

Staten Island Bluebelt Drainage Plans for Mid-Island Watersheds

Final Generic Environmental Impact Statement



CEQR No. 07DEP063R



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**With the
Assistance of:** AKRF, Inc.
Hazen and Sawyer, P.C.
Historical Perspectives, Inc.

November 4, 2013

FINAL GENERIC ENVIRONMENTAL IMPACT STATEMENT
for the
STATEN ISLAND BLUEBELT DRAINAGE PLANS
FOR MID-ISLAND WATERSHEDS

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CEQR No.: 07DEP063R
Action Location: Staten Island, New York City

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City of New York
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Foreword

This Final Generic Environmental Impact Statement (FGEIS) examines the Staten Island Bluebelt Mid-Island Watershed Amended Drainage Plans, proposed by the New York City Department of Environmental Protection (DEP). A Draft GEIS (DGEIS) for the proposed project was completed and distributed for public review by DEP on September 23, 2011. A public notice, announcing the release and public hearing on the DGEIS, was published in the City Record, the New York State Department of Environmental Conservation (NYSDEC) Environmental News Bulletin, and in a local newspaper, The Staten Island Advance. Comments on the DGEIS included oral comments made at the public hearing and written comments submitted to DEP between September 23, 2011 and December 16, 2011. DEP held a public hearing on the DGEIS at the offices of Community Board 2 on Staten Island on October 27, 2011. In addition, DEP hosted a workshop-style meeting for the public on February 27, 2013 at which time residents had an opportunity to discuss the proposed plans described in the DGEIS.

This FGEIS identifies all substantive comments on the DGEIS that were received at the public hearing, submitted in writing at the hearing, or submitted to DEP during the comment period. The comments are summarized and responded to in Chapter 11, “Responses to Comments on the DGEIS.” Text modifications between the issuance of the DGEIS and this FGEIS are indicated by double-underlining.

Provided below is a summary of the changes to the DGEIS that are included in this FGEIS.

- Chapter 1.1. Overall Project Description. Additional details are provided on the proposed berm designs at the proposed Best Management Practice (BMP) sites relative to enhancing berm stability during extreme storm events when flood waters overtop the berms. Additional information is also provided on the status of the Regional General Permit (RGP) that DEP has filed with the US Army Corps of Engineers and New York City Local Law 3 of 2010 that address tree clearing and mitigation under the review of the New York City Department of Parks & Recreation.
- Chapter 2.1: Methodology for All the Drainage Plan EIS Analyses. A modified description of the design storm used in the drainage plan sewer planning is included in this FGEIS.
- Chapter 3.1: Oakwood Beach Drainage Plan Project Description and Chapter 4.1: New Creek Drainage Plan Project Description. Minor changes to the conceptual BMP design configurations for the Oakwood Beach watershed included proposed BMP OB-2: Tysens Lane (Figure 3.1-5) and BMPs OB-3 Riga Street and OB-4: Ithaca Street (Figure 3.1-6). Minor changes to the conceptual BMP design configurations for the New Creek watershed BMPs included BMPs NC-7: Nugent Street, NC-8: Freeborn Street, and NC-9: Graham Boulevard (Figure 4.1-9), BMP NC-10: Jefferson Avenue (Figure 4.1-10), BMP NC-17: Slater Boulevard (Figure 4.1-14), and BMPs NC-18: Patterson Avenue and NC-19: Buel Avenue (Figure 4.1-15). These changes were made to reduce potential impacts on existing wetlands and reflect other minor design changes based on comments received from NYSDEC.

Mid-Island Bluebelt FGEIS

- Chapter 4.1: New Creek Drainage Plan Project Description. The designs for proposed BMPs NC-11: Last Chance Pond and NC-6: Boundary Avenue were advanced to preliminary design. These preliminary designs were based on new site survey data and several field and design coordination meetings with NYSDEC that were held between the issuance of the DGEIS and this FGEIS. The preliminary designs for these BMPs were advanced because of the need to more closely analyze and minimize project impacts associated with the tree clearing and disturbance of existing natural features.
- Chapter 4.1: New Creek Drainage Plan Project Description. Additional description is provided in the FGEIS on the proposed first capital project, which encompasses proposed BMPs NC-7: Nugent Avenue and NC-8: Freeborn Street and the low-flow channels of proposed BMPs NC-9: Graham Boulevard and NC-17: Slater Boulevard. The proposed first capital project would improve the West Branch of the New Creek watershed which would serve to alleviate local flooding.
- Chapters 3.7, 4.7, 5.7: Historic and Cultural Resources (all watersheds). Minor text modifications were added to reflect comments from the New York City Landmarks preservation Commission and the New York State Historic Preservation Office.
- Chapters 3.9, 4.9, 5.9: Natural Resources (all watersheds). Modifications to wetland impact tables based on comments and additional coordination with the US Army Corp of Engineers (USACE) and United States Environmental Protection Agency (USEPA) based on their review of the DGEIS and RGP.
- Chapters 3.9, 4.9, 5.9: Natural Resources (all watersheds). Expanded discussion of projected BMP operations in light of sea level rise were added in response to comments received from NYSDEC.
- Chapter 4.9: New Creek Natural Resources. The tree impact tables for proposed BMPs NC-6: Boundary Avenue and NC-11: Last Chance Pond were updated to reflect site survey data that was performed between the DGEIS and preparation of the FGEIS. The tree impact tables were also updated to reflect the modified designs at these two BMPs since the release of the DGEIS.
- Chapter 5.9: South Beach Natural Resources. Text modifications were added to the discussion of avoiding impacts on the hydrology and water quality of Brady's Pond in response to comments received from NYSDEC.
- Chapters 3.10, 4.10, and 5.20: Growth Inducing Aspects Impacts (each watershed). Population data was updated to reflect 2010 Census Tract information.
- Chapter 6.1: Impacts During Construction. Additional details on the proposed first capital project were added.
- Chapter 7.1: Alternatives. This analysis was expanded to present two additional alternatives that examine the potential for redirecting stormwater flows in the New Creek Watershed to reduce the required stormwater detention storage volume at proposed BMP NC-11: Last Chance Pond.
- Chapter 8.1: Mitigation. Table 8.1-2 and the accompanying text was modified to include an expanded discussion on impact avoidance techniques at proposed BMPs NC-6: Boundary Avenue and NC-11: Last Chance Pond, including additional pre-construction data collection for rare, threatened and endangered species. An additional alternative site for tidal wetland

mitigation is also proposed in this FGEIS. (This site, located at the outlet of the Oakwood Beach drainage system, is in the vicinity of existing tidal wetlands which would be expanded by the proposed mitigation project.) The mitigation section was also revised to address the requirement of the USACE and EPA to provide mitigation for the project's proposed conversion of forested wetlands to open water and other wetland types.

- Appendix C.4: “Natural Resources Data Inventory: New Creek Watershed” was expanded to include additional data that was collected at the site of the proposed first capital project.
- Appendix E: “Pre-Final Design Natural Resources Survey—First Mid-Island Capital Project” was added to provide the results of the pre-construction natural resources investigations for the proposed first capital project.
- Appendix F: “Multi-Year Pre-Final Design Natural Resources Investigations for Protected Species in the Three Mid-Island Watersheds” was added to provide additional details on the natural resources investigations that would be undertaken at various BMP sites prior to the final site design to avoid impacts on protected species that have been identified in this FGEIS.

Since issuance of the DGEIS, Hurricane Sandy made landfall in the Northeast on October 29, 2012. Hurricane Sandy was an exceptional event for New York City. A record high water level of 14.06 feet was set at the Battery, breaking the oldest official record of 10.02 feet set in 1960 with Hurricane Donna. The storm's track was unprecedented, taking a sharp westward turn into the New Jersey coast rather than veering eastward out to sea as is typical of most hurricanes. The storm also hit at high tide, exacerbating flooding. Hurricane Sandy ultimately resulted in extensive flooding beyond the boundaries of what was considered the 500-year floodplain.

Hurricane Sandy caused extensive damage in the region, particularly along the South Shore and East Shore of Staten Island, where the flooding and associated impacts extended north of Hylan Boulevard and affected large portions of each of the three Mid-Island watersheds. The Bluebelt properties, all of which were unimproved, were completely inundated by the storm surge and became filled with major debris such as cars and sheds and other minor debris. Several fences, installed by DEP along Bluebelt property lines, were also damaged and needed replacement. In some locations, the storm caused scouring of stream banks and soil erosion at the Bluebelt sites.

The drainage plans discussed in this FGEIS are designed to manage the City of New York's design storm for a rainfall event. (A design storm is the storm used in sizing storm sewers and other components of a stormwater management system.) While Hurricane Sandy generated a storm surge of historic proportions, there was very little rainfall. The proposed drainage plans are designed as a stormwater mitigation strategy and are not designed to address the storm surge brought by Hurricane Sandy or similar storms; only shoreline protection measures parallel to the ocean can address that type of tidal flooding.

The near and long-term effects of this storm on the social, cultural, physical and natural conditions in these three watersheds continue to be assessed. As stated in this FGEIS, each of the proposed BMPs will require additional detailed designs and permit approvals prior to construction. The extent to which the effects of Hurricane Sandy require modification or refinement of the impact conclusions presented in this FGEIS will be addressed during the permit review process for each individual BMP. *