

F1

Lifeline Network Implementation

Move utility lines underground, resilient street lights, and signage on key streets

Project Information

The Lifeline Network would include a number of improvements along critical access routes within the community. This includes the following initiatives:

Utility Lines: Bury utility lines in conjunction with roadway improvements. Existing street lights installed on utility poles should be replaced with solar powered street lights with integrated batteries.

Signage: Additional signage should direct residents to Lifeline Resource Centers (libraries and recreation centers).

Tree Maintenance and Guidelines: On arterials where power lines have not yet been relocated underground, prioritize these roads for regular tree trimming and remove larger, older trees if necessary. Create guidelines to encourage most resilient street tree types.



Key Facts

- Project Type: Planning and Additional Study
- Recovery Function: Infrastructure
- Project Location/Municipality: Priority roads in Bellmore and Merrick
- Primary Target Area Affected: Bellmore and Merrick
- Consistency with NYRCR: Increase resiliency of key assets
- Potential Beneficiaries: Bellmore and Merrick residents, businesses and first responders



F2

Local Flood Diversion and Control

Divert flood waters into designated catchment areas

Project Information

This project is based on the implementation of measures recommended in South Shore Stormwater System Modeling and Analysis project, which would document the condition of local stormwater infrastructure and determine where improvements could be made.

The project includes the strategic location of structural and natural drainage features to divert flood waters into designated catchment areas. These catchment areas would hold stormwater runoff and allow it to slowly filter into the ground, instead of overwhelming storm sewers.

An identified priority area is the corridor just south of Merrick Road, where flooding during Sandy cut off residents living in the peninsulas.

Key Facts

- Project Type: Water Control Facilities
- Recovery Function: Infrastructure
- Project Location/Municipality: Bellmore and Merrick
- Primary Target Area Affected: Drainage systems south of Merrick Road
- Consistency with NYRCR: Address short, medium, and long-term risks
- Potential Beneficiaries: Bellmore and Merrick residents and businesses



F3

Wetlands Restoration Demonstration Project

Initiate a demonstration project to rehabilitate wetlands damaged by recent storms

Project Information

Repair damage to wetlands in Bellmore and Merrick, such as Norman Levy Preserve or other locations that were affected by Superstorm Sandy or other recent storms.



Key Facts

- Project Type: Planning and Additional Study
- Recovery Function: Infrastructure
- Project Location/Municipality: Norman Levy Preserve
- Primary Target Area Affected: Wetland areas in Bellmore and Merrick
- Consistency with NYRCR: Increase resiliency of key assets
- Potential Beneficiaries: Bellmore and Merrick residents, businesses and visitors

F4

Meadowbrook Corridor Improvements Pilot Study

Implement green infrastructure strategies around the Meadowbrook Corridor area

Project Information

The Meadowbrook Corridor is a large tributary system running from Westbury to South Shore Estuaries (Freeport Creek and Merrick Bay). The corridor is divided by the Meadowbrook Parkway elevated roadway system. There are over 200 stormwater outfalls that drain into the Meadowbrook Corridor and sensitive wetlands downstream.

This project would include a number of initiatives such as a Regenerative Storm Conveyance Retrofit (for five outfalls between Washington Ave and Grand Ave) to reconstruct five stormwater outfalls currently entering the creek between Babylon Turnpike and Camp Avenue to improve the water quality, aquatic habitat, aesthetics and stability of the Meadowbrook.

Another initiative, creek restoration, entails reconnecting the creek with the natural floodplain using a wetland seepage regime to reduce wet-weather velocities, prevent further erosion and improve flood plain wetland area.

A floating wetland pilot sited at East Meadow Pond could explore the use of a modular floating wetlands system to remove excess nutrients from urban stormwater runoff.

Key Facts

- Project Type: Planning and Additional Study
- Recovery Function: Infrastructure
- Project Location/Municipality: Meadowbrook Corridor
- Primary Target Area Affected: Meadowbrook Corridor
- Consistency with NYRCR: Increase resiliency of key assets
- Potential Beneficiaries: Bellmore and Merrick residents, businesses and visitors



F5

Local Alternative Power Generation and Distribution

Support distributed generation in local business districts to provide backup power and reduce grid demand

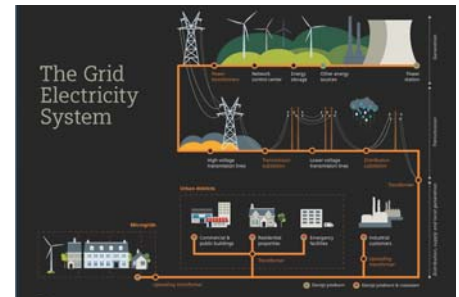
Project Information

Develop a locally-centralized system of alternative power to be used in business districts to continue to provide essential goods and services during crises. This should be coupled with incentives to support decentralization and diversification of power generation and supply and the development of self-sufficient areas with backup electricity generation capacity (i.e. small-scale energy generation and energy storage technologies, such as solar photovoltaics and cogeneration plants) to provide power for homes and businesses and ease the demand on the existing network.

Work with Nassau County, New York State, and LIPA/PSEG to develop utility-scale alternative transmission level power sources, and install additional switches and feeders in areas with overhead lines to provide greater grid flexibility and the ability to isolate areas where a power failure has occurred. Smart grid technologies should also be considered to manage demand and increase response times during disasters or heavy storm events

Key Facts

- Project Type: Utilities
- Recovery Function: Infrastructure
- Project Location/Municipality: Bellmore and Merrick
- Primary Target Area Affected: Bellmore and Merrick
- Consistency with NYRCR: Increase resiliency of key assets
- Potential Beneficiaries: Bellmore and Merrick residents and businesses



F6

Local Smart Grid Improvements

Implement Smart Grid technology to provide greater grid flexibility and the ability to isolate outages

Project Information

Install additional underground smart switches and automated overhead switches in areas with overhead lines to provide greater grid flexibility and the ability to isolate areas where a power failure has occurred.

Smart meters allow for rapid identification of structures experiencing power failures/interruptions, speed recovery time, and promote greater electric power distribution efficiency. Install smart meters linked to a Geographic Information System (GIS) at strategic points in the system that can determine if areas have power.

Key Facts

- Project Type: Utilities
- Recovery Function: Infrastructure
- Project Location/Municipality: Bellmore and Merrick
- Primary Target Area Affected: Bellmore and Merrick
- Consistency with NYRCR: Increase resiliency of key assets
- Potential Beneficiaries: Bellmore and Merrick residents and businesses

F7

Community Resource Center Backup Electricity Generation

Install solar photovoltaic systems with backup battery storage at Community Resource Centers

Project Information

Provide on-site generation capacity at critical facilities to enable continuation of services through grid failure. Locations chosen because they are near potential Lifeline Network and are on higher elevations.

Install hybrid conventional fuel/PV generators with fuel supply and battery capacity to meet critical function loads for at least 96 hours, and tested regularly to ensure operational ability. The PV system serves as the primary source of energy and the conventional fuel generator operates when the PV system is unable to meet the recharging demand from the batteries.

Solar panels would be installed on roofs; batteries would ideally be installed in building interior. As a co-benefit, solar panels would reduce energy costs on an ongoing basis for facilities where they were installed.

Key Facts

- Project Type: Public Buildings
- Recovery Function: Infrastructure
- Project Location/Municipality: Chatterton School, Merrick Library, Bellmore Library, Birch Elementary, JFK High School
- Primary Target Area Affected: Bellmore and Merrick
- Consistency with NYRCR: Increase resiliency of key assets
- Potential Beneficiaries: Bellmore and Merrick residents, facility owners



F8

Home Heating Upgrades

Create an incentive program and establish requirements to mitigate damage from fuel oil tanks in flood risk areas

Project Information

Convert home heating to electric heat pumps, solar thermal or natural gas in extreme and high risk areas. To prevent damage from fuel oil tanks during storm events, amend building and planning regulations to phase out the use of oil fuel tanks south of Merrick Road. During Sandy, home heating oil tanks were torn from their bases and became floating hazards, and spilling of heating oil led to environmental damage and permanent damage to homes and businesses.

This project will develop policy recommendations and an incentive program to convert home heating oil to natural gas in extreme and high risk areas. It would include temporary/intermediary regulations to require proper anchoring requirements based on anticipated inundation levels for risk areas will be incorporated. A deadline for all structures south of Merrick Road to convert to Natural Gas or an alternative heat and hot water supply would be established to ensure that homeowners are in compliance. A homeowner incentive could potentially be incorporated for early adopters, and eventually a tax/levy to penalize late application.

Key Facts

- Project Type: Legislative/Policy
- Recovery Function: Housing
- Project Location/Municipality: Residential properties with fuel oil tanks south of Merrick Road
- Primary Target Area Affected: Properties south of Merrick Road
- Consistency with NYRCR: Protect vulnerable populations
- Potential Beneficiaries: Bellmore and Merrick residents and businesses south of Merrick Road



Project Information

Undertake a planning study and make recommendations to revise Town of Hempstead zoning, planning and building code regulations for resilient design. This would include a 'best-practice' analysis of recently produced documents in the NYC metro area and other cities with similar issues.

The planning study would be used to adapt and formulate strategies and amendments for local application based on best practices and community input.

Key Facts

- Project Type: Legislative/Policy
- Recovery Function: Community Planning and Capacity Building
- Project Location/Municipality: Bellmore and Merrick
- Primary Target Area Affected: Bellmore and Merrick
- Consistency with NYRCR: Address short, medium, and long-term risks
- Potential Beneficiaries: Bellmore and Merrick residents and businesses

