



THE CITY OF NEW YORK  
OFFICE OF THE MAYOR  
NEW YORK, NY 10007

March 9, 2015

Daniel Greene  
Deputy General Counsel and Certifying Officer  
Governor's Office of Storm Recovery  
25 Beaver Street, 5<sup>th</sup> Floor  
New York, NY 10004

**By electronic mail only**

Dear Mr. Greene:

The City of New York ("the City") appreciates this opportunity to comment on the preliminary Draft Scope for the environmental review of Living Breakwaters and Tottenville Dune projects in Richmond County, New York.

This letter and the attached documents consolidate the various New York City agencies' comments on the preliminary draft scope and represents the overall position of the City of New York ("the City"). A portion of the comments is provided below as part of this letter. General comments are discussed first, and detailed comments are discussed second.

Additional comments are provided in the attached documents, which include a) a figure referred to in general comment #2, b) the New York City Landmarks Preservation Commission Environmental Review Final Sign-off Letter, and c) the New York City Department of Parks and Recreation's comment letter.

**General Comments**

1. As the project will be subject to both New York State and New York City jurisdictions, please refer to specifics of governmental and regulative levels where appropriate. For example reference "New York City local laws" as opposed to just "local laws".
2. There are existing stormwater outfalls/outlets on Loretto street, Sprague Avenue, Joline Avenue, Bedell Avenue as well as natural drainage corridors which support BMPs in Conference House Park and near Cunningham Road and Richard Avenue, as well as Brighton and Manhattan Streets (see attached figure for image of some of the outfalls). The proposed dunes would front or be over some of these outlets, which do not extend far out into the water. How will the outfalls be incorporated into the berm designs? If the berm will be atop the storm pipes behind the headwalls, can the storm pipes handle the weight of the stone and sand atop them (since the pipes were likely not designed for the additional loading), or will improvements or reconstruction be necessary and whose responsibility would that be?

3. Storm drainage on the mainland side of the dunes should be handled by the storm sewer network flowing into trunk sewer lines that will be under the dunes. The ocean outfalls for those trunk lines may be equipped with tide gates to prevent high tide from flowing up into the sewer system and defeating the purpose of the dunes. In some instances, the tide gates may cause more harm than good because rainwater will back up into the storm system, potentially flooding streets and properties while the tide gates are closed until the storm passes. The EIS should discuss the likelihood of this scenario and analyze the impacts.
4. The Tottenville Dune does have the potential to block stormwater drainage on the mainland side of the dunes by introducing a barrier into the landscape and possibly causing flooding during rain events. The EIS needs to consider this issue both for the existing storm sewer network and full build-out of that network according to existing drainage plans.
5. Is it possible to model how the proposed breakwater will dampen storm surges? Can that modeling effort be used to present in the EIS an analysis as to the benefits of the breakwater in terms of storm surge amelioration?
6. The proposed breakwater is expected to encourage sedimentation, which would support efforts to replenish the beaches along the shore. However, the potential effect the sedimentation may have on the outlets/outfalls should be assessed, as well as the effect on water quality within the breakwater.
7. The project description should include discussion of the long-term operation of the Tottenville Water Hub facility – for instance, what agency will fund and operate that new structure?
8. How will the Tottenville Dune project relate to the Army Corps' proposal for storm surge protection along the South Shore of Staten Island? How high will the proposed dune be, and what sized storm will be stopped by the proposed line of protection?
9. What agency will own the dunes once they are constructed, and what will be the long-term O&M costs?
10. The cost-benefit analysis described on page 9 of the preliminary draft scope of work should include consideration of the value of property protected compared to project costs.
11. Would construction of the proposed project(s) be subject to Local Law 77 to control construction air emissions? If so, this should be stated and factored into any analyses; if not the analyses should describe any controls required or otherwise being committed to.
12. Potential Regulatory Approvals: Will any ULURP actions be required for site selection or acquisition? If so, this should be listed under City of New York actions. DCP should be engaged to begin this application process as soon as the scope has developed far enough.
13. Waterfront Revitalization Program
  - Note that the NYC Waterfront Revitalization Program is currently undergoing revisions, which must be approved by the Secretary of State and NOAA before going in to effect. It is anticipated that these approvals may be in place prior to the completion of the EIS; therefore, it is encouraged that both the existing and proposed revised WRP policies be assessed for consistency. The revised policies are available for review at [www.nyc.gov/wrp](http://www.nyc.gov/wrp)

- As noted in the Land Use chapter, a CAF should be completed. While there are many WRP policies that this project is likely to touch on, the following policies and related questions should, at a minimum, be addressed in the WRP assessment. The following refer to the proposed revised WRP policies:

*3.1 Support and encourage in-water recreational activities in suitable locations.*

Will boating access be provided at the Water Hub or Living Breakwaters area? If so, this policy should be assessed, including all sub-policies, describing how the location is safe and suitable for boating.

*4.3 Protect designated Significant Coastal Fish and Wildlife Habitats.*

As the site is partially located within a SCFWH area, this policy should be assessed.

*4.4 Identify, remediate and restore ecological functions within Recognized Ecological Complexes.*

Conference House Park is identified as a Recognized Ecological Complex in the revised WRP. Therefore, this policy should be assessed.

*4.6 In addition to wetlands, seek opportunities to create a mosaic of habitats with high ecological value and function that provide environmental and societal benefits.*

*Restoration should strive to incorporate multiple habitat characteristics to achieve the greatest ecological benefit at a single location.*

This is a new policy in the revisions to the NYC WRP, which seeks to encourage a range of ecosystem restoration goals, as well as encouraging specific short and long term success criteria and monitoring plans. Climate Change projections should be considered in the planning and design of restoration projects as well.

*5.3 Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.*

Water quality impacts should be carefully assessed.

*5.5 Protect and improve water quality through cost-effective grey-infrastructure and in-water ecological strategies. Encourage in-water pilot projects, such as mollusks and submerged aquatic vegetation, to filter water pollutants.*

This is a new policy in the revisions the NYC WRP. Specifically the sub-bullet on in-water pilot projects should be assessed.

*6.1 Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the site, the use of the property to be protected, and the surrounding area.*

*6.2 Integrate consideration of the latest New York City projections of climate change and sea level rise (as published by the NPCC, or any successor thereof) into the planning and design of projects in the city's Coastal Zone.*

This is a new policy in the revisions the NYC WRP. The project should assess the vulnerabilities of the project to climate change based on the New York City Panel on Climate Change's latest sea level rise projections, and identify and incorporate design techniques. The assessment should include a description of risk reduction provided by the breakwaters and dunes on the built and natural environment. What damage reduction can be attributed to the breakwaters versus the dunes?

*6.3 Direct public funding for flood prevention or erosion control measures to those locations where the investment will yield significant public benefit.*

This policy now specifically encourages the design of dunes into beach nourishment projects, and should therefore be assessed.

*8.1 Preserve, protect, maintain, and enhance physical, visual and recreational access to the waterfront.*

A description of how the project will alter public access to the waterfront should be assessed.

*8.3 Provide visual access to the waterfront where physically practical.*

A description of how the project will alter visual access to the waterfront should be assessed.

*8.6 Design waterfront public spaces to encourage the waterfront's identity and encourage stewardship. The following principles should be applied as appropriate and to the extent practicable.*

The revisions to the WRP introduce design principles, which should be incorporated into the design of the Water Hub and associated landscaping.

## Detailed Comments

### Section B

Page 1, Background

- There were 44 deaths in NYC, not 43

### Section C

Page 4, On-Shore Community Water Hub/Landscape Elements

- P1 - Please include maintenance-related storage and offices in the list of elements that may be included in the Water Hub
- P2 - Please include neighborhood traffic patterns and parking in the list of considerations that will be taken into account in the siting of the Water Hub
- P3 – How will the Water Hub landscape elements be evaluated? Particularly the oyster revetments

Page 4, Tottenville Dune Project

- P1 – is an alternative to a dune system with a stone core and sand cap being evaluated?

Page 5, Federal Regulatory Approvals

- Please add “and dune” to the last bullet : “Review of breakwater *and dune* design and...”

### Section D

Page 6, Alternatives to the Proposed Actions

- Please include an alternative without the Water Hub

### Section F

Page 15, Floodplains

- The first two sentences describe the project site being located in both the 100-year floodplain and the SFHA as if they are different things. They are the same thing, just two different names. Please edit

- Please specify which FIRMs are being referred to – the 2007 Effective FIRMs or the 2013 Preliminary FIRMs
- The 2013 Preliminary FIRMs have been adopted by the City for floodplain management purposes and should be used when planning and evaluating projects
- Please specify which flood zone the project components, particularly the Water Hub, fall in – the A or V zone. This affects siting, construction standards, and permitting

Page 18, Climate Change Adaptation and Resilience

- Please refer to and use the latest projections from the New York City Panel on Climate Change (NPCC)

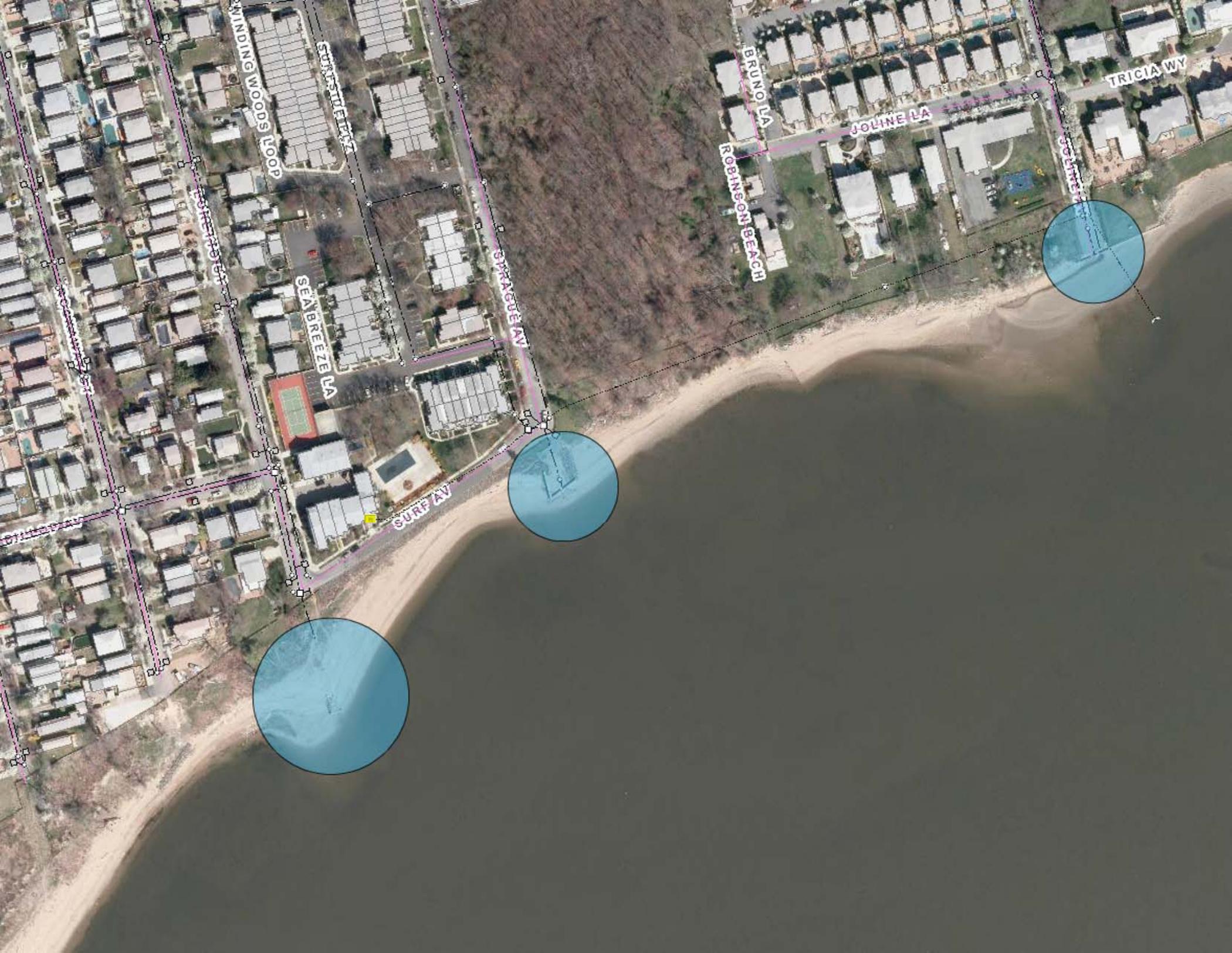
If you have any further questions or concerns, please contact me at 212-788-2641 or by email at [ebrunner@cityhall.nyc.gov](mailto:ebrunner@cityhall.nyc.gov).

Again, thank you for the opportunity to comment.

Sincerely,



Esther Brunner  
Deputy Director for Environmental Coordination/Local Law 86 of 2005



WINDING WOODS LOOP

SURF AV

SEABREEZE LA

SPRAGUE AV

SURF AV

BRUNO LA

JOHNE LA

ROBINSON BEACH

TRICIA WY

JOHNE LA



## ENVIRONMENTAL REVIEW

### Final Sign-Off (Multiple Sites)

**Project number:** GOVERNOR OFFICE STORM RECOVERY / 106-R  
**Project:** LIVING BREAKWATERS AND TOTTEVILLE DUNE PROJECTS  
**Date received:** 2/2/2015

**Comments:** as indicated below. Properties that are individually LPC designated or in LPC historic districts require permits from the LPC Preservation department. Properties that are S/NR listed or S/NR eligible require consultation with SHPO if there are State or Federal permits or funding required as part of the action.

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The LPC is in receipt of the preliminary draft scope of work for EIS dated 1/30/15. The scope is acceptable for historic and cultural resources.

**Properties with Archaeological significance:**

1) ADDRESS: 850 PAGE AVENUE, BBL: 5077220001, PROPERTY NAME:  
TOTTEVILLE DUNE

LPC review of archaeological sensitivity models and historic maps indicates that there is potential for the recovery of remains from Native American occupation on the project site. Accordingly, the Commission recommends that an archaeological documentary study be performed for this site to clarify these initial findings and provide the threshold for the next level of review, if such review is necessary (see CEQR Technical Manual 2014).

**Properties with Architectural significance in the project radius/area:**

LPC AND S/NR LISTED : CONFERENCE HOUSE; LPC HEARD AND S/NR ELIGIBLE:  
PRINCE'S BAY LIGHTKEEPERS HOUSE (now a residence at the Mission of the Immaculate Conception, Mount Loretto, BBL: 7644/1).

Cc: SHPO



2/9/2015

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SIGNATURE  
Gina Santucci, Environmental Review Coordinator

DATE

**File Name:** 30215\_FSO\_DNP\_02092015.doc



**LIVING BREAKWATERS AND TOTTEVILLE DUNE PROJECTS**  
**Comments of NYC Department of Parks & Recreation (NYC DPR)**

**Prepared: February 27, 2015**

Parks has received the Governor's Office of Storm Recovery's Preliminary Draft Scope for the Environmental Review of Living Breakwaters and Tottenville Dune Projects and lead Agency Designation letter and consents to GOSR serving as the lead agency for review under SEQRA. Parks looks forward to working with GOSR as an involved agency in the review process.

Parks has reviewed the Preliminary Draft Scope (dated January 30, 2015) for the Environmental Review of Living Breakwaters and Tottenville Dune Projects. Please see below for comments and questions related to the draft scope.

<b>Section</b>	<b>Page</b>	<b>Paragraph / line</b>	<b>Comments</b>
B	3	Par 1	Purpose and Need - Replace "nor-easter" with "other severe storm"
C	4	Par 5, L 3	Insert "as interim protective measures post-Sandy" after "Temporary dunes, constructed by the New York City Department of Parks and Recreation..."
C	4	Par 5	Tottenville Dune Project - NYC DPR strongly encourages the reuse of sand from the temporary trapbags as part of the creation of the permanent dunes, where possible
C	5	Par 3	Potential Regulatory Approvals, City of New York <ul style="list-style-type: none"> <li>• Add "Department of Transportation" - Possible street and traffic oversight.</li> <li>• DPR's interests are broader than described; DPR maintains jurisdiction on land under water along the entire shoreline where the structures are proposed. DPR's mission includes protecting and restoring aquatic resources and adjacent wetland maritime shrubland resources, as well as forest and trees. DPR has identified restoration opportunities for stream and wetlands, together with coastal maritime forest restoration, that should be considered in project plan.</li> </ul>
D	6	Par 2	Alternative 1 - DPR does not have a regular maintenance program for the temporary berms. This should be removed from the No Action Alternative.
F	7	Par 4	Scope of Work - The fourth paragraph should include a brief rationale or explanation of why the identified categories wouldn't warrant analysis (e.g., wouldn't result in a substantial residential population that would generate a demand for community facilities.) The term "operational open space" should also be clarified. As indicated below, given the project's location on and adjacent to DPR property, it would be useful for the EIS document to include a section discussing the relationship of the project to nearby park resources and potential for impacts, if any, on park operations and conditions both during construction and once completed.
F	7	Par 5	Project Description - Identify the entities with maintenance responsibility for the various components of the project (i.e., breakwaters, dunes, water hub) and typical maintenance and inspection activities that would be expected. Any specialized activities or equipment required to maintain these components, and/or any access restrictions or other measures to protect the new infrastructure, natural resources or public safety should also be disclosed.



Section	Page	Paragraph / line	Comments
F	8	Par 3	<p>Land Use, Zoning and Public Policy -</p> <ul style="list-style-type: none"> <li>The supporting narrative only discusses public policy compliance. This section of the EIS should include a discussion and mapping of the surrounding land use pattern to set the project in context and provide background for the other impact analyses. It would also be appropriate, either within the land use discussion or another applicable section, to discuss the project's relationship with and any potential impacts on other marine uses (e.g., boating, federal navigation channel). Given the project location on parkland and off-shore areas that aren't subject to zoning, detailed zoning mapping and discussion may not be particularly relevant.</li> <li>For the policy discussion, DPR will defer to any comments from DCP. However, it may be useful for the scope to clarify whether the assessment will include consideration of the current WRP revisions and the draft WRP climate change guidance anticipated to be circulated for review in Spring 2015.</li> </ul>
F	8		<p>Parks and Recreation -</p> <ul style="list-style-type: none"> <li>The scope should be expanded to include a section (either as stand-alone or within land use discussion) that focuses on the relationship and impact of the project on the adjacent park resources. This would include: a description of existing access points, key features, and recreation activities available within Conference House Park; a description of the new recreational features and activities that would be introduced by the project; any required support facilities or infrastructure associated with the proposed components or activities; anticipated construction staging areas and any associated impacts on existing park operations or facilities during the construction period.</li> <li>Coastal process modeling and analysis prepared in the natural resources analysis should be used to provide a description of the expected shoreline changes (e.g., beach accretion, altered erosion) on DPR property resulting from the installation of the breakwaters, and a generalized understanding of the timeframe associated with these processes and the projected changes.</li> </ul>
F	10	Par 6	Archaeological Resources - Replace "AKRF will consult ..." with "LPC and SHPO will be consulted"
F	11	Par 1, L 8	DPR will not be undertaking an archaeological investigation of Waterside Bluffs in Conference House Park. Update language to omit this investigation/study.
F	11-12	Par 4	Visual - The scope should recognize Conference House Park and associated features as visually sensitive resources that would be inventoried in accordance with NYSDEC methodology and indicate inclusion of discussion of project visibility from the historic house resources within the Park. It would also be useful to specify the minimum number of vantage points that will be used for photosimulation assessment and identify key specific locations anticipated.
F	12	Par 10, L 3	Natural Resources - Replace "Butler Manor Woods, Cunningham Pond and the Mount Loretto Unique Area" with "and Mount Loretto Unique Area, including Butler Manor Woods and Cunningham Pond.
F	14	Par 2	Natural Resource Analysis - Since the primary objective of this project is coastal protection that is responsive to climate change, a framework for analyzing the impact of the breakwater and berm systems



Section	Page	Paragraph / line	Comments
			(including the alternatives with or without) should be provided. The data collection, modeling and analysis needed to assess the impact of the proposed structures on the hydraulic, sediment transport and erosion processes should be described.
F	15	Par 4	Fourth bullet - <ul style="list-style-type: none"><li>• Mapping of benthic, including potential spawning habitat, is needed</li><li>• Pre-and post- project monitoring should be required, and not be considered optional, to evaluate performance. Given the size of the project and its implementation of a novel technology, performance monitoring is essential. More information on protocols and approaches to the performance assessment, both for coastal protection and ecological enhancement should be provided.</li><li>• Analysis of historic erosion conditions and sediment transport (deposition and erosion) along the south shore of SI should be considered in the performance analysis.</li></ul>
F	18	Par 4, L 1	Climate Change Adaptation and Resilience - The scope should reference NPCC 2015 (New York City Panel on Climate Change Report, latest release) data and projections in description of best available information.
F	20	Par 5	Construction - <ul style="list-style-type: none"><li>• The construction activities section should include an estimate of the volume of material necessary to be imported and how this material will be delivered and handled. A description of potential construction period conflicts with park and recreation facilities, operations, and access points should be provided.</li><li>• Potential natural resources impacts of dune construction should be assessed.</li></ul>