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**NEGATIVE DECLARATION**  
Notice of Determination of Non-Significance

New York City Department of Environmental Protection  
Green Infrastructure Program

**CEQR No. 12DEP054Y**

May 23, 2012

This Negative Declaration has been prepared in compliance with the requirements of the New York City Environmental Quality Review (CEQR) process as set forth in Executive Order 91 of 1977 and amendments, Article 8 of the Environmental Conservation Law establishing the New York State Environmental Quality Review Act (SEQRA) and its regulations as set forth in 6NYCRR Part 617, and the State Environmental Review Process (SERP) as required for obtaining financing under the State Environmental Facilities Corporation's State Revolving Loan Fund Program. The New York City Department of Environmental Protection (NYCDEP), as lead agency, has determined that the proposed action described below would not have a significant effect on the environment and is herein publishing a Negative Declaration. An Environmental Assessment Statement (EAS) form and analysis was distributed on March 8, 2012. The Negative Declaration will be considered final and effective following thirty (30) days of this date if no substantive comments are received which would change the conclusion of the environmental review.

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**PROJECT DESCRIPTION**

NYCDEP, on behalf of the City of New York, is preparing the Green Infrastructure Program as part of an adaptive management approach comprised of "green" and "grey" projects to improve water quality in priority waterbodies within the City as outlined in the New York City *Green Infrastructure Plan* published in September 2010.

The primary object of the Green Infrastructure Program is to reduce combined sewer overflow (CSO) and improve water quality while enhancing the City's urban environment. The initial phase of the Green Infrastructure Program, and the subject of this environmental review, is the implementation of green infrastructure projects to manage one inch of rainfall on 1.5% of the impervious surfaces in combined sewer areas through 2015. The projects would be designed to control stormwater at its source and to reduce the need for end-of-pipe stormwater storage and treatment systems (or "grey" infrastructure) by managing stormwater through controlled release, infiltration, and evapotranspiration ("green" infrastructure technologies).

Almost two-thirds of New York City's sewer system is a combined system that collects both sanitary wastewater and stormwater runoff from properties and streets. During heavy rainfall or snowmelt, flows can exceed the capacity of the

sewer system and the treatment plant. To manage flow levels at the treatment plants and to prevent flooding upstream during rain events, New York City's 149 miles of interceptor sewers are designed with "regulators" that have overflow weirs to divert combined stormwater and wastewater into New York City's surrounding waterways when flows exceed the capacity of the system (twice dry weather flow).

In 2008, the City published its *Sustainable Stormwater Management Plan* and NYCDEP began to design and build green infrastructure pilot projects to test various technologies around the City. The pilots are installed with monitoring equipment to determine the level of performance for each type of installation; the monitoring period is currently underway and will continue over the next few years. The data collected as part of the pilot projects will be integrated into the design and approach for the proposed Green Infrastructure Program. In 2010 the City published the *NYC Green Infrastructure Plan* which identified key components to using green and gray technologies to manage stormwater and improve water quality in a cost-effective manner.

In 2011 the New York State Department of Environmental Conservation (NYSDEC) modified a 2005 Consent Order covering combined sewer overflows to include green infrastructure and cost-effective grey infrastructure for meeting water quality standards. The Consent Order requires that the City manage the equivalent of stormwater generated by one inch of precipitation on 10% of impervious surfaces citywide in combined sewer areas by 2030, starting with 1.5% of impervious surfaces citywide in combined sewer areas by December 31, 2015.

The primary areas by which the Green Infrastructure Program would be implemented are the Green Infrastructure Capital Program, the Green Infrastructure Grant Program, and Neighborhood Demonstration Areas. The Green Infrastructure Capital Program represents the large majority of funding NYCDEP has budgeted for green infrastructure program implementation, which would mostly be installed in street and sidewalk right of way spaces, on public buildings and on other publicly owned hardscapes such as playgrounds, schoolyards and parking lots. The Green Infrastructure Grant Program is designed to encourage partnerships between NYCDEP and local stewards and community groups through the funding of green infrastructure projects on private property. The Neighborhood Demonstration Areas consist of three neighborhoods, two in Brooklyn and one in the Bronx, where some of the first projects will be built and where the before and after flow conditions will be closely monitored to further the understanding of the effects of green infrastructure from a neighborhood perspective. The Green Infrastructure Program would be implemented alongside an outreach effort responsible for ensuring that the public understands the Program's goals and objectives.

Typical green infrastructure technologies that are likely to be employed in the implementation of the Green Infrastructure Program include rooftop systems (such as green roofs and blue roofs); right of way installations such as bioswales and stormwater Greenstreets; infiltration systems such as rain gardens, porous paving, or rainwater harvesting; and detention systems such as stormwater chambers and perforated pipe systems.

## **POTENTIAL IMPACT ASSESSMENT**

As presented in detail in the EAS, the proposed action would not result in the potential for significant adverse impacts to occur to any aspects of the environment. Discussions of all impact categories are presented in the attached EAS; key conclusions are summarized below.

### **Community Facilities and Services**

The projects under the proposed Program would not directly displace any community facilities or significantly increase the demand for services; however some on-site projects may involve physical alterations to public facilities such as installing green roofs or rain gardens at public housing or schools. DEP would partner with the involved agency to ensure that alterations are complimentary to the site's function and would minimize disruption during installation. No on-site public installation would result in a change in function or the ability of that site to provide community services.

### **Open Space**

The Program may include activities within City parkland, on vacant property, and on school play areas. Any proposed projects implemented within a City park would be integrated into the natural park area, would include re-planting and restoration for areas affected by construction, and would be designed to limit the project's disturbance. Vegetated elements or rain gardens may be incorporated in adjacent areas but would not encroach on school or park play grounds unless specifically requested by the managing agency. The technologies implemented in open space or play areas would be designed to minimize impacts and the space would provide aesthetic benefits, as well as shading and cooling benefits from trees. Also, full coordination effort with the Department of Parks and Recreation, New York City School Construction Authority, and individual schools would be initiated for each park or schoolyard project to ensure limited disruption to recreational programming.

### **Urban Design and Visual Resources**

None of the proposed projects would create significant aboveground structures; nor would they significantly alter the built form or be visually prominent in the urban design context. Any streetscape elements to be constructed would be consistent with the existing pattern in the area or would create a visual benefit. In particular, the right of way bioswales would be designed to replicate the visual characteristics and enhance the functionality of a standard Department of Parks and Recreation street tree. In addition, the tree guards used for the bioswales would match the prevailing tree guard design along the block and in the neighborhood. Green Infrastructure projects would be subject to review and approval by the New York City Public Design Commission where applicable; and while they may modify the form or arrangement of local streets, these modifications will be minimal and will utilize materials and elements that are already in use within the streetscape and allowed by existing zoning.

## **Natural Resources**

In order to avoid the potential for groundwater level impacts, DEP will not build infiltration projects in areas known to have high groundwater levels (at least five feet from the bottom of the installation). All potential sites will be tested (using an in situ Falling Head Permeability test) to meet minimum permeability standards, ensuring that there is adequate vertical infiltration so the flow does not disperse laterally. All green infrastructure infiltration projects would be located at least ten feet from any structural elements to ensure that they will not come into any potential conflict with foundations, vaults, or basements; projects which store or manage large volumes of stormwater, such as subsurface detention systems, will be located further from subsurface structures. Some bioswales will be monitored with instruments that can measure the hydraulic head of the local groundwater; this will allow DEP to monitor any potential changes in the groundwater of the areas around green infrastructure projects.

## **Solid Waste and Sanitation Services**

Green infrastructure right-of-way installations would be unlikely to take up an entire property frontage or block sanitation services; however, larger installations would include pathways for access that could also be used for garbage put out.

## **Transportation**

During project design, proposed project sites would be evaluated and field visits would be conducted to assess the potential impact on street configurations and traffic flows. The design would be altered to minimize any effect and would not encroach on moving lanes. In addition, DEP would coordinate with DOT and all designs would comply with DOT street and sidewalk requirements and the DOT Street Design Manual. The vegetated area of right-of-way bioswales would include approximately a foot of stone along the curb to allow passage on foot (if exiting a car or stepping off of the street). Projects would also be individually examined for possible impacts to pedestrians and transit and in no cases shall sidewalks be reduced to less than eight feet. Those projects not approved by DOT would not proceed.

## **Historic and Cultural Resources**

Any on-site green infrastructure taking place in a historic district or at a site which is designated or eligible for landmark status would require approval from the New York City Landmarks Preservation Commission (LPC) and/or the New York State Office of Parks, Recreation and Historic Preservation – State Historic Preservation Office (SHPO), as appropriate.

If any potentially significant resources are discovered during installation of street work, LPC would be contacted and appropriate measures would be undertaken to protect and preserve cultural resources.

For green infrastructure projects on public and private property, the extent of site disturbance would be considered in light of previous disturbance at the site. If the project

would involve excavation beyond the previous site disturbance (in depth or footprint), further archaeological coordination would be undertaken including, as necessary, and initial review, and documentary study (Phase IA and Phase IB) and project modification or mitigation.

On projects which receive State permits, approvals or funding, including State Revolving Fund financing through the New York State Environmental Facilities Corporation, DEP will consult with or require coordination with SHPO to ensure there are no adverse impacts and that funding eligibility requirements are met.

### **Hazardous Materials**

All construction contracts for the Program would include provisions to sufficiently address any hazardous materials encountered in the field. The contracts would be performed by agencies with extensive experience working within and around the streets of New York City. In-field assessment would be done on a case-by-case basis to establish whether any soil characterization would be required. Standard operating procedures would be followed to allow the construction projects to limit pathways of exposure of any hazardous materials encountered.

To protect workers on projects where the identified levels of contamination would allow the project to proceed with modification, contract documents for construction would require the following: the contract to submit a Material Handling Plan which identifies the specific protocol and procedures that would be utilized to manage waste in accordance with applicable regulations; dust control procedures in place during excavation activities to minimize the creation and dispersion of fugitive airborne dust; precautions necessary to protect workers and downwind communities from exposure by preparing a site-specific construction Health and Safety Plan.

### **STATEMENT OF NO SIGNIFICANT EFFECT**

The NYCDEP has determined that, as proposed, the Green Infrastructure Program is not anticipated to have any potential significant adverse impacts on the quality of the environment. No significant adverse impacts on community facilities and services, open space, urban design and visual resources, natural resources, solid waste and sanitation services, transportation, historic resources, hazardous materials or other impact categories would occur as a result of the proposed action. Any natural resources, hazardous materials, traffic, air quality, and noise impacts related to construction will be temporary and short in duration, and will follow appropriate governing regulations and therefore are not considered significant effects on the environment or public health.

### **Supporting Statements**

The above determination is based on an environmental assessment that finds that the action, as proposed, would not result in significant effects on the environment that requires the preparation of an Environmental Impact Statement.

**For further information, please contact:**

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