

**Kingston Flooding Task Force
City Hall, Kingston, NY
April 23, 2013 * 3-6 pm**

Meeting 4 Summary

Next Meeting

Tuesday May 21, 3-6pm, New Central Baptist Church, 229 East Strand Street

Action Items

- All – give input on site based strategies shown on maps via online survey.
- Project Team – revise proposed strategies based on Task Force input.
- Project Team – prepare agenda and materials for next Task Force meeting.

Welcome and Introductions

On April 23, 2013, members of the Kingston Flooding Task Force met at City Hall for their fourth Flooding Task Force meeting. The 35 meeting participants are listed in Appendix 1. Meeting handouts included Adaptation Neighborhoods maps packet, NYC Planning's Urban Waterfront Adaptive Strategies, meeting 4 agenda with 5 themes for a flood-resilient Kingston waterfront and a meeting evaluation. Meeting handouts, presentations and the compiled map showing the work by meeting participants can be found at Kingstoncac.org. Participants introduced themselves. Kristin Marcell (NYSDEC) introduced the goals and timeline of the Kingston Flooding Task Force process.

Vision for the Future

Gregg Swanzey (planning team member, City of Kingston) presented the five themes that emerged from the first meeting participants' description of their vision for a flood-resilient Kingston waterfront:

1. Promote a waterfront economy and economic revitalization
2. Prioritize health and safety
3. Use natural systems to reduce flood risk
4. Secure infrastructure
5. Preserve a sense of community and a "sense of place"

Gregg illustrated each theme with key points and direct quotes from the visions survey.

Adapting to Sea Level Rise: Options and Approaches

Allan Shope (Task Force member, Allan Shope Architects and president of Hudson River Sloop Clearwater) presented the Task Force with examples of innovative examples of floating houses and cities found around the world, some of which he helped to design.



Figure 1. Floating houses. Image courtesy of Allan Shope

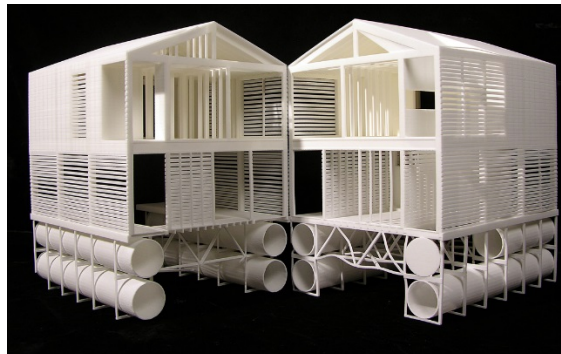


Figure 2. Diagram of floating houses. Image courtesy of Allan Shope.

He showed floating grass islands, old wooden house boats, and floating islands of Dubai that are built for phased obsolescence, from human use to aquaculture to coral reefs. His talk was meant to inspire the group to think outside of the box and to see new opportunities and value through flood adaptation.

Next, Huntley Gill (Task Force member, Guardia Architects) showed diagrams made by his firm of possible treatments for different sections of the Kingston waterfront. His ideas included fortifying the wastewater treatment plant and Maritime Museum, raising the bulkhead along the Cornell building, raised walkways with controllable culverts, constructed wetlands, floating docks and open spaces along most of the waterfront.

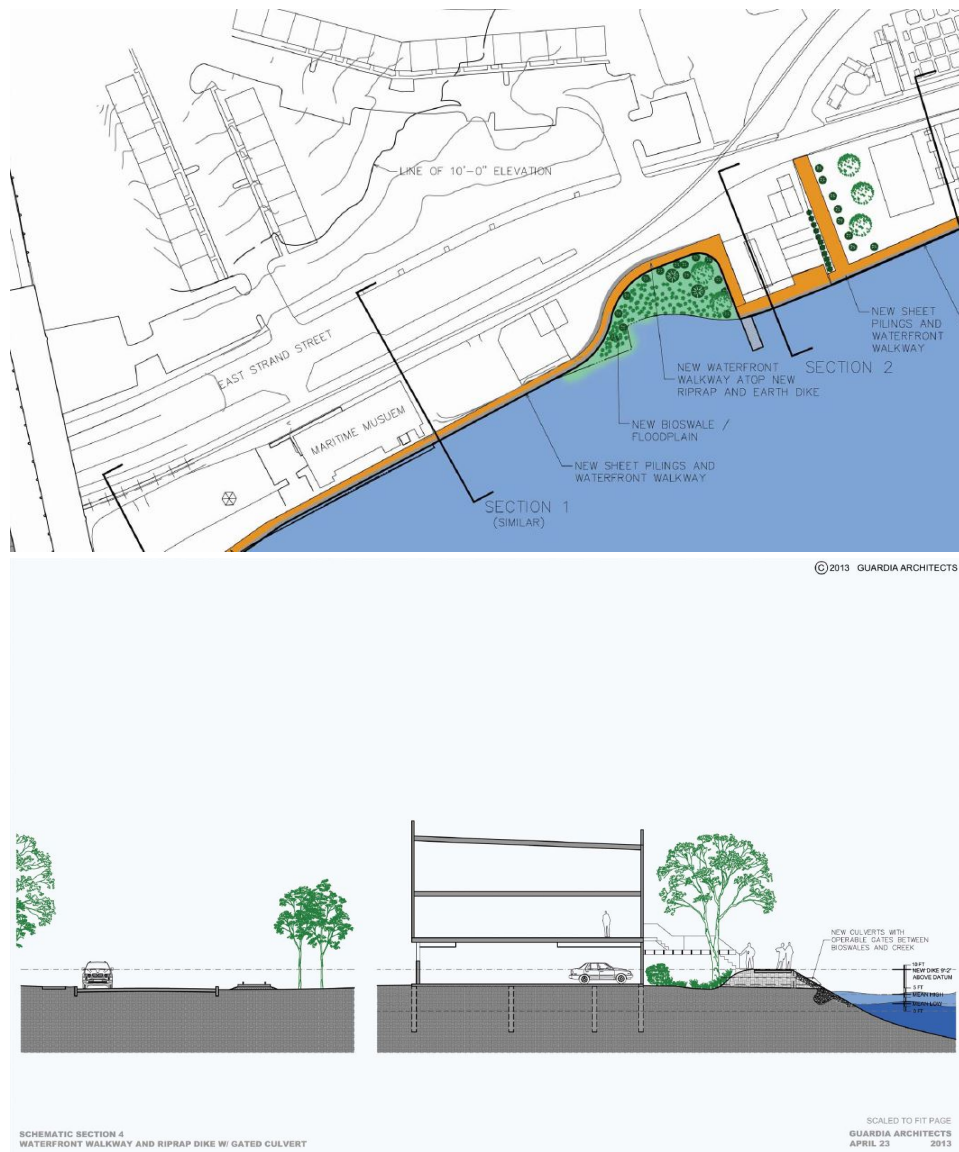


Figure 3 Images courtesy of Huntley Gill

Mary Kimball (NYC Department of City Planning) presented the work of the Department of City Planning to catalog urban waterfront adaptive strategies for New York City. Her team developed an inventory of strategies to respond to the increasing risk of flooding and categorized different areas and vulnerabilities along the shoreline to evaluate the costs, benefits, effectiveness and appropriateness of strategies in different areas. Their team used geomorphology (study of landforms), land use, vulnerability to coastal hazards like erosion and flooding, and other characteristics to categorize shoreline areas into shoreline types or typologies. The team then categorized strategies to respond to coastal hazards at three different scales: building/site (e.g. flood proofing and elevation), neighborhood (e.g. bulkhead or protective dunes), and coastal reach (e.g. wetland restoration or surge barrier).

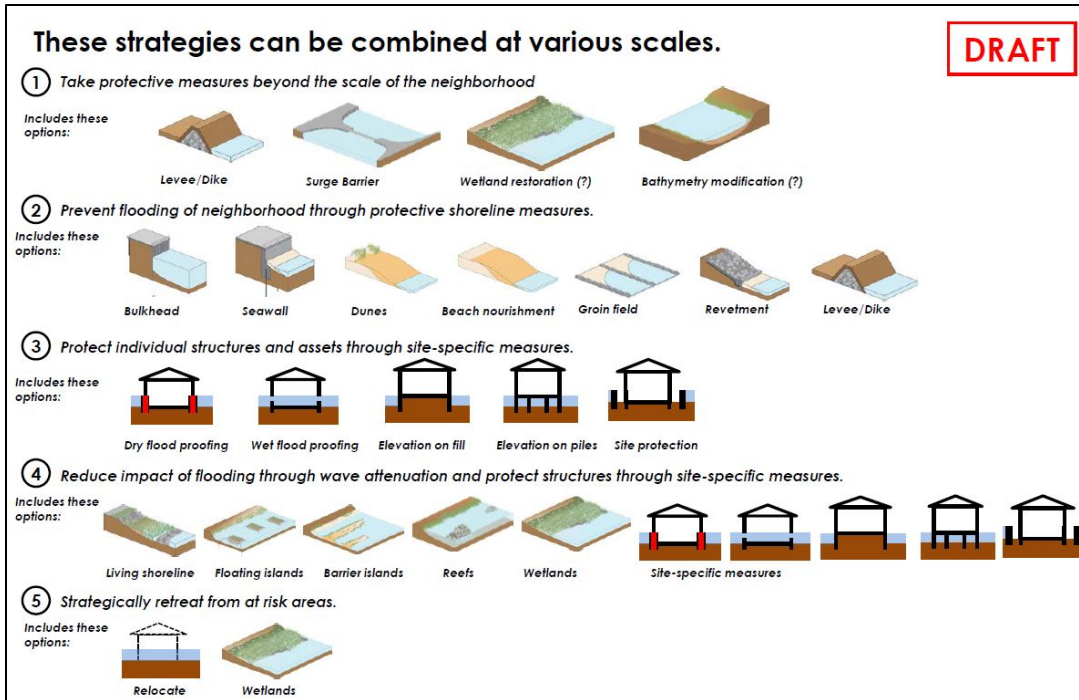


Figure 4. Image courtesy of NYC Department of City Planning

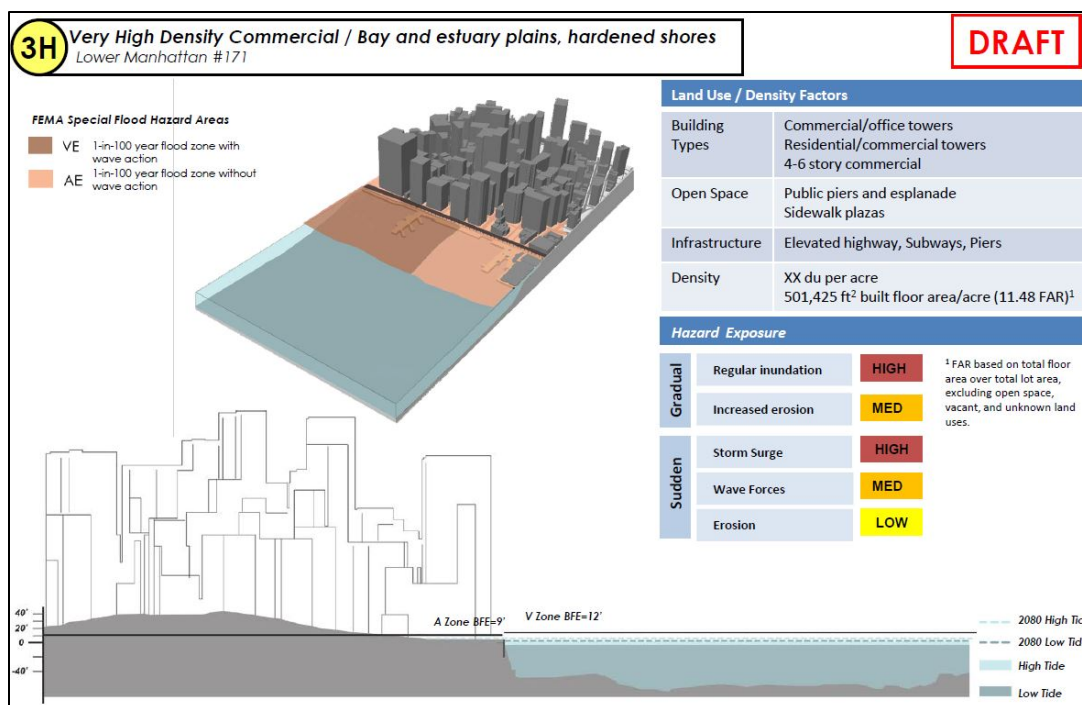


Figure 5. Image Courtesy of NYC Department of City Planning

Task Force members were interested in the typologies and asked to have access to the document, which will be released in June. They asked Mary's advice on choosing a timeframe

and sea level rise scenario for planning purposes. She responded that it is important to look at associated risks and if they are fixed or variable. She recommended that the Kingston Flooding Task Force consider flexible adaptation strategies that provide a path from the short-term to the long-term. Ultimately, she said, it comes down to what Kingston has to lose and its risk tolerance.

Discussion of Adaptation Approaches for Kingston

Sacha Spector (planning team member, Scenic Hudson) presented some of the recommendations from the *Revitalizing Hudson Riverfronts: Illustrated Conservation & Development Strategies for Creating Healthy, Prosperous Communities* (<http://www.scenichudson.org/sites/default/files/u2/revitalizing-hudson-riverfronts.pdf>). This guide breaks out three areas of waterfront: (a) the central built waterfront containing the urban core, historic assets, and water-related used, (b) the greenway containing riverfront parks and other community and recreation spaces, and (c) the natural area containing high natural resource value and little to no human development. Sacha tied these areas to the three adaptation strategies: fortify, accommodate, and strategically relocate.

Next, Sacha introduced the Task Force to a packet of maps with proposed adaptation strategies for the Kingston waterfront. The strategies were developed by a subcommittee of the Task Force and the planning team based on Task Force input from the March meeting. The maps divided the waterfront into eleven sections for analysis. The maps depicted each section of the waterfront with an overlay of present day, 36" and 66" sea levels, the 100 year floodplain and waterfront assets (color-coded by their DOS vulnerability score). Proposed adaptation strategies were provided for each section. The Task Force then gathered around a large table to discuss and review the proposed adaptation strategies for three distinct sections of the waterfront: The Strand, Block Park and Kingston Point. Rob Lane (Senior Fellow for Urban Design at Regional Plan Association) sketched the strategies real-time as they were proposed by Task Force members.

The following sections capture some of the comments and discussion for each of those areas of Kingston:

1. The Strand

The Strand is Kingston's central, built waterfront area. Task Force members discussed the following ideas and issues (none of which should be interpreted as a decision or group recommendation at this stage):

- Raise road with fill to make a dike
- Armor edge
- Consider a way to convey water that comes up through the ground during flooding
- Rethink the location and angle of The Strand
- Create footbridges as spurs coming down to the river
- Create new, high-value waterfront area
- Create a raised walkway
- Plan for phased relocation and expansion of the wastewater treatment plant (WWTP)
- Complete an inventory of age and lifespan of WWTP components

- Consider the best way to spend approximately \$2M coming from FEMA now to mitigate damage at the WWTP
- Understand how investment decisions are made, focus on lifecycle costs of infrastructure
- Consider that the approved projects (Sailor's Cove and Hudson Landing) on the Hudson provide an opportunity for a new vision for the waterfront

The task force decided on four potential strategies worth of evaluation for the Strand:

- Build a sea wall.
- Elevate the roadway and land along the Strand.
- Design a "new edge" along the Strand with inlets and walkways over water, encourage floating structures and move the roadway inland.
- Elevate the roadway along the Strand with partial retreat on the southern side of the road and flood proofing of historic buildings where possible.

2. Block Park/Island Dock:

The Block Park/Island Dock waterfront area has the potential to provide a sheltered area for marinas and marine services and an opportunity to use natural infrastructure to reduce the vulnerability of the Block Park area to flooding. Task Force members discussed the following ideas and issues (none of which should be interpreted as a decision or group recommendation at this stage):

- Create a wharf system, possibly drivable, extending from downtown (West Strand) to Block Park
- Island Dock as a public park that would also protect the marinas
- Swap public and open space from Block Park to Island Dock, use the former as a marina / staging area for boaters
- Soft shorelines along the edge
- Island Dock will eventually be lost. How can we maintain public greenspace in perpetuity?
- Docks strung out along the shoreline
- Berms along the shoreline allowing for mixed use development (will not work for marinas though)
- Need marinas with lifts to take boats inland to store
- Restaurants, dock houses, and clubhouses could float on the water
- There are better access points than Block Park
- Boats float so floating docking structures are optimal
- Armoring could negatively impact viability of marinas

3. Kingston Point

Kingston Point is a largely natural area of the waterfront that comprises large wetland complexes beach, woods and park land. It has great recreation value, some commercial assets including an oil terminal and no residential assets. Task Force members discussed the following ideas and issues (none of which should be interpreted as a decision or group recommendation at this stage):

- Kayaking is a significant economic driver
- Kingston Point beach is well used
- BMX and softball areas are popular but not water-dependent
- Re-nourishing the beach has not been very effective
- Should not fill in any wetlands
- Should not armor the beach
- Raise roads to ensure access to the park from the North
- North Street should be connected to The Strand
- Fill areas with the most valuable landscape, filling lower Ponckhockie area may increase its value and be worth the investment
- Advise the city on location and height of the walkway proposed for Hudson Landing to ensure the investment is well spent

There was also discussion about the time frame for implementing strategies. For example, what actions should be taken between now and 2060 or between 2060 and 2100? What are the strategic investment decisions that must be made in the next five years and then beyond? Task Force members indicated an interest in making sure that FEMA funds in the near-term are used wisely to help Kingston achieve a long term vision for the waterfront.

Wrap Up and Next Steps

Facilitator Ona Ferguson (planning team, Consensus Building Institute) wrapped up the meeting with a discussion of next steps. All Task Force members were asked to think creatively and provide their ideas on the adaption strategies covering the eleven sections of the Kingston waterfront via an online survey. Task Force members were invited to send any clarifying questions to Ona and told that survey results would be used to inform the COAST analysis and future Task Force discussions on the implementation of strategies. The next meeting will be May 21.

Appendix 1: Meeting Participants

Task Force Members

Dennis Doyle, Ulster County
Steve Finkle, S. Finkle Associates, Inc. / Hudson Landing
Huntley Gill, Guardia Architects
Sandy Henne, Hudson River Cruises
Scott Herrington, Kingston City Marina
Tom Hoffay, City of Kingston - Common Council Ward 2
Ann Loeding, Friends of Kingston Waterfront
Kevin McEvoy, Kingston Land Trust
Jon McGrew, Trolley Museum
Jennifer Schwartz Berky, Kingston Resident
Allan Shope, Clearwater
Susan Spencer Crowe, Kingston Resident
Allen Winchell, City of Kingston WWTP

Project Team Members

Jeff Anzevino, Scenic Hudson
Betsy Blair, NYSDEC HRNERR
Fran Dunwell, NYSDEC HREP
Ona Ferguson, Consensus Building Institute
Emilie Hauser, NYSDEC HRNERR
Mary Kimball, NYC Planning
Rob Lane, Regional Plan Association
JT Lockman, Catalysis Adaptation Partners, LLC
Mark Lowery, NYSDEC Office of Climate Change
Kristin Marcell, NYSDEC HREP Cornell
Libby Murphy, NYSDEC HREP Cornell
Julie Noble, City of Kingston - CAC
Barry Pendergrass, NYS Department of State
Sacha Spector, Scenic Hudson
Gregg Swanzey, City of Kingston - Economic Development
Christina Tobitsch, NYSDEC HRNERR and SCA

Others Present

Jim MacBroom, Milone and MacBroom
David Railsback, ARCADIS
Deanna Robertson, Hudson River Ventures (Representing Mike Oates)
Steve Rosenberg, Scenic Hudson
Joan Williams Washington, Kingston Resident
Leroy Washington, Kingston Resident