



Rye

# Community Reconstruction Plan Planning Committee Meeting #8

October 14, 2014 – 6:00 PM

Rye City Hall

1051 Boston Post Road, Rye, New York



# Welcome and Introductions

# Committee and Team

- Rye Committee
  - Co-Chairs, **Holly Kennedy and Bernie Althoff**
  - Committee, **9 Community Members**
- Governor's Office of Storm Recovery
  - **Kate Dineen**
  - **Dan Berkovits**
  - **Suzanne Barclay**
  - **Alex Breinin**
  - **Ricardo Soto-Lopez**
- Consultants (AKRF-Sasaki)
  - Program Lead, **Nanette Bourne (AKRF)**
  - Project Manager, **Jason Hellendrung (Sasaki)**
  - Assistant Project Manager, **Julia Carlton (Sasaki)**
  - Technical Advisor, **Jim Nash (AKRF)**



# Agenda

- Welcome and introductions
- Public Outreach
  - Window Painting
  - Public Engagement Event #3
  - Media Outlets
- Mitigated Risk Assessment
- Projects, Programs, Actions, Updates
- Looking Ahead



# Schedule



Geographic Scope  
Storm Damage Inventory  
Critical Issues  
Vision Statement



Asset Inventory  
Risk Areas  
Risk to Assets  
Needs and Opportunities



Strategies  
**Projects and Management Measures**  
**Operational Arrangements**



Schedule for Implementation



**IN-PERSON COMMITTEE MEETINGS (roughly twice monthly)**





# Public Outreach

# Oct 19: Window Painting

- Hand out tri-folds
- Advertise Public Engagement Event #3
- Answer questions about NY Rising at a table\*\*



\*\*Still waiting to hear from event organizers about possibility of a table



# Public Engagement Event #3

NOVEMBER						
Sun	Mon	Tues	Weds	Thurs	Fri	Sat
	3					

Rye Middle School  
Multi-Purpose Room  
7:00-9:00 PM



# Public Engagement Event #3

## Open House



# Public Engagement Event #3

## With feedback

### 3 North Shore Dune Replenishment

Priority Project

Replenish, stabilize and construct dunes along the north shore of the Village's east end to prevent tidal surge from flooding streets, homes and businesses



#### Key Facts

- Project Type: Water Control Facilities
- Preliminary Cost: HIGH (> \$1M)
- Project Location/Municipality: Bayville, Centre Island
- Primary Target Area: community-wide
- Regional Impacts

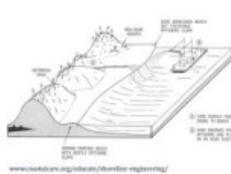
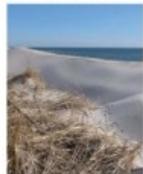
#### Project Information

Dunes along the north shore of Bayville, adjacent to the Long Island Sound, will be constructed or replenished and stabilized with vegetation from the vicinity of Centre Island Sound Beach at Centre Island Road west to the Valley Road/Bayville Avenue intersection. This will prevent tidal surge from flooding streets, homes and businesses and also reduce erosion to the Centre Island Causeway, which is the only egress route for Centre Island residents.

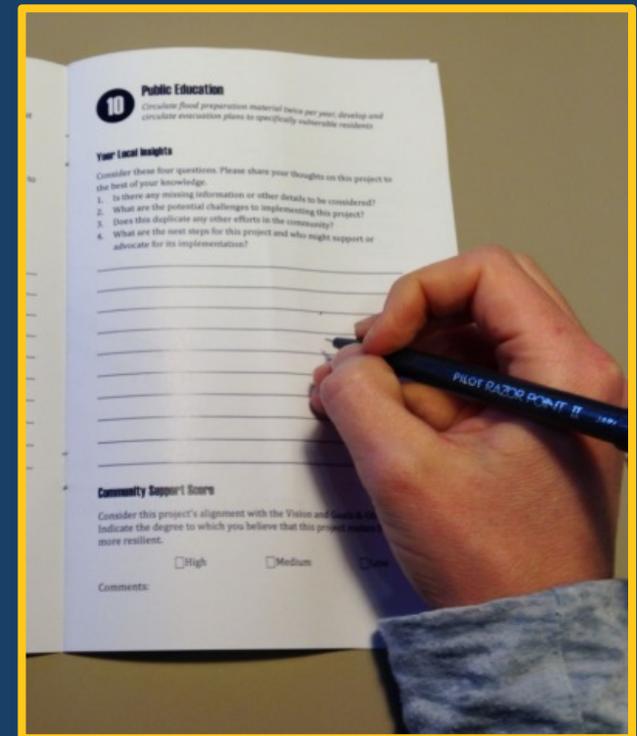
#### Issues



#### Possible Features

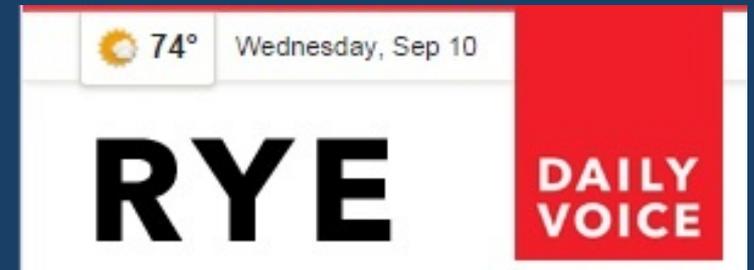


Post your questions about this project here:



# Media Outlets

- Rye School Board
- Rye School District
- Rye City Council





# Mitigated Risk Assessment

# Mitigated Risk Assessment

- Update **Exposure and Vulnerability** Scores based on expected project impacts and influences
- Indirect benefits are not accounted for in the methodology
- Once engineering/design is completed, additional analysis will need to be done to measure efficacy and benefits/other effects





# Projects, Programs, & Actions

# Sluice Gate Modifications

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
<\$500K	WSE Reduction: 0.18-0.78ft	Rye Brook Flooding Mitigation	Immediately upon securing funding	SEQR	City of Rye, DEC, Westchester County

**DESCRIPTION:** In 2013, the City of Rye installed an automated sluice gate at the Bowman Avenue Dam to provide immediate relief from flooding downstream. Based on the findings of Parsons Brinckerhoff's Hydrologic and Hydraulic Analysis Report in 2014, modifications to the sluice gate could increase its efficacy. Modifications include moving the water gauges that trigger the gate's automatic functions further downstream, and changing the operational rules of the gate to adjust for the gauge's new position in relation to the Bowman Avenue Dam.



# Stormwater Pond at Anderson Hill Road

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
\$500K	WSE Reduction: 0.36 – 1.31ft	Rye Brook Flooding Mitigation		SEQR	Town of Rye, DEC, Westchester County, SUNY

**DESCRIPTION:** Blind Brook runs along the east side of the SUNY-Purchase property. Two stormwater ponds could be created by building three low stabilized earthen berms across the Blind Brook floodplain, with openings at the channel. Detention basins in this region can accommodate significant volumes, and would significantly reduce the water surface elevation downstream during storm events.



# Airport Retention Basins

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
>\$1M	WSE Reduction: 0.06 – 0.22ft	Water quality treatment at airport		SEQR	FAA, City of White Plains, DEC, Westchester County, DOT

**DESCRIPTION:** Blind Brook starts near Westchester County Airport. Two detention ponds currently exist on the Airport property. An additional detention would build upon these ponds, increasing the detention volume available at the airport.



# Bowman Avenue Dam Lower Pond

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
\$12M	Limited Indian Village Flood Mitigation	Rye Brook Flood Mitigation		NYSDEC permit for impact to wetlands, SEQR	Town of Rye, City of Rye, DEC, Westchester County

**DESCRIPTION:** In 2008, Chas. H. Sells, Inc. proposed increasing the capacity of the Bowman Avenue Dam Lower Pond in order to alleviate downstream flooding along Blind Brook. In 2014, Parsons Brinckerhoff's analysis found that increasing the storage area at the Lower Pond would not have a great impact on water discharge reduction for 25, 50, and 100-year storms.



# Bowman Avenue Dam Upper Pond

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
\$6.5M	WSE Reduction: 0.10 – 0.63ft	Rye Brook Flooding Mitigation		NYSDEC permit for impact to wetlands, SEQR	DEC, Town of Rye, City of Rye, Westchester County

**DESCRIPTION:** Bowman Avenue Dam Upper Pond, used for water retention, has over time significantly decreased in size due to siltation (Hydrologic and Hydraulic Analysis Report, 2014). This project would expand the storage capacity of the Upper Pond at the Bowman Avenue Dam by excavating 104,000 cubic yards of material, creating a larger retention basin and reducing the water surface elevation downstream in Rye during storm events.



# NY Thruway Water Retention Policy

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
<\$500K	CBD Flood Mitigation	Other Flood Mitigation			DOT, Westchester County

**DESCRIPTION:** Two major interstates (I-95 and I-287) run through Rye. These roadways do not capture the stormwater that falls on them, which contributes to the flooding in Rye. As roadways are rebuilt (or sooner), work with NYSDOT to determine how the runoff can be captured and mitigated before flowing into Rye.



# New Entrance to Rye Nature Center

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
>\$500K and < \$1M	Rye Nature Center Access	Traffic Calming on BPR			City of Rye, DOT, DEC

**DESCRIPTION:** The entrance to the Rye Nature Center currently utilizes a historic bridge that traverses Blind Brook. This bridge was severely damaged from storms. Reconstructing the bridge to return it to service for automobiles would cost an estimated \$1.1 million (Capital Improvement Plan). In lieu of restoring the historic bridge, a new entrance to the Nature Center that does not cross Blind Brook could be created. The current historic bridge could be converted into a pedestrian bridge with more plantings along roadway and around the brook (at significantly less cost than restoring automobile access).



# Participate in FEMA's Community Rating System

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
<\$500K	Flood Insurance Rate Reduction	Flood Mitigation	Immediately upon "go" decision	None	FEMA, Westchester County, City of Rye

**DESCRIPTION:** Flood insurance premiums have recently escalated due to changes in national policy. This has created hardships for homeowners, and has made it increasingly difficult to sell homes to buyers that require a mortgage. FEMA's CRS is a voluntary incentive program that encourages community floodplain management activities that exceed the minimum National Flood Insurance Program requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk, alleviating the stress to homeowners and prospective buyers.



# Milton Road Drainage to Harbor

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
\$250K	Milton Harbor House Flood Reduction	Improved access to Milton Road, inc Firehouse			City of Rye, DOT, DEC

**DESCRIPTION:** Install new outfall off of the northern end (southern end completed 2013) of Milton Road to divert flood waters to the harbor instead of flooding the Milton Harbor House parking lot (review hydrology of area and hydraulics of existing drainage system); Emergency response for fire house



# Bury, Stabilize Power Lines Along Major Corridors

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
>\$1M	Fewer power outages	Path to response center			City of Rye, DOT, ConEdison

**DESCRIPTION:** Rye's aboveground power lines are highly susceptible to damage from falling branches and wind. In cases of emergency, navigating the streets for evacuation or finding an emergency shelter can be difficult. While Rye's water table is high, and many areas are proximate to saltwater making underground utility lines susceptible to corrosion, there may be major power lines and/or major road corridors where burying power lines would protect them and the larger city grid during a storm. Rye should work with utility companies to identify particularly vulnerable or critical power lines and evaluate the cost and feasibility of undergrounding these power lines, either during scheduled road reconstructions or as a separate project.



# Form Watershed Conservancy & Green Infrastructure Program

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
<\$500K	Mitigate flooding at its source	Less flooding in other towns			Municipalities within the Blind Brook Watershed

**DESCRIPTION:** Perform a comprehensive assessment to identify goals and associated performance metrics, assess existing conditions with respect to runoff, erosion, and deposition patterns, identify local and watershed-scale stressors, understand patterns of channel evolution, and determine and diagnose root-causes of observed problems (e.g. siltation). Based on the assessment, develop a plan, which will describe, map, and provide preliminary cost estimates for specific interventions required to remediate existing problems and achieve goals, including but not limited to channel and floodplain redesign, bank stabilization, in-stream flow modification, structure redesign or modification, zoning changes, and/or watershed restoration activities (e.g. buffering, stormwater management projects, etc.). Develop environmentally sensitive program with the City of Rye, City of White Plains, Village of Rye Brook, Village of Port Chester, Town of Harrison, Village of Harrison, County, and State to maintain streams.



# Energy Program

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
Street light: \$2,500 Generator: \$15,000	Access to powered facilities during outages	Continued operation of emergency facilities			City of Rye, DOT, ConEdison

**DESCRIPTION:** Implementing a series of solar power pilot projects around Rye, including solar energy at community and municipal facilities, solar powered streetlights along critical roadways, and solar powered generators, can offset the disruption felt by residents and emergency responders during power outages.



# Enrich and Expand the Wetlands and Open Space Along City Brooks

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
Property acquisition, Structured parking, Design and construction	Flood hazard reduction for assets on brooks	City-wide amenity during good weather		SEQR, Property acquisition	Westchester Cty, City of Rye, Rye Brook, Harrison, Port Chester, Mamaroneck

**DESCRIPTION:** Wetlands and open space serve as absorptive buffers between bodies of water and development. During storm events, they naturally protect buildings and infrastructure, and have internal regenerative capacities that require little maintenance. Other times, they serve as a community amenity. Municipal parking lots are some of the only readily available land along the brook, and these could potentially be converted to open space, with centralized structured parking on high ground replacing the lost parking spaces.



# Property Elevating Program

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
\$150K - \$200K (per home)	Flood reduction	Ability to sell home, cheaper insurance		Zoning variance	Homeowners, City of Rye Planning Dept., FEMA

**DESCRIPTION:** Changes to the national flood insurance policy and increasing awareness of flooding has led to a push for property owners in floodplains to elevate their homes and businesses. This initial investment can offset flood insurance rate hikes, but can be prohibitively expensive for homeowners, particularly those on fixed incomes. A program to assist property owners with elevating properties can enable them to remain in their homes, or to sell their homes at fair market value and relocate out of the floodplain. In Round 1, NYRCR Bay Park proposed a revolving loan program that would enable residents to elevate their homes if they otherwise did not have access to the required capital.



# Strategic Location for Fire Equipment

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
<\$500K	Continuous emergency response services	N/A		N/A	City of Rye

**DESCRIPTION:** Both of Rye's fire houses are very susceptible to flooding. To ensure the continued availability of emergency services, fire equipment needs to be moved to high ground in advance of storm events. This requires advance knowledge of the severity of anticipated storms, and presents a significant inconvenience. If fire equipment were permanently stored in a more strategic high ground location, the fire department could remain responsive during and after storm events.



# Floodproof Locust Ave Firehouse

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
<\$500K	Continuous emergency response services	Fewer replace and/or repair costs		None, outside of local permits	City of Rye

**DESCRIPTION:** The Locust Avenue Firehouse sits in a topographical bowl in Rye's central business district. Floodproofing the building would protect the equipment should there be no need to use it during the flood, however fire department functions may be limited if trucks cannot leave the property due to flooding on Locust Avenue. Relocating the building to higher ground would ensure that equipment was protected and that emergency services could operate during emergencies.



# Designate a City-Operated Emergency Center

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
<\$500K	Place to re-group during power loss	Upgrades to municipal facilities			City of Rye, Rye School District?, YMCA?, Rye Rec?

**DESCRIPTION:** During federally-declared emergencies, the Red Cross operates an emergency center at Rye Country Day School. During other emergencies, the Red Cross does not provide this service, and the City of Rye does not have the ability to operate the emergency center at Rye Country Day School. This project would designate a city-operated emergency center to provide residents a place to regroup during or after storm events which may have resulted in loss of power, flooding, and/or utility interruptions.



# Floodproof Municipal Facilities

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
\$500K - \$1M	Reduce loss from flooding	Update municipal facilities			City of Rye

**DESCRIPTION:** Several of Rye's municipal facilities (Rye Reading Room, Rye City Hall) regularly flood during storms. Extensive repairs have drained budgets, and have exhausted donor bases who seek to improve resources rather than fund reconstruction projects. Floodproofing municipal facilities that have suffered repeated damage during storms would protect important community assets and ensure continued philanthropy that enriches Rye.



# Disbrow Park Improvements

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
	Improve DPW operations during storms	Reorganize rec fields, improve user safety			City of Rye DPW, Westchester County

**DESCRIPTION:** The City's Department of Public Works and Westchester County Sewage Treatment Plant shares operations within Disbrow Park, which is one of the City's most active recreational areas. These facilities are compromised by this shared-use arrangement. The resiliency plan would be implemented in phases. The first and most critical phase is the creation of a separate access drive to serve the DPW and County treatment plan. DPW is among the most important City operation in both maintaining, protecting, and restoring City assets, residences, and businesses damaged by storm events. Also included in this phase is a new garage to protect City vehicles and equipment from exposure to elements, a community emergency response center, and parking. Phase II would serve to reorganize existing recreational and DPW facilities to create a safer park and more functional park environment.



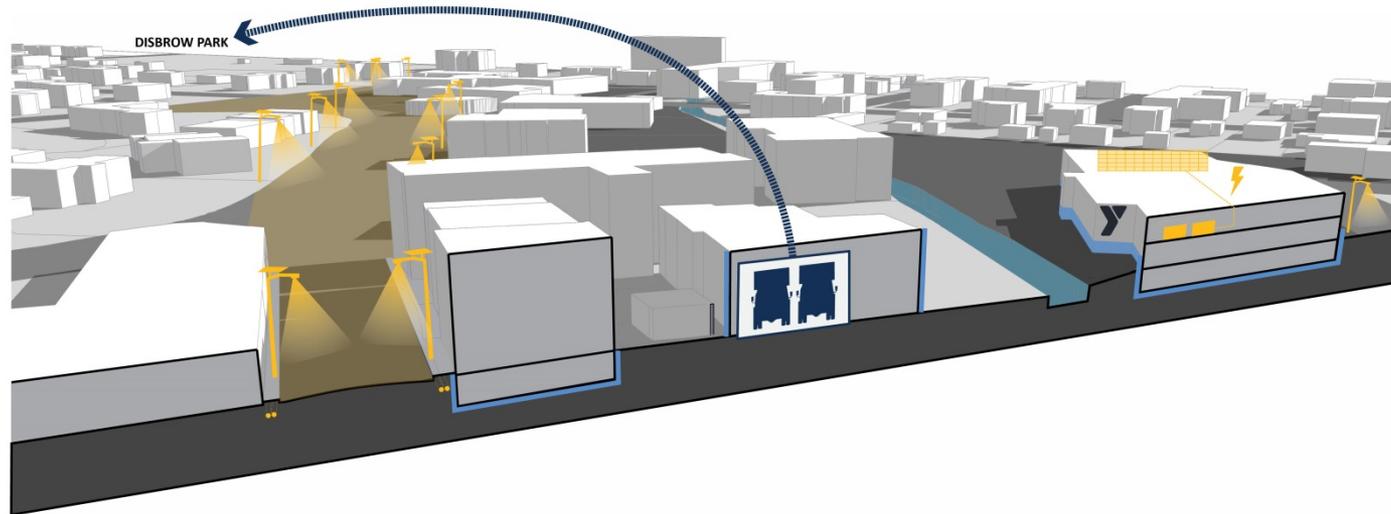
# Coastal Zone Improvements

Project Costs	Benefits	Co-Benefits	Timeframe	Regulatory Requirements	Entity With Jurisdiction
					City of Rye, DEC, Westchester County

**DESCRIPTION:** Coastal structures in Rye are required by the zoning code to have basic floodproofing based on Base Flood Elevation. Despite this, some of these structures are grandfathered in and still suffer repeated damage. Occasionally, large scale public infrastructure projects are more cost-effective or protective than individual property improvements. In the Hamptons, waterfront homeowners levied a tax on themselves to pay for infrastructure improvements that would protect their homes. This enabled public funding to be diverted to community projects, but allowed private homeowners to take advantage of government coordination and collaboration.



# Energy Program & Floodproofing



WORK WITH UTILITY COMPANIES TO BURY, STABILIZE POWER LINES ALONG MAJOR CORRIDORS



ENERGY PROGRAM FOR SOLAR POWER AND GENERATORS WITH BATTERY BACK-UP



DRY FLOODPROOF MUNICIPAL FACILITIES



WET FLOODPROOF LOCUST AVENUE FIREHOUSE



STRATEGIC LOCATION FOR FIRE EQUIPMENT



# Green Infrastructure



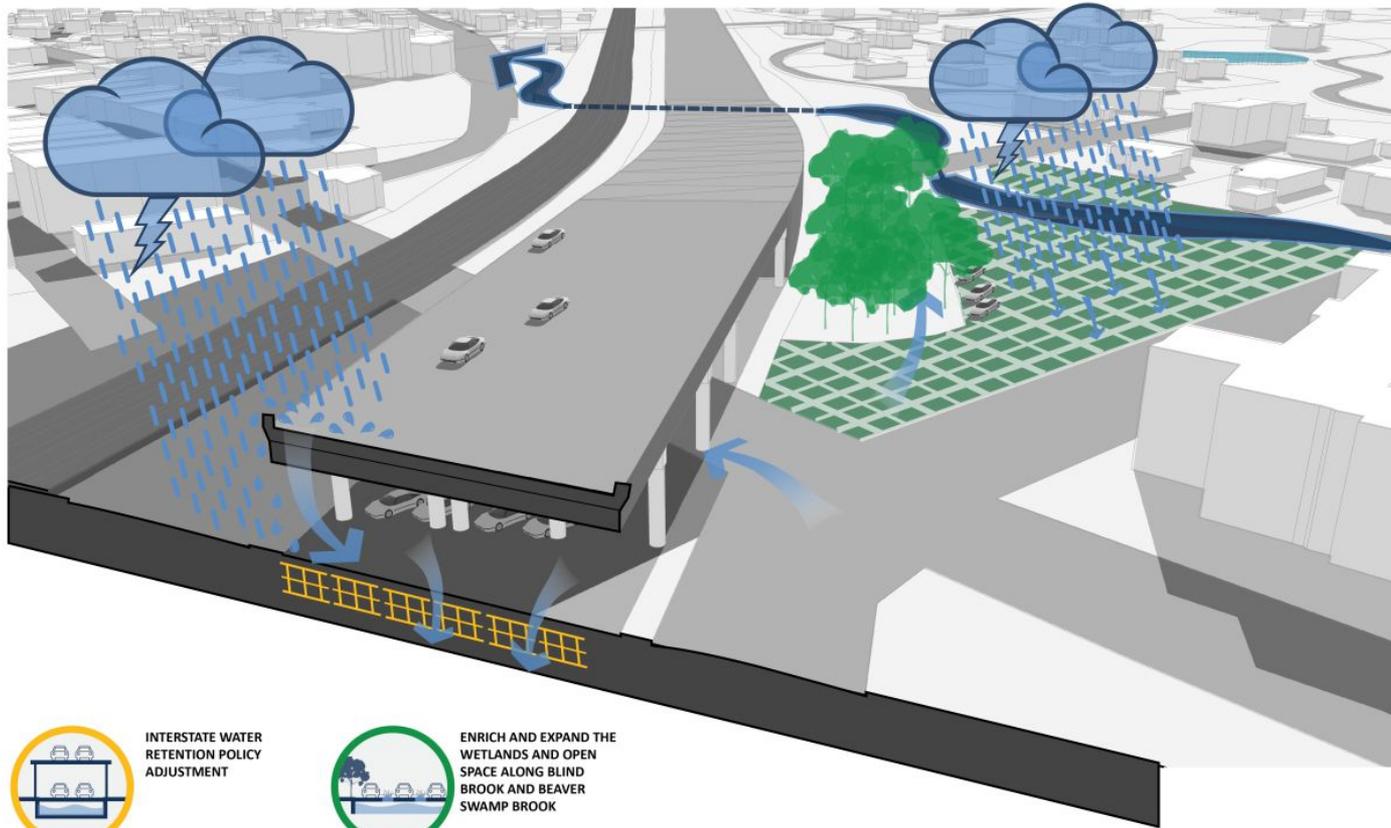
ENRICH AND EXPAND THE WETLANDS AND OPEN SPACE ALONG BLIND BROOK AND BEAVER SWAMP BROOK



FLOOD PROOF AND/OR ELEVATE FLOOD-PRONE PROPERTIES FROM FLOOD ZONE



# Stormwater Runoff



INTERSTATE WATER  
RETENTION POLICY  
ADJUSTMENT



ENRICH AND EXPAND THE  
WETLANDS AND OPEN  
SPACE ALONG BLIND  
BROOK AND BEAVER  
SWAMP BROOK



Looking Ahead

# Scheduling

- Rising to the Top intent: October 15
- Window Painting: October 19
- Draft NYRCR Plan: October 22
- Committee meeting #9: October 28
- Draft NYRCR Plan: November 14
- Public engagement event #3: November 3
- Committee meeting #10: November 18



# Schedule



Geographic Scope  
Storm Damage Inventory  
Critical Issues  
Vision Statement



Asset Inventory  
Risk Areas  
Risk to Assets  
Needs and Opportunities



Strategies  
**Projects and Management Measures**  
**Operational Arrangements**



Schedule for Implementation



**IN-PERSON COMMITTEE MEETINGS (roughly twice monthly)**



# Draft Agenda for Next Meeting

- NYRCR Plan Presentation
- Public Engagement 3 Updates





Stay Connected & Stay Informed at  
[www.stormrecovery.ny.gov/nyrcr](http://www.stormrecovery.ny.gov/nyrcr)