Hurricane Sandy Disaster Relief Supplemental Appropriations Spending Plan
Department of the Interior

The Disaster Relief Appropriations Act of 2013, appropriated $829.2 million ($786.7 million post-sequester) for the Department of the Interior to address its funding needs relating to response, recovery and mitigation of damages caused by Hurricane Sandy. The appropriation includes:

- Bureau of Safety and Environmental Enforcement/Oil Spill Research: $3 million ($2.85 million post-sequester) was appropriated for response and recovery, primarily for clean-up of storm debris and repairs to the Ohmsett facility located in New Jersey.
- Fish and Wildlife Service/Construction: $68.2 million ($64.6 million post-sequester) was appropriated for response and recovery for clean-up of storm debris and repairs to refuges, fish hatcheries and other FWS facilities, lands and habitat along the eastern seaboard.
- National Park Service/Construction: $348 million ($329.8 million post-sequester) was appropriated for response and recovery for clean-up of storm debris and repairs to national park units along the eastern seaboard.
- National Park Service/Historic Preservation Fund: $50 million ($47.5 million post-sequester) for historic preservation grants to States.
- Departmental Management/Salaries and Expenses: $360 million ($341.9 million post-sequester) to be allocated to Interior bureaus and offices for mitigation.

Immediate Mitigation Projects

The attached Hurricane Sandy Supplemental Plan includes information on the overall strategy and spending plans for the appropriations made to the Bureau of Safety and Environmental Enforcement, Fish and Wildlife Service, the National Park Service, and Departmental Management.

The strategy for the mitigation portion includes an initial allocation of $30.5 million to the Bureau of Ocean Energy Management and the U.S. Geological Survey. The Department is currently in the mitigation project selection process and is evaluating projects submitted by the Bureau of Indian Affairs, Bureau of Safety and Environmental Enforcement, Fish and Wildlife Service, National Park Service, Office of the Secretary's Office of Environmental Compliance, and the U.S. Geological Survey.

In accordance with the P.L. 113-2, the Department will comply with the prohibition on the use of funds for land acquisition, and repair of seawalls or buildings on islands in the Stewart B. McKinney National Wildlife Refuge, CT.

The Department is coordinating a collaborative process to implement the Hurricane Sandy strategy. The plan considers the priorities as communicated by the Hurricane Sandy Task Force established under Executive Order of the President and led by Secretary Donovan. The Task Force has established government-wide priorities, including four that encompass the Department of the Interior's responsibilities:

- Resilience: Interior plays a significant role in the restoration of coastal natural systems such as wetlands and barrier dunes.
- Critical Infrastructure: For Interior this would be defined as water treatment, wastewater, emergency response, power supply, and security systems. We would consider some types of "green infrastructure" as critical, such as a dune line that directly protects a community.

- Economic Revitalization: Many of the coastal communities impacted by Hurricane Sandy rely on tourism and many Interior assets are contributors to tourism, so beach access and facilities would be included here.
- Data Sharing: USGS and other agencies are significant contributors to the understanding of the impacts and vulnerability of our coastal environment, with activities such as research, mapping and modeling of sea level rise.

Interior is also considering the implications of the new FEMA Advisory Base Flood Elevation (ABFE) maps that were recently issued to the public for the Hurricane Sandy areas. Though the ABFE maps, which define the 100 year flood plain, do not yet have legal enforceability, the Department has made the determination that we will apply the new map data to recovery and mitigation implementation. For all projects, construction must account for ABFE plus one foot. For critical infrastructure, such as a power supply or water treatment operations, there is a strong recommendation from the Task Force for application of ABFE plus two feet. Some exceptions to this standard are temporary facilities, green infrastructure, and facilities that are essential to access beaches and other recreational assets that need to be within the flood zone for their purpose and are designed to be sacrificed in a flood event.

An Executive Council, comprised of senior leaders in the Department including the Deputy Secretary and Assistant Secretaries will provide oversight of the Hurricane Sandy strategy and spending plan.

Hurricane Sandy Disaster Relief Supplemental Appropriations Spending Plan
Bureau of Safety and Environmental Enforcement

The Bureau of Safety and Environmental Enforcement will utilize $3 million to restore the Ohmsett facility to operational status. The Ohmsett facility is critical to national preparedness as well as to BSEE's mission of protecting the environment. In addition to testing oil spill response equipment, the facility is used to support BSEE oil spill research projects and to train oil spill responders, including the U.S. Coast Guard's National Strike Force. In light of this importance, and in order to keep as much as possible to a full testing/training schedule for 2013, program funds were initially used to begin recovery operations.

Pre-storm and Immediate Response Activities

The BSEE took actions to prepare for Hurricane Sandy including securing loose items, moving oil from tank farms to inland storage, filling oil tanks with salt water to ballast against storm, and moving equipment to high ground.

The Ohmsett facility sustained substantial damage and response and recovery efforts were extensive to return to operational status. Actions that are planned are considering the need to make changes to facilities and to strengthen facilities to mitigate damages that could be caused by future storms. Initial efforts undertaken by BSEE include:

- return oil to tank farm;
- debris cleanup;
- replace broken pipe and refill test tank and add salt to restore test tank to ocean salinity;
- inspect and repair/replace electrical circuits;
- inspect and repair/replace electrical equipment;
- inspect and repair/replace mechanical equipment;
- inspect and replace/repair miscellaneous shop tools and equipment;
- inspect and repair hazardous material storage building R-25A;
- replace waterlogged insulation on pipes and tanks;
- replace diesel and air tanks; and
- obtain temporary storage since building R-25 was destroyed.

Priorities Moving Forward

The BSEE will replace building R-25, which was destroyed during Hurricane Sandy. The new building will be relocated further from the shore line as a mitigation measure against future storms. The BSEE will utilize the National Park Service for construction services.

Hurricane Sandy Summary	
Project Types	$
Response Activities	957,184
Planning and Design	42,816
Construction	2,000,000
Total	3,000,000

Note: Funding levels for projects will be refine as planning and design gets underway and the sequestration reductions are applied.

Hurricane Sandy Disaster Relief Supplemental Appropriations Spending Plan
Fish and Wildlife Service (Construction)

The Fish and Wildlife Service will utilize $68.2 million (pre-sequester) for immediate needs related to Hurricane Sandy Response and Recovery. The FWS projects involve repairs to property and environmental damage on refuge units, fish hatcheries, and other FWS stations, with the most significant damages in the mid-Atlantic, New Jersey, Long Island, and southern New England coastal areas. The funds will be invested to restore facilities to their pre-Sandy condition. Plans will include actions to make facilities more resilient and better able to withstand future storms and rising sea levels.

Pre-storm and Immediate Response Activities

In the days before Sandy reached land, the FWS braced for the storm. Buildings and equipment were secured at national wildlife refuges, national fish hatcheries, and other FWS stations, and water levels were lowered in freshwater impoundments at refuges to prepare for coastal flooding. These measures kept preventable damages to the agency's infrastructure to a minimum.

The FWS quickly established an incident command center in Philadelphia as a central base of operations for storm recovery. A total of 45 trained FWS specialists were deployed to help remove debris, clear downed trees, open trails and roads, or provide law enforcement support on refuges to ensure public safety. FWS employees also delivered equipment and fuel to areas that needed these resources after the storm. A FWS-operated helicopter flew aerial surveys along the coast during the week after Sandy to document damages.

The storm surge left behind a 22-mile debris field, including more than 176 boats, at Edwin B. Forsythe National Wildlife Refuge in N.J.

Priorities Moving Forward

The FWS will utilize $68.2 million in project funding to assist with recovery and restoration efforts. The FWS's implementation strategy focuses on repairs and restoration where Sandy's effects were felt most. The projects include debris field cleanup, rebuilding roads, trails, boardwalks, viewing platforms, and other public access facilities, and restoring important habitats that benefit communities as well as wildlife. Some of the significant damages that will be repaired include:

- Clean up along the southern coast of Long Island and the Long Island National Wildlife Refuge Complex in New York, which bore the brunt of the storm. This will include the removal of boats, debris, and hazardous materials along 6.5 miles of national wildlife refuge boundary along the shoreline.

- Hurricane Sandy left behind a 22-mile debris field in the marshes and wetlands along the coastal boundary of Edwin B. Forsythe National Wildlife Refuge in New Jersey. Salvage operations will be needed to recover stranded boats, which could be carrying up to 6,500 gallons of fuel and other hazardous materials that needs to be removed.

- Sea level rise and recent coastal storms degraded the man-made freshwater marsh system at Prime Hook National Wildlife Refuge in Delaware and turned it into an open water system which does not support fisheries and migratory birds and other wildlife that are reliant on marshes and wetlands. This area is a major stopping point in the Atlantic Flyway. The elimination of marshes and estuaries also exposes refuge lands and resources to storms and is not resilient to erosion and future storms. Hurricane Sandy greatly accelerated the degradation of these areas. Supplemental funding will be used to begin one of the largest coastal marsh restoration projects on the Atlantic Seaboard. FWS will build a low dune that was destroyed by Sandy as the first phase of a large restoration project utilizing sediment.

- At Mackay Island National Wildlife Refuge in North Carolina, Hurricane Sandy ripped large sections of a bulkhead that surrounds Live Oak Point, causing massive erosion and compromising the safety of Mackay Island Road, the only auto tour route on the refuge. Replacing the bulkhead will protect Mackay Island Road and habitat used heavily by wintering waterfowl and make this area available for visitation.

Additional important projects in need of attention include repair or replacement of visitor buildings and boardwalks, entrance roads, and roof repairs and replacements. Several water control structures which failed during the storm will be repaired. Back-up power generators, solar photovoltaic systems and electrical improvements will be made at several facilities helping them to be better prepared for future emergencies, and at the same time utilize renewable energy sources.

Hurricane Sandy Summary	
Project Types	**$**
Response & Cleanup	
Incident Response & Debris Removal	24,229,763
Real Property	
Restore Facilities-Roads, Buildings, and Trails	8,665,813
Restoration	
Levee/Dikes/Dune Restoration	26,501,145
Energy	
Emergency Generator & Electrical	8,803,279
Total	**68,200,000**

Note: Funding levels for projects will be refined as planning and design gets underway and the sequestration reductions are applied.

Hurricane Sandy FWS Projects			
Unit Name	**Project #**	**Project Title**	**Amount ($ in millions)**
Archie Carr NWR, FL	2013226357	Sandy DMFP Repair Boardwalk at Dune Crossing	0.025
Back Bay NWR, VA	TBD	Provide Backup Power - Generator and Electrical Improvements	0.723
Back Bay NWR, VA	TBD	Replace Signs, Infrastructure and Buoy	0.200
Blackwater NWR, MD	TBD	Repair Leaks on Visitor Center Roof	0.010
Bombay Hook NWR, DE	TBD	Repair/Replace Damage Gate	0.002
Canaan Valley NWR, WV	TBD	Cleanup Trees and Remove Debris	0.020
Cape May NWR, NJ	TBD	Repair Boardwalk and Conduct Cleanup	0.050
Cape May NWR, NJ	TBD	Provide Backup Power - Generator and Electrical Improvements	0.723
Chesapeake Marshland Complex, MD	TBD	Provide Backup Power - Generator and Electrical Improvements	0.723
Chincoteague NWR, VA	TBD	Remove Trees, Debris and Repair Roofs	1.500
Chincoteague NWR, VA	TBD	Provide Backup Power - Generator and Electrical Improvements	0.723
Eastern Massachusetts NWR, MA	TBD	Repair Gravel Roads and Damaged Buildings	0.025
Eastern Virginia Rivers NWR, VA	TBD	Remove Debris from Shoreline	0.015
EB Forsythe NWR, NJ	TBD	Remove Debris and Repair Trails	20.150
EB Forsythe NWR, NJ	TBD	Provide Backup Power - Generator and Electrical Improvements	0.723
EB Forsythe NWR, NJ	TBD	Various Roads - Repair Dike Roads	0.179
Great Swamp NWR, NJ	TBD	Repair Damaged Boardwalk/Buildings and Cleanup	0.600
Great Swamp NWR, NJ	TBD	Provide Backup Power - Generator and Electrical Improvements	0.723
Lamar Fish Health & Technology Center, PA	2013226523	Remove/Reinstall Water Treatment Tank	0.001
Long Island NWR Complex, NY	TBD	Remove Debris, Repair Roof and Platform	5.579
Long Island NWR Complex, NY	TBD	Provide Backup Power - Generator and Electrical Improvements	0.723

Hurricane Sandy FWS Projects			
Unit Name	**Project #**	**Project Title**	**Amount ($ in millions)**
MacKay Island NWR, NC	2013226353	Sandy DM Repair Bulkhead at Live Oak	1.790
Maine Coastal NWR, ME	TBD	Repair HVAC Equipment	0.025
Mattamuskeet NWR, NC	2013226385	Sandy DMFP Dredge Central Canal	0.101
Mattamuskeet NWR, NC	2013226386	Sandy DMFP Dredge Lake Landing Canal	0.104
Mattamuskeet NWR, NC	2013226384	Sandy DMFP Dredge Outfall Canal	0.070
Mattamuskeet NWR, NC	2013226383	Sandy DMFP Dredge Rose Bay Canal	0.778
Mattamuskeet NWR, NC	2013226381	Sandy DMFP Replace Rose Bay WCS	0.397
Mattamuskeet NWR, NC	2013226387	Sandy DMFP Dredge Waupoppin Canal	0.748
Mattamuskeet NWR, NC	2013226382	Sandy DMFP Repair Waupoppin WCS	0.803
Moosehorn NWR, ME	TBD	Repair Impoundment and Water Control Structure	0.100
Moosehorn NWR, ME	TBD	Various Roads - Repair Damaged Impoundments and Water Control Structures	0.500
Nashua National Fish Hatchery, NH	2013226520	Cleanup and Removal of Downed Trees and Debris	0.002
National Conservation Training Center, WV	TBD	Emergency Generator Project	1.550
Occoquan Bay NWR, VA	TBD	Various Roads - Rehabilitate Deephole Point Rd	1.846
Parker River NWR, MA	TBD	Provide Backup Power - Generator and Electrical Improvements	0.723
Pea Island NWR, NC	2013226410	Sandy DMFP Repair North Pond Bulkhead	1.122
Pea Island NWR, NC	2013226392	HQ Sandy DM Parent Replace South Pond WCS	0.078
Pocosin Lakes NWR, NC	2013226354	Sandy Repair Marsh C Dike	0.059
Pocosin Lakes NWR, NC	2013226355	Sandy DMFP Repair Damaged Road 108 Allen Rd	0.007
Pocosin Lakes NWR, NC	2013226356	Sandy DMFP Repair Damaged Road on WSC	0.009
Pocosin Lakes NWR, NC	2013226358	Sandy DMFP Repair Storm Damage to Visitor Center	0.004

Hurricane Sandy FWS Projects			
Unit Name	**Project #**	**Project Title**	**Amount ($ in millions)**
Prime Hook NWR, DE	TBD	Repair Breached Impoundments/Shoreline/Dune	20.000
Prime Hook NWR, DE	TBD	Provide Backup Power - Generator and Electrical Improvements	0.723
Rachel Carson NWR, ME	TBD	Repair Damaged Boardwalk and Roof	0.020
Region 5 Regional Office, MA	TBD	Provide Storm-Related Management and Coordination	0.703
Rhode Island NWR Complex, RI	TBD	Repair Access Road	0.100
Rhode Island NWR Complex, RI	TBD	Provide Backup Power - Generator and Electrical Improvements	0.723
Rhode Island NWR Complex, RI	TBD	Remove Tree/Debris; Repair Roads, Roof, Breach	0.190
Sachuest Point NWR, RI	TBD	Various Roads - Rehabilitate Sachuest Point Road	0.475
Stewart B. McKinney NWR, CT	TBD	Remove Debris	0.390
Stewart B. McKinney NWR, CT	TBD	Falkner Island Access	0.462
Stewart B. McKinney NWR, CT	TBD	Resolve Public Safety Issues	0.168
Wallkill River NWR, NY	TBD	Remove Debris and Repair Roofs	0.015
White Sulphur Springs NFH, WV	2013226522	Repair/Replace Well Electrical Connection	0.002
		Total	**68.20**
		Sequester Amount	**3.57**
		Total After Sequester*	**64.63**

Total Project Cost is $68,200,000. Difference between actual total and computed total is due to rounding.

*Note: Funding levels for projects will be refined as planning and design gets underway and the sequestration reductions are applied.

Hurricane Sandy Disaster Relief Supplemental Appropriations Spending Plan
National Park Service (Construction)

The National Park Service will utilize $348 million (pre-sequester) for immediate needs related to Hurricane Sandy Response and Recovery. NPS damage assessments revealed the need for response, cleanup, and facility restoration. Much of the damage impacts critical infrastructure systems and park facilities that are key to park operations. These systems are often hidden from view, but vital to park operations and visitor safety. Examples include water, sewer, electrical, and mechanical systems. NPS experienced approximately $40 million in damages to roads. Damages occurred in the Northeast, Southeast and National Capital NPS Regions. Projects will consider the need to make more resilient and strengthen facilities to withstand future storms. In some cases buildings and infrastructure will be relocated and/or eliminated in order to mitigate future damages.

Pre-storm and Immediate Response Activities

Hurricane Sandy, the largest Atlantic Hurricane on record, made landfall southwest of Atlantic City, New Jersey on the evening of October 29, 2012. During the storm, NPS closed or cordoned off 69 parks. Up and down the East Coast and farther inland, heavy winds, tidal surge, rain, and snow caused significant damage to national parks, particularly in the Northeast Region. The NPS deployed an Incident Management Team of nearly 700 employees to respond swiftly to Hurricane Sandy. This team worked around the clock to ensure the safety of park employees prior to and during the storm and to respond as quickly as possible to protect park resources following the storm, including quantifying the damage sustained so that NPS could accurately assess its needs in the wake of the largest storm to hit the mid-Atlantic in centuries.

Priorities Moving Forward

Many parks remain closed to the public due to safety concerns, including the Statue of Liberty National Monument and Ellis Island, along with large sections of Gateway National Recreation Area and Fire Island National Seashore. The first priority of the NPS is to gain operation of facilities and infrastructure and ensure that the parks will support visitation and to restore visitor services and open parks to visitors. Where possible, NPS will pursue temporary solutions that hasten the return of visitors to parks. However, the NPS will seek permanent, sustainable solutions that will allow park resources to withstand future natural disasters.

Three NPS regions and 23 NPS units sustained damage from Hurricane Sandy that will be addressed by the Emergency Supplemental appropriation:

1. Northeast Region (NER) – includes the bulk of the storm damage to New York and New Jersey park units, such as: Statue of Liberty and Ellis Island, Gateway NRA, Fire Island National Seashore, Morristown National Historical Park, and Assateague Island National Seashore.
2. Southeast Region (SER) – includes Cape Hatteras and Cape Lookout National Seashores and Biscayne National Park.
3. National Capital Region (NCR) – includes Rock Creek Park, Monocacy and Antietam Battlefields and Chesapeake and Ohio Canal National Historical Park.

<u>Project Examples by Type</u>
Storm Preparation: Project work includes purchasing and installing sand bags, boarding windows, stabilizing equipment, and moving cultural resources to higher ground.

Immediate Response and Cleanup: Project work includes debris cleanup – removal of debris, trash, silt, trees, limbs, and leaves; developing recovery plans and conducting damage assessments; containment and disposal of hazardous materials and vehicles and gasoline; restoring emergency services and utilities; securing park assets; health and safety response calls; and operation of an Incident Command team.

Stabilization: Projects to secure and maintain assets, structures, and natural and cultural resources to prevent additional damage and to prevent future resource/facility damage or efforts to mitigate a safety hazard; sand dune and beach restoration; mold remediation; facility weatherization; and minor repairs and restorations.

Recovery: The majority of the projects fall in this category and are projects that repair or rehabilitate a resource or facility damaged by the storm.

Project Examples by Park

Summaries of the projects in three park units that sustained the greatest amount of damage are provided as examples of the types of work to be undertaken.

Gateway National Recreation Area: Costs for storm response and recovery at Gateway National Recreation Area total over $150 million. The storm severely impacted critical infrastructure and facilities across Staten Island, Jamaica Bay, and Sandy Hook, including extensive damage to utility systems (water, electrical, radio, and fuel), park buildings and roads, piers, docks, waterfronts, parking lots, and cultural resources. The park units also experienced extreme beach erosion and the deterioration of natural landscapes. Recovery efforts will require reconstruction of beach facilities and historic structures; restoration of seawalls, coastal structures, and historical landscapes; and repair of water, sewer, and electricity systems that are critical to park visitors and staff.

Statue of Liberty National Monument and Ellis Island: The iconic Statue of Liberty National Monument and Ellis Island are closed to the public until further notice due to storm-related damage totaling over $60 million. With average annual visitation of 3.75 million, this closure significantly impacts many visitors and the surrounding businesses that depend on regular patronage. The sites are inaccessible as the Liberty Island passenger ferry dock and the emergency dock have been severely damaged, the security screening equipment will be replaced as it was been completely destroyed, and the deteriorated seawall and promenade walkway pose safety hazards to the public. Many park visitor use and utility facilities experienced significant flooding and will require mold remediation, hazardous debris removal, electrical and HVAC system repair, and replacement of windows and doors.

Fire Island National Seashore: Damage to the natural dune landscape and breaches to barrier islands resulted from Hurricane Sandy's fierce winds and storm surge. In addition to restoring and monitoring natural resources, repairs are needed to many visitor facilities, including boardwalks, the Lighthouse dock, roads, and park headquarters. Total storm-related costs exceed $10 million.

Note: Funding levels for projects will be refined as planning and design gets underway and the sequestration reductions are applied.

Hurricane Sandy NPS Construction Projects				
Park Unit	**State**	**Project #**	**Project Title**	**Amount ($ in millions)**
African Burial Ground National Monument	NY	195054	Repair Storm Damage at African Burial Ground National Monument Cultural Landscape	0.1
Asseteague Island National Seashore	MD	194615	Hurricane Sandy Initial Response and Emergency Stabilization	0.5
Asseteague Island National Seashore	MD	194788	Repair Life of the Marsh Trail with Sustainable Materials	0.6
Asseteague Island National Seashore	MD	194791	Replace Oceanside Fencing and Boardwalk	0.2
Asseteague Island National Seashore	MD	194800	Remove and Re-install Boardwalk and Duck Blinds	0.1
Asseteague Island National Seashore	MD	194831	Repair Life of the Forest Trail	0.4
Asseteague Island National Seashore	MD	194834	Relocate and Repair Bayside Parking Lot; Conduct Environmental Assessment	0.8
Asseteague Island National Seashore	MD	194873	Replace Toms Cove Parking Lot	1.3
Asseteague Island National Seashore	MD	194874	Relocate South Ocean Beach Parking Lot	0.7
Asseteague Island National Seashore	MD	195540	Assess Recovery Requirements for Beach Dune System	0.2
Asseteague Island National Seashore	MD	201017	Repair Storm Damaged Facilities at Multiple Areas Throughout the Island	5.1
Castle Clinton National Monument	NY	195055	Repair Storm Damage to Sewer and Electrical Systems at Castle Clinton	0.3
Fire Island National Seashore	NY	195068	Repair Storm Damage at Watch Hill Channel & Sailors Haven Channel	4.5
Fire Island National Seashore	NY	195075	Repair Storm Damage to Boardwalks and Facilities at Fire Island	4.3
Fire Island National Seashore	NY	195087	Repair Storm Damage at Watch Hill and Sailor's Haven Bulkheads and Marinas	0.7
Fire Island National Seashore	NY	195090	Repair Storm Damages at Annex Housing Unit	0.1
Fire Island National Seashore	NY	195092	Repair Storm Damage at Light Station Visitor Use Area and Docks	1.2
Fire Island National Seashore	NY	195093	Repair Seawall and Replace Decking at Watch Hill Marina	0.3
Fire Island National Seashore	NY	195310	Repair Storm Damage at West End Road	0.6
Fire Island National Seashore	NY	198830	Stabilize and Repair Terrace at Historic Lighthouse	0.3
Fire Island National Seashore	NY	200622	Replace Damaged Park Entrance Signs & Waysides	0.1
Fire Island National Seashore	NY	200817	Repair Storm Damage at the Vehicle Vessel Shop	0.1

Hurricane Sandy NPS Construction Projects				
Park Unit	**State**	**Project #**	**Project Title**	**Amount ($ in millions)**
Fire Island National Seashore	NY	200896	Repair Storm Damage to the Lighthouse Housing Building	0.1
Fire Island National Seashore	NY	200940	Repair Storm Damage at the Park Administration and Headquarters Buildings	0.2
Fire Island National Seashore	NY	200978	Remove Storm Debris from Beach Access Areas	0.3
Fire Island National Seashore	NY	201086	Repair Damaged Helipad, Demolish Old Inlet Dock, and Remove Storm Debris	0.3
Fire Island National Seashore	NY	201092	Determine Appropriate Remediation of Coastal Natural Resources Damage at Fire Island	0.9
Fire Island National Seashore	NY	201093	Repair Maintenance Facilities, Equipment, and Fuel Systems at Fire Island	0.3
Gateway National Recreation Area	NY	195019	Evaluate and Correct Structural Damage to Historic Hanger 38 and Adjacent 3 Acre Site	4.5
Gateway National Recreation Area	NY	195021	Repair Storm Damage at Hangar B and Campground at Floyd Bennett Field; Perform Hazmat Remediation	3.0
Gateway National Recreation Area	NY	195022	Remove Debris and Repair Storm Damage to Sections of Shore Road at Jamaica Bay	2.6
Gateway National Recreation Area	NY	195024	Repair Storm Damage at the Historic Mess Hall at Sandy Hook	0.6
Gateway National Recreation Area	NY	195067	Repair Storm Damage at the Fisherman Parking Access Road at Sandy Hook	0.1
Gateway National Recreation Area	NY	195070	Repair Storm Damage at Multiple Parking Lots at Sandy Hook.	0.1
Gateway National Recreation Area	NY	195071	Repair Storm Damage of Hartshorne Drive at Sandy Hook	0.1
Gateway National Recreation Area	NY	195073	Repair Storm Damage on Atlantic Drive and Kearny Drive	0.1
Gateway National Recreation Area	NY	195076	Stabilize Shoreline and Repair Storm Damage to Kingman and Mills Roads	0.8
Gateway National Recreation Area	NY	195077	Remove Debris and Repair Storm Damage to North Channel Bridge East and West Lots	0.4
Gateway National Recreation Area	NY	195079	Repair Storm Damage to Gunnison Boardwalk at Sandy Hook	0.1
Gateway National Recreation Area	NY	195082	Repair Storm Damage to West Pond Trail Breach in Jamaica Bay	1.0
Gateway National Recreation Area	NY	195102	Repair Storm Damage at Great Kills Marina Slips, Moorings, and Dock	9.2
Gateway National Recreation Area	NY	195110	Repair Storm Damage to Theater #67 at Sandy Hook	0.5
Gateway National Recreation Area	NY	195179	Repair Storm Damage at Fire Station #34	0.1
Gateway National Recreation Area	NY	195190	Repair Storm Damage to the Riding Academy Maintained Landscape at Jamaica Bay	0.4

Hurricane Sandy NPS Construction Projects				
Park Unit	**State**	**Project #**	**Project Title**	**Amount ($ in millions)**
Gateway National Recreation Area	NY	195201, 195204	Repair Storm Damaged Fencing and Beach Erosion to Fort Wadsworth and Battery Weed	4.7
Gateway National Recreation Area	NY	195207	Repair Storm Damage at Riis Landing Main Coast Guard Building	1.4
Gateway National Recreation Area	NY	195229	Repair Storm Damage at Jamaica Bay to Riis Landing Street Lights, Dock and Fueling System	0.6
Gateway National Recreation Area	NY	195265	Repair Storm Damage at Gateway Marina	0.1
Gateway National Recreation Area	NY	195269	Remove Debris and Repair Storm Damage to Concession Locations at Riis Park Developed Area	0.1
Gateway National Recreation Area	NY	195271, 195325	Repair Storm Damage at Jamaca Bay and Rockaway Point Facilities	1.3
Gateway National Recreation Area	NY	195346	Repair Storm Damage at Fort Tilden Maintained Landscape	0.8
Gateway National Recreation Area	NY	195354	Repair Seawall and Parking Area at Seaplane Ramp North	0.6
Gateway National Recreation Area	NY	195383	Repair Storm Damage to Gateway Environmental Study Center	0.5
Gateway National Recreation Area	NY	195426	Repair Storm Damage at Holly Forest Boardwalk	0.6
Gateway National Recreation Area	NY	195485	Replace 1-Mile Seawall and Repair All Jacob Riis Parking Lots and Shoreline Structures	15.3
Gateway National Recreation Area	NY	195490	Repair Storm Damage to Sewage Lift Stations at Floyd Bennett Field and Fort Tilden in Jamaica Bay	0.8
Gateway National Recreation Area	NY	195492	Repair Storm Damage at Jamaca Bay Beach Facilities	9.0
Gateway National Recreation Area	NY	195493	Repair Damage to 187 Acres at Miller Field Grounds	3.4
Gateway National Recreation Area	NY	195553	Replace Storm Damaged Furnishings and Equipment at Jamaica Bay and Sandy Hook	0.3
Gateway National Recreation Area	NY	197241	Reset or Replace Damaged Boardwalks on East Pond Trail	0.1
Gateway National Recreation Area	NY	199640	Repair Washout and Wood Deck Ramp at Jen Marina Jamaica Bay	0.6
Gateway National Recreation Area	NY	200607	Relocate Six Storm Damaged Maintenance and Storage Facilities From Flood Hazard Area	24.8
Gateway National Recreation Area	NY	200612	Repair Storm Damage at Frank Charles Hamilton Beach Areas	0.2
Gateway National Recreation Area	NY	200689	Repair and Remove Damaged Seawalls and Other Coastal Structures at Jamaica Bay, Staten Island, and Sandy Hook	22.7
Gateway National Recreation Area	NY	200703	Remove Exposed Bulkheads for Safety at Fort Tilden	3.0

Hurricane Sandy NPS Construction Projects				
Park Unit	**State**	**Project #**	**Project Title**	**Amount ($ in millions)**
Gateway National Recreation Area	NY	200704	Remove Wreckage and Restore Impacted Wetland Areas and Coastlines	2.7
Gateway National Recreation Area	NY	201019	Make NPS Required Repairs to Concession Facilities	3.7
Gateway National Recreation Area	NY	201021	Repair Canarsie Pier Visitor Center and Demolish Structures	1.2
Gateway National Recreation Area	NY	201023	Repair and Rehabilitate the Ryan Visitor Center	5.2
Gateway National Recreation Area	NY	201024	Repair North Shore Landfill Caps and Grounds at Pennsylvania Ave & Fountain Ave Landfill Sites	1.9
Gateway National Recreation Area	NY	201026	Inspect and Repair Storm Damage to Canarsie Pier and Docks	1.8
Gateway National Recreation Area	NY	201027	Repair Bathhouse Courtyard and Maintained Landscapes at Jacob Riis Park in Jamaica Bay	0.3
Gateway National Recreation Area	NY	201030	Repair Beach and Storage Shed at Frank Charles Park in Jamaica Bay	0.1
Gateway National Recreation Area	NY	201031	Repair Ranger Station and Ranger Complex Buildings at Sandy Hook	1.1
Gateway National Recreation Area	NY	201033	Repair Storm Damaged Historic Fort Tilden Buildings in Jamaica Bay	0.7
Gateway National Recreation Area	NY	201035	Repair Storm Damaged Visitor Center and Historic Barracks at Sandy Hook	1.0
Gateway National Recreation Area	NY	201037	Rehabilitate Waste Water System and Related Lift Stations at Sandy Hook	3.3
Gateway National Recreation Area	NY	201038	Repair Beach Centers, Lifeguard Stations, and Fee Buildings at Sandy Hook	0.4
Gateway National Recreation Area	NY	201044	Repair or Replace Maintenance Facilities and Equipment	1.4
Gateway National Recreation Area	NY	201049	Replace Water-Damaged Telecommunication and Radio Data Systems	1.5
Gateway National Recreation Area	NY	201051	Repair or Replace Mission Critical Seasonal Housing Barracks, Duplex, and Single Family Homes at Sandy Hook Unit	1.2
Gateway National Recreation Area	NY	201052	Repair Eleven Housing Units at Miller Field Staten Island Unit	1.0
Gateway National Recreation Area	NY	201057	Repair Roadways and Parking Lots at Sandy Hook	0.4
Gateway National Recreation Area	NY	201061	Repair 14 Housing Units and Emergency Stabilization of 17 Historic Officer Row Buildings at Sandy Hook Unit	2.2
Gateway National Recreation Area	NY	201063	Remove Debris and Repair Historic Gun Magazines at Sandy Hook	0.1
Gateway National Recreation Area	NY	201067	Repair Administrative, Maintenance, US Park Police, Equipment and Storage Buildings	1.2

Hurricane Sandy NPS Construction Projects				
Park Unit	**State**	**Project #**	**Project Title**	**Amount ($ in millions)**
Gateway National Recreation Area	NY	201069	Rehabilitate Fifteen Historic Buildings at Fort Hancock, Sandy Hook	1.3
Gateway National Recreation Area	NY	201082	Address Storm Damage at Eight Staff Housing Units at Sandy Hook	1.9
Gateway National Recreation Area	NY	201085	Replace Storm Damaged Equipment at Gateway	3.9
Gateway National Recreation Area	NY	201090	Repairs to Visitor Facilities at Great Kills Beach and Harbor Use Areas	6.6
Governors Island National Monument	NY	195023	Repair Storm Damaged Cultural Resources at Fort Jay	1.1
Governors Island National Monument	NY	200638	Replace Destroyed Exhibits	0.1
Governors Island National Monument	NY	200952	Repair Emergency Access Dock 102 and Replace Failed Boiler	0.3
Morristown National Historical Park	NJ	201083	Restore Park Assets and Equipment	0.2
Northeast Regional Office	MD, NY, NJ, VA	194998	Emergency Incident Management Response And Follow On Assessment Requirements	6.0
Northeast Regional Office	MD, NY, NJ, VA	195392	Denver Service Center Project Management Support for Hurricane Sandy Recovery Projects	11.7
Northeast Regional Office	MD, NY, NJ	195393	Long Term Recovery Support of Area-Wide Contracts, Technical, and Professional Services	11.5
Northeast Regional Office	NY, NJ	195529	Replace USPP Equipment Destroyed by the Storm	2.3
Northeast Regional Office	MD, NY, NJ	195575	Perform Specialized Natural and Cultural Resource Damage Assessments	1.0
Northeast Regional Office	MD, NY, NJ, VA	195593	Emergency Repairs, Debris Removal, and Temporary Stabilization of Multiple Park Units	35.6
Northeast Regional Office	MD, NY, NJ, VA	199992	Marine Ecosystem Monitoring and Protection at Assateague Island, Fire Island, and Gateway	2.4
Sagamore Hill National Historic Site	NY	195059	Replace Damaged Trees and Fence Components	0.1
Saint Paul's Church National Historic Site	NY	201097	Repair Storm Damage at St. Pauls Church and Cemetery	0.1

Hurricane Sandy NPS Construction Projects				
Park Unit	**State**	**Project #**	**Project Title**	**Amount ($ in millions)**
Statue of Liberty National Monument	NY	195020	Demolish 3 Houses and Rehabilitate 2 Structures for Mission Critical Support Requirements	0.6
Statue of Liberty National Monument	NY	195086	Remove Estimated 3.3 Tons of Hazardous Debris from the Main Buildings	3.1
Statue of Liberty National Monument	NY	195104	Repair Storm Damage at Liberty Island Dock, Pier and Ferry Slip	22.3
Statue of Liberty National Monument	NY	195336	Restore Concrete Foundation for Office Trailer Marina Unit for Park Police	0.1
Statue of Liberty National Monument	NY	195341	Repair Flood Damage in Basement at Concession Building #38	1.7
Statue of Liberty National Monument	NY	195342	Repair Damage to Heat, Utilities, Mechanical, and Electrical Systems at Main Immigration Building	19.2
Statue of Liberty National Monument	NY	195360	Repair Storm Damage to Liberty Island Temporary Retail Pavilion	0.2
Statue of Liberty National Monument	NY	195368	Repair Storm Damage to Heat and Utilities at Liberty Island	4.6
Statue of Liberty National Monument	NY	195544	Ellis Island Emergency and Long Term Museum Collections Protection Conservation and Storage	1.7
Statue of Liberty National Monument	NY	195550	Replace Destroyed Administrative Equipment, Furnishings and Data Systems	0.5
Statue of Liberty National Monument	NY	201065	Repair Storm Damages on Ellis Island and to the Statue Mall and Plaza	0.1
Statue of Liberty National Monument	NY	201066	Repair Sections of Brick Paved Walkway, Handrail System and Granite Seawall at Liberty Island	2.7
Statue of Liberty National Monument	NY	201068	Repair Damages to the Administrative, Maintenance and Support Buildings	3.7
Statue of Liberty National Monument	NY	201088	Replace Flood Destroyed Equipment and Security Screening Tents With Temporary Facilities at Ellis Island	9.3
Statue of Liberty National Monument	NY	201091	Replace Diesel Generators and Restore Interim Emergency Utility and Heating System	1.8
Statue of Liberty National Monument	NJ, NY	201096	Replace Equipment and Ancillary Attachments	0.8
Statue of Liberty National Monument	NJ, NY	201347	Replace Damaged Fuel Oil System With Natural Gas Main at Liberty Island	3.1
Biscayne National Park	FL	194814	Repair Storm Damaged Elliott Key Piers	0.4
Biscayne National Park	FL	201498	Repair Storm Damaged Boardwalks at Elliott Key and Convey Point	0.1
Biscayne National Park	FL	195871	Conduct Site Assessment at Storm Damaged Archeological Site at Totten Key	0.1
Biscayne National Park	FL	195875	Perfom Site Assessment and Recover Artifacts at Storm Impacted "HMS Fowey" Shipwreck	0.4
Biscayne National Park	FL	195882	Repair Storm Damage to Black Point Jetty	0.1
Cape Hatteras National Seashore	NC	181898	Repair Storm Damage to Culvert Headwall on Access to "Off Island" Fishing Area	0.1

Hurricane Sandy NPS Construction Projects				
Park Unit	**State**	**Project #**	**Project Title**	**Amount ($ in millions)**
Cape Hatteras National Seashore	NC	181906	Rebuild Storm Damaged Fence at Ocracoke Island	0.1
Cape Hatteras National Seashore	NC	181910	Repair Storm Damaged Ocracoke Silver Lake Dock	0.4
Cape Hatteras National Seashore	NC	181915	Repair Storm Damaged Docks and Bulkhead at Ocracoke Soundside Boat Ramp	0.3
Cape Hatteras National Seashore	NC	201510	Repair Storm Damaged Housing on Bodie Island	0.6
Cape Hatteras National Seashore	NC	181944	Repair Storm Damaged Salvo Day Use Parking and Comfort Stations	0.2
Cape Hatteras National Seashore	NC	181951	Repair Storm Damaged Fuel Pump and Garage Door at Bodie Island Maintenance Area	0.1
Cape Hatteras National Seashore	NC	188462	Replace Storm Damaged Oregon Inlet Day Use Boat Ramps	0.8
Cape Hatteras National Seashore	NC	194730	Repair Storm Damaged Haulover Parking, Replace Seawall and Construct Fence and Stairs	0.3
Cape Lookout National Seashore	NC	181926	Repair and Replace Storm Damaged Signs	0.1
Cape Lookout National Seashore	NC	195655	Repaint Historic Cape Lookout Lighthouse Damaged by Hurricane Katrina	0.4
Cape Lookout National Seashore	NC	195841	Respond to Emergency Storm Damage	0.1
Cape Lookout National Seashore	NC	195843	Assess Storm Impacts on Archeological Sites	0.1
Cape Lookout National Seashore	NC	196040	Repair and Protect Storm Damaged Harkers Island Shoreline	0.9
Cape Lookout National Seashore	NC	196043	Repair/Replace Storm Damaged Haulover Dock at Portsmouth Village	0.2
Cape Lookout National Seashore	NC	196057	Remove Storm-Related Hazardous Debris from Affected Seashores	0.4
Cape Lookout National Seashore	NC	196071	Repair Storm Damaged Historic Structures at Portsmouth Village	1.1
Canaveral National Seashore	FL	195654	Repair Storm Damaged Accessible Boardwalks at Playalinda Beach	0.1
Dry Tortugas National Park	FL	201466	Stabilize Storm Damaged Loggerhead Light Station Boat House	0.1
Antietem National Battlefield	MD	201413	Repair Storm Damaged Trail System	0.1
Antietem National Battlefield	MD	195653	Replace Storm Damaged Historic Cunningham House Roof	0.1
Catoctin Mountain Park	MD	201404	Repair Storm Damaged Water Wastewater at Camp Greentop	0.1
Chesapeake and Ohio Canal National Historical Park	MD	195771	Remove Silt\Debris from Culverts, Waste Weirs, and Aqueducts	0.3

Hurricane Sandy NPS Construction Projects				
Park Unit	**State**	**Project #**	**Project Title**	**Amount ($ in millions)**
George Washington Memorial Parkway	VA	195757	Replace and Repair Damage to Arlington House Roof System, Plaster Ceiling, and Historic Frescos	0.3
George Washington Memorial Parkway	VA	201411	Replace Storm Damaged Trees and Remove Tree Stumps	0.1
Monocacy National Battlefield	MD	195831	Remove and Replace Storm Damaged Trees at Gambrill Tract	0.1
Monocacy National Battlefield	MD	195836	Repair Destroyed Rail Fence at Gambrill Tract	0.1
National Mall	DC	201419	Repair Storm Damaged Trees and Landscaping	0.1
National Capital Regional Office	DC	201409	Eliminate Flooding Risk at Hains Point Facilities	5.6
Prince William Forest Park	VA	195759	Remove Storm Damaged Trees and Debris	0.1
Rock Creek Park	VA	195767	Repair Grove #24 Recreational Surface and Equipment	0.1
Rock Creek Park	VA	201412	Repair Storm Damaged Park Police Stables and Carter Barron Amphitheatre	0.2
Rock Creek Park	VA	201417	Remove Hazardous Storm Damaged Trees	0.1
			Total	**348.0**
			Sequester Amount	**18.2**
			Total After Sequester*	**329.8**

*Note: Funding levels for projects will be refined as planning and design gets underway and the sequestration reductions are applied.

Hurricane Sandy Disaster Relief Supplemental Appropriations Spending Plan
National Park Service (Historic Preservation)

The National Park Service will allocate $50 million (pre-sequester) for the preservation of historic resources damaged by Hurricane Sandy that are listed in or eligible for listing in the National Register of Historic Places, and are located in States that have received a major disaster declaration pursuant to the Stafford Act.

The basis for NPS allocation of historic preservation funds is based on the designations by FEMA as follows:

- FEMA issued major disaster declarations in twelve States and the District of Columbia after Hurricane Sandy.
- Within those States receiving major disaster declarations, FEMA further designated individual counties as eligible to receive Individual Assistance and/or Public Assistance. In counties that FEMA declared eligible for Individual Assistance, FEMA will provide direct assistance to individuals and households. In counties that FEMA declared eligible to receive Public Assistance, FEMA will provide direct assistance to State and local governments and certain private nonprofit organizations for emergency work and the repair or replacement of disaster-damaged facilities.
- Among the twelve States and DC that received major disaster declarations, there were only four States in which FEMA made both Individual Assistance and Public Assistance available. These States are Connecticut, New Jersey, New York, and Rhode Island.
- The remaining eight States and the District of Columbia are eligible for only Public Assistance.
- The NPS interprets this as indication from FEMA the four States eligible for both Individual and Public Assistance received the most widespread and significant damage from Hurricane Sandy.

The NPS will allocate the appropriation in two groups.

Group 1: The allocations of States in Group 1 total $40 million. Funds will be apportioned to the four States containing counties that FEMA designated as eligible to receive both Individual and Public Assistance – Connecticut, New Jersey, New York, and Rhode Island. State Historic Preservation Offices in Connecticut, New Jersey, New York, and Rhode Island, have not yet completed damage assessments to historic properties and there is no single best method of determining need. Each of the four States will be assigned a base amount of $1 million. The remaining funds will be distributed using three evaluation factors, each having equal weight:

- population of counties eligible for both individual assistance and public assistance;
- land area of counties eligible for both individual assistance and public assistance; and,
- number of properties listed in the National Register of Historic Places in counties eligible for both individual assistance and public assistance.

This would allot approximately the following amounts:

- Connecticut – approximately $5 million;
- New Jersey – approximately $16 million;
- New York – approximately $16 million; and
- Rhode Island – approximately $3 million.

More specific numbers will available once NPS gathers final statistics for each of the 3 evaluation factors.

Group 2: Group 2 funds of $10 million and will be awarded to the remaining eight States and the District of Columbia, through an application process and based on need as described in proposals submitted by the States to the NPS.

Administration: The NPS will use $500,000 to administer the program during Fiscal Years 2013-2015.

Hurricane Sandy NPS National Historic Preservation Fund			
Unit Name	**Project #**	**Project Title**	**Amount ($ in millions)**
N/A	TBD	Connecticut - Historic Preservation Fund	5.0
N/A	TBD	New Jersey - Historic Preservation Fund	16.0
N/A	TBD	New York - Historic Preservation Fund	16.0
N/A	TBD	Rhode Island - Historic Preservation Fund	3.0
N/A	TBD	Remaining 8 States and District of Columbia	10.0
		Total	**50.0**
		Sequester Amount	**2.5**
		Total After Sequester*	**47.5**

*Note: Funding levels for projects will be refined as planning and design gets underway and the sequestration reductions are applied.

Hurricane Sandy Disaster Relief Supplemental Appropriations Spending Plan
Office of the Secretary

The Office of the Secretary will allocate $360 million to Department of the Interior bureaus and offices for Hurricane Sandy mitigation projects. These projects will address requirements of the Disaster Relief Appropriations Act of 2013, including two specific goals:

- restore and rebuild national parks, national wildlife refuges, and other Federal public assets; and
- increase the resiliency and capacity of coastal habitat and infrastructure to withstand storms and reduce the amount of damage caused by such storms. [i]

Funds can be used for direct spending by bureaus and offices or for grants or cooperative agreements with States, Tribes, and municipalities to carry out these purposes. The public law prohibits the use of funds for land acquisition.

Recognizing the need to implement a coordinated strategy that will maximize outcomes for the twin goals to restore and rebuild Federal public assets, while increasing the resiliency of coastal habitat and infrastructure, the Department of the Interior will implement a phased-allocation approach. Mitigation funds will be allocated in an initial phase for projects focused on developing the data and capacity for investments in improved coastal habitat resiliency and capacity. While work is underway on the first tranche of projects, initial planning will be conducted, guiding the development of a leveraged strategy for coastal resiliency and capacity that incorporate partners, leveraging of Federal investments, and a competitive process to ensure the highest priority projects are completed.

Phase One – Investments to Address Gaps in Response and Preparedness Capabilities and To Provide Baseline Information for Investment Decisions: $30.5 Million

As a first step, the Department identified investments for the U.S. Geological Survey and Bureau of Ocean Energy Management needed immediately to address critical gaps in response and preparedness capabilities and to provide baseline information for investment decisions. These projects address needs of Interior agencies to restore and protect trust lands and species, and the needs of Federal, State and local governments to restore and protect communities. In many cases, stakeholders requested these services specifically. These projects fit within the defined uses of the mitigation funds and have been unanimously supported by bureaus and offices within the Department of the Interior.

U.S. Geological Survey: The Office of the Secretary will allocate to the U.S. Geological Survey $18.8 million support recovery and restoration, and redevelopment efforts focused on establishing resilient coastal communities and ecosystems. Specific projects include:

- Providing updated information on post-storm topography and bathymetry for hurricane impact assessments and response support.
- Updating coastal vulnerability forecasts considering the coastal changes caused by Hurricane Sandy and alternative restoration alternatives.
- Providing real-time data on storm water levels to support model predictions of the surge of high water levels during storms and the impacts they have on coastal bays and estuaries.
- Identifying human and ecological exposure risks from chemical and microbial contaminants.

"*The coastal impact assessment products provided by the USGS have been a critical resource for us on the Federal team to help identify and prioritize impact-related data collection, issue identification and resource evaluation*" – Sandy Eslinger, NOAA's Coastal Coordinator for the Inter-agency Natural and Cultural Resources Recovery Team in New York.

- Providing maps and models regarding storm impacts to coastal ecosystems, habitats, and fish and wildlife, particularly on DOI lands.

Bureau of Ocean Energy Management: The Office of the Secretary will allocate to the Bureau of Ocean Energy Management $11.7 million. As a result of Hurricane Sandy, States have sustained coastal damage and have an urgent need for sand resources to restore the coastline, conduct restoration projects, and provide for future resiliency. The BOEM projects involve data collection and resource identification, environmental assessment, environmental monitoring, and stakeholder support and outreach to be responsive to the need for sand resources for projects in New Jersey, New York, Florida, North Carolina, Virginia, Maryland, and Delaware.

Phase Two – Implementation of an Integrated Mitigation Strategy

Interior approached the task of developing mitigation projects strategically, viewing this as an opportunity to achieve greater return on investment for Federal funds by taking full advantage of existing science and regional planning tools for coastal resiliency, and by leveraging funds across bureaus and with partners. Interior's focus on science and landscape planning for natural resource challenges will yield greater outcomes and better return on investment.

Bureaus and offices were asked to develop projects for consideration, prioritization and approval that support one or more of the five National Disaster Recovery Framework - Recovery Support Functions:

- Infrastructure Systems,
- Housing,
- Economic Development,
- Community Planning and Capacity Building, and
- Natural and Cultural Resources.

Projects were submitted by the Bureau of Indian Affairs, Bureau of Safety and Environmental Enforcement, Fish and Wildlife Service, National Park Service, Office of the Secretary's Office of Environmental Compliance, and the U.S. Geological Survey. Examples of projects under review include: shoreline and seawall protection including vulnerability assessments; watershed assessments; coastal habitat restoration; aquatic connectivity restoration; breach management plans; repair and construction; storm surge planning, monitoring and data analysis; coastal wetland assessments, topographic and bathymetric data compilation and analysis; restoration of coastal marshes; decision support tool development and modeling; ecological health risk assessments; restoration of native vegetation; estuarine assessments; submerged marine habitat mapping; and tribal all hazards needs assessments, evaluations and planning programs.

Bureaus and offices nominated representatives to a Technical Team, which performed an initial evaluation of project proposals. In order to provide a broad base of understanding and the appropriate context for decision making, the Technical Team was briefed by several partners on existing regional planning efforts, collaboration, decision tools, and coastal landscape conservation strategies, and met with bureau and office staff that submitted projects for funding. Through the work of the Technical Team, high-priority science, tribal mitigation, DOI asset restoration, and coastal resiliency and capacity projects have been identified. Work to align Interior's mitigation efforts with other Federal agencies and with States, cities, communities and partners continues at multiple levels, through the Hurricane Sandy Task Force led by Secretary Donovan, at the regional level, and at the local level.

Priority was given to projects that:

- Benefit multiple bureaus and leverage partner funding and include youth and veterans hiring.
- Evidence collaboration and planning with States, municipalities, local communities, and non-governmental organizations.
- Demonstrate engagement with and support for other Federal efforts that support the Recovery Support Functions.
- Demonstrate improved sustainability, energy efficiency, and long term management needs of the asset.
- Consider vulnerability to climate change impacts, based on key climate information and future projections, and create greater resilience to future extreme weather events and changes in natural processes.
- Support improved and climate-resilient Wildlife habitat and ecosystem functions.
- Result in the preservation, protection, and conservation of cultural resources.

An Executive Council, comprised of senior leaders in the Department including the Deputy Secretary and Assistant Secretaries is providing oversight for the Hurricane Sandy effort including leadership for the mitigation strategy. In finalizing the initial allocation, the Executive Council is considering the priorities as communicated by the Hurricane Sandy Task Force established under Executive Order of the President and led by Secretary Donovan. The Task Force has established government-wide priorities, including four that encompass the Department of the Interior's responsibilities:

- Resilience: Interior plays a significant role in the restoration of coastal natural systems such as wetlands and barrier dunes.
- Critical Infrastructure: For Interior this would be defined as water treatment, wastewater, emergency response, power supply, and security systems. This would consider some types of "green infrastructure" as critical, such as a dune line that directly protects a community.
- Economic Revitalization: Many of the coastal communities impacted by Hurricane Sandy rely on tourism and many Interior assets are contributors to tourism, so beach access and facilities would be included here.
- Data Sharing: USGS and other agencies are significant contributors to the understanding of the impacts and vulnerability of our coastal environments, with activities such as research, mapping and modeling of sea level rise.

The Executive Council will also consider the implications of the new FEMA Advisory Base Flood Elevation (ABFE) maps that were recently issued to the public for the Hurricane Sandy areas. Though the ABFE maps, which define the 100 year flood plain, do not yet have legal enforceability, the Department has made the determination that we will apply the new map data to recovery and mitigation implementation. For all projects, construction must account for ABFE plus one foot. For critical infrastructure, such as a power supply or water treatment operations, there is a strong recommendation from the Task Force for application of ABFE plus two feet. In the event elevation is not possible, steps should be taken to reduce flood risk such as moving or sealing boilers and utilities.

Development of a Comprehensive Strategy: Interior is developing a comprehensive strategy for allocating the remaining $311.4 million of supplemental funding. The Sandy affected region is home to world class academic institutions, long-standing, respected State and local organizations, and regional partnerships with significant experience and expertise in coast science, resource management, restoration and risk reduction. Led by the National Fish and Wildlife Foundation, the Collaborative for Innovative Leadership (a unit of the National Park Service), the Hurricane Sandy Strategic Science Team,

and with guidance from the Executive Council, a comprehensive strategy will be developed that defines the key goals and outcomes to be achieved.

Guided by the strategy, Interior will allocate funds to restore and rebuild Federal public assets and increase the resiliency of coastal habitat and infrastructure. The Department will conduct a grant competition and allocate a portion of the mitigation funds to high-priority Federal, State, tribal, and local coastal resiliency projects, supported by our partners. The desired outcomes identified in the strategy will serve as the foundation for the grant evaluation criteria. In addition, the criteria will consider the degree to which other non-Federal funding sources will be leveraged, as well as coordination with other Federal Sandy efforts. The criteria will also consider Congressional intent that Sandy funding should be expeditiously expended. Priority will be given to those projects or group of projects that provide the highest return in investment as measured by the outcomes defined in the comprehensive strategy.

Office of the Secretary Hurricane Sandy Mitigation Summary	
Project Types	**$ in Millions**
U.S. Geological Survey – Immediate Mitigation Projects Monitoring, Mapping, Modeling, Assessments, Forecasts	18,825,000
Bureau of Ocean Energy Management – Immediate Mitigation Projects Data Collection, Environmental Monitoring & Assessments, Outreach	11,700,000
High Priority Science, Tribal Mitigation, Restoration and Coastal Resiliency and Capacity Projects Repair and Construction; Shoreline and Seawall Recovery; Critical Habitat Protection; Coastal Vulnerability Assessments; Tribal Mitigation; Priority Tidal Decision Support and Watershed & Ecological Assessments; Storm Surge Response, Data Collection, & Data Delivery; and Reporting and Preparation of Comprehensive Strategy and Competitive Grant Plan	311,413,396
Sequester Reduction	18,061,604
TOTAL	**360,000,000**

Hurricane Sandy Disaster Relief Supplemental Appropriations Spending Plan
Bureau of Ocean Energy Management

From the $360 million appropriated to the Office of the Secretary for mitigation, the Department will allocate to the Bureau of Ocean Energy Management $11.7 million for immediate mitigation needs related to Hurricane Sandy. As a result of Hurricane Sandy, States have sustained coastal damage and have an urgent need for sand resources to restore the coastline, conduct restoration projects, and provide for future resiliency. The BOEM projects involve data collection and resource identification for New Jersey, New York, Florida, North Carolina, Virginia, Maryland, and Delaware; environmental assessment; environmental monitoring; and stakeholder support and outreach.

Priorities Moving Forward

BOEM is continuing to work with Federal agencies to determine how to share data, foster inter-agency communication and collaboration, and quickly initiate these tasks in a manner that bolsters timeliness, flexibility, and financial responsibility. BOEM will work with Federal and State partners to establish cooperative agreements and/or competitive procurements to accomplish task goals. Cooperative agreements have historically and successfully been used to complete resource evaluations by conducting joint sand identification and delineation surveys with coastal States and universities.

Project Examples by Type

Data Collection and Resource Identification: The allocation of $8.6 million will be used to conduct geophysical surveys to identify and delineate Outer Continental Shelf sand resources, geological surveys to determine grain size and suitability for coastal restoration projects, and geophysical cultural surveys to survey for munitions and objects of archaeological significance. Sand is required for restoration activities to mitigate Hurricane Sandy impacts on beaches, communities, and State and Federal land. Without adequate sand resources, this restoration cannot be accomplished. Numerous NPS and FWS projects also require sand for rebuilding.

Environmental Assessment: The allocation of $751,000 will be used to conduct environmental impact analyses and agency consultations and address additional information needs. In compliance with the National Environmental Policy Act and other environmental requirements, environmental reviews need to be conducted prior to initiating data collection and coastal restoration projects. Environmental review, preparation of environmental impact statements or environmental assessments, and agency consultations will determine potential impacts and define minimization and mitigation measures to reduce or avoid impacts.

Environmental Monitoring: The allocation includes $2.0 million to conduct environmental monitoring to obtain data to assess biological and physical impacts of dredging for sand resources used in coastal restoration efforts. The environmental effects of large-scale dredging on biological and physical systems need to be documented to ensure proper management of the Nation's natural resources. Given the preliminary findings of regional storm damage assessments, it is likely that larger-than-usual protective dune systems and beach width/alongshore templates will be constructed post-disaster. Larger design templates necessitate greater sand volumes and construction windows. Under such circumstances, there is the potential for different and/or more persistent environmental effects.

Therefore, a suite of geophysical and biological surveys would be designed and conducted before, during, and after dredging activities, including: reprocessing existing geotechnical and geophysical data, conducting geophysical and biological surveys, performing biological sampling, conducting laboratory and data analyses, supporting vessels and laboratories, performing geospatial and geostatistical data analyses, and preparing a report on the findings. BOEM would also replicate sampling in close proximity to control sites with similar biophysical characteristics.

Stakeholder Support and Outreach: The allocation includes $349,000 to perform stakeholder support and outreach. Stakeholder support and outreach is necessary to coordinate and collaborate with Federal and State agencies, municipalities, and localities to ensure appropriate project prioritization, timing, methods, legal requirements, and safety measures. In addition, communication with communities helps refine project needs, challenges, solutions, and provides information regarding initiation/completion of Hurricane Sandy rebuilding and resiliency projects. Stakeholder outreach and communication can instill renewed appreciation in government efforts by protecting and sustaining communities.

Hurricane Sandy BOEM Mitigation Projects				
Unit Name	**States**	**Project #**	**Project Title**	**Amount** ($ in millions)
OCS NJ, NY, VA, and FL	NJ, NY, VA, FL	TBD	Environmental Monitoring	2.000
OCS Offshore NJ, NY, FL, NC, VA, MD, and DE	NJ, NY, FL, NC, VA, MD, DE	TBD	Data Collection	8.595
OCS Offshore NJ, NY, FL, NC, VA, MD, and DE	NJ, NY, FL, NC, VA, MD, DE	TBD	Stakeholder Support and Outreach	0.350
OCS Offshore / Coastal NJ, NY, FL, NC, VA, MD, and DE	NY, NJ, FL, NC, VA, MD, DE	TBD	Environmental Assessments	0.751
			Total	**11.7**

Hurricane Sandy Disaster Relief Supplemental Appropriations Spending Plan
United States Geological Survey

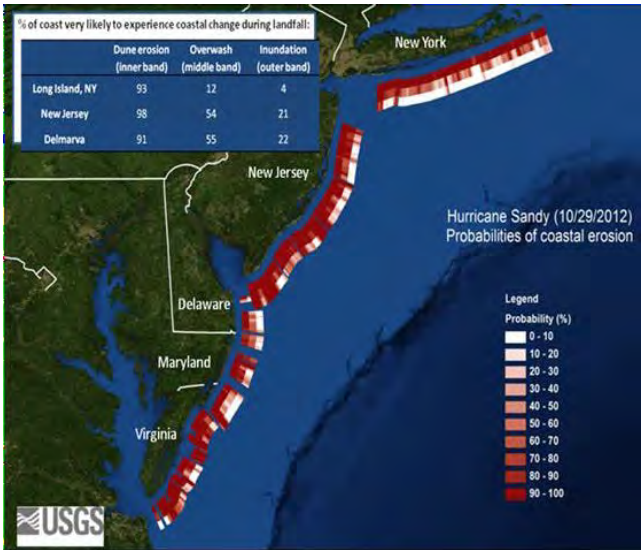
The Hurricane Sandy appropriation to the Department of the Interior Office of the Secretary totaled $360 million (prior to sequester). From the amount appropriated for mitigation, the Department will allocate $18.8 million to the U.S. Geological Survey for immediate mitigation activities related to Hurricane Sandy. The USGS projects represent investments that are needed to address critical gaps in response and preparedness capabilities and to provide baseline information for investment decisions. These programs support the two goals of the mitigation funds:

- Restore and rebuild national parks, national wildlife refuges, and other Federal public assets; and
- Increase the resiliency and capacity of coastal habitat and infrastructure to withstand storms and reduce the amount of damage caused by such storms.

The USGS projects address needs of Interior agencies to restore and protect trust lands and species, and of Federal, State and local governments to restore and protect communities. In many cases, stakeholders requested these services specifically from the USGS because of existing relationships and ongoing projects, including priority impacted estuaries like Barnegat Bay, NJ, and Great South Bay, NY.

Pre-storm and Immediate Response Activities

Immediately prior to Hurricane Sandy, the USGS deployed sensors from prepositioned staging areas to measure rising storm surge levels, conducted airborne LiDAR to measure pre-storm coastal topography and bathymetry, and forecast probability of coastal impacts to assist preparedness of first responders. A USGS forecast tool predicted the likelihood of impacts to beaches and dunes using predicted storm-induced water levels and known coastal elevations to forecast three severities of coastal change, such as erosion and overwash.



Forecast of the probability of coastal impacts (erosion, overwash, and inundation) due to Hurricane Sandy from the mouth of Chesapeake Bay to Long Island, NY.

During the storm, USGS real-time monitors were reporting coastal river levels and water quality on the Internet. Immediately following the storm, USGS scientists compiled more than 830 high water marks and data from more than 140 storm-surge sensors to map peak storm tide—information used to direct responders and early recovery efforts and to improve storm surge models. The USGS also conducted airborne LiDAR surveys to quantify storm-induced changes in coastal barrier topography and near-shore bathymetry, moving quickly to quantify impacts before the bulldozers moved in to begin rebuilding.

"*The coastal impact assessment products provided by the USGS have been a critical resource for us on the Federal team to help identify and prioritize impact-related data collection, issue identification and resource evaluation*" – Sandy Eslinger, NOAA's Coastal Coordinator for the Inter-agency Natural and Cultural Resources Recovery Team in New York.

Priorities Moving Forward

The USGS will implement $18.8 million in projects to assist recovery and restoration, and redevelopment efforts focused on establishing resilient coastal communities and ecosystems. The projects are focused on addressing the following needs:

- Providing updated information on post-storm topography and bathymetry for hurricane impact assessments and response support.
- Updating coastal vulnerability forecasts considering the coastal changes caused by Hurricane Sandy and alternative restoration alternatives.
- Providing real-time data on storm water levels to support model predictions of the surge of high water levels during storms and the impacts they have on coastal bays and estuaries.
- Identifying human and ecological exposure risks from chemical and microbial contaminants.
- Providing maps and models regarding storm impacts to coastal ecosystems, habitats, and fish and wildlife, particularly on DOI lands.

The USGS implementation strategy for these projects entails an integrated multidisciplinary approach that already has been coordinated across USGS Mission Areas and with key stakeholders. An emphasis is also placed on investments to make it easier for decisionmakers and the public to access and apply data, models and tools to everyday needs. These investments will also aid in longer term science and decisions regarding climate adaption and resilience.

The proposed projects will position USGS science to help answer questions such as: What locations along the coast are forecasted to be the most vulnerable to future hurricanes? Are there chemical and microbial contaminant impacts? How have the high-water levels during storms impacted coastal bays and estuaries? What were the storm impacts to ecosystems, habitats, fish and wildlife?

Answering these critical questions is central to ensuring coastal communities have the information they need to plan for a sustainable future. “USGS science has been instrumental in helping communities use zoning and building standards to mitigate earthquake losses and in the prediction of volcanic activity to keep people and property out of harm’s way,” said former Director of the U.S. Geological Survey, Marcia McNutt. “I have every reason to expect that a focus on science related to hurricanes will have a similar return on investment.”

USGS Budget for Hurricane Sandy Mitigation Projects	
Themes and Projects	**$**
Support for DOI Strategic Sciences Group (SSG)	**300,000**
Theme 1: Coastal topography and bathymetry: hurricane impact assessment & response support	**4,300,000**
Establish a Sandy Region Coastal National Elevation Database (CoNED)	550,000
Topographic surveys (LiDAR) for impact area assessment and reconstruction	3,100,000
Delivery Systems for Hazards, Topographic and Bathymetric Elevation Data	650,000
Theme 2: Impacts to coastal beaches and barriers	**4,775,000**
Coastal Mapping Products & Impact Assessments: Pre- and post-storm mapping of coastal impacts and vulnerability	2,075,000
Impacts to and Vulnerability of Coastal Beaches: Develop coastal impact forecast models	1,950,000
Coastal Hazards Information and Decision Support Portal: Provide web-access and delivery of coastal impact assessments and data	750,000
Theme 3: Impacts of storm surge, including disturbed estuarine and bay hydrology	**3,750,000**
Storm Surge Response, Data Collection, and Data Delivery:	2,350,000
Storm Tide Monitoring Networks and Data Analysis:	1,400,000
Theme 4: Impacts on environmental quality, including exposure to chemical and microbial contaminants	**2,700,000**
Ecological Contaminant Exposures	1,700,000
Human Contaminant Exposures	1,000,000
Theme 5: Impacts to coastal ecosystems, habitats, and fish & wildlife, particularly for DOI lands and trust resources	**3,000,000**
Assess storm impact to wetland integrity and stability to assist recovery decisions	1,205,000
Assess storm impact to waterfowl and migratory birds to support conservation	730,000
Assess coast-wide storm impacts to forest habitats in coastal parks and refuges	365,000
Develop data-driven models and ecological monitoring networks to support recovery and resilience	700,000
Total, USGS Mitigation Projects	**18,825,000**

Hurricane Sandy USGS Mitigation Projects				
Unit Name	**States**	**Project #**	**Project Title**	**Amount ($ in millions)**
N/A	NJ, NY, CT, DE	IN-0	Scenario Development to Inform Restoration and Recovery of Coupled Human - Natural Systems	0.300
N/A	NC, VA, MD, DE, NJ, NY, CT, RI, MA	IN-1a	Establish a Sandy Region Coastal National Elevation Dataset (CoNED)	0.550
N/A	NY, NJ, MA, MD, DE, VA, NC, RI, CT	IN-1b	Topographic Surveys (LiDAR) for Impact Area Assessment and Reconstruction	3.100
N/A	NY, NJ, MA, MD, DE, VA, NC, RI, CT	IN-1c	Delivery Systems for Hazard, Topographic and Bathymetric Elevation Data	0.650
N/A	NC, VA, MD, DE, NJ, NY, CT, RI, MA	IN-2a	Coastal Mapping Products and Impact	2.075
N/A	NC, VA, MD, DE, NJ, NY, RI, MA	IN-2b	Impacts to and Vulnerability of Coastal Beaches	1.950
N/A	NC, VA, MD, DE, NJ, NY, RI, MA	IN-2c	Coastal Hazards Information and Decision - Support Portal	0.750
N/A	NC, VA, MD, DE, NJ, NY, CT, RI, MA	IN-3a	Storm Surge Response, Data Collection, and Data Delivery	2.350
N/A	NC, VA, MD, DE, NJ, NY, CT, RI, MA	IN-3b	Storm Tide Monitoring Networks and Data Analysis	1.400
N/A	NY, NJ	IN-4a	Ecological Contaminant Exposures	1.700
N/A	NY, NJ	IN-4b	Human Contaminant Exposures	1.000
N/A	MA, RI, CT, NY, NJ, DE, MD, VA, NC	IN-5a	Assess Storm Impact to Wetland Integrity and Stability to Support Recovery Decisions	1.205
N/A	MA, RI, CT, NY, NJ, DE, MD, VA, NC	IN-5b	Assess Storm Impact to Waterfowl and Migratory Birds to Support Conservation	0.730
N/A	ME, NH, MA, NY, NJ, DE, MD, VA, NC, SC, GA, FL	IN-5c	Assess Coast-wide Storm Impacts to Coastal Forests	0.365
N/A	MA, RI, CT, NY, NJ, DE, MD, VA	IN-5d	Develop Data-Driven Models and Monitoring Networks	0.700
				18.825

[i] Title X, Chapter 7, of the Disaster Relief Appropriations Act of 2013, P.L. 113-2