMFS
Mark Murray-Brown, NMFS
Jennifer Wolff, ProSource Technologies, LLC

Attachment A – Bulkhead Repair Program Description
Attachment B- Map of affected counties included in the Bulkhead Repair program

The NY Rising Bulkhead Repair Program for Residential Properties is designed to provide assistance for repairing damaged bulkheads on residential properties with any number of housing units, including reimbursing homeowners who have already begun repairing or have completed repairs to bulkheads.

Bulkhead Definitions:

Bulkheads are defined as vertical structures constructed parallel to the shoreline or banks of a waterway, with retaining walls for the purpose preventing overtopping and flooding of the adjacent properties. Bulkheads are usually placed along an eroding bank or escapement to hold back the land and prevent erosion. Sometimes referred to as seawalls, gravity walls, quay walls, or riprap revetments, bulkheads are a long-lasting hardy structure that can stand up to moderate to high wave energy.

Residential bulkheads protect the banks and bluffs on a residential property by completely separating land from water. These bulkheads act as retaining walls, keeping the earth or sand behind them from crumbling or slumping. They also are used to resist wave action and protect property.

Bulkheads can be built in three basic types of design. They may consist of:

1) Thin, interlocking sheet piles driven deeply into the ground;
2) Individual piles used to support an aboveground structure; or
3) Massive gravity construction resting on the shore bottom or embedded slightly into it, supported by its own weight rather than by piling.

From these three basic design types, a wide variety of bulkhead designs have been developed. Common and uncommon types of bulkheads include:

- Common bulkheads:
  - Cantilever wall – typically used where there is no room for the installation of an anchor wall
  - Anchored wall with single layer of anchorage – most commonly used
    - Relieving platforms may be added to reduce lateral pressure
    - Batter piles may be driven to use as anchors behind the wall, but should only be considered if there is insufficient room for an anchor and the height of the walls exceeds the design parameters for a cantilever wall.
  - Soldier pile wall, also known as a “King” pile wall, consisting of piles added to the front of an anchored wall to help prevent deflection
  - Soldier beams and lagging
  - Close pile wall
  - Double wall
  - Various combinations can be used of the above general designs to meet the conditions of the site
- Some uncommon bulkhead types are listed below. They are unlikely to be encountered, but are listed for reference.
  - Railroad ties and steel H-piles
  - Treated timber
  - Untreated log

- Hogwire fencing and sandbags – this type would not meet the criteria provided in the general permit
- Used rubber tire and timber post
- Timber cribbing
- Stacked rubber tires
- Used concrete pipes
- Longard tubes
- Stacked bags
- Gabbions

Damage to Bulkheads

Bulkheads are susceptible to various forms of damage due to their presence in the interface between land and water. The action of water, both in front of the wall and behind it, can cause bulkhead damage. Waves that lap over the top can erode the land behind the structure as if the wall were not there, so the structure must be built high enough to prevent such overtopping. Groundwater and rain percolating through the soil may build up pressure behind the wall, eventually pushing it over. Scour at the toe of the bulkhead can undermine the structure and tip it over. Water flowing around the sides of the bulkhead can also cause severe erosion damage, so the structure should cover the entire surface that could be eroded.

Typical storm damage that has been seen from Hurricane Sandy and other similar events has included erosion of the toe of the bulkhead, washout of fill behind the bulkheads, impact damage to sheet piling or other sheeting, and the loss of decking and sheeting from flooding. Most references to historical storm events indicate that the damage incurred was an acceleration of typical wear to bulkheads.

Program description:

Residential property owners in disaster-declared counties who sustained damage to bulkheads have been invited to submit an application for assistance to repair damage caused by any of the storms identified in the Action Plan. Funding for repair and mitigation will include costs for the repair/replacement of damaged bulkheads, seawalls, quay wall, and coastal revetments. It will cover costs for unmet repair or replacement needs after accounting for all federal, state, local and/or private sources of disaster-related assistance. Assistance for repair, rehabilitation, replacement, and reimbursement funding will be capped at the lesser of a specified dollar amount to be determined by NYS, or the unmet repair, rehabilitation, replacement, and reimbursement need as described above. To direct sufficient levels of assistance to those most in need, especially low- or moderate-income and minority households, a higher overall dollar cap amount may be applied to those households of low- or moderate-income, where the need is justified.

The discussion below outlines the activities that would be carried out under the NY Rising Bulkhead Repair Program to address storm-related damage to bulkheads. The following steps will be implemented:

Inspection and Reporting

The condition of the existing bulkhead will be identified, and qualified personnel will determine whether to repair or replace the damaged structure. The inspector will provide photographs,

sketches, and a detailed narrative of the existing site conditions and proposed method of repair or replacement, including a cost estimate.

Documentation

Documentation will be prepared to satisfy General Permit GP-0-13-006, which includes plans and sections. These documents may require the signature and seal of a civil and/or structural engineer.

Activity Summary

Bulkhead repair activities will be conducted in accordance with the federally issued design criteria documents.

As project activity begins, certain portions of the existing wall that could not previously be inspected will be exposed and/or accessible, and should be assessed for additional damage. While most of these materials are unlikely to have been damaged during a storm event, depending on the age of the wall, there is the potential for wear. These previously inaccessible features include:

- Tiebacks
- Anchor walls
- Batter piles
- Relieving platforms
- Backfill
- Scour protection materials

The applicability of the existing bulkhead design to the local conditions will be reviewed. For replacement walls, the following design issues will be considered:

- Exposure to wave attack
- Foundation condition
- Scour, in particular wave reflection from vertical walls for bulkheads
- Overtopping by wave action (in particular during storm events)

During storm events, excessive waves may cause increased scour and overtopping, while debris carried in the storm event may damage walls and piles. To ensure protection during storm events, the review of existing walls and the design or replacements or repairs will include assessment of:

- Compartmentation: The design of the wall should be such to allow for repair only of the area damaged rather than the entire wall
- The potential for inundation of the backfill of the wall, which could cause wash out or subsidence, should be reviewed, and if necessary adequate drainage should be provided
- Impact to the wall, including storm debris

Methods for construction or repairs of the walls will vary based on site conditions. An example of construction methods for a sheet pile wall is provided below:

- Where removal of soft material is contemplated, dredging should precede the driving of sheet piling.

- Where existing material behind the bulkhead is to remain in place, it is advisable to dredge in front of the bulkhead after completion of the structure. This emphasizes arching in the material behind the wall and reduces bending stresses. Dredging adjacent to sheet piling after completion should be done in two or three vertical stages to avoid rapid changes and load differentials.
- Add fill behind the wall in areas of broad extent so that the concentration of lateral pressure does not cause differential alignment along the length of the wall.
- Consider compaction pressure due to the driving of support piles (relieving platform or track supports) behind the front wall. If dredging in front of the wall is done after the piles are driven, deflection of the wall will tend to relieve these pressures. Specify the driving sequence for such piles to avoid a progressive increase of the wedging effect.
- Tie rods would be pre-tensioned as uniformly as is practicable. It is emphasized, however, that uniform load in the tie rods is an unlikely occurrence. The provisions relating to allowable stresses in the anchor system are intended to provide for this situation. The implications are more general, however. The anchor system must be able to deform inelastically.
- Concrete walls and anchor walls should be reinforced on both faces and not simply in accordance with the theoretical moment diagram. The use of high steel in tie rods should be approached with caution to assure that the steel is capable of several percent elongation without fracture.
- Where the anchorage depends on passive earth pressure, place and compact backfill around the anchorage before filling against the bulkhead.

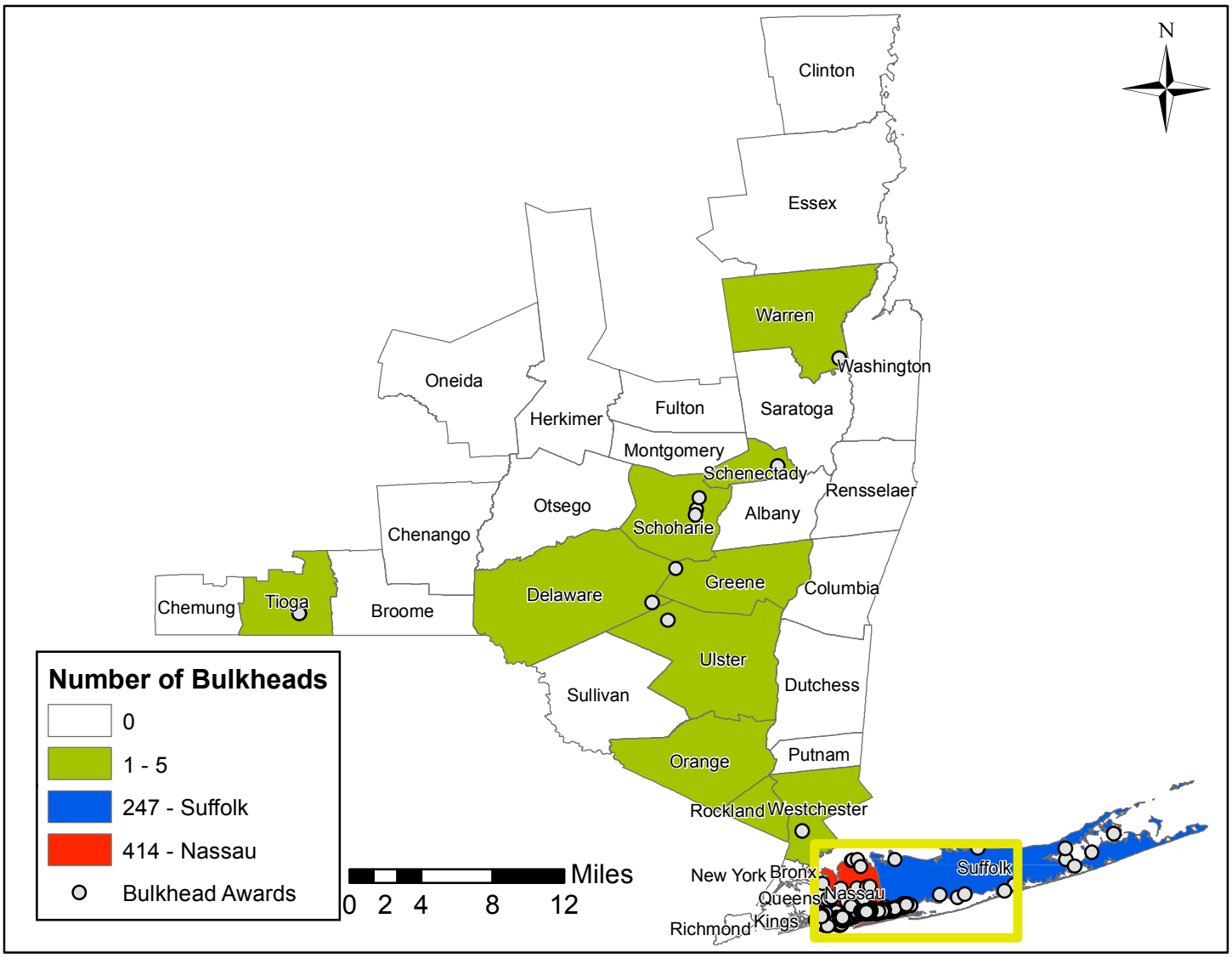
- In the filling of a relieving platform-type structure, the area at the back end of the platform should be filled to deck level, the deck placed over the batter piles, and filling continued to grade. This will provide load on the batter piles to assist in resisting the tension which will be caused by the tension in the tie rod. The deck area adjacent to the sheets may then be placed and fill completed.
- When placing hydraulic fill, the discharge line should be located on or in front of the anchorage line. Drainage openings should be provided in sheet piles at about 100 foot (30.5 meter) intervals.
    - Depending on the wall type, a coffer dam may be necessary to perform repairs or construction.
    - For the installation of sheet piles, it is important to ensure that the base of the pile has been adequately seated to prevent deflection of the wall.
- In a soft bottom, it should be possible to develop adequate toe resistance while driving the pile to adequately seat the pile. If adequate toe resistance cannot be obtained, excavating and replacing of the bottom should be considered
- In a hard bottom with shallow impenetrable material, consider using soldier piles for support or trenching for the base of the wall.
- Various materials are available for construction of the front wall. For the majority of the materials, such as steel, timber, and concrete, standard pile and sheet piling techniques, as well as the manufacturer's recommendation, will insure proper

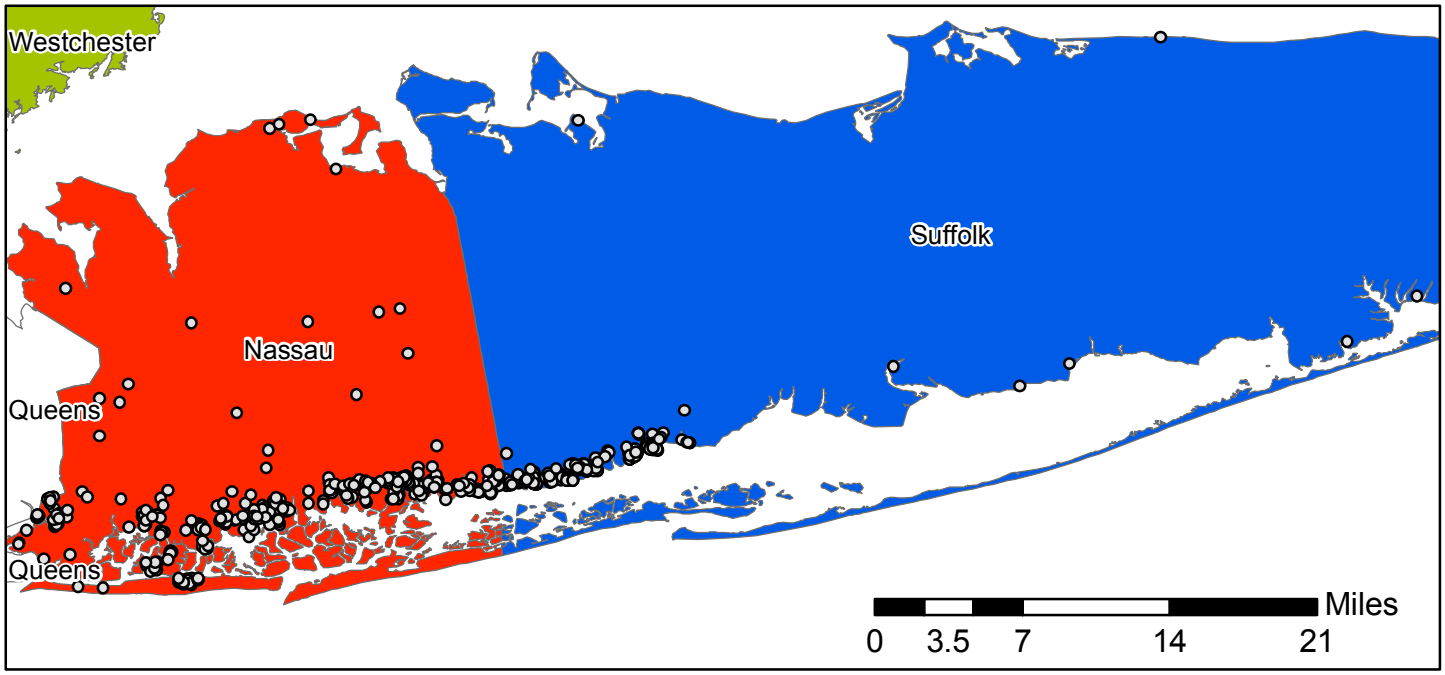
installation. More recently, newer materials, including galvanized corrugated sheet metal, corrugated fiberglass, and corrugated aluminum have become available on the market. The use of these materials at existing locations should be reviewed based on:

  - Freeze thaw cycles
  - Corrosion
  - Marine borers
  - Ultraviolet light reactions
  - Abrasion
  - Wave and ice forces

- It is recommended that regardless of the materials selected, the manufacturer should be consulted for proper installation techniques.
- For the construction of the anchorage, a simple concrete wall or sheet pile deadman should be used. If there is limited area, pile-supported anchorage (batter piles) may be used, but this should be a last resort.

Number of Bulkhead Awards by County





State maps developed by GCR Inc.

Data Source: Bulkhead data effective (11/21), Base layers - NYSGIS Clearinghouse

Appendix R:

USFWS Consultation

From: Papa, Steve [mailto:steve_papa@fws.gov]
Sent: Monday, February 10, 2014 04:51 PM
To: Seth Diamond
Cc: patricia_cole@fws.gov <patricia_cole@fws.gov>
Subject: Re: NYSHCR Section 7 Determinations for Select Properties. Review Date: Feb 4, 2013

In response to your Feb 3, 2014, correspondence the Service will be available to provide technical assistance and respond to your requests for initiation of Endangered Species Act consultation for the NY Rising Bulkhead Repair Program.

Steven T. Papa
U.S. Fish and Wildlife Service
Long Island Field office
340 Smith Rd
Shirley, NY 11967
(631) 286-0485 (tel)
631) 286-4003 (fax)
Steve_Papa@fws.gov

On Mon, Feb 10, 2014 at 4:27 PM, Seth Diamond <sdiamond@stormrecovery.ny.gov> wrote:

> We are still trying to get an indication from you of cooperation on our bulkhead submission. At this point this indication is the only item holding up our submission to HUD. I would appreciate your getting back to me as soon as possible. At this point I don't think anything more than an e mail indicating you will work with us is needed and going forward we will try and limit the workload for all involved. I appreciate your help in moving this ahead.
>
> **From:** Seth Diamond
> **Sent:** Friday, February 07, 2014 1:50 PM
> **To:** 'patricia_cole@fws.gov'
> **Subject:** Re: NYSHCR Section 7 Determinations for Select Properties. Review Date: Feb 4, 2013
>
> Thank you for your feedback. Appreciate your getting back to me as soon as you can on the coordination.
>
> ---
>
> **From**: Cole, Patricia [mailto:patricia_cole@fws.gov]
> **Sent**: Friday, February 07, 2014 01:36 PM
> **To**: Seth Diamond
> **Subject**: Re: NYSHCR Section 7 Determinations for Select Properties. Review Date: Feb 4, 2013
>
> Seth,

Per ESA, you do not need our concurrence on no effect determinations, so you may proceed with those. Otherwise, we will respond to the NLAA determinations as soon as possible.

Regards,

Patricia Cole
Deputy Field Supervisor
New York Field Office
U.S. Fish and Wildlife Service
3817 Luker Road
Cortland, New York 13045
607/753-9334

On Fri, Feb 7, 2014 at 1:33 PM, Seth Diamond <sdiamond@stormrecovery.ny.gov> wrote:
I had a second matter to raise. You talked with state representatives earlier in the week about consultation on our tier 1 bulkhead. I believe we were waiting to receive a response from you in response to the e mail we sent you. I would greatly appreciate anything you can do on both this issue and the clearance of no effect properties before the end of the day

---

From: Seth Diamond
Sent: Friday, February 07, 2014 10:45 AM
To: 'patricia_cole@fws.gov' (patricia_cole@fws.gov)

Subject: NYSHCR Section 7 Determinations for Select Properties. Review Date: Feb 4, 2013

We have been working with Steve on trying to gain approval to move forward for as many homeowner sites as we can. We had sent this to Steve indicating 27 properties received a no effect determination; 5 properties received a may affect, but is not likely to adversely affect determination. We are anxious to receive your concurrence as soon as possible. I know Steve is out until next week but if there is any way you could approve this week it would be greatly appreciated. I have also attached a related e mail

---

From: Shawn Williams
Sent: Tuesday, February 04, 2014 3:30 PM
To: Steve Papa (steve_papa@fws.gov)
Cc: Jennifer Wolff; sdiamond@nyshcr.org
Subject: FW: NYSHCR Section 7 Determinations for Select Properties. Review Date: Feb 4, 2013

Hi Steve,

Here is a PDF version….

Thanks!

Shawn Williams | Wetland/Permitting Specialist
ProSource Technologies, LLC| swilliams@prosourcetech.com
763.786.1445 | cell: 952.913.2962 | fax 763.786.1030

From: Shawn Williams
Sent: Tuesday, February 04, 2014 3:06 PM
To: Steve Papa (steve_papa@fws.gov)
Cc: sdiamond@nyshcr.org; Jennifer Wolff; Rebecca Steffen
Subject: NYSHCR Section 7 Determinations for Select Properties. Review Date: Feb 4, 2013

Hello Steve,

As follow up to our discussion last Friday, We have attached the Section 7 Determinations spreadsheet, dated February 4, 2013. This spreadsheet contains the brief work descriptions at each property and the Section 7 review determination.

During the evaluation, we reviewed the project work descriptions provided in the Estimated Cost of Repair (ECR) documents, reviewed species mapping layers in Arc GIS, and completed distance measurements (between property and mapped habitat).

The attached kmz file is the same one that was sent to you last Friday, and is applicable for the properties in this spreadsheet.

To summarize, 27 properties received a *no effect* determination; 5 properties received a *may affect, but is not likely to adversely affect* determination (light purple shade).

We look forward to the USFWS response to this request for concurrence.

Regards,

Shawn Williams | Wetland/Permitting Specialist
ProSource Technologies, LLC| swilliams@prosourcetech.com
763.786.1445 | cell: 952.913.2962 | fax 763.786.1030

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www.stormrecovery.ny.gov

NEW YORK STATE
Homes & Community Renewal

ANDREW M. CUOMO
GOVERNOR

DARRYL C. TOWNS
COMMISSIONER/CEO

NEW YORK STATE DIVISION OF HOUSING & COMMUNITY RENEWAL

HOUSING TRUST FUND CORPORATION

STATE OF NEW YORK MORTGAGE AGENCY

NEW YORK STATE HOUSING FINANCE AGENCY

NEW YORK STATE AFFORDABLE HOUSING CORPORATION

STATE OF NEW YORK MUNICIPAL BOND BANK AGENCY

TOBACCO SETTLEMENT FINANCING CORPORATION

February 3, 2014

Ms. Patricia Cole
Deputy Field Supervisor
New York Field Office
U.S. Fish and Wildlife Service
3817 Luker Road
Cortland, New York 13045

Re: Introduction of CDBG-DR NY Rising Bulkhead Repair Program for Section 7 consultation

Dear Ms. Cole,

On August 26, 2013, New York State (NYS) Homes and Community Renewal (HCR) submitted a program update letter regarding the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant – Disaster Recovery (CDBG-DR) NY Rising Recovery Program (Program) (referred to as Housing Assistance Program in previous coordination). The letter provided an update of the expanded activities included in the Program.

The purpose of this letter is to introduce the NY Rising Bulkhead Repair Program to the USFWS. Since submittal of the previous update letter, HCR has identified bulkhead repair and replacement as activities that are eligible for CDBG-DR funding. HCR is preparing NEPA Tier 1 Programmatic Environmental Reviews (PEAs) for the Bulkhead Repair Program in various NYS counties. HCR would like to take this opportunity to engage in initial Section 7 consultation for the Bulkhead Repair Program and is requesting a response letter from USFWS, acknowledging the updated activities described in this letter.

Program Overview

A detailed description of the activities to be funded under the Bulkhead Repair Program has been included in **Attachment A**. A map of affected counties included in the Bulkhead Repair program, is included in **Attachment B**. As noted in previous consultation letters, the Program includes the following recovery activities:

1. Housing Recovery: This program provides funding for the repair and reconstruction of residential properties, along with funding appropriate storm mitigation measures. Rehabilitated properties within a floodplain will require raising foundations above the base flood elevation.
2. Reimbursement: As part of Housing Recover, qualifying applicants will be reimbursed for costs associated with repair of storm damaged homes that were completed before the CDBG-DR program funds were available.
3. Buyouts: Under the Buyout Program, NYS will purchase 1-2 unit storm-damaged homes, demolish existing structures on the properties, and return the properties to a natural state. These properties will remain as open space in perpetuity.
4. Acquisitions: Under the Acquisition Program, NYS will purchase 1-2 unit storm-damaged homes, leaving open the potential for future development.
5. Economic Development: Eligible businesses may receive funding for structural repairs, equipment replacement, and general economic recovery, contributing to improvement of the local economy.
6. **Bulkhead Repair: Applicants will receive funding to repair or replace storm-damaged bulkheads on residential properties. This program includes reimbursement for work that has been completed, subject to the eligibility requirements of the program.**

HCR anticipates that Section 7 coordination with the USFWS will be ongoing as applicants are identified and a program site is determined to need additional coordination for endangered species or Coastal Barrier Resources System determinations. HCR will continue to keep USFWS updated as necessary, as the Tier 2 compliance reviews are completed, and is requesting a response letter to document that coordination with USFWS is underway for the Bulkhead Repair Program.

If you have question or require additional information regarding this request, please contact me at (518) 486-3379 or hspitzberg@nyshcr.org. Thank you for your time and consideration.

Sincerely,

Heather M. Spitzberg, Esq.
NEPA Certifying Officer
NYS Homes and Community Renewal
38-40 State Street
Hampton Plaza
Albany, NY 12207

cc. Steve Papa, USFWS
Dana Wright, USFWS
Jennifer Wolff, ProSource Technologies, LLC

Attachment A – Bulkhead Repair Program Description
Attachment B- Map of affected counties included in the Bulkhead Repair Program

The NY Rising Bulkhead Repair Program for Residential Properties is designed to provide assistance for repairing damaged bulkheads on residential properties with any number of housing units, including reimbursing homeowners who have already begun repairing or have completed repairs to bulkheads.

Bulkhead Definitions:

Bulkheads are defined as vertical structures constructed parallel to the shoreline or banks of a waterway, with retaining walls for the purpose preventing overtopping and flooding of the adjacent properties. Bulkheads are usually placed along an eroding bank or escapement to hold back the land and prevent erosion. Sometimes referred to as seawalls, gravity walls, quay walls, or riprap revetments, bulkheads are a long-lasting hardy structure that can stand up to moderate to high wave energy.

Residential bulkheads protect the banks and bluffs on a residential property by completely separating land from water. These bulkheads act as retaining walls, keeping the earth or sand behind them from crumbling or slumping. They also are used to resist wave action and protect property.

Bulkheads can be built in three basic types of design. They may consist of:

1) Thin, interlocking sheet piles driven deeply into the ground;
2) Individual piles used to support an aboveground structure; or
3) Massive gravity construction resting on the shore bottom or embedded slightly into it, supported by its own weight rather than by piling.

From these three basic design types, a wide variety of bulkhead designs have been developed. Common and uncommon types of bulkheads include:

- Common bulkheads:
  - Cantilever wall – typically used where there is no room for the installation of an anchor wall
  - Anchored wall with single layer of anchorage – most commonly used
    - Relieving platforms may be added to reduce lateral pressure
    - Batter piles may be driven to use as anchors behind the wall, but should only be considered if there is insufficient room for an anchor and the height of the walls exceeds the design parameters for a cantilever wall.
  - Soldier pile wall, also known as a “King” pile wall, consisting of piles added to the front of an anchored wall to help prevent deflection
  - Soldier beams and lagging
  - Close pile wall
  - Double wall
  - Various combinations can be used of the above general designs to meet the conditions of the site
- Some uncommon bulkhead types are listed below. They are unlikely to be encountered, but are listed for reference.
  - Railroad ties and steel H-piles
  - Treated timber
  - Untreated log

- Hogwire fencing and sandbags – this type would not meet the criteria provided in the general permit
- Used rubber tire and timber post
- Timber cribbing
- Stacked rubber tires
- Used concrete pipes
- Longard tubes
- Stacked bags
- Gabbions

Damage to Bulkheads

Bulkheads are susceptible to various forms of damage due to their presence in the interface between land and water. The action of water, both in front of the wall and behind it, can cause bulkhead damage. Waves that lap over the top can erode the land behind the structure as if the wall were not there, so the structure must be built high enough to prevent such overtopping. Groundwater and rain percolating through the soil may build up pressure behind the wall, eventually pushing it over. Scour at the toe of the bulkhead can undermine the structure and tip it over. Water flowing around the sides of the bulkhead can also cause severe erosion damage, so the structure should cover the entire surface that could be eroded.

Typical storm damage that has been seen from Hurricane Sandy and other similar events has included erosion of the toe of the bulkhead, washout of fill behind the bulkheads, impact damage to sheet piling or other sheeting, and the loss of decking and sheeting from flooding. Most references to historical storm events indicate that the damage incurred was an acceleration of typical wear to bulkheads.

Program description:

Residential property owners in disaster-declared counties who sustained damage to bulkheads have been invited to submit an application for assistance to repair damage caused by any of the storms identified in the Action Plan. Funding for repair and mitigation will include costs for the repair/replacement of damaged bulkheads, seawalls, quay wall, and coastal revetments. It will cover costs for unmet repair or replacement needs after accounting for all federal, state, local and/or private sources of disaster-related assistance. Assistance for repair, rehabilitation, replacement, and reimbursement funding will be capped at the lesser of a specified dollar amount to be determined by NYS, or the unmet repair, rehabilitation, replacement, and reimbursement need as described above. To direct sufficient levels of assistance to those most in need, especially low- or moderate-income and minority households, a higher overall dollar cap amount may be applied to those households of low- or moderate-income, where the need is justified.

The discussion below outlines the activities that would be carried out under the NY Rising Bulkhead Repair Program to address storm-related damage to bulkheads. The following steps will be implemented:

Inspection and Reporting

The condition of the existing bulkhead will be identified, and qualified personnel will determine whether to repair or replace the damaged structure. The inspector will provide photographs,

sketches, and a detailed narrative of the existing site conditions and proposed method of repair or replacement, including a cost estimate.

Documentation

Documentation will be prepared to satisfy General Permit GP-0-13-006, which includes plans and sections. These documents may require the signature and seal of a civil and/or structural engineer.

Activity Summary

Bulkhead repair activities will be conducted in accordance with the federally issued design criteria documents.

As project activity begins, certain portions of the existing wall that could not previously be inspected will be exposed and/or accessible, and should be assessed for additional damage. While most of these materials are unlikely to have been damaged during a storm event, depending on the age of the wall, there is the potential for wear. These previously inaccessible features include:

- Tiebacks
- Anchor walls
- Batter piles
- Relieving platforms
- Backfill
- Scour protection materials

The applicability of the existing bulkhead design to the local conditions will be reviewed. For replacement walls, the following design issues will be considered:

- Exposure to wave attack
- Foundation condition
- Scour, in particular wave reflection from vertical walls for bulkheads
- Overtopping by wave action (in particular during storm events)

During storm events, excessive waves may cause increased scour and overtopping, while debris carried in the storm event may damage walls and piles. To ensure protection during storm events, the review of existing walls and the design or replacements or repairs will include assessment of:

- Compartmentation: The design of the wall should be such to allow for repair only of the area damaged rather than the entire wall
- The potential for inundation of the backfill of the wall, which could cause wash out or subsidence, should be reviewed, and if necessary adequate drainage should be provided
- Impact to the wall, including storm debris

Methods for construction or repairs of the walls will vary based on site conditions. An example of construction methods for a sheet pile wall is provided below:

- Where removal of soft material is contemplated, dredging should precede the driving of sheet piling.

- Where existing material behind the bulkhead is to remain in place, it is advisable to dredge in front of the bulkhead after completion of the structure. This emphasizes arching in the material behind the wall and reduces bending stresses. Dredging adjacent to sheet piling after completion should be done in two or three vertical stages to avoid rapid changes and load differentials.
- Add fill behind the wall in areas of broad extent so that the concentration of lateral pressure does not cause differential alignment along the length of the wall.
- Consider compaction pressure due to the driving of support piles (relieving platform or track supports) behind the front wall. If dredging in front of the wall is done after the piles are driven, deflection of the wall will tend to relieve these pressures. Specify the driving sequence for such piles to avoid a progressive increase of the wedging effect.
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- Concrete walls and anchor walls should be reinforced on both faces and not simply in accordance with the theoretical moment diagram. The use of high steel in tie rods should be approached with caution to assure that the steel is capable of several percent elongation without fracture.
- Where the anchorage depends on passive earth pressure, place and compact backfill around the anchorage before filling against the bulkhead.

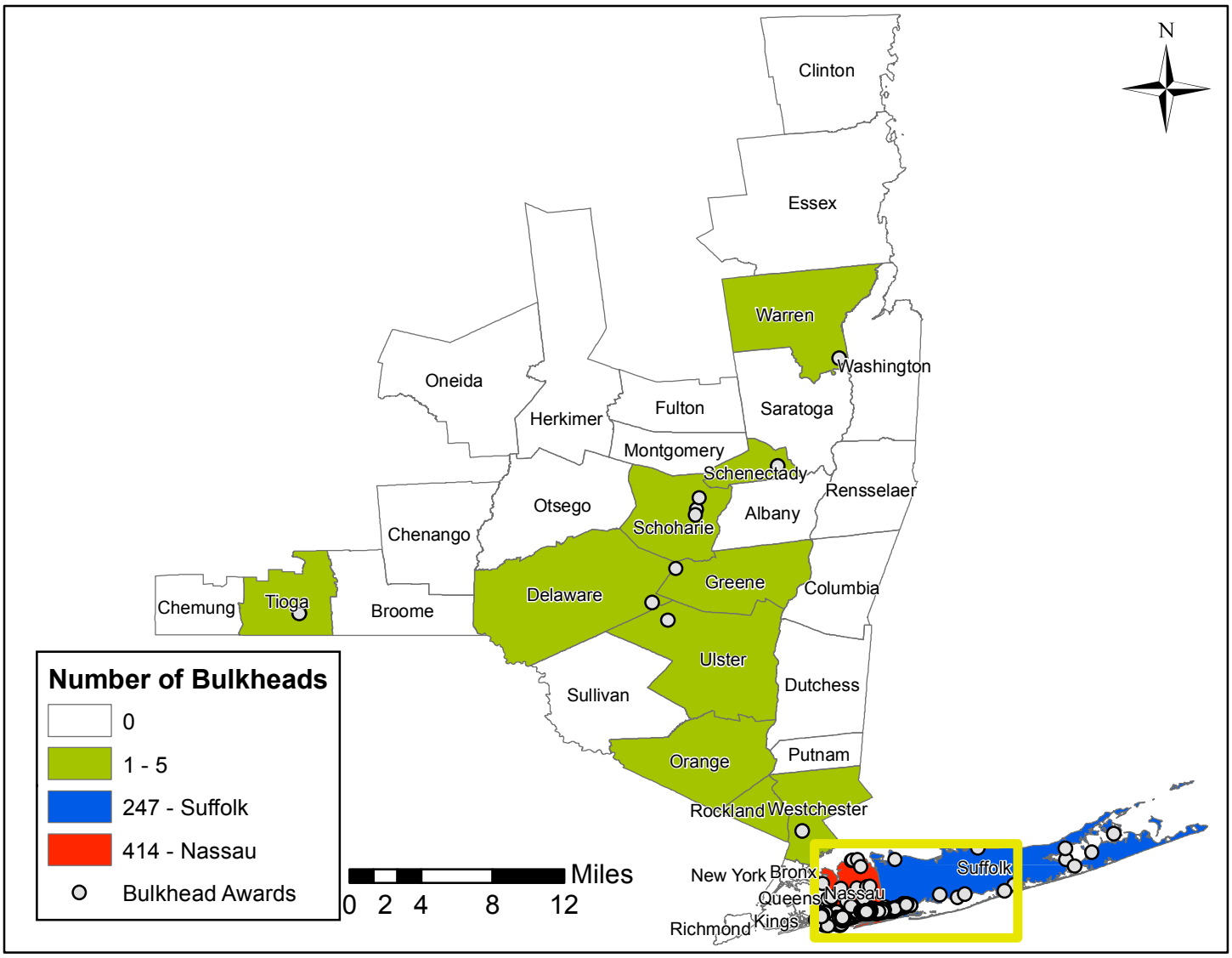
- In the filling of a relieving platform-type structure, the area at the back end of the platform should be filled to deck level, the deck placed over the batter piles, and filling continued to grade. This will provide load on the batter piles to assist in resisting the tension which will be caused by the tension in the tie rod. The deck area adjacent to the sheets may then be placed and fill completed.
- When placing hydraulic fill, the discharge line should be located on or in front of the anchorage line. Drainage openings should be provided in sheet piles at about 100 foot (30.5 meter) intervals.
    - Depending on the wall type, a coffer dam may be necessary to perform repairs or construction.
    - For the installation of sheet piles, it is important to ensure that the base of the pile has been adequately seated to prevent deflection of the wall.
- In a soft bottom, it should be possible to develop adequate toe resistance while driving the pile to adequately seat the pile. If adequate toe resistance cannot be obtained, excavating and replacing of the bottom should be considered
- In a hard bottom with shallow impenetrable material, consider using soldier piles for support or trenching for the base of the wall.
- Various materials are available for construction of the front wall. For the majority of the materials, such as steel, timber, and concrete, standard pile and sheet piling techniques, as well as the manufacturer's recommendation, will insure proper

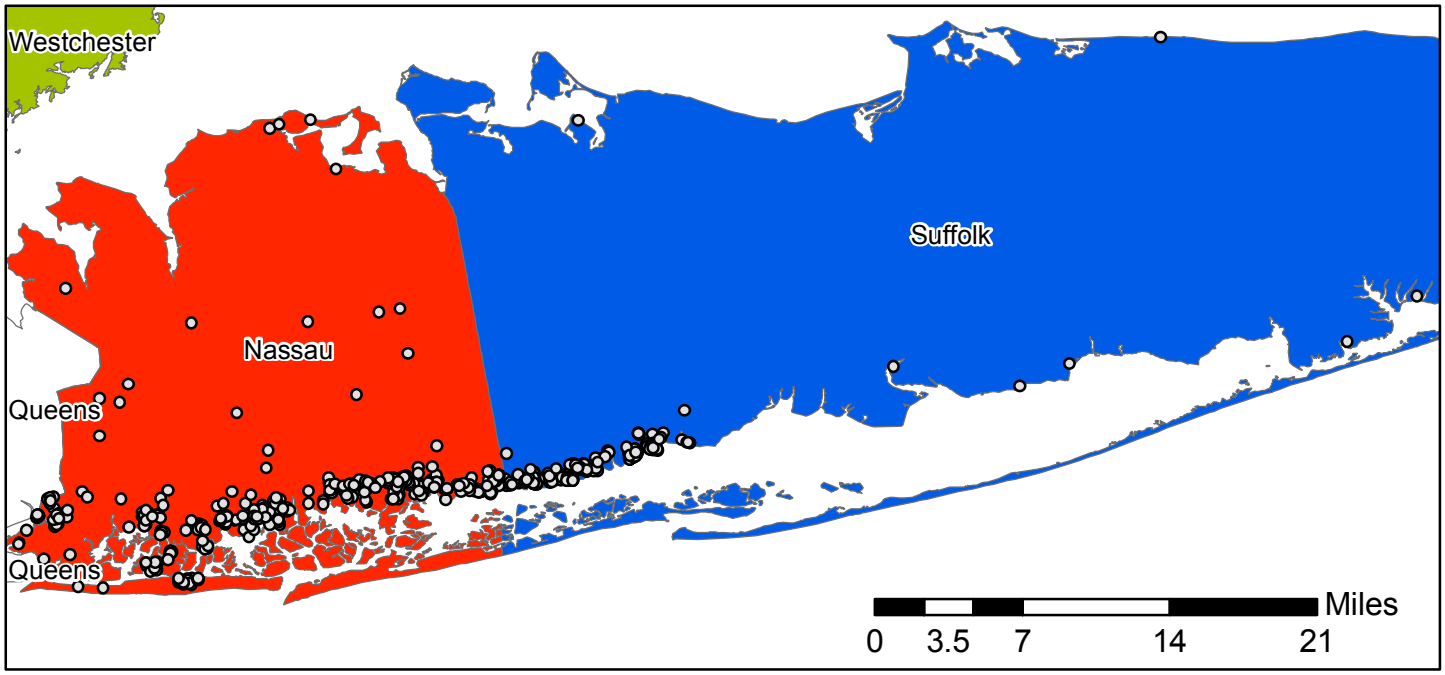
installation. More recently, newer materials, including galvanized corrugated sheet metal, corrugated fiberglass, and corrugated aluminum have become available on the market. The use of these materials at existing locations should be reviewed based on:

  - Freeze thaw cycles
  - Corrosion
  - Marine borers
  - Ultraviolet light reactions
  - Abrasion
  - Wave and ice forces

- It is recommended that regardless of the materials selected, the manufacturer should be consulted for proper installation techniques.
- For the construction of the anchorage, a simple concrete wall or sheet pile deadman should be used. If there is limited area, pile-supported anchorage (batter piles) may be used, but this should be a last resort.

Number of Bulkhead Awards by County





State maps developed by GCR Inc.

Data Source: Bulkhead data effective (11/21), Base layers - NYSGIS Clearinghouse

Appendix S:

USACE Coordination and Permits

c: Ms. Wolff

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
26 FEDERAL PLAZA
NEW YORK, NEW YORK 10278-0090

FEB 26 2014

Reply to:
Regulatory Branch

Subject: New York Rising Bulkhead Repair Program

Ms. Heather M. Spitzberg, Esq.
NEPA Certifying Officer
New York State Homes and Community Renewal
38-40 State Street
Hampton Plaza
Albany, New York 12207

Dear Ms. Spitzberg:

The New York District of the U.S. Army Corps of Engineers thanks you and your colleagues for meeting with representatives of the District and the Corps' North Atlantic Division, on February 20, 2014, to discuss the Bulkhead Repair Program of the New York Rising Recovery Program, under New York State Homes and Community Renewal. It appears that the bulkhead repair program will involve many individual shoreline projects that will require project review under the District's regulatory program, and this office appreciates your efforts to insure that these issues are thoroughly coordinated among the federal and state agencies.

Many projects that involve bulkhead replacement and repair may require authorization from this office under the Rivers and Harbors Act of 1899 (specifically Section 10 (Title 33 of the United States Code, Section 403), which prohibits unauthorized structures or fill in, and unauthorized changes to the capacity of, navigable waters), and the Clean Water Act (specifically Sections 301 (33 U.S.C. 1311), which prohibits the unauthorized discharge of fill into waters of the United States, including wetlands, and 404 (33 U.S.C. 1344) , which sets out the manner in which such discharges may be authorized). The implementing regulations for these statutes are found at Title 33 of the Code of Federal Regulations, Sections 320 through 332.

As discussed at the meeting, projects submitted to this office for review by individual project sponsors will be processed in accordance with the level of authorization that each project will require. Some may be eligible for authorization under the nationwide general permit program or regional general permits, some may require individual permits, and some may not require authorization from this office at all (that is, those that do not involve structures or fill within jurisdictional waters, the limits of which as set out in 33 C.F.R. 328 and 329).

Subject: New York Rising Bulkhead Repair Program

Those projects that would generally involve minor and less complex reviews would include:

- projects where the work has been completed, but whose impacts were within the standards set out in nationwide general permit # 3;
- projects where the work has been completed within the eligible time period for regional general permit # 15, and whose impacts are within the standards set out for the general permit; and
- projects that are proposed, and whose impacts are within the standards set out for nationwide general permit # 3 (although some of these may require a pre-construction notification, under the terms and conditions of nationwide general permit # 3).

Those projects that would generally involve major and more complex reviews would include:

- projects where the work has been completed, and the impacts are beyond the standards of nationwide general or other general permits, and which may be addressed by this office through enforcement actions; and
- projects that are proposed, and the impacts are beyond the standards of nationwide or other general permits, and which would require an individual permit.

There is enclosed a copy of:

- the section of the Federal Register that describes the nationwide general permits;
- the regional conditions for nationwide general permit # 3 for the New York District;
- the public notice describing regional general permit # 15; and
- the Regulatory Program Applicant Information Guide, which would be of assistance to your program's participants in preparing their submittals.

It appears that there may be a limited number of projects that lie within the jurisdiction of the Buffalo District of the U.S. Army Corps of Engineers (please see map on Enclosure #1 of the public notice for the general permit for district boundaries). Your office should contact the Buffalo District to insure appropriate coordination for such projects. A copy of this letter will be provided to the Buffalo District, whose regulatory program may be contacted at 716-879-4330.

This office looks forward to working with you on this important mission. If any questions should arise concerning this matter, please contact me at 917-790-8418.

Sincerely,

Christopher S. Mallery. Ph.D.
Deputy Chief, Regulatory Branch

Enclosures

c: Ms. Jennifer Wolff, ProSource
Ms. Therese Fretwell, U.S. H.U.D.
Ms. Irene Chang-Cimino, F.E.M.A.
Mr. Jeffrey D'Agostino, U.S. H.U.D.
Mr. Christopher Boelke, N.O.A.A. - Fisheries
Mr. James Haggerty, U.S.A.C.E. (CENAD)
Ms. Diane Kozlowski, U.S.A.C.E. (CELRB)

NEW YORK STATE
Homes & Community Renewal

ANDREW M. CUOMO
GOVERNOR

DARRYL C. TOWNS
COMMISSIONER/CEO

NEW YORK STATE DIVISION OF HOUSING & COMMUNITY RENEWAL

HOUSING TRUST FUND CORPORATION

STATE OF NEW YORK MORTGAGE AGENCY

NEW YORK STATE HOUSING FINANCE AGENCY

NEW YORK STATE AFFORDABLE HOUSING CORPORATION

STATE OF NEW YORK MUNICIPAL BOND BANK AGENCY

TOBACCO SETTLEMENT FINANCING CORPORATION

February 3, 2014

Christopher Mallery, Ph.D.
Deputy Chief, Regulatory Branch
U.S. Army Corps of Engineers- New York District
Jacob K. Javits Federal Building
26 Federal Plaza
New York, NY 10278-0090

Re: Project Introduction and Early Coordination for Regulatory Compliance for NY Rising Bulkhead Repair Program

Dear Mr. Mallery:

New York State (NYS) Homes and Community Renewal (HCR) is authorized under the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant – Disaster Recovery (CDBG-DR) for the NY Rising Recovery Program (Program), to implement grant funding in accordance with the *State of New York Action Plan for Community Development Block Grant Program Disaster Recovery* (April 2013, Federal Register Docket # FR-5696-N-01). This document is available for review at http://www.nyshcr.org/Publications/CDBGActionPlan.pdf.

The purpose of this letter introduce the NY Rising Bulkhead Repair Program to the U.S. Army Corps of Engineers-New York District (USACE) and begin early coordination under the U.S. National Environmental Policy Act (NEPA) for Tier 1 Programmatic Environmental Assessment (PEA) preparation. As part of the environmental review, a Tier 2 site-specific evaluation will also be completed for each program application. As the Responsible Entity (RE), HCR is will complete more than 100 Tier 1 PEAs for the NY Rising Recovery Program and ensure compliance for thousands of Tier 2 site-specific reviews.

Upon review of the USACE permits and per the phone conversation with you (from ProSource Technologies, LLC), we understand Regional General Permit 15 will be the applicable permit for the activities of the CDBG-DR program.

Program Overview

The Implementation of the Program is large-scale and encompasses many counties throughout NYS. Specific actions included in the overall Program include:

1. Housing Recovery: This program provides funding for the repair and reconstruction of residential properties, along with funding appropriate storm mitigation measures. Rehabilitated properties within a floodplain will require raising foundations above the base flood elevation.
2. Reimbursement: As part of Housing Recover, qualifying applicants will be reimbursed for costs associated with repair of storm damaged homes that were completed before the CDBG-DR program funds were available.
3. Buyouts: Under the Buyout Program, NYS will purchase 1-2 unit storm-damaged homes, demolish existing structures on the properties, and return the properties to a natural state. These properties will remain as open space in perpetuity.
4. Acquisitions: Under the Acquisition Program, NYS will purchase 1-2 unit storm-damaged homes, leaving open the potential for future development.
5. Economic Development: Eligible businesses may receive funding for structural repairs, equipment replacement, and general economic recovery, contributing to improvement of the local economy.
6. **Bulkhead Repair: Applicants will receive funding to repair or replace storm-damaged bulkheads on residential properties. This program includes reimbursement for work that has been completed, subject to the eligibility requirements of the program (see Attachment A for a detailed description of the activities to be funded under the Bulkhead Repair Program).**

The Bulkhead Repair Program will, in most cases, involve work near and/or within Waters of the U.S. A map of affected counties included in the Bulkhead Repair Program is included in **Attachment B**. Currently, there are approximately 700 applicants identified for the Bulkhead Repair Program.

The number and location of participants in the Program is constantly evolving. Participation is voluntary and applicants must meet eligibility requirements and be located within the affected counties listed in the Action Plan.

Prior to issuance of CDBG-DR funds to applicants, it is the requirement that HCR, as the RE, documents environmental compliance. Applicants to the Program are responsible for obtaining the proper permits demonstrating their project has met the conditions of the applicable USACE permit individually. We are requesting written response from the USACE acknowledging the NY Rising Bulkhead Repair Program, to be included in the Tier 1 PEA.

If you have question or require additional information regarding this request, please contact me at (518) 486-3379 or hspitzberg@nyshcr.org.

Sincerely,

Heather M. Spitzberg, Esq.
NEPA Certifying Officer
NYS Homes and Community Renewal
38-40 State Street
Hampton Plaza
Albany, NY 12207

cc. Jennifer Wolff, ProSource Technologies, LLC

Attachment A – Bulkhead Program Description
Attachment B- List of Affected and Actions for Counties Included in the CDBG-DR Program

The NY Rising Bulkhead Repair Program for Residential Properties is designed to provide assistance for repairing damaged bulkheads on residential properties with any number of housing units, including reimbursing homeowners who have already begun repairing or have completed repairs to bulkheads.

Bulkhead Definitions:

Bulkheads are defined as vertical structures constructed parallel to the shoreline or banks of a waterway, with retaining walls for the purpose preventing overtopping and flooding of the adjacent properties. Bulkheads are usually placed along an eroding bank or escapement to hold back the land and prevent erosion. Sometimes referred to as seawalls, gravity walls, quay walls, or riprap revetments, bulkheads are a long-lasting hardy structure that can stand up to moderate to high wave energy.

Residential bulkheads protect the banks and bluffs on a residential property by completely separating land from water. These bulkheads act as retaining walls, keeping the earth or sand behind them from crumbling or slumping. They also are used to resist wave action and protect property.

Bulkheads can be built in three basic types of design. They may consist of:

1) Thin, interlocking sheet piles driven deeply into the ground;
2) Individual piles used to support an aboveground structure; or
3) Massive gravity construction resting on the shore bottom or embedded slightly into it, supported by its own weight rather than by piling.

From these three basic design types, a wide variety of bulkhead designs have been developed. Common and uncommon types of bulkheads include:

- Common bulkheads:
  - Cantilever wall – typically used where there is no room for the installation of an anchor wall
  - Anchored wall with single layer of anchorage – most commonly used
    - Relieving platforms may be added to reduce lateral pressure
    - Batter piles may be driven to use as anchors behind the wall, but should only be considered if there is insufficient room for an anchor and the height of the walls exceeds the design parameters for a cantilever wall.
  - Soldier pile wall, also known as a “King” pile wall, consisting of piles added to the front of an anchored wall to help prevent deflection
  - Soldier beams and lagging
  - Close pile wall
  - Double wall
  - Various combinations can be used of the above general designs to meet the conditions of the site
- Some uncommon bulkhead types are listed below. They are unlikely to be encountered, but are listed for reference.
  - Railroad ties and steel H-piles
  - Treated timber
  - Untreated log

- Hogwire fencing and sandbags – this type would not meet the criteria provided in the general permit
- Used rubber tire and timber post
- Timber cribbing
- Stacked rubber tires
- Used concrete pipes
- Longard tubes
- Stacked bags
- Gabbions

Damage to Bulkheads

Bulkheads are susceptible to various forms of damage due to their presence in the interface between land and water. The action of water, both in front of the wall and behind it, can cause bulkhead damage. Waves that lap over the top can erode the land behind the structure as if the wall were not there, so the structure must be built high enough to prevent such overtopping. Groundwater and rain percolating through the soil may build up pressure behind the wall, eventually pushing it over. Scour at the toe of the bulkhead can undermine the structure and tip it over. Water flowing around the sides of the bulkhead can also cause severe erosion damage, so the structure should cover the entire surface that could be eroded.

Typical storm damage that has been seen from Hurricane Sandy and other similar events has included erosion of the toe of the bulkhead, washout of fill behind the bulkheads, impact damage to sheet piling or other sheeting, and the loss of decking and sheeting from flooding. Most references to historical storm events indicate that the damage incurred was an acceleration of typical wear to bulkheads.

Program description:

Residential property owners in disaster-declared counties who sustained damage to bulkheads have been invited to submit an application for assistance to repair damage caused by any of the storms identified in the Action Plan. Funding for repair and mitigation will include costs for the repair/replacement of damaged bulkheads, seawalls, quay wall, and coastal revetments. It will cover costs for unmet repair or replacement needs after accounting for all federal, state, local and/or private sources of disaster-related assistance. Assistance for repair, rehabilitation, replacement, and reimbursement funding will be capped at the lesser of a specified dollar amount to be determined by NYS, or the unmet repair, rehabilitation, replacement, and reimbursement need as described above. To direct sufficient levels of assistance to those most in need, especially low- or moderate-income and minority households, a higher overall dollar cap amount may be applied to those households of low- or moderate-income, where the need is justified.

The discussion below outlines the activities that would be carried out under the NY Rising Bulkhead Repair Program to address storm-related damage to bulkheads. The following steps will be implemented:

Inspection and Reporting

The condition of the existing bulkhead will be identified, and qualified personnel will determine whether to repair or replace the damaged structure. The inspector will provide photographs,

- Hogwire fencing and sandbags – this type would not meet the criteria provided in the general permit
- Used rubber tire and timber post
- Timber cribbing
- Stacked rubber tires
- Used concrete pipes
- Longard tubes
- Stacked bags
- Gabbions

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The discussion below outlines the activities that would be carried out under the NY Rising Bulkhead Repair Program to address storm-related damage to bulkheads. The following steps will be implemented:

Inspection and Reporting

The condition of the existing bulkhead will be identified, and qualified personnel will determine whether to repair or replace the damaged structure. The inspector will provide photographs,

sketches, and a detailed narrative of the existing site conditions and proposed method of repair or replacement, including a cost estimate.

Documentation

Documentation will be prepared to satisfy General Permit GP-0-13-006, which includes plans and sections. These documents may require the signature and seal of a civil and/or structural engineer.

Activity Summary

Bulkhead repair activities will be conducted in accordance with the federally issued design criteria documents.

As project activity begins, certain portions of the existing wall that could not previously be inspected will be exposed and/or accessible, and should be assessed for additional damage. While most of these materials are unlikely to have been damaged during a storm event, depending on the age of the wall, there is the potential for wear. These previously inaccessible features include:

- Tiebacks
- Anchor walls
- Batter piles
- Relieving platforms
- Backfill
- Scour protection materials

The applicability of the existing bulkhead design to the local conditions will be reviewed. For replacement walls, the following design issues will be considered:

- Exposure to wave attack
- Foundation condition
- Scour, in particular wave reflection from vertical walls for bulkheads
- Overtopping by wave action (in particular during storm events)

During storm events, excessive waves may cause increased scour and overtopping, while debris carried in the storm event may damage walls and piles. To ensure protection during storm events, the review of existing walls and the design or replacements or repairs will include assessment of:

- Compartmentation: The design of the wall should be such to allow for repair only of the area damaged rather than the entire wall
- The potential for inundation of the backfill of the wall, which could cause wash out or subsidence, should be reviewed, and if necessary adequate drainage should be provided
- Impact to the wall, including storm debris

Methods for construction or repairs of the walls will vary based on site conditions. An example of construction methods for a sheet pile wall is provided below:

- Where removal of soft material is contemplated, dredging should precede the driving of sheet piling.

- Where existing material behind the bulkhead is to remain in place, it is advisable to dredge in front of the bulkhead after completion of the structure. This emphasizes arching in the material behind the wall and reduces bending stresses. Dredging adjacent to sheet piling after completion should be done in two or three vertical stages to avoid rapid changes and load differentials.
- Add fill behind the wall in areas of broad extent so that the concentration of lateral pressure does not cause differential alignment along the length of the wall.
- Consider compaction pressure due to the driving of support piles (relieving platform or track supports) behind the front wall. If dredging in front of the wall is done after the piles are driven, deflection of the wall will tend to relieve these pressures. Specify the driving sequence for such piles to avoid a progressive increase of the wedging effect.
- Tie rods would be pre-tensioned as uniformly as is practicable. It is emphasized, however, that uniform load in the tie rods is an unlikely occurrence. The provisions relating to allowable stresses in the anchor system are intended to provide for this situation. The implications are more general, however. The anchor system must be able to deform inelastically.
- Concrete walls and anchor walls should be reinforced on both faces and not simply in accordance with the theoretical moment diagram. The use of high steel in tie rods should be approached with caution to assure that the steel is capable of several percent elongation without fracture.
- Where the anchorage depends on passive earth pressure, place and compact backfill around the anchorage before filling against the bulkhead.

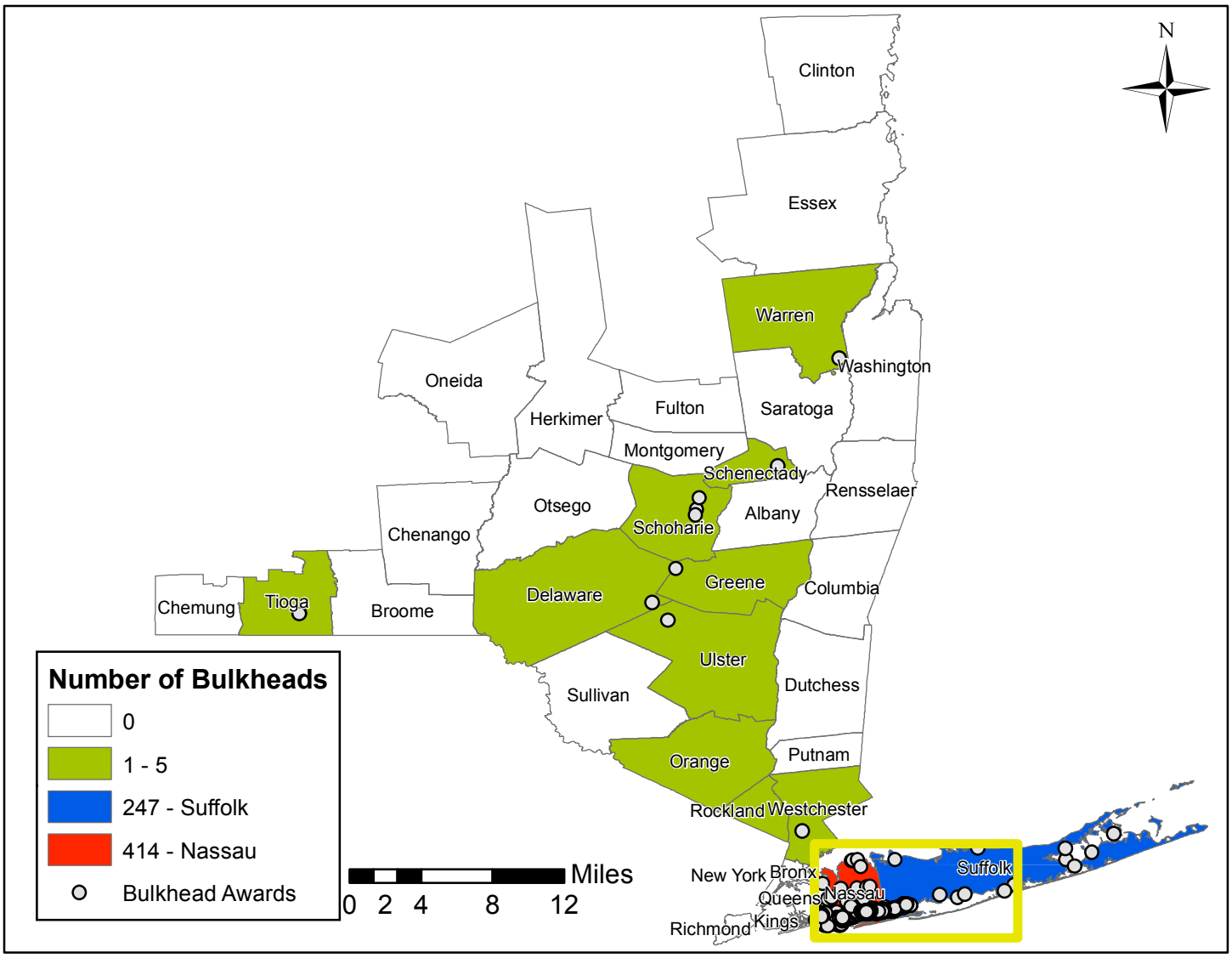
- In the filling of a relieving platform-type structure, the area at the back end of the platform should be filled to deck level, the deck placed over the batter piles, and filling continued to grade. This will provide load on the batter piles to assist in resisting the tension which will be caused by the tension in the tie rod. The deck area adjacent to the sheets may then be placed and fill completed.
- When placing hydraulic fill, the discharge line should be located on or in front of the anchorage line. Drainage openings should be provided in sheet piles at about 100 foot (30.5 meter) intervals.
    - Depending on the wall type, a coffer dam may be necessary to perform repairs or construction.
    - For the installation of sheet piles, it is important to ensure that the base of the pile has been adequately seated to prevent deflection of the wall.
- In a soft bottom, it should be possible to develop adequate toe resistance while driving the pile to adequately seat the pile. If adequate toe resistance cannot be obtained, excavating and replacing of the bottom should be considered
- In a hard bottom with shallow impenetrable material, consider using soldier piles for support or trenching for the base of the wall.
- Various materials are available for construction of the front wall. For the majority of the materials, such as steel, timber, and concrete, standard pile and sheet piling techniques, as well as the manufacturer's recommendation, will insure proper

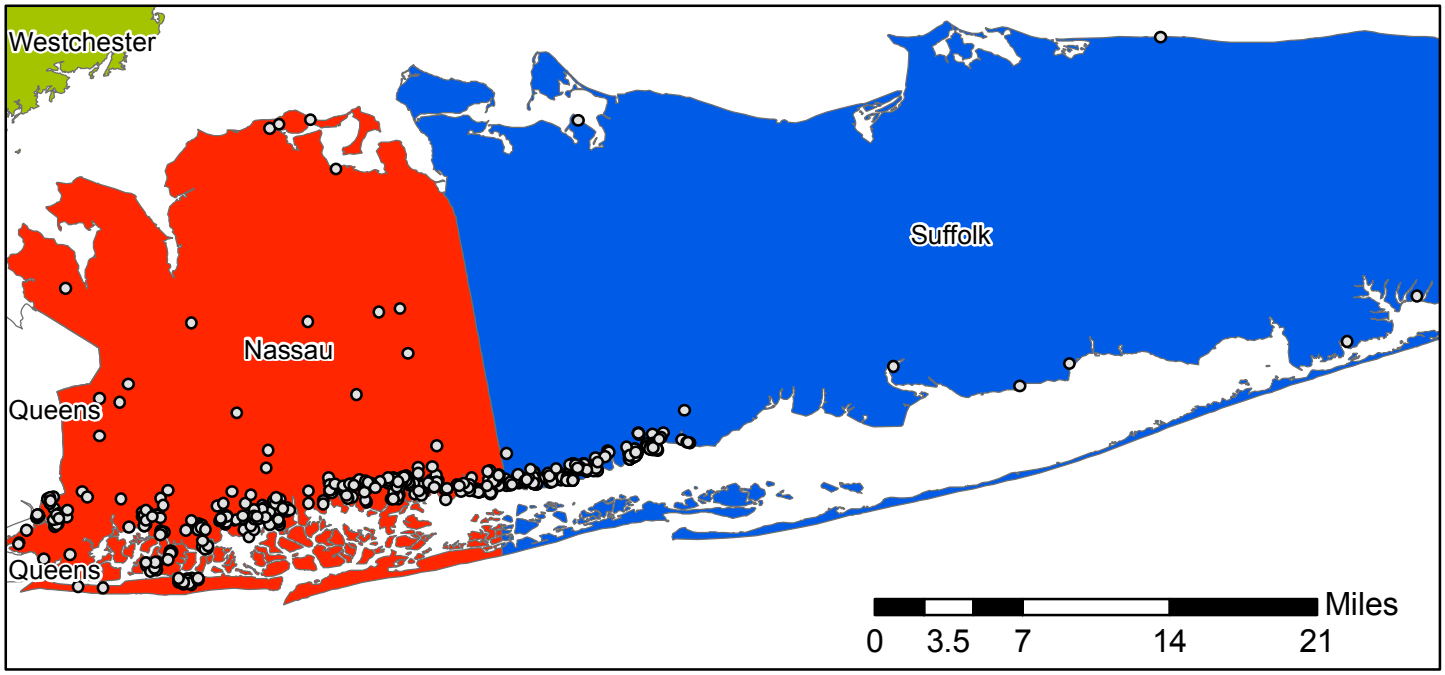
installation. More recently, newer materials, including galvanized corrugated sheet metal, corrugated fiberglass, and corrugated aluminum have become available on the market. The use of these materials at existing locations should be reviewed based on:

  - Freeze thaw cycles
  - Corrosion
  - Marine borers
  - Ultraviolet light reactions
  - Abrasion
  - Wave and ice forces

- It is recommended that regardless of the materials selected, the manufacturer should be consulted for proper installation techniques.
- For the construction of the anchorage, a simple concrete wall or sheet pile deadman should be used. If there is limited area, pile-supported anchorage (batter piles) may be used, but this should be a last resort.

Number of Bulkhead Awards by County

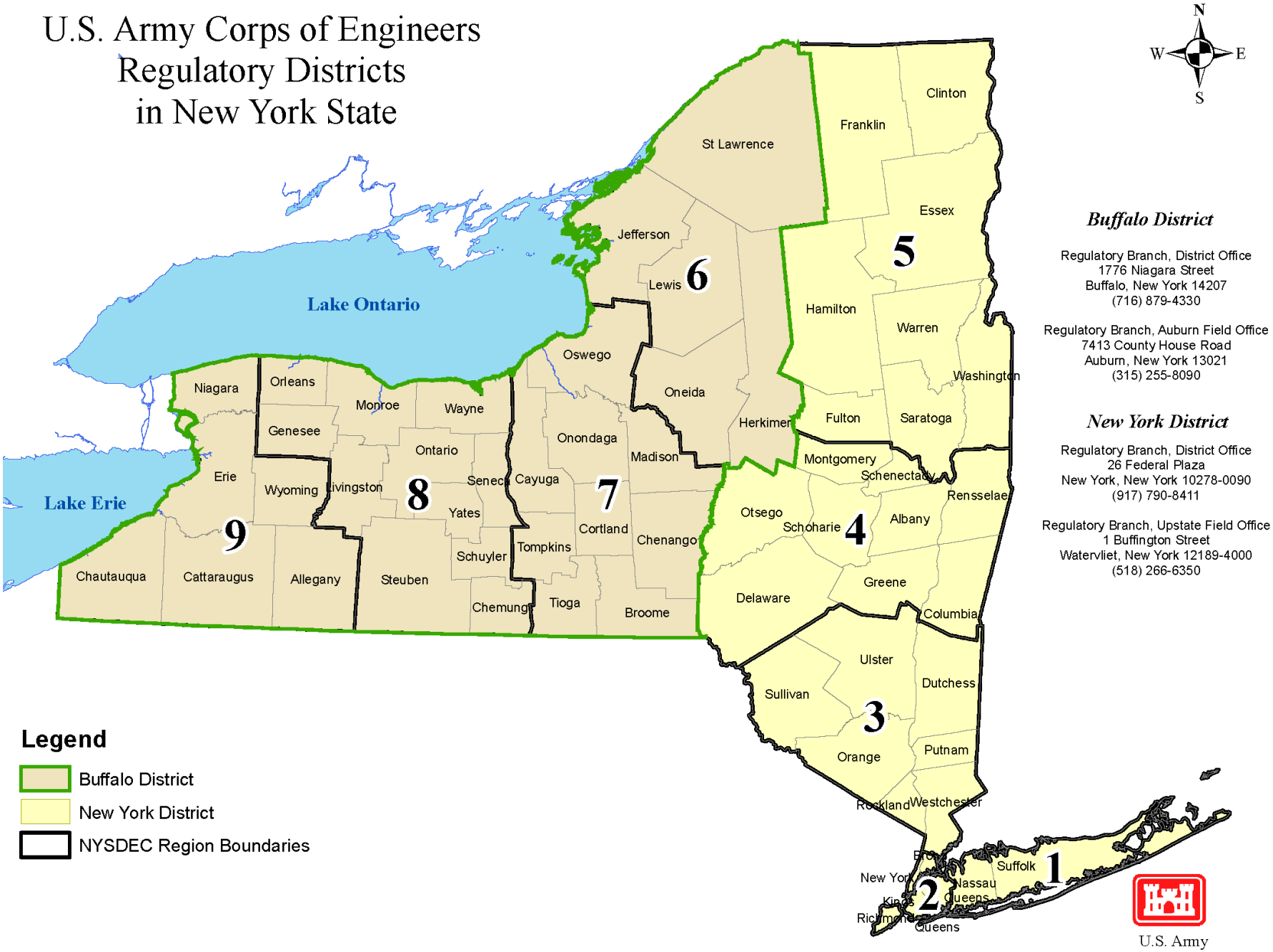




State maps developed by GCR Inc.

Data Source: Bulkhead data effective (11/21), Base layers - NYSGIS Clearinghouse

U.S. Army Corps of Engineers Regulatory Districts in New York State



Buffalo District

Regulatory Branch, District Office
1776 Niagara Street
Buffalo, New York 14207
(716) 879-4330

Regulatory Branch, Auburn Field Office
7413 County House Road
Auburn, New York 13021
(315) 255-8090

New York District

Regulatory Branch, District Office
26 Federal Plaza
New York, New York 10278-0090
(917) 790-8411

Regulatory Branch, Upstate Field Office
1 Buffington Street
Watervliet, New York 12189-4000
(518) 266-6350

U.S. Army
Corps of Engineers

ENCLOSURE 1

ACTIVITIES AUTHORIZED BY 2012 NATIONWIDE PERMIT WITHIN THE STATE OF NEW YORK

Expiration March 18, 2017

B. Nationwide Permits

3. Maintenance. (a) The repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure, or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. Any stream channel modification is limited to the minimum necessary for the repair, rehabilitation, or replacement of the structure or fill; such modifications, including the removal of material from the stream channel, must be immediately adjacent to the project or within the boundaries of the structure or fill. This NWP also authorizes the repair, rehabilitation, or replacement of those structures or fills destroyed or damaged by storms, floods, fire or other discrete events, provided the repair, rehabilitation, or replacement is commenced, or is under contract to commence, within two years of the date of their destruction or damage. In cases of catastrophic events, such as hurricanes or tornadoes, this two-year limit may be waived by the district engineer, provided the permittee can demonstrate funding, contract, or other similar delays.

(b) This NWP also authorizes the removal of accumulated sediments and debris in the vicinity of existing structures (e.g., bridges, culverted road crossings, water intake structures, etc.) and/or the placement of new or additional riprap to protect the structure. The removal of sediment is limited to the minimum necessary to restore the waterway in the vicinity of the structure to the approximate dimensions that existed when the structure was built, but cannot extend farther than 200 feet in any direction from the structure. This 200 foot limit does not apply to maintenance dredging to remove accumulated sediments blocking or restricting outfall and intake structures or to maintenance dredging to remove accumulated sediments from canals associated with outfall and intake structures. All dredged or excavated materials must be deposited and retained in an area that has no waters of the United States unless otherwise specifically approved by the district engineer under separate authorization. The placement of new or additional riprap must be the minimum necessary to protect the structure or to ensure the safety of the structure. Any bank stabilization measures not directly associated with the structure will require a separate authorization from the district engineer.

(c) This NWP also authorizes temporary structures, fills, and work necessary to conduct the maintenance activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

(d) This NWP does not authorize maintenance dredging for the primary purpose of navigation. This NWP does not authorize beach restoration. This NWP does not authorize new stream channelization or stream relocation projects.

Notification: For activities authorized by paragraph (b) of this NWP, the permittee must submit a pre-construction notification to the district engineer prior to commencing the activity (see general condition 31). The pre-construction notification must include information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals. (Sections 10 and 404)

Note: This NWP authorizes the repair, rehabilitation, or replacement of any previously authorized structure or fill that does not qualify for the Clean Water Act Section 404(f) exemption for maintenance.

Permit-specific Regional Conditions (Buffalo and New York Districts):

a. The Nationwide General Permit Condition No. 31 – Pre-Construction Notification (PCN) for activities proposed under NWP 3.b. involving the removal of accumulated sediments and debris in the vicinity of existing structures to restore the waterway to previously existing depths, must include evidence of such depths. Such evidence may include but is not limited to: construction drawings of the original structure; or project drawings of past excavation activities in the vicinity. If this information is not available, the PCN must include evidence of the existing depths immediately outside the proposed work area.

b. Every effort should be made to prevent additional encroachment into the beds of New York waterbodies. All repair or rehabilitation activities should focus on using the area immediately landward of the existing structure. Bulkhead replacement shall be completed in-place or landward of the existing structure where practicable. When

that is not practicable, a PCN shall be required for any encroachment proposed within tidal waters of the U.S. or any extensions that exceed 18 inches waterward of the existing bulkhead within non-tidal waters. The PCN must include justification for a waterward extension of the bulkhead (e.g geologic conditions, engineering requirements, etc).

New York District Only Permit-specific Regional Condition:

c. For those activities that require a PCN to the Corps of Engineers, and are located within Essential Fish Habitat waters as defined in Section G-D.8. below, to the maximum extent practicable, no in-water work shall occur between March 1 and June 30.

REMINDER TO APPLICANT: For projects involving culvert maintenance or replacement, please take particular note of the requirements of General Regional Conditions A.11. and A.12., below.

Section 401 Water Quality Certification:
The New York State Department of Environmental Conservation (NYSDEC) has granted blanket Section 401 Water Quality Certification in New York State provided that the project complies with **all** the General Conditions listed below in Section H. Any party conducting the activities authorized by this NWP that cannot comply with **all** these conditions must apply for and obtain an individual Section 401 Water Quality Certification from the NYSDEC.

New York State Department of State Coastal Zone Management Consistency Determination:
Pursuant to 15 CFR Part 930.41, the New York State Department of State (NYSDOS) concurs with the USACE consistency determination for this NWP with which all general and all Buffalo and New York District regional conditions are complied and with the additional condition(s), as follows:

The NYSDOS concurs with the Corps' consistency determination for NWP 3 anywhere in the New York coastal area where the activities to be authorized would:

-involve the repair/replacement in-place or landward, with no seaward expansion or increase in footprint; or
-for those activities proposed within the artificial canals located in Nassau and Suffolk Counties identified in Appendix A.

For activities that do not comply with the above condition, the NYSDOS objects to the Corps' consistency determination and therefore, an individual consistency concurrence determination from NYSDOS is required for this NWP to be valid in the New York coastal area. See Section I below for further information.

C. Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR §§ 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR § 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.
(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.
(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably

culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency

responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

17. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed work or that utilize the designated critical habitat that might be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. FWS or the NMFS, The Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.noaa.gov/fisheries.html respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for obtaining any "take" permits required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the U.S. Fish and Wildlife Service to determine if such "take" permits are required for a particular activity.

20. Historic Properties. (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or

include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties on which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 31, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal,

and provides a project-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in minimal adverse effects on the aquatic environment.

(2) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(3) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) – (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(4) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(5) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream rehabilitation, enhancement, or preservation, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the restoration or establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to establish a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or establishing a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee programs, or separate permittee-responsible mitigation. For activities resulting in the loss of marine or estuarine resources, permittee-responsible compensatory mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see

33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____

(Transferee)

_____

(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized work was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the work and mitigation.

31. Pre-Construction Notification. (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 20 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause, including the anticipated amount of loss of water of the United States expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(4) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse effects are minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States, for NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of stream bed, and for all NWP 48 activities that require pre-construction notification, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic

Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

D. District Engineer's Decision

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. For a linear project, this determination will include an evaluation of the individual crossings to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings authorized by NWP. If an applicant requests a waiver of the 300 linear foot limit on impacts to intermittent or ephemeral streams or of an otherwise applicable limit, as provided for in NWPs 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51 or 52, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in minimal adverse effects. When making minimal effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

2. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

3. If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either: (a) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (c) that the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period, with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

E. Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.

F. Definitions

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term "discharge" means any discharge of dredged or fill material.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have

independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. The loss of stream bed includes the linear feet of stream bed that is filled or excavated. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities eligible for exemptions under Section 404(f) of the Clean Water Act are not considered when calculating the loss of waters of the United States.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. The definition of a wetland can be found at 33 CFR 328.3(b). Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of standing or flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of "open waters" include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas (see 33 CFR 328.3(e)).

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands adjacent to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas

provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term "single and complete project" is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of "independent utility"). Single and complete non-linear projects may not be "piecemealed" to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a wetland (i.e., water of the United States) that is inundated by tidal waters. The definitions of a wetland and tidal waters can be found at 33 CFR 328.3(b) and 33 CFR 328.3(f), respectively. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line, which is defined at 33 CFR 328.3(d).

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a jurisdictional water of the United States. If a jurisdictional wetland is adjacent – meaning bordering, contiguous, or neighboring – to a waterbody determined to be a water of the United States under 33 CFR 328.3(a)(1)-(6), that waterbody and its adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of "waterbodies" include streams, rivers, lakes, ponds, and wetlands.

G. General Regional Conditions
These conditions apply to ALL Nationwide Permits.

G-A. Construction Best Management Practices (BMP's): Unless specifically approved otherwise through issuance of a waiver by the District Engineer, the following BMP's must be implemented to the maximum degree practicable, to minimize erosion, migration of sediments, and adverse environmental impacts. Note that at a minimum, all erosion and sediment control and stormwater management practices must be designed, installed and maintained in accordance with the latest version of the *"New York Standards and Specifications for Erosion and Sediment Control"* and the *"New York State Stormwater Management Design Manual"*. These documents are available at: http://www.dec.ny.gov/chemical/29066.html and http://www.dec.ny.gov/chemical/29072.html , respectively.

1. All synthetic erosion control features (e.g., silt fencing, netting, mats), which are intended for temporary use during construction, shall be completely removed and properly disposed of after their initial purpose has been served. Only natural fiber materials, which will degrade over time, may be abandoned in place.

2. Materials resulting from trench excavation for utility line installation or ditch reshaping activities which are temporarily sidecast or stockpiled into waters of the United States must be backfilled or removed to an upland area within 30 days of the date of deposition. Note: upland options shall be utilized prior to temporary placement within waters of the U.S., unless it can be demonstrated that it would not be practicable or if the impacts of complying with this upland option requirement would result in more adverse impacts to the aquatic environment.

3. For trenching activities in wetlands the applicant shall install impermeable trench dams or trench breakers at the wetland boundaries and every 100 feet within wetland areas to prevent inadvertent drainage of wetlands or other waters of the United States.

4. Dry stream crossing methods (e.g., diversion, dam and pump, flume, bore) shall be utilized for culvert or other pipe, or utility installations to reduce downstream impacts from turbidity and sedimentation. This may require piping or pumping the stream flow around the work area and the use of cofferdams.

5. No in-stream work shall occur during periods of high flow, except for work that occurs in dewatered areas behind temporary diversions, cofferdams or causeways.

6. Construction access shall be by means that avoid or minimize impacts to aquatic sites (e.g. upland access, floating barges, mats, etc.). Discharges of fill material associated with the construction of temporary access roads and work pads in wetlands shall be placed on filter fabric. All temporary fills shall be removed upon completion of the work and the disturbed area restored to pre-construction contours, elevations and wetland conditions.

7. All return flow from dredge material disposal areas shall not result in an increase in turbidity in the receiving water body that will cause a substantial visible contrast to natural conditions. (See NWP #16)

8. For activities involving the placement of concrete into waters of the U.S., the permittee must employ watertight forms. The forms shall be dewatered prior to the placement of the concrete. The use of tremie concrete is allowed, provided that it complies with New York State water quality standards.

9. New stormwater management facilities shall be located outside of waters of the U.S. A waiver of this requirement may be requested with the submission of a PCN. The PCN must include justification which demonstrates that avoidance and minimization efforts have been met.

10. To the maximum extent practicable, the placement of fill in wetlands must be designed to maintain pre-construction surface water flows/conditions between remaining on or off-site waters. This may require the use of culverts and/or other measures. Furthermore, the activity must not restrict or impede the passage of normal or expected high flows (unless the primary purpose of the fill is to impound waters). The activity may alter the pre-construction flows/conditions if it can be shown that it benefits the aquatic environment (i.e. wetland restoration and/or enhancement).

11. In order to ensure compliance with NWP General Condition #2 – Aquatic Life Movement and #9 Management of Water Flows, all new or replacement culverts shall be constructed/installed in accordance with the following:

General Information:

a. Use of the following requirements and recommendations alone will not satisfy the need for proper engineering and design. In particular, appropriate engineering is required to ensure structures are sized and designed to provide adequate capacity (to pass various flood flows) and stability (bed, bed forms, footings and abutments).
b. Site specific information (i.e. stream bed slope, type and size of stream bed material, stream type, existing natural or manmade barriers, etc.) should be assessed to determine appropriate culvert design and to ensure management of water flows and aquatic life movement.
c. Before replacing a culvert or other crossing structure with a larger structure it is essential that the replacement be evaluated for its impacts on: downstream flooding, upstream and downstream habitat (in-stream habitat, wetlands), potential for erosion and headcutting, and stream stability.

d. Measures should be included in all culvert designs that will promote the safe passage of fish and other indigenous aquatic organisms.
e. The dimension, pattern, and profile of the stream above and below the stream crossing should not be permanently modified by changing the width or depth of the stream channel.

Preconstruction Notification (PCN)/Waiver Requirements:

A. A PCN is not required for projects that are designed to meet Requirements B and C, below, unless a PCN is otherwise required by the NWP regulations.

B. In order to comply with General Condition #2 Aquatic Life Movement, either a bottomless culvert or bridge must be used where practicable. If the stream cannot be spanned, the culvert must be installed with its bottom buried (embedded) below the grade of the stream bed where practicable. (Note: When not practicable to do so due to small culvert size, it is suitable to allow natural deposition to cover the interior of the culvert bed.)

   i. A minimum of three stream channel cross sections shall be taken at proximal locations to the crossing location to determine the average of the lowest points in elevation of the stream bed. This average low point shall be used to ensure low flow is maintained through the culvert and from which all embedment depths are measured.
   ii. To ensure low flow and aquatic life movement is maintained, an embedment depth of a minimum of 20 percent of the culvert vertical rise throughout the length of the culvert is recommended. Additionally, it is recommended that the culvert bed slope remain consistent with the slope of the adjacent stream channel.

C. In order to comply with General Condition #9 Management of Water Flows, bank-full flows shall be accommodated through maintenance of the existing bank-full channel cross sectional dimensions within the culvert. Bank-full width is generally considered to be the top width at the stage where a stream begins to overtop its banks and spread into the floodplain.

   i. An average of three measurements (project location and straight sections of the stream upstream and downstream) shall be used to determine appropriate opening width. If the project is a replacement of an existing structure then only upstream and downstream locations shall be used to compute the average.
   ii. To ensure bank-full flow is accommodated by the culvert, it is recommended that minimum culvert widths include a minimum of 1.25 times width of the stream channel at the ordinary high water or a 2 year design storm.

D. In summary, a PCN is required, requesting a waiver of the above requirements for projects where:
   i. both spanning the waterway and embedding are found to be not practicable;
   ii. embedding is practicable but the recommendations for embedment depth cannot be met;
   iii. bank-full flow will not be accommodated within the culvert;
   iv. less than the recommended minimum culvert width is proposed

E. In addition to the PCN requirements of General Condition #31, the PCN must include the following information:
   i. a note indicating which of the above requirements will not be met by the proposed project;
   ii. information as to why the use of such structures or measures would not be practicable;
   iii. a brief description of the stream discussing the items outlined in the above General Information section;
   iv. the cross sections of the stream used to calculate the stream bed low point and bank-full width;
   v. an evaluation of the effects the crossing would have on aquatic life movement and/or water flows; and
   vi. mitigation measures that will be employed to minimize these effects.

A waiver of the requirement(s) will be issued if it can be demonstrated that the proposal would result in the least environmentally damaging practicable alternative (e.g. compliance with any of the requirement(s) would result in detrimental impacts to the aquatic system).

12. Culvert Rehabilitation Projects, not including culvert replacement projects:
    a. A PCN is required for culvert rehabilitation projects which will involve pipe slip lining or other activities, including concrete invert paving and concrete lining, that raise the existing invert elevation such that it causes an impediment to the passage of low flow or aquatic life movement. A PCN is not required for projects that utilize cured-in-place pipe lining. Slip lining is defined as the insertion of a smaller diameter pipe into an existing pipe by pulling pushing, or spiral winding.

    b. Culvert rehabilitation projects shall assess the existing culvert, prior to the proposed repair, for compliance with Nationwide Permit General Conditions (GC) #2 (Aquatic Life Movements) and #9 (Management of Water Flows). If an impediment is found to exist, a PCN is required for any rehabilitation project.

    c. For all projects requiring PCN, the applicant must provide an evaluation of the existing culvert and proposed rehabilitation project and their effects upon aquatic life movements and low/ high flow conditions in order to show compliance with GC #2 & #9. For those culverts that will impede the movement of aquatic life and water flows, the applicant must provide information as to how they will mitigate for those deficiencies. Mitigation measures may include, but are not limited to baffles, weirs, roughened channels, and grade control structures.

G-B. No regulated activity authorized by a Nationwide Permit can cause the loss of areas classified as a bog or fen in the State of New York, as determined by the Buffalo or the New York District Corps of Engineers, due to the scarcity of this habitat in New York State and the difficulty with in-kind mitigation. The Districts will utilize the following document in the classification:

Reschke, C. 1990. *Ecological Communities of New York State*. New York Natural Heritage Program. New York State Department of Environmental Conservation. Latham, N.Y. 96p. This document is available at the following location: http://www.dec.ny.gov/animals/29389.html

G-C. National Wild and Scenic Rivers (NWSR): The Upper Delaware River has been designated as a National Wild and Scenic River from the confluence of the East and West Branches below Hancock, New York, to the existing railroad bridge immediately downstream of Cherry Island in the vicinity of Sparrow Bush, New York. Also, the portion of the Genesee River located within Letchworth Gorge State Park, beginning at the southern boundary of the park and extending downstream to the Mt. Morris Dam, was designated by Congress as a permanent Study River in the Genesee River Protection Act of 1989. In accordance with General Condition #16, no activity may occur within a NWSR, including Study Rivers, unless the National Park Service (NPS) has determined in writing that the proposed work will not adversely affect the NWSR designation or study status**.** Therefore, a PCN is required for any NWP which would impact the designated portions of the Genesee River or the Upper Delaware River. (Note: the applicant may not commence work under any NWP until the NPS determines in writing that the project will not adversely affect the NWSR even if 45-days have passed since receipt of the PCN package.) Information regarding NWSR may be found at**:** http://www.rivers.gov/wildriverslist.html

G-D. For all proposals requiring a pre-construction notification (PCN), in addition to the requirements in General Condition 31, the applicant shall also include: (Note: the application will not be considered complete until all of the applicable information is received).

1. **New York State/USACE Joint Application Form:** The application form shall be completed and signed and shall clearly indicate that the submission is a PCN.

2. **Drawings:** The PCN must include legible, black and white project drawings on 8.5" x 11" paper. Full size drawings may be submitted in addition to the 8.5" x 11" plans to aid in the application review. Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are a Vicinity Map (i.e. a location map such as a USGS topographical map), a Plan View and a Cross-Section Map. Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view or cross section). The Vicinity Map shall provide the location of the entire project site. In addition, each illustration should be identified with a figure or attachment number. The location map shall include the Latitude and Longitude or UTM coordinates of the project. For linear projects, the PCN shall include a map of the entire project including a

delineation of all waters of the U.S. within the corridor. Aquatic resource information shall be submitted using the Cowardin Classification System mapping conventions (e.g. PFO, PEM, etc.)

3. **Color photographs:** The photos should be sufficient to accurately portray the project site, keyed to a location map and not taken when snow cover is present.

4. **Avoidance and Minimization:** The PCN must include a written narrative explaining how avoidance and minimization of temporary impacts and permanent losses of waters of the U.S. were achieved on the project site (i.e. site redesign, reduction in scope, alternate methods, etc). It should include a description of the proposed construction practices that would be implemented to perform the proposed work and a description of the reasonably foreseeable direct and indirect effects to waters of the U.S. from the proposed construction practices.

5. **Mitigation**(See General Conditions 23 & 31(b)(5)):The PCN must include at least a conceptual compensatory mitigation plan for all projects resulting in the loss of greater than 1/10th of an acre of waters of the United States; or for which a waiver of the 300 linear foot limit on intermittent and ephemeral streams is being requested. Mitigation conceptual plans submitted with the PCN must include the following information at a minimum: proposed compensation type (bank or in-lieu fee credit, restoration, creation, preservation, etc.), location and brief discussion on factors considered for site selection (i.e. soils, water source, potential for invasive species, etc.), amount proposed per resource type and a discussion of how the proposal will compensate for aquatic resource functions and services lost as a result of the project.
Note 1: All mitigation projects must comply with the Federal Regulations on compensatory mitigation (33 CFR 332) entitled "Compensatory Mitigation for Losses of Aquatic Resources: Final Rule", dated April 10, 2008, which is available at: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title33/33cfr332_main_02.tpl, and any applicable District Guidelines.
Note 2: Although a conceptual mitigation plan may be sufficient for the purposes of a PCN submission, a detailed mitigation plan must be approved by the Corps before any jurisdictional work may occur on the project site.

6. **Nationwide Rivers Inventory:** The PCN shall indicate if a river segment listed within the National Park Service Nationwide Rivers Inventory (NRI) is located within the proposed project area. For project areas containing a listed NRI segment, the PCN shall also include a statement as to how adverse effects to the river have been avoided or mitigated. The list is available at: http://www.nps.gov/ncrc/programs/rtca/nri/states/ny.html.

7. **Historic or Cultural Resources:** In accordance with General Condition 20, a PCN is required for any non-federal activity which may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places. Please refer to General Condition 20 for submission requirements. In addition, all PCNs must include a written statement indicating if any such properties may be affected by the proposed project. A copy of any completed survey reports shall be provided with the PCN. If a survey has not been performed, the statement shall include a list of resources checked in the determination. Copies of any available correspondence from the New York State Office of Parks, Recreation, and Historic Preservation State Historic Preservation Officer (SHPO) regarding historic properties shall be provided with the PCN. Information regarding cultural resources may be found at: http://nysparks.state.ny.us/shpo/. In addition, assistance regarding the determination of the presence of historic or cultural resources at or near the project site should be directed to SHPO. NOTE: as stated in General Condition 20, if any listed, eligible or potentially eligible properties are present, the applicant shall not begin the activity until notified by the district engineer in writing either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

8. **Endangered Species** (See General Condition 18) **and Essential Fish Habitat:** The PCN must include a written statement and documentation concerning any Essential Fish Habitat (EFH) and any federally listed Threatened and Endangered (T&E) species or designated critical habitat that might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat. The PCN must include a copy of any correspondence from the U.S. Fish and Wildlife Service (USFWS) and/or National Oceanic and Atmospheric Administration Fisheries Service (NOAA-Fisheries) formerly National Marine Fisheries Service (NMFS), regarding the presence of T&E species or evidence that the applicant has utilized the USFWS T&E website:
http://www.fws.gov/northeast/nyfo/es/section7.htm. Information on NOAA-Fisheries (NMFS) species (both T&E and EFH) can be found at: http://www.nero.noaa.gov/nero.
Website evidence shall include a County list of T&E species. For projects located in counties containing T&E species, the PCN shall also include a discussion of potential T&E habitat within the project site. If there is potential habitat for any Federally listed species within the project site the following should be submitted:

a. The results of any habitat surveys and presence/absence surveys. Note: all surveys should be coordinated with the USFWS and/or NOAA-Fisheries(NMFS) prior to initiation.
b. A detailed description of the proposed project, including secondary impacts and approximate proposed project construction schedule of project activities (e.g. land clearing, utilities, stormwater management).
c. A description of the natural characteristics of the property and surrounding area (e.g. forested areas, freshwater wetlands, open waters, and soils). Additionally, please include a description of surrounding land use (residential, agricultural, or commercial).
d. A description of the area to be impacted by the proposed project, including the species and number or acres of trees to be removed.
e. The location of the above referenced property and extent of any project related activities or discharges clearly indicated on a copy of a USGS 7.5 minute topographic quadrangle (quad) with the name of the quad(s) and latitude/longitude clearly labeled.
f. A description of conservation measures to avoid or minimize impacts to listed species.

Please note that there are no known threatened or endangered (T&E) species or EFH species under the jurisdiction of the NOAA-Fisheries (NMFS) within the Buffalo District. Therefore, all Buffalo District requests for information regarding the presence of T&E species should be directed to the USFWS.

General Condition #18 is emphasized, …"In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed work will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed."

9. **100 Year Floodplain:** For permanent fills within waters of the United States within the 100 year floodplain, documentation of compliance with FEMA-approved state or local floodplain management requirements.

10. **Submission of Multiple Copies of PCN**:

a) One (1) additional copy of the PCN package shall be provided to USACE for coordination with National Oceanic and Atmospheric Administration (NOAA) for utility lines to be constructed or installed in navigable waters of the U.S. proposed under NWP #12, (See Note 1 of NWP #12)

b) One (1) additional copy of the PCN package shall be provided to USACE for coordination with Department of Defense Siting Clearinghouse (See NWP #12, 39, 51 & 52 Notes) for:
   i. overhead utility lines proposed under NWP #12 and
   ii. any activity that involves the construction of a wind energy generating structure, solar tower, or overhead transmission lines proposed under NWP #39, 51 or 52

c) Two (2) additional copies of the PCN package shall be provided to USACE when the project is located within the New York City Watershed, for coordination with the New York City Department of Environmental Protection.

d) Five (5) additional copies of the PCN package shall be submitted to USACE for agency coordination in accordance with General Condition # 31(d)(2) for:
   i. All NWP activities that result in the loss of greater than 1/2-acre of waters of the United States,
   ii. NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that will result in the loss of greater than 300 linear feet of intermittent and ephemeral stream bed,
   iii. All NWP 48 activities requiring pre-construction notification.

G- E. CRITICAL RESOURCE WATERS

In accordance with NWP General Condition (GC) #22, certain activities in Critical Resource Waters cannot be authorized under the NWP program or would require a PCN (see GC #22 for a list of the NWP activities that are either excluded or require a PCN).

Critical Resource Waters in New York State include the following:

1. **East-of-Hudson portion of the New York City Water Supply:** This area includes portions of Dutchess,

Putnam and Westchester Counties as delineated on Enclosure 2.

2. **Hudson River National Estuarine Research Reserves (NERR):** The Hudson River NERR consists of four components: Piermont Marsh, Iona Island, Tivoli Bay, and Stockport Flats.

H. NYSDEC General Water Quality Certification (WQC) Conditions applicable to all NWPs for which WQC has been provided are as follows:

1. Non-contamination of Waters:
• All necessary precautions shall be taken to preclude contamination of any wetland or waterway by suspended solids, resins, sediments, fuels, solvents, lubricants, epoxy coatings, paints, concrete, leachate or any other environmentally deleterious materials associated with the project.

2. Installation and Maintenance of Culverts:
• This certification does not authorize the installation of any culverts that are not embedded beneath the existing grade of the stream channel.
• This certification does not authorize culvert rehabilitation projects that involve slip lining, invert paving, or similar treatments that can result in an impediment to the passage of aquatic life movement through the culvert.
• This certification does authorize the rehabilitation of culverts utilizing Cure in Place Pipe Lining (CIPP) or concrete spray lining for culverts which currently meet Nationwide Permit General Condition # 2 - Aquatic Life Movements.

3. Discharges and Disturbances:
• Except for Nationwide Permit # 3, 4, 20, 22, 27, 30, 33, 37, 41 and maintenance activities under Nationwide Permit 43, this certification does not authorize discharges greater than 1/4 acre in size or more than 300 feet of stream disturbance.

4. Maintenance of Water Levels:
• Except for Nationwide Permit 27, this certification does not authorize any activity that results in a permanent water level alteration in waters of the United States, such as draining or impounding.

5. Dewatering:
• Authorized dewatering is limited to immediate work areas that are cofferdammed or otherwise isolated from the larger water body or waters of the United States. Dewatering must be localized and not drain extensive areas of a water body or reduce the water level such that fish and other aquatic vertebrates are killed, or their eggs and nests are exposed to desiccation, freezing or depredation in areas outside of the immediate work site.
• Cofferdams or diversions shall not be constructed in a manner that causes or exacerbates erosion of the bed or banks of a watercourse.
• All dewatering structures must be permanently removed when construction is completed.

6. Endangered or Threatened Species:
• Applicants must certify that the proposed activity will not jeopardize the existence of an endangered species or threatened species listed in 6 NYCRR Part 182, or likely to destroy or adversely modify the habitat of such species. Information on New York State endangered or threatened species may be obtained from the NYS Department of Environmental regional offices, the New York Natural Heritage Program in Albany, New York or on the NYSDEC website at http://www.dec.ny.gov/animals/29338.html. If it is determined that there is a species of concern that may be impacted by the proposed activity, this blanket water quality certification is not applicable, and the applicant will need an individual water quality certification from the Department.

7. Prohibition Period/or In-stream Work:
Unless approved in writing by the Regional Natural Resources Supervisor or their designee, in-stream work is prohibited during the following time periods:

• in cold water trout fisheries (waters classified under Article 15 of New York's Environmental Conservation Law with a "t" or "ts" designation), beginning October 1 and ending May 31
• in perennial warm water fisheries, (non- trout waters classified under Article 15 of New York's Environmental Conservation Law as "A, B or C"), beginning March 1 and ending July 15.

To determine which prohibition period is in effect for a particular water, contact the Regional Natural Resources Supervisor in the appropriate NYSDEC regional office.

8. Significant Coastal Fish and Wildlife Habitat:
• This certification does not authorize any discharge occurring in a designated Significant Coastal Fish and Wildlife Habitat area pursuant to 19 NYCRR Part 602 ; Title 19 Chapter 13, Waterfront Revitalization and Coastal Resources.

9. Coastal Erosion Hazard Areas:
• This certification does not authorize projects in Coastal Erosion Hazard Areas, as identified in NYS Environmental Conservation Law (ECL) Article 34, and its implementing regulations, 6 NYCRR Part 505.

10. State-owned Underwater Lands:
• Prior to undertaking any Nationwide Permit activity that will involve or occupy state owned lands now or formerly under the waters of New York State, the party proposing the activity must first obtain all necessary approvals from:

NYS Office of General Services
Division of Real Estate Development
Corning Tower Building, 26th Floor
Empire State Plaza
Albany, NY 12242
Tel. (518) 474-2195

11. Tidal Wetlands:
• This authorization does not authorize any activities in tidal wetlands as defined in Article 25 of NYS ECL, with the exception of NWP # 4, 20 and 48.

12. Wild, Scenic and Recreational Rivers:
• This certification docs not authorize activities in any Wild, Scenic or Recreational River or state designated WSR corridors.

13. Floodplains:
• Authorized projects must be in compliance with State and Local Floodplain Regulations.

14. Combined use of permits:
• This authorization does not allow the stacking of NWPs so that in combination they exceed *1/4* of an acre of fill or 300 linear feet of stream disturbance. When used in combination, the most restrictive conditions apply.

15. Public Service Commission:
• This certification does not authorize activities regulated pursuant to Article VII of the New York State Public Service Law. For such projects, Section 401 Water Quality Certification is obtained from the New York State Public Service Commission.

16. Utility Projects:
• This certification does not authorize maintenance or other activities associated with hydropower projects.
• This certification does not authorize the construction of substation facilities or permanent access roads in wetlands or within the FEMA mapped 100 year floodplain.
• Excess materials resulting from trench excavation must be moved out of the wetland and contained so that they do not re-enter any waters of the United States.

I. New York State Department of State (NYSDOS) Coastal Zone Management Consistency Determination applicable to all NWPs located within or affecting the NYS Coastal Zone:

To ensure that the NWPs and activities authorized by USACE would be consistent with the NYS Coastal Management Program and approved LWRPs, the following conditions will apply to NWPS where NYSDOS has objected to the USACE consistency determination or where the project will not comply with the NYSDOS NWP specific condition(s):

The applicant will submit a request for an individual consistency determination to NYSDOS. Within thirty (30) days of receipt by NYSDOS of an applicant's submission, which should include a complete joint New York State Department of Environmental Conservation and U.S. Army Corps of Engineers Permit Application, completed Federal Consistency Assessment Form, and all information and data necessary to assess the effects of the proposed

activity on and its consistency with the CMP, including location maps and photographs of the site where the activity is proposed, NYSDOS will inform the applicant and the Corps whether:

1) Necessary data and information is missing from the applicant's submission. If so, the NYSDOS will notify the applicant and the Corps of the missing necessary data and information, and state that the NYSDOS review will not commence until the date the necessary data and information is provided;

2) The activity meets the General Concurrence criteria set forth in the CMP and therefore, further review of the proposed activity by the NYSDOS, and the NYSDOS concurrence with an individual consistency certification for the proposed activity, are not required; or

3) NYSDOS review of the proposed activity and NYSDOS concurrence with the applicant's consistency certification is necessary. If NYSDOS indicates review of the activity and a consistency certification for it is necessary, the activity shall not be authorized by NWP or other form of Corps authorization unless NYSDOS concurs with an applicant's consistency certification, in accordance with 15 CFR Part 930, Subpart D, or unless NYSDOS indicates the activity meets CMP General Concurrence criteria (see item 2 above).

NYSDOS concurrence with an applicant's consistency certification shall not be presumed unless NYSDOS fails to concur with or object to an applicant's consistency certification within six (6) months of commencement of NYSDOS review of an applicant's consistency certification and all necessary data and information in accordance with 15 CFR Parts 930.62 or 930.63.

Notes:

- Unless NYSDOS issues consistency concurrence or USACE has determined that NYSDOS concurrence is presumed, NWPs are not valid within the Coastal Zone.

- Limits of the coastal zone, including the CMP special management area designations of Significant Coastal Fish and Wildlife Habitats (SCFWH), can be viewed at: http://www.dos.ny.gov/communitieswaterfronts/atlas/index.html Local Waterfront Revitalization Program information can be viewed at: http://www.dos.ny.gov/communitieswaterfronts/WFRevitalization/LWRP_status.html
- All consistency concurrence determination requests must be submitted directly to NYSDOS.
- Details regarding NYSDOS submission requirements can be obtained at: http://www.dos.ny.gov/communitieswaterfronts/consistency/federal.html

J. INFORMATION ON NATIONWIDE PERMIT VERIFICATION

Verification of the applicability of these Nationwide Permits is valid until March 19, 2017 unless the Nationwide Permit is modified, suspended revoked, or the activity complies with any subsequent permit modification.

It is the applicant's responsibility to remain informed of changes to the Nationwide Permit program. A public notice announcing any changes will be issued when they occur and will be available for viewing at our website: http://www.lrb.usace.army.mil/Missions/Regulatory.aspx.

Please note in accordance with 33 CFR part 330.6(b), that if you commence or are under contract to commence an activity in reliance of the permit prior to the date this Nationwide permit expires, is suspended or revoked, or is modified such that the activity no longer complies with the terms and conditions, you have twelve months from the date of permit modification, expiration, or revocation to complete the activity under the present terms and conditions of the permit, unless the permit has been subject to the provisions of discretionary authority.

Possession of this permit does not obviate you of the need to contact all appropriate state and/or local governmental officials to insure that the project complies with their requirements.

NOTE: This document is an excerpt of the May 30, 2012 Public Notice by USACE Buffalo & New York Districts. The above referenced Enclosures 2-4 and Appendix A are not included in this Buffalo District document as they are only applicable within the geographic boundaries of the New York District. The Public Notice is available at the USACE websites or by contacting the Districts at the addresses provided below in Section K.

K. AGENCY CONTACT INFORMATION

NYS Department of Environmental Conservation

www.dec.ny.gov

NYS DEC REGION 1
Regional Permit Administrator
SUNY @ Stony Brook
50 Circle Road
Stony Brook, NY 11790-3409
(631) 444-0365

NYS DEC REGION 2
Regional Permit Administrator
1 Hunter's Point Plaza
47-40 21st Street
Long Island City, NY 11101-5407
(718) 482-4997

NYS DEC REGION 3
Regional Permit Administrator
21 South Putt Corners Road
New Paltz, NY 12561-1620
(845) 256-3054

NYS DEC REGION 4
Regional Permit Administrator
1130 North Westcott Road
Schenectady, NY 12306-2014
(518) 357-2069

NYS DEC REGION 4 Sub-Office
Deputy Regional Permit Administrator
65561 State Hwy 10
Stamford, NY 12167-9503
(607) 652-7741

NYS DEC REGION 5
Regional Permit Administrator
PO Box 296
1115 Route 86
Ray Brook, NY 12977-0296
(518)897-1234

NYS DEC REGION 5 Sub-Office
Deputy Regional Permit Administrator
PO Box 220
232 Golf Course Rd
Warrensburg, NY 12885-0220
(518) 623-1281

NYS DEC REGION 6
Regional Permit Administrator
317 Washington Street
Watertown, NY 13601-3787
(315) 785-2245

NYS DEC REGION 6 Sub-Office
Deputy Regional Permit Administrator
207 Genesee Street
Utica, NY 13501-2885
(315) 793-2555

NYS DEC REGION 7
Regional Permit Administrator
615 Erie Blvd. West
Syracuse, NY 13204-2400
(315)426-7438

NYS DEC REGION 7 Sub-Office
Deputy Regional Permit Administrator
1285 Fisher Avenue
Cortland, NY 13045-1090
(607) 753-3095

NYS DEC REGION 8
Regional Permit Administrator
6274 E. Avon - Lima Road
Avon, NY 14414-9519
(585) 226-2466

NYS DEC REGION 9
Regional Permit Administrator
270 Michigan Avenue
Buffalo, NY 14203-2915
(716) 851-7165

NYS DEC REGION 9 Sub-Office
Deputy Regional Permit Administrator
182 East Union Street
Allegany, NY 14706-1328
(716) 372-0645

NYS Department of State

Division of Coastal Resources
Consistency Review Unit
One Commerce Plaza
99 Washington Avenue, Suite 1010
Albany, NY 12231-00001
(518) 474-6000
www.nyswaterfronts.com
PO Box 296
1115 Route 86
Ray Brook, NY 12977-0296
(518) 897-1234

US Army Corps of Engineers

www.usace.army.mil

For DEC Regions 1, 2 and 3
US Army Corps of Engineers NY District
ATTN: Regulatory Branch
26 Federal Plaza, Room 1937
New York, NY 10278-0090
Email: CENAN.PublicNotice@usace.army.mil
For DEC Regions 1, 2, Westchester County and Rockland County (917) 790-8511
For the other counties of DEC Region 3 -
(917) 790-8411

For DEC Regions 4, 5
Department of the Army
ATTN: CENAN-OP-R
NY District, **Corps of Engineers**
1 Buffington Street
Building 10, 3rd Floor
Watervliet, NY 12189-4000
(518) 266-6350 - Permits team
(518) 266-6360 - Compliance Team

Email: cenan.rfo@usace.army.mil

For DEC Regions 6, 7, 8, 9
US Army Corps of Engineers
Buffalo District
ATTN: Regulatory Branch
1776 Niagara Street
Buffalo, NY 14207-3199
(716) 879-4330
Email: LRB.Regulatory@usace.army.mil
www.lrb.usace.army.mil

Appendix T:

Sample Floodplain Management Plan and Public Notices

EARLY NOTICE AND PUBLIC REVIEW OF A PROPOSED ACTIVITY IN A 100-YEAR FLOODPLAIN

Month XX, XXXX:

To: All Interested Agencies, Groups & Individuals

This is to give notice that the New York State Homes and Community Renewal (HCR) has conducted an evaluation as required by Executive Order 11988, in accordance with HUD regulations at 24 CFR 55.20 Subpart C, Procedures for Making Determinations on Floodplain Management, to determine the potential effect that its activity in the floodplain will have on the human environment for Community Development Block Grant – Disaster Recovery (CDBG-DR) Westchester County Bulkhead Repair Program under Title I of the Housing and Community Development Act of 1974 (PL 93-383). In accordance with the regulations, a Floodplain Management Areawide Compliance Document has been prepared for the CDBG-DR Bulkhead Repair Program for repair or reconstruction of bulkheads at Residential Properties in Westchester
County.

New York State has been allocated $1.7 Billion of CDBG-DR funds for acquisition, reconstruction, improvement, financing, and use of existing properties in the most impacted municipalities and counties. This funding reflects activity under the first allocation of funds. A significant portion of the current allocation will be used for the renovation of some of the worst damaged properties, including those that are the subject of this Notice. It is HCR's expectation that with additional unmet needs assessment the number of housing units in this and other areas to be assisted additional funding will further increase. Additional areas will be the subject of additional notices, as needs arise.

There are approximately 49,500 acres in the floodplain in Westchester County. The tidal floodplains in the State are depicted on two maps: the advisory mapping developed by FEMA, which can be viewed by selecting "FEMA's Interactive ABFE Map" link at www.region2coastal.com/sandy/abfe and the FEMA Base Flood Elevation Map link at www.msc.fema.gov.

Owners of residential properties with bulkheads that sustained substantial damage will be issued grant awards.
These awards will assist in the repair of damaged bulkheads. In order to receive a grant award the damaged structure:

- The removal and replacement must be of a functional and lawfully existing bulkhead (including returns and parallel capping boardwalks) and in the same location as the existing bulkhead.
- The bulkhead must (1) be designed and built to control long-term erosion and (2) have a reasonable probability of controlling erosion for at least 30 years (N.Y. Comp. Codes R. & Regs. tit. 6, § 505.9(b)). A permit application must include a long-term maintenance program and specifications for (1) maintenance of degradable materials and (2) periodic replacement of removable materials. Materials must be strong enough to withstand waves, weathering, and storm conditions (N.Y. Comp. Codes R. & Regs. tit. 6, § 505.9(c)).
- Constructing, modifying, or restoring the bulkhead structure must (1) not increase erosion and (2) minimize or prevent adverse effects to natural protective features, existing erosion protection structures, and natural resources such as significant fish and wildlife habitats. Variances from the requirements may be granted if certain criteria are met (N.Y. Comp. Codes R. & Regs. tit. 6, § 505.9(e)).

There are three primary purposes for this notice. First, people who may be affected by activities in floodplains and those who have an interest in the protection of the natural environment have an opportunity to express their concerns and provide information about these areas. Second, adequate public notice is an important public education tool. The dissemination of information about floodplains facilitates and enhances Federal efforts to reduce the risks associated with the occupancy and modification of these special areas. Third, as a matter of fairness, when the Federal government determines it will participate in actions taking place in floodplains, it must inform those who may be put at greater or continued risk.

It is preferred for written comments to be submitted via e-mail at NYSCDBG_DR_ER@nyshcr.org. Please include "Westchester County Floodplain Work Comments" in the subject line. Written comments may also be sent to HCR at the following address**:** NYS Homes and Community Renewal, 38-40 State Street, 4th Floor, Hampton Plaza, Albany, NY 12207 and (518) 486-3379 Attention: Heather M. Spitzberg, Esq., Certifying Officer. All comments must be received on or before **Day, Month XX, XXX.** A full copy of the Floodplain Management Document can be viewed from Monday - Friday: 9:00 AM - 5:00 PM at NYS Homes and Community Renewal, 38-40 State Street, Hampton Plaza, Albany, NY 12207 or at http://www.nyshcr.org/Programs/NYS-HCR-CDBG-DR/EnvironmentalReview.

Heather M. Spitzberg, Esq., Certifying Officer
New York State Homes & Community Renewal
Hampton Plaza
38-40 State Street
Albany, NY 12207
(518) 486-3379
NYSCDBG_DR_ER@nyshcr.org

FINAL NOTICE AND PUBLIC REVIEW OF A PROPOSED ACTIVITY IN A 100-YEAR FLOODPLAIN

Month XX, XXXX:

To: All Interested Agencies, Groups & Individuals

This is to give notice that the New York State Homes and Community Renewal (HCR) has conducted an evaluation as required by Executive Order 11988, in accordance with HUD regulations at 24 CFR 55.20 Subpart C, Procedures for Making Determinations on Floodplain Management, to determine the potential effect that its activity in the floodplain will have on the human environment for Community Development Block Grant – Disaster Recovery (CDBG-DR) Westchester County Bulkhead Repair Program under Title I of the Housing and Community Development Act of 1974 (PL 93-383). In accordance with the regulations, a Floodplain Management Areawide Compliance Document has been prepared for the CDBG-DR Housing Assistance Program for rehabilitation and mitigation of Bulkhead Residential Properties in Westchester County.

New York State has been allocated $1.7 Billion of CDBG-DR funds for acquisition, reconstruction, improvement, financing, and use of existing properties in the most impacted municipalities and counties. This funding reflects activity under the first allocation of funds. A significant portion of the current allocation will be used for the renovation of some of the worst damaged properties, including those that are the subject of this Notice. It is HCR's expectation that with additional unmet needs assessment the number of housing units in this and other areas to be assisted additional funding will further increase. Additional areas will be the subject of additional notices, as needs arise.

The properties shown below are subject to this public notice:

There are approximately 49,500 acres in the floodplain in Westchester County. The tidal floodplains in the State are depicted on two maps: the advisory mapping developed by FEMA, which can be viewed by selecting "FEMA's Interactive ABFE Map" link at www.region2coastal.com/sandy/abfe and the FEMA Base Flood Elevation Map link at www.msc.fema.gov.

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Heather M. Spitzberg, Esq., Certifying Officer
New York State Homes & Community Renewal
Hampton Plaza
38-40 State Street
Albany, NY 12207
(518) 486-3379
NYSCDBG_DR_ER@nyshcr.org

Appendix U:

Combined Finding of No Significant Impact and Notice of Intent to Request Release of Funds (FONSI/NOIRROF)

September 17, 2014

MEMORANDUM

RE: COMBINED NOTICE OF FINDING OF NO SIGNIFICANT IMPACT (FONSI) AND NOTICE OF INTENT TO REQUEST RELEASE OF FUNDS (NOIRROF) NY RISING BULKHEAD REPAIR INITIATIVE FOR RESIDENTIAL PROPERTIES: WESTCHESTER COUNTY, NY BY NEW YORK STATE HOUSING TRUST FUND CORPORATION

New York State Housing Trust Fund Corporation (HTFC)
38-40 State Street
Albany, NY 12207
(518) 486-7512

Name of Responsible Entity and Recipient: New York State Homes and Community Renewal (HCR) 38-40 State Street, Hampton Plaza, Albany, NY 12207, in cooperation with New York State Housing Trust Fund Corporation (HTFC), of the same address. Contact: Thomas J. King, Esq.

This combined notice satisfies two separate procedural requirements for project activities to be undertaken.

Per 24 CFR Part 58.33, the combined Notice of Finding of No Significant Impact and Notice of Intent to Request Release of Funds (FONSI/NOIRROF) would be published simultaneously with the submission of the Request for Release of Funds (RROF). The funds are needed on an emergency basis due to a declared disaster resulting from the impacts of Superstorm Sandy, which made landfall on October 29, 2012. As a result, the comment periods for the FONSI/NOIRROF and the RROF have been combined.

Project Description: HTFC intends to undertake the following project, funded by United States Department of Housing & Urban Development's (HUD) 2013 Community Development Block Grant—Disaster Recovery (CDBG-DR) funds under the NY Rising Bulkhead Repair Initiative for Residential Properties in Westchester County.

The activities associated with the NY Rising Bulkhead Repair Initiative for Residential Properties for Westchester County described herein would address unmet recovery needs of homeowners and tenants for which CDBG-DR funding shall be made available to Westchester County residents who qualify. NY Rising Bulkhead Repair Initiative for Residential Properties activities to be funded by CDBG-DR have been designed to provide assistance for repairing and/or reconstructing or replacing residential bulkheads. This initiative is anticipated to help mitigate future storm damage.

The initiative may also provide reimbursements for owners of bulkheads that have started or completed storm-related rehabilitation work with personal resources, subject to restrictions in line with applicable laws, regulations, and the initiative requirements.

This is the first tier of review in a 2-tiered process. The specific addresses of properties with bulkheads are not known at this time because the participating property owner identification process is ongoing. Therefore, under 24 CFR Part 58.15 (Tiering) and 24 CFR Part 58.32 (Project Aggregation), HTFC would use a tiered approach and once specific sites are determined, each site would be reviewed in compliance with the instructions established in the Tier 1 Review. No physical work would begin on bulkheads until all levels of environmental review are complete and found to be in compliance. Tier 1 review addresses specific environmental factors for which compliance has been documented, regardless of specific site locations. It prevents repeating the same compliance factors on a Tier 2 site-specific basis, once all participating homeowners are known.

FINDING OF NO SIGNIFICANT IMPACT

A Tier 1 Environmental Review Record (ERR) was established and is maintained on file. The ERR is incorporated by reference into this FONSI. A full copy of the ERR, including a completed National Environmental Policy Act of 1969 (NEPA) Environmental Assessment Checklist, an Environmental Assessment Worksheet, and area map, is available for public inspection during normal business hours in accordance with 24 CFR Part 58 at the offices listed below or at *http://www.nyshcr.org/Programs/NYS-CDBG-DR/EnvironmentalReview.htm.*

HTFC has determined that the ERR for the project identified herein complies with the requirements of HUD environmental review regulations at 24 CFR Part 58, et al.

HTFC has also determined that the project described herein, as proposed, would have no significant adverse environmental or socioeconomic impacts, either direct, indirect, or cumulative. There would be no significant impact on the human environment, and the action would not negatively impact the quality of the environment. Therefore, HTFC has determined that the project, as proposed, is not an action that would result in a significant impact on the quality of the human environment. Moreover, the project does not require an Environmental Impact Statement under NEPA.

Public Review: Public viewing of the ERR is available on the internet and is also available in person Monday – Friday, 9:00 AM - 5:00 PM at the following addresses:

New York State Housing Trust Fund Corporation
38-40 State Street
Albany, NY 12207
Contact: Thomas J. King, Esq. (518) 486-7512

&

Westchester County Department of Planning
148 Martine Avenue, Room 414
White Plains, NY 10601
Contact: Norma Drummond (914) 995-2427

Further information may be requested at *NYSCDBG_DR_ER@nyshcr.org* or by calling HTFC at (518) 486-7512. This combined notice is being sent to individuals and groups known to be interested in these activities, local news media, appropriate local, state, and federal agencies, the regional office of U.S. Environmental Protection Agency having jurisdiction, and to the HUD Field Office, and is being published in newspapers of general circulation in the affected community.

Public Comments on FONSI/Findings and NOIRROF
Any individual, group, or agency may submit written comments on this project. Those wishing to comment should specify in their comments which distinct part(s) of this Combined Notice they intend their comments to address. Comments should be submitted via email, in the proper format, on or before October 2, 2014 at: *NYSCDBG_DR_ER@nyshcr.org*. Written comments may also be submitted at the following address, or by mail, in the proper format, to be received on or before October 2, 2014.

Thomas J. King, Esq.
Certifying Officer
Governor's Office of Storm Recovery
99 Washington Avenue, Suite 1010
Albany, NY 12231

If modifications result from public comment, these would be made prior to proceeding with the expenditure of funds.

REQUEST FOR RELEASE OF FUNDS

Written notice of environmental clearance would be required prior to the removal of any limitation on commitment of federal funds in accordance with regulations at 24 CFR Part 58.70.

On September 17, 2014, the HCR Certifying Officer would submit this request and certification to HUD for the release of CDBG-DR funds as authorized by related laws and policies for the purpose of implementing this part of the New York State CDBG-DR program.

HCR certifies to HUD that Thomas J. King, Esq., acting in capacity as Certifying Officer, consents to accept the jurisdiction of the U.S. federal courts if an action is brought to enforce responsibilities in relation to the environmental reviews, decision-making, and action, and that these responsibilities have been satisfied. Moreover, HCR certifies that a Tier 1 environmental review for the project described herein has been completed and that additional Tier 2 site-specific review would occur once the specific sites are identified. HUD's approval of the certification satisfies its responsibilities under NEPA and related laws and authorities, and allows HTFC/HCR to use CDBG-DR funds.

Objections to Release of Funds - HUD would consider objections to the RROF and/or FONSI certification for a period of fifteen (15) days following the submission date or its actual receipt of the request (whichever is later). Potential objectors may contact HUD to verify the actual last day of the objection period.

The only permissible grounds for objections claiming a responsible entity's non-compliance with 24 CFR Part 58 are:

(a) Certification was not executed by the responsible entity's Certifying Officer;
(b) The responsible entity has omitted or failed to make a step, decision, or finding required by HUD regulations at 24 CFR Part 58;
(c) The responsible entity has committed funds or incurred costs not authorized by 24 CFR Part 58 before release of funds and approval of environmental certification; or
(d) Another federal agency acting pursuant to 40 CFR Part 1504 has submitted a written finding that the project is unsatisfactory from the standpoint of environmental quality.

Objections must be prepared and submitted in writing in accordance with the required procedures and format (24 CFR Part 58) and shall be addressed to:

Tennille Smith Parker
Acting Director/Assistant Director, Disaster Recovery and Special Issues Division
Office of Block Grant Assistance
U.S. Department of Housing & Urban Development
451 7th Street SW
Washington, DC 20410
Phone: (202) 402-4649

Thomas King, Esq.
HCR Certifying Officer
September 17, 2014

PUBLIC NOTICE

COMBINED NOTICE OF FINDING OF NO SIGNIFICANT IMPACT (FONSI) AND NOTICE OF INTENT TO REQUEST RELEASE OF FUNDS (NOIRROF) NY RISING BULKHEAD REPAIR INITIATIVE FOR RESIDENTIAL PROPERTIES: WESTCHESTER COUNTY, NY BY NEW YORK STATE HOUSING TRUST FUND CORPORATION

September 17, 2014

New York State Housing Trust Fund Corporation (HTFC)
38-40 State Street
Albany, NY 12207
(518) 486-7512

Name of Responsible Entity and Recipient: New York State Homes and Community Renewal (HCR) 38-40 State Street, Hampton Plaza, Albany, NY 12207, in cooperation with New York State Housing Trust Fund Corporation (HTFC), of the same address. Contact: Thomas J. King, Esq.

This combined notice satisfies two separate procedural requirements for project activities to be undertaken.

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Project Description: HTFC intends to undertake the following project, funded by United States Department of Housing & Urban Development's (HUD) 2013 Community Development Block Grant—Disaster Recovery (CDBG-DR) funds under the NY Rising Bulkhead Repair Initiative for Residential Properties in Westchester County.

The activities associated with the NY Rising Bulkhead Repair Initiative for Residential Properties for Westchester County described herein would address unmet recovery needs of homeowners and tenants for which CDBG-DR funding shall be made available to Westchester County residents who qualify. NY Rising Bulkhead Repair Initiative for Residential Properties activities to be funded by CDBG-DR have been designed to provide assistance for repairing and/or reconstructing or replacing residential bulkheads. This initiative is anticipated to help mitigate future storm damage.

The initiative may also provide reimbursements for owners of bulkheads that have started or completed storm-related rehabilitation work with personal resources, subject to restrictions in line with applicable laws, regulations, and the initiative requirements.

This is the first tier of review in a 2-tiered process. The specific addresses of properties with bulkheads are not known at this time because the participating property owner identification process is ongoing. Therefore, under 24 CFR Part 58.15 (Tiering) and 24 CFR Part 58.32 (Project Aggregation), HTFC would use a tiered approach and once specific sites are determined, each site would be reviewed in compliance with the instructions established in the Tier 1 Review. No physical work would begin on bulkheads until all levels of environmental review are complete and found to be in compliance. Tier 1 review addresses specific environmental factors for which compliance has been documented, regardless of specific site locations. It prevents repeating the same compliance factors on a Tier 2 site-specific basis, once all participating homeowners are known.

FINDING OF NO SIGNIFICANT IMPACT

A Tier 1 Environmental Review Record (ERR) was established and is maintained on file. The ERR is incorporated by reference into this FONSI. A full copy of the ERR, including a completed National Environmental Policy Act of 1969 (NEPA) Environmental Assessment Checklist, an Environmental Assessment Worksheet, and area map, is available for public inspection during normal business hours in accordance with 24 CFR Part 58 at the offices listed below or at *http://www.nyshcr.org/Programs/NYS-CDBG-DR/EnvironmentalReview.htm.*

HTFC has determined that the ERR for the project identified herein complies with the requirements of HUD environmental review regulations at 24 CFR Part 58, et al.

HTFC has also determined that the project described herein, as proposed, would have no significant adverse environmental or socioeconomic impacts, either direct, indirect, or cumulative. There would be no significant impact on the human environment, and the action would not negatively impact the quality of the environment. Therefore, HTFC has determined that the project, as proposed, is not an action that would result in a significant impact on the quality of the human environment. Moreover, the project does not require an Environmental Impact Statement under NEPA.

Public Review: Public viewing of the ERR is available on the internet and is also available in person Monday – Friday, 9:00 AM - 5:00 PM at the following addresses:

New York State Housing Trust Fund Corporation
38-40 State Street
Albany, NY 12207
Contact: Thomas J. King, Esq. (518) 486-7512

&

Westchester County Department of Planning
148 Martine Avenue, Room 414
White Plains, NY 10601
Contact: Norma Drummond (914) 995-2427

Further information may be requested at *NYSCDBG_DR_ER@nyshcr.org* or by calling HTFC at (518) 486-7512. This combined notice is being sent to individuals and groups known to be interested in these activities, local news media, appropriate local, state, and federal agencies, the regional office of U.S. Environmental Protection Agency having jurisdiction, and to the HUD Field Office, and is being published in newspapers of general circulation in the affected community.

Public Comments on FONSI/Findings and NOIRROF

Any individual, group, or agency may submit written comments on this project. Those wishing to comment should specify in their comments which distinct part(s) of this Combined Notice they intend their comments to address. Comments should be submitted via email, in the proper format, on or before October 2, 2014 at: *NYSCDBG_DR_ER@nyshcr.org*. Written comments may also be submitted at the following address, or by mail, in the proper format, to be received on or before October 2, 2014.

Thomas J. King, Esq.
Certifying Officer
Governor's Office of Storm Recovery
99 Washington Avenue, Suite 1010
Albany, NY 12231

If modifications result from public comment, these would be made prior to proceeding with the expenditure of funds.

REQUEST FOR RELEASE OF FUNDS

Written notice of environmental clearance would be required prior to the removal of any limitation on commitment of federal funds in accordance with regulations at 24 CFR Part 58.70.

On September 17, 2014, the HCR Certifying Officer would submit this request and certification to HUD for the release of CDBG-DR funds as authorized by related laws and policies for the purpose of implementing this part of the New York State CDBG-DR program.

HCR certifies to HUD that Thomas J. King, Esq., acting in capacity as Certifying Officer, consents to accept the jurisdiction of the U.S. federal courts if an action is brought to enforce responsibilities in relation to the environmental reviews, decision-making, and action, and that these responsibilities have been satisfied. Moreover, HCR certifies that a Tier 1 environmental review for the project described herein has been completed and that additional Tier 2 site-specific review would occur once the specific sites are identified. HUD's approval of the certification satisfies its responsibilities under NEPA and related laws and authorities, and allows HTFC/HCR to use CDBG-DR funds.

Objections to Release of Funds - HUD would consider objections to the RROF and/or FONSI certification for a period of fifteen (15) days following the submission date or its actual receipt of the request (whichever is later). Potential objectors may contact HUD to verify the actual last day of the objection period.

The only permissible grounds for objections claiming a responsible entity's non-compliance with 24 CFR Part 58 are:

(a) Certification was not executed by the responsible entity's Certifying Officer;

(b) The responsible entity has omitted or failed to make a step, decision, or finding required by HUD regulations at 24 CFR Part 58;

(c) The responsible entity has committed funds or incurred costs not authorized by 24 CFR Part 58 before release of funds and approval of environmental certification; or

(d) Another federal agency acting pursuant to 40 CFR Part 1504 has submitted a written finding that the project is unsatisfactory from the standpoint of environmental quality.

Objections must be prepared and submitted in writing in accordance with the required procedures and format (24 CFR Part 58) and shall be addressed to:

Tennille Smith Parker
Acting Director/Assistant Director, Disaster Recovery and Special Issues Division
Office of Block Grant Assistance
U.S. Department of Housing & Urban Development
451 7th Street SW
Washington, DC 20410
Phone: (202) 402-4649

Thomas King, Esq.
HCR Certifying Officer
September 17, 2014