

Flood Resilience Network

2022 YEAR IN REVIEW

A Note from the Estuary Program

By Libby Zemaitis

The last weekend in October was eerily calm and sunny this year. It was the 10-year anniversary of Hurricane Sandy making landfall in New York State. Sandy came less than a year after Tropical Storms Irene and Lee brought record-breaking rain to our region. According to Climate Central, the United States now "experiences a one-billion-dollar weather disaster every 18 days on average."

Since the storms in 2011 and 2012, DEC's Hudson River Estuary Program has been helping communities plan for future flooding and sea level rise along the tidal Hudson River and its tributaries. [The Hudson River Estuary Action Agenda 2021-2025](#) establishes a vision for Hudson River Valley communities as thriving, resilient models for adapting to climate change using natural, nature-based, and socially equitable solutions.

Resilience is deepened when communities come together to tackle common environmental hazards. The Estuary Program is proud to partner with Hudson River Watershed Alliance, NY Sea Grant, and the Consensus Building Institute to convene the Flood Resilience Network. Thank you to our municipal leaders and especially the City of Hudson for hosting the FRN for the first time in-person since the start of the pandemic, in August of this year.

We are thankful to all the leading communities in the FRN. Since its inception a decade ago, and even through many dry years, its members have been planning long term for sea-level rise and flooding resilience in their waterfronts.

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FRN Programming Recaps

Meeting and Site Visit in Hudson

On August 17, 2022 FRN members old and new gathered in the Gallery building of Basilica Hudson in Hudson, NY for the first in-person meeting and site visit since 2020. As a new member of FRN, the City of Hudson was able to showcase 1) the progress being made along their waterfront in [Advancing Climate-adaptive Designs \(Phase II\)](#), and 2) how they've been utilizing and strengthening the community's connection with the waterfront through their summer Waterfront Wednesday events. Before the afternoon site visit, attendees gathered to have lunch, network, and participate in a strategic roadmap exercise, and learn about new opportunities for Climate Smart Communities technical assistance.

- Communities represented: Kingston, Ossining, Saugerties, Poughkeepsie, Rensselaer, Germantown, Hudson, and Rockland County
- Partner groups: Scenic Hudson, NYSDEC Hudson River Estuary Program, Hudson River National Estuarine Research Reserve, Hudson Valley Regional Council, Capital District Regional Planning Council, Cornell Cooperative Extension, Cornell University
- Key themes from cross-community conversations: Wastewater treatment plant and other infrastructure risk - including the long process of implementing upgrades and the need to fortify when unable to relocate, the importance of education and keeping people engaged, jurisdictional issues, and the value of networking.
- Value people gained from attending (from evaluations & discussions):
 - Networking and sharing successful initiatives
 - Learned about a new tenant right-to-know law passed in Westchester for rentals in the floodplain
 - Learned about the new [HR Invasive Species Task Force](#)
 - Learned about [Hudson's new design for adapting their waterfront \(CaD Phase II\)](#)
- Requests for future programming: wastewater treatment, sustainable shorelines, more case studies about how other communities are approaching climate resilience, funding opportunities, intermunicipal efforts, and more time for networking



The biggest take-away from the day was that people really enjoyed being together talking about these issues. More to come in 2023!

Are you interested in hosting an FRN site tour? Please let us know.





Lunch & Learn: New Funding for Flood Mitigation

Access to funding opportunities is a top concern for FRN communities. On September 29th FRN hosted a Lunch and Learn with three speakers to learn about two new sources of funding that can be used for flood mitigation and will be coming online over the next few years. Main points covered the basics about the funding, when and how it is likely to become available, and what communities can do to get ready.

First, we heard from Thomas Hisgen, Deputy Director of Federal Affairs (NYS DEC), about the Infrastructure Investment and Jobs Act (IIJA) and how that money will work its way through New York State through both competitive and calculated funding that will support and expand current NYS programming. Tom highlighted and described several resources and expressed interest in remaining connected to FRN. Questions for Tom from members raised issues about level of effort and limited capacity from smaller municipalities and whether there were existing models for how communities could apply to funds together (none yet).

The second presentation was with Jessica Ottney Mahar (The Nature Conservancy) and Carli Fraccarolli (Scenic Hudson) who provided an overview on the work they've been doing to inform the public about the opportunity to vote on the \$4.2B Environmental Bond Act (Prop 1). Several FRN members shared that their communities passed municipal resolutions in support of the Bond Act. Now that the Bond Act has passed - we'll be thinking about how our members can best prepare to access that funding.





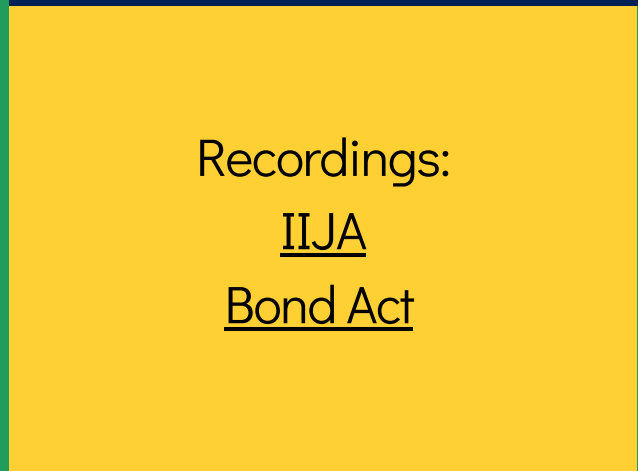
Department of
Environmental
Conservation




The Path to Funding: An update on the Infrastructure Investment and Jobs Act

Tom Hisgen
Deputy Director of Federal Affairs

September 29, 2022



Recordings:
[IIJA](#)
[Bond Act](#)




WHAT IS THE BOND ACT?

The Clean Water, Clean Air, and Green Jobs Bond Act is a ballot measure that New York voters will have the opportunity to approve on November 8th, 2022.

If passed, the measure will protect clean water, uplift public health and environmental protection, and improve quality of life in every county of the state.

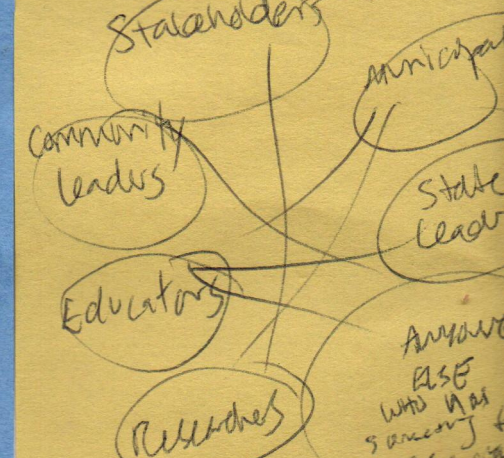
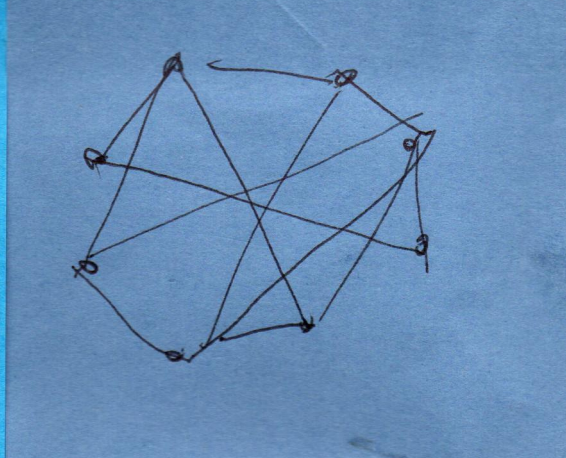
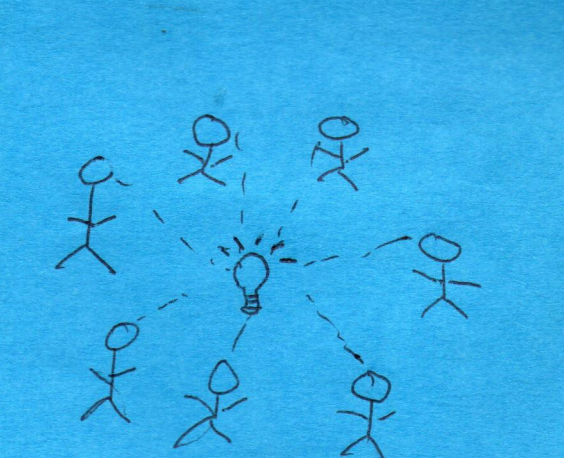
As **Ballot Prop 1**, the measure will be located on the backside of ballots. It's imperative for voters to flip their ballots and continue voting to pass this once-in-a-generation opportunity!



FLIP YOUR BALLOT OVER AND VOTE YES ON PROP 1 FOR THE CLEAN WATER, CLEAN AIR, AND GREEN JOBS BOND ACT ON NOVEMBER 8!

1:18 / 9:50





HRWA: Strategic Roadmap Session

The final session of the Hudson River Watershed Alliance Annual Watershed conference took place on Wednesday, 10/26, in the Barn at the Hudson River Maritime Museum in Kingston. Over 80 people attended, spanning representatives from local government, state agencies, local and regional non-profits, engineering consulting firms, and interested residents. The session provided an opportunity to get feedback from partners that are critical to the success of FRN but are not currently members.

Two interactive sessions were facilitated by Hannah Mico of [River Network](#) who gathered information about challenges with flooding, partnerships, and sharing across networks informing the strategic roadmap. There was a lot of energy in the packed room with creative and thoughtful responses to the prompts. We ended the day with a tour of the Kingston Wastewater Treatment Plant, which highlighted some of the flood measures they've implemented since Sandy and Irene. Learn more about the conference and the FRN session in a [write up in the Times Union](#).





FRN Strategic Roadmap Update

Alongside our partners at River Network, we've been working on a five-year strategic roadmap for the Flood Resilience Network. This work is primarily guided by stakeholder feedback from network members and partners we gathered over the course of two sessions. Brainstorming sessions engaged FRN members in Hudson and watershed partners in Kingston on potential network structures, the meaning of flood resilience, and intentional engagement strategies.

Next up in this process, we'll be creating a survey and hosting 1-2 small focus groups of key stakeholders to gather insight into what next steps FRN members would like the network to take, and to define the structures needed to continue to both grow the network and support existing members. A strategic roadmap incorporating feedback from the brainstorming sessions, surveys, and focus groups will be released in early 2023 outlining an action plan.

Keep an eye out for engagement opportunities as we work to pull together the final pieces of the roadmap – your input is critical to this process!

Community Updates

Village of Athens

An important riverfront parcel in Athens was purchased by Scenic Hudson and, with the Village of Athens, they are beginning the visioning process for a future museum and education center in collaboration with almost a dozen river-related organizational partners.

Village of Piermont

After a long, dedicated effort - the Village of Piermont is the first municipality to be awarded FEMA Building Resilient Infrastructure and Communities (BRIC) funds and will use them for a Comprehensive Plan.



Community Updates

City of Kingston

The City of Kingston is continuously working to advance sustainability and resilience work on our Hudson River and Rondout Creek Waterfronts. In 2022, with NYS DEC funding we developed the Community Preservation Plan to prioritize land conservation based on city parcel attributes.

With NYS DEC funding, we are redesigning a tidal creek-front kayak launch to be fully accessible and resilient to tides and sea level rise; with NYS DOS funding we are turning a parking lot that is fully inundated with water due to rising sea levels into a full wetland complex, while moving the parking upland to accommodate access; we are evaluating the update of our 1992 LWRP; we hosted over 75 people on a WWTP resiliency tour during the Hudson River Watershed Alliance Annual Conference, and we partnered with the Hudson River Maritime Museum to install sea level rise/flooding markers along key public areas on our waterfront to educate and inspire.

Village and Town of Ossining

The Village and Town of Ossining, HDR Consulting and the Hudson River Estuary Program are working together to reimagine a more climate resilient Ossining waterfront. In 2019, the Town & Village of Ossining hosted the Climate-adaptive Design (CaD) Studio Phase I, where Cornell University students in landscape architecture worked alongside community stakeholders to create designs of a more climate-adapted Ossining waterfront. Some key features of the designs addressed adapting to sea level rise, improving public access, and preserving valuable Hudson River ecosystems.

Ossining secured funding to move forward with Phase II of the CaD studio, which is currently in process. A team of consultants from HDR, Inc., has been working on further developing select elements from the Climate-adaptive Design Studio Phase I designs. Throughout the Phase II design process, community members have shared their valuable feedback, through a series of in-person community meetings as well as virtual engagement. Most recently, the Ossining Shoreline Revitalization Community Meeting was hosted on November 3, 2022.

FRN Member Spotlight: Nathan Mitchell



*Nominated by Piermont Waterfront
Resiliency Commission*

A life-long resident of Piermont, Nathan has served as a volunteer firefighter, a dive lieutenant for the emergency dive team, and as a Village Trustee. Nathan is an active member of FRN and a representative for Piermont and hosted FRN for a tour of the Village to share issues, resources and resilience strategies.

Nathan has been a critical part of resiliency planning and implementation in Piermont - both serving on task forces, creating on-the-ground community education programs, convening experts, and seeking funding to support these endeavors. A few of his efforts include his roles as: co-author of Piermont's Local Waterfront Revitalization Plan, chair of the Piermont Waterfront Resiliency Commission since 2018, establishing programs to educate neighborhoods about flood risks and mediation strategies and a communications network to notify residents of flood risks from storms, high tides, and other threats.

History of the Flood Resilience Network

Waterfront Flood Resilience Task Forces (2012-2014)

10 years ago, only one year after Hurricane Irene and Tropical Storm Lee brought record rain and river flooding, Superstorm Sandy made apparent how vulnerable the region's waterfronts are to storm surge and sea level rise. The City of Kingston, Village of Catskill, Village of Piermont, and Town of Stony Point were impacted by flooding from both Irene and Sandy, which led to an increased interest in planning for future storms. These communities applied for and received funding from the Hudson River Estuary Program (Estuary Program) to engage in a 9-month process to examine sea-level rise, waterfront vulnerabilities and create a plan of action to address them. This process was led by Scenic Hudson, Consensus Building Institute (CBI), and other partners and resulted in Waterfront Flood Resilience Task Force Reports that have been used to guide development and secure funding since their completion. Check out the Task Force Reports for each community here: Kingston (2013), Catskill (2014), Piermont (2014), Stony Point (2014).

In Spring of 2015, task force members from Kingston, Catskill, Piermont and Stony Point (which had also participated in the NY Rising Program) met to compare their vulnerabilities and emerging resilience strategies, and consider the potential to form a learning group to support next steps. This meeting led to the development of the Sea-level Rise Implementation Learning Group.

Sea Level Rise Resilience Implementation Learning Group (2015-2017)

The Sea Level Rise Resilience Implementation Learning Group (ILG) brought together the original three communities of Kingston, Catskill, and Piermont to cover four common topics from their Task Force Reports: Emergency Services, Water Infrastructure, Land Use Planning Instruments, and Community Engagement. The communities met four times with a range of programming centered around the four topics. Participating communities found the ILG meetings to be valuable and saw benefit in expanding the effort to more communities.

Flood Resilience Network (2018-2020)

With the goal of expanding membership in the network, the Hudson River Flood Resilience Network was born. Kingston, Catskill, and Piermont each hosted a site visit with educational programming and a waterfront tour. Outreach was conducted to new communities to attend the site visits, growing the FRN from three to 14 communities and bringing in new partners. COVID-19 required FRN to pivot to remote meetings in 2020, though an outdoor site tour of Piermont was held in Fall 2020.

Based on this work, today's FRN offerings for communities include: in-person meetings and waterfront site visits, virtual Lunch and Learns, customized flood preparedness guides through Cornell Cooperative Extension (CCE), assistance on select Climate Smart Communities (CSC) PE 7 resilience actions, and customized resilience web content.

Interim Year of Change (2021)

With Estuary Program grants delayed due to COVID-19, FRN continued through quarterly Lunch and Learn meetings that brought in speakers on various topics and were facilitated by CBI. Recordings for 2021 webinars can be found [here](#).

In spring 2021, CBI, New York Sea Grant (NYSG), and the Hudson River Watershed Alliance (HRWA) applied for a new round of Estuary Program grant funding to develop a strategic roadmap for FRN while continuing to deliver programming and growing the network.

FRN Today (2022-present)

The project team has started to create a Strategic Roadmap in Year 1 that will guide the Network's actions moving forward. The goal of this process is to help answer questions such as "Who can be a FRN member and what does that mean?" and "What should inform FRN programming?" River Network, a nationwide capacity-building organization with a focus on climate resilient communities, was hired to develop the Strategic Roadmap by engaging FRN members and soliciting community feedback, while the project team continued to focus on bringing FRN members together.



Who keeps the lights on for FRN?

Local governments are the center of the Flood Resilience Network, but several organizations have contributed to the effort over the years in different roles. The original facilitation team for the Waterfront Resilience Task forces, the Implementation Learning Group, and the first official Year of FRN included Bennett Brooks from Consensus Building Institute (CBI) and Sacha Spector, Nava Tabak, and Alex Wolf from Scenic Hudson. These early iterations were supported by 2-year Estuary Program grants. Other key members include Liz LoGiudice from Resilience Communications & Consulting, LLC, Libby Zemaitis and Kristin Marcell from the Estuary Program, and Barry Pendergrass from NYSDOS Coastal Management.

In 2021, New York Sea Grant (NYSG) and Hudson River Watershed Alliance (HRWA) were brought on to bolster local planning and facilitation capacity as Scenic Hudson shifted from planning team member to technical provider. In 2022, a new contract was created to support the FRN and help provide consistency to its members beyond the 2-year grant cycle. The main focus of the current Estuary Program grant (2022-2023) is to develop a strategic roadmap that will inform future operations of FRN under this new contract as well as identify additional funding needs and strategies.

FRN achievements over the years

- Building relationships across communities
- Over \$7m in flood resilience grants awarded to FRN members since 2015
- Upgraded wastewater infrastructure, waterfront parks, and shorelines
- Incorporated resilience into Local Waterfront Revitalization Plans, Comprehensive Plans, and zoning
- Inspired new Coastal Resilience Network in Long Island

In closing, thank you to all of our members for their participation and dedicated efforts towards improving flood resilience. We look forward to another great year in 2023!



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Department of
Environmental
Conservation

Hudson River
Estuary Program



NEW YORK STATE
WATER RESOURCES
INSTITUTE

2022 FRN Participant Map

Flood Resilience Network 2022

- Participating Municipalities
- Participating Counties
- Event Sites

