Major Components

The HLSP Project has 4 main areas of focus. Each of these areas is a critical inter-reliant element of the overall resiliency in and around the park and throughout the entire Living with The Bay project.

- Dams, Gate House and Bridges
- Ponds – Northwest and Northeast Ponds
- Greenway, Gateways and Waterfront Access & Improvements
- Environmental Education Center

*For every dollar the federal government spends on flood mitigation, it saves an average of $3 to $4 in disaster relief after the next devastating storm*
HLSP - Restoration of Northeast and Northwest Ponds
Challenges

- Unregulated flow into Hempstead Lake and the Mill river Watershed
- Reduced water storage capacity
- Oil and pollutants in the first flush
- Limited opportunity for water filtration
- Floatables into the ponds, Hempstead Lake and downstream
- Siltation of the ponds
- Increase in water velocity due to sediment loads
- Limited access to ponds
Opportunities & Improvements

- Enhanced stormwater management capabilities
- Mitigate against unrestricted flows
- Collect floatables and debris at park entrance points
- Flow control to better absorb “first flush” runoff
- Improve water filtration and ecological enhancement through wetland development
- Trap soils from runoff in sediment basins prior to entering wetlands & ponds
- Stabilize shorelines to reduce erosion and bank collapse
- Incorporate operationally sustainable design components
Opportunities & Improvements

- Interconnect the enhancements to improve storm resiliency and ecological habitats
- Increased stormwater mitigation
- Improved water quality of storm runoff downstream
- Reduced accumulation of surface debris
- Restoration of ecosystems and biodiversity
- Increase plant diversity and wetland habitat
- Increased opportunities for partnership development and program delivery
- Create opportunities for stormwater education
HLSP – Dam Safety and Bridges
Challenges

- Current lack of flood and water level control
- Breached NW Pond Dam
- Unrestricted flow into Hempstead lake and Mill River Watershed
- Lack of flow control through the Mill River Corridor
- Limited Dam monitoring and maintenance access
- Limited Shodack Brook connectivity
- Public safety
Opportunities & Improvements

- Improve and update flood control structures
- Install fully operational sluice gates
- Flow-control is key to flood protection for the overall watershed during surge events (Sandy) and rain events (Irene)
- Provide storage and attenuate peak flows
- Modeling indicates removal of existing limitations (which can cause unplanned impoundment if blocked) will enhance flows
- Implement operating plan to actively manage water levels and flow
- Water level control will enrich ecosystems and recreation
Opportunities & Improvements

- New and enhanced access paths and bridges
- Provide emergency access & reduced response time
- Expand public access to natural ecosystems and trails
- Connect multi-use paths, trails and Greenway for greater public access to the river and waterways and view shed
- Interpretative signage about the historical nature of the Dams, educational opportunities to observe and monitor water level and flows, gate operations and overall park and watershed management
HLSP – Greenway, Gateways & Access
Challenges

- Access to and from the adjacent low to moderate income neighborhoods
- Limited access to waterfront (including ADA)
- Undefined or restricted gateways
- Inadequate Shodack Brook connectivity
- Current trail layout and surfacing for multiple user groups
- Limited connection from Hempstead High School
Opportunities & Improvements

- Increased access to improve emergency response
- New and enhanced gateways along the periphery for neighborhood access
- Additional parking for patrons
- Additional connections to multi-use path, trails and Greenway for greater public access to the river and waterways and view shed
- Piers and docks placed along the corridor will provide direct access to the waterways
Opportunities & Improvements

- Interpretative signage throughout to educate on the park history, flora and fauna and the role the park plays in the overall resiliency
- On-water access for greater personal interaction with the water
- Expanded recreational, social and community connection opportunities in and around the park
- New trails for access to the parks various ecosystems
- Emergency coordination center for state and local agencies
- Designed to be used as a coordination center to respond to and recover from emergencies and storm events
- Information center for local residents after a storm event to provide direction for access to community services
- Education and interpretative center for school and other groups as well as the neighborhood NCPD Explorer program
- Hub and gateway to the greenway
- Educational wet lab for hands-on learning for local students
- Provide education regarding the impacts of climate change
- State Parks has a transportation grant program to reimburse schools (focused specifically on Title 1 schools for field trips to the park)