

TO: Marisa Lago, Chairperson, Department of City Planning

CC:

Councilmember Brad Lander
Councilmember Stephen Levin
Borough President Eric Adams
Vicki Been, Deputy Mayor of Housing and Economic Development
Vincent Sapienza, Commissioner, NYC Department of Environmental Protection
Dan Zarrilli, Chief Resilience Officer, Mayor's Office
Winston Von Engel, Director, Brooklyn Office of Department of City Planning
Peter Fleming, Community Board 6 Chair

Dear Chair Lago,

On behalf of Gowanus Canal Conservancy (GCC), please accept these comments regarding *Gowanus Neighborhood Rezoning and Related Actions Draft Scope of Work CEQR No.19DCP157K.*

We are the community-based environmental steward for the neighborhood and are leading the Gowanus Lowlands community-based planning process for the public realm, which builds upon existing remediation and planning processes to identify actionable steps towards a vibrant, accessible and resilient network of parks and public spaces centered on the Gowanus Canal.

We are also a proud member of Gowanus Neighborhood Coalition for Justice, a diverse coalition of residents and community organizations that advocates for a just, inclusive, and resilient Gowanus neighborhood and planning process. We additionally work closely with and support numerous other organizations, stakeholders, businesses and residents in the Gowanus neighborhood. We firmly believe that robust comprehensive planning for the future of the neighborhood is contingent on engagement of the people that know it best. We commend your agency for building on the Bridging Gowanus planning work led by Councilmember Brad Lander and support the breadth of goals that were laid out in the Neighborhood Plan to achieve community's priorities.

Through years of planning, we have seen that achieving the community's priorities will require thoughtfully planned density. In our December 2018 comments on the Draft Framework, we encouraged the use of zoning tools to achieve these priorities, and suggested incentives and targets that might be leveraged to manage stormwater and sewage and to provide accessible and resilient public space. However, we are concerned that the proposed density in the Draft Scope of Work has not been planned in concert with critical infrastructure and neighborhood investment. We understand that the typical City rezoning results in securing capital commitments towards the end of the process, but we believe that the years of planning and coordination our community has invested in and our complex and pressing environmental justice issues deserve upfront and transparent commitments before ULURP begins.

Our primary concerns are outlined below and further detailed in attached comments.

The EIS must accurately project density that will result from the proposed action

We are concerned that the scoping documents underestimate the amount of density that will result from the proposed rezoning and that the resulting EIS will therefore not accurately portray the impacts and needed mitigation, page 3.

As Gowanus has unique and complex environmental issues, the City should expand the Gowanus Special District into an Environmental Special District to meet sustainability and resiliency goals.

Given the unique geological and hydrological conditions of Gowanus, combined with a concentration of environmental burdens and vulnerable populations, the City should establish an Environmental Special District that requires a district-scale approach to sustainability and environmental justice. In New York City, there are already important precedents that modify development requirements to protect and expand natural features, such as the Special Natural Areas Districts in Staten Island, the Bronx and Queens. The following requirements should be incorporated into the Gowanus Special District:

SEWAGE AND STORMWATER MANAGEMENT - Existing plans for managing combined sewage overflow that are required under the Superfund Cleanup will still leave us with an estimated 115 million gallons of overflow a year, not accounting for additional sewage due to land use changes following the rezoning. The City recently presented an alternative plan to build a tunnel instead of tanks for sewage and stormwater management, but both options leave 8 CSO-sheds unmanaged. This Superfund required infrastructure *cannot* be used as mitigation for additional sewage loading. Mitigation should be integrated into the Environmental Special District in the form of building and landscape requirements, and technical assistance and grant funding should be made accessible to support implementation.

THE WATERFRONT - The Waterfront Access Plan is an important step towards promoting resilient and publicly accessible esplanades that support programming, soft edges and water access. A key strategy identified in the Draft Scope to manage flood risk includes a requirement to raise the shoreline to account for future sea level rise. It is critical that new flood-resilience measures allow for positive drainage to the canal to prevent increased flooding for existing low-lying streets and buildings.

STREETSCAPES - The current Gowanus Special District includes important provisions for activating ground floors but should be expanded to include essential public realm elements for creating a pedestrian-friendly environment. The Special District should be expanded to require and invest in seating and site-specific tree planting guidelines, the City should invest in trash cans and maintenance, and existing street safety issues must be addressed.

GROUNDWATER - The neighborhood's high groundwater table and numerous underground creeks should be modeled to understand impacts of construction and sea level rise, and the City should invest in and encourage management techniques including subsurface wetlands and daylit creeks.

HEALTH AND SOCIAL RESILIENCE - The City must provide critical improvements to indoor living conditions, social resilience, and health outcomes of vulnerable populations, particularly public housing residents.

COMMUNITY OVERSIGHT - The City must create and empower a governing body of community representatives to ensure that Neighborhood Plan goals are met including: construction impact mitigation; developer commitments including brownfield remediation, Gowanus Mix implementation, CSO mitigation; City commitments, and to provide oversight of maintenance and programming of the public realm.

All mitigation measures must be added to the Gowanus Neighborhood Plan and tracked in the City Commitment Tracker.

We appreciate your attention to the comments on the following pages, and to working with the community towards a resilient and equitable future for our neighborhood.

Sincerely,

Andrea Parker Executive Director

Gowanus Canal Conservancy



Comments on

Gowanus Neighborhood Rezoning and Related Actions Draft Scope of Work CEQR No.19DCP157K

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F. DESCRIPTION OF THE PROPOSED ACTIONS

We share the City's stated aim to "implement the objectives of a Gowanus Neighborhood Plan and a shared long-term vision for the future of the neighborhood," but are concerned that the proposed actions in the Draft Scope of Work (DSOW) fail to address essential community planning priorities necessary to achieve that vision. The proposed rezoning must include critical upgrades to infrastructure and mechanisms for neighborhood investment, and these measures should be identified *before* ULURP begins.

ZONING TEXT AMENDMENTS

Environmental Special District: The City should expand the Gowanus Special Mixed-Use District to include the community's goals for environmental justice, sustainability and resiliency.

WATER

Create a clean, vibrant Gowanus Canal by mandating a **net zero increase in CSO**.

OUTDOOR ENVIRONMENT

Create a comfortable and resilient public realm that is pedestrian friendly and accessible to all residents

ENERGY

Create sustainable and resilient energy Infrastructure for a **net zero increase in electricity demand**.

HEALTH + SOCIAL RESILIENCE

Improve living conditions, resilience and health outcomes of vulnerable populations



Given the unique geological and hydrological conditions of Gowanus, combined with a concentration of environmental burdens and vulnerable populations, the City should establish an Environmental Special District that requires a district-scale approach to sustainability and environmental justice. In New York City, there are already important precedents that modify development requirements to protect and expand natural features, such as the Special Natural Areas Districts in Staten Island, the Bronx and Queens. The following requirements should be incorporated into the Gowanus Special District:

- Wastewater & Stormwater requirements that mandate a net zero increase in CSO from new density, above and beyond the Superfund requirements
- Outdoor environment requirements that address flooding, urban heat island, access, character and other public realm issues
- Energy requirements that establish efficiency and production rules for new buildings
- Health & Social Resilience measures that improve conditions for vulnerable populations
- Creation of a governing body that provides oversight of maintenance and programming in the public realm, oversees land use rules for the 'Gowanus Mix', tracks capital improvements and enforces developer commitments

Wastewater & Stormwater: The City must create a clean, vibrant Gowanus Canal by mandating a net zero increase in Combined Sewage Overflow (CSO). The City should require in-building sewage management for new development over a certain size and invest in additional grey and green infrastructure throughout the neighborhood, beyond what is already required and planned under the Superfund, in order to completely mitigate any additional CSO caused by additional density. The infrastructure already committed to under the Superfund cannot be counted towards this mitigation. See Task 11 - Water + Sewer Infrastructure for a detailed analysis of concerns.

Community Oversight: As part of the Special District the City should create and empower a governing body of community representatives to ensure that Neighborhood Plan goals are met. There are precedents for such oversight, including the Governing Group established in the East Midtown rezoning and the programming Review Board required for the shore public walkway at the Domino site on the East River. The following areas of oversight should be within this body's purview:

- Construction impact mitigation
- Developer commitments including brownfield remediation and Gowanus Mix implementation
- CSO mitigation
- City commitments
- Maintenance and programming of the public realm

USE REGULATIONS + STREETSCAPE IMPROVEMENTS

The Draft Scope refers to streetscape requirements to encourage a pedestrian-friendly environment but it does not outline improvements to address adverse climatic conditions and improve the public realm throughout the study area. *Use Regulations* should include requirements that address the history of environmental injustice in Gowanus, which faces a higher vulnerability heat index than surrounding neighborhoods and insufficient access to quality green space.

Landscape Requirements for New Buildings

The Environmental Special District should require new development to achieve a minimum 20% vegetative cover through measures such as green roofs, tree planting and vined walls, for all development throughout the Special District.

Streetscape: Requirements for New Buildings & Capital Investment

The City should consider Gowanus-specific streetscape design goals when crafting requirements, modifying permitting, and planning for capital investment. These include developing tree specifications and public seating that account for flooding, character, industrial operations, and urban heat island. See details Task 5: Open Space.

<u>WATERFRONT ACCESS PLAN + CITY CAPITAL IMPROVEMENTS</u>

We are in full support of the fine-grained approach that the City is taking to the Waterfront Access Plan (WAP). The City should continue to flesh out the WAP to promote an accessible, active and resilient waterfront, and match the intent of the policy with adaquete commitment for City Capital waterfront projects. See details Task 5: Open Space, Task 18: Natural Resources, and Task 16: Historic and Cultural Resources.

TRANSIT EASEMENT ZONES

The Transit Easement Zones are an important step to allowing for improvements to the subways but funding is needed to ensure that these improvements are implemented.

INDUSTRIAL BUSINESS ZONE (IBZ)

The proposed actions will have significant impact on infrastructure in the IBZ, which must be mitigated in order to support the goals of a truly mixed use neighborhood. The City must incorporate rigorous analysis of drainage, transportation, open space and socioeconomic issues as part of the ongoing IBZ study before ULURP begins, and then must commit to substantial investment in infrastructure and services to support the IBZ as part of the Neighborhood Plan.

CITY MAP AMENDMENTS

The proposed mapped parkland at the end of Bond Street would impede the loading zones that serve 98 4th Street, 120 3rd Street (Fourth Street loading dock areas) and 421 Bond Street. As part of the proposed Industrial and Commercial zone, these buildings provide the economic and job development functions that are called for in the Neighborhood Plan to support a real mixed use district - impeding loading functions is a significant detriment to business operations. Though we encourage the City to invest in flood management at this street end, this should be done through subgrade suspended paving or other green infrastructure technique that allows active loading while managing stormwater.

We support the creation of newly mapped parkland at Public Place but urge the City to invest the needed maintenance dollars to make this space a true community asset.

LANDSCAPE MANAGEMENT

The proposed actions will result in new open space both along privately-owned shore public walkways and newly mapped parkland spanning discrete sites. A clear maintenance and programming plan should be articulated for new parkland to create a continuous, accessible, and inclusive network of parks. A mechanism for community oversight of maintenance and programming should be created for privately-owned public spaces, in order to ensure public access and enjoyment of use. See details Task 5: Open Space.

G. ANALYSIS FRAMEWORK

THE EIS MUST ACCURATELY PROJECT ADDED DENSITY

We are concerned that the scoping documents do not accurately portray the amount of density that will result from the proposed rezoning, and that the resulting EIS will therefore not accurately portray the impacts. We have conducted the below analysis to identify more accurate RWCDS alternatives, which should be studied in the EIS.

Map and Data Discrepancies in DSOW

Several discrepancies were identified in the Projected and Potential Development Site tables (DSOW, 85-109) when compared to PLUTO data obtained from the Department of City Planning:

- **Projected Development Site 42**: Existing Block 464, Lot 112 is represented in the Projected and Potential Development Site Map (DSOW, 53) but missing from the tabular data (DSOW, 85-109). The PLUTO Lot Area reported for this site is 7,400 sf and must be incorporated in the DSOW.
- **Projected Development Site 7:** The existing Lot Area reported for this site is 37,500 sf in PLUTO and 36,000 sf and 36,000 sf in the DSOW (DSOW, 85-109).
- **Projected Development Site 19:** The existing Lot Area reported for this site is 57,000 sf in PLUTO and 52,000 sf and 36,000 sf in the DSOW (DSOW, 85-109).
- **Projected Development Site 28:** Lot Area data for Block 445, Lot 50 is not reported in PLUTO. A Lot Area of 18,000 sf was used in our analysis.
- Projected Development Site 41: The existing Lot Area or Block 972, Lot 43 is 137,865 sf in PLUTO and 139,865 in the DSOW (DSOW, 85-109).
- Potential Development Site L: The existing Lot Area is 37,500 sf in PLUTO and 52,040 in the DSOW (DSOW, 85-109).
- **Potential Development Site W:** The existing Lot Area for Block 432, Lot 15 is 18,700 sf in PLUTO and 25,450 in the DSOW (DSOW, 85-109).
- Potential Development Site X: The existing Lot Area for Block 426, Lot 41 is 4,531 sf in PLUTO and 8,531 in the DSOW (DSOW, 85-109).

In order to accurately assess the impact of future development from a large-scale rezoning, the City should incorporate and report on a QA/QC for evaluating data sources and input. Miscalculation of baseline conditions can significantly impact all analyses as part of the DSOW. An independent analysis of the Projected Development Sites was conducted with Lot Area values corrected and obtained from PLUTO. GIS Area calculations were used where lots were split by Zoning District. The results of that analysis yielded the following for the 60 Projected Development Sites, which included 160 parcels, consistent with the DSOW.

RWCDS Alternative 1 - Accurate lot areas for Projected Development Sites

- Total Residential Area: 8,993,609 sf
- Residential Dwelling Units: 10,581 units (10,229 increase from existing)
- Residential Population: 22,220 residents (21,481 increase from existing))

The existing residential (352 DU, 739 residents) was subtracted from the final calculation and Residential Dwelling Units were obtained by multiplying Total Lot Area by Maximum Residential FAR, then dividing by a factor of 850 (DSOW, 850). It was predicted the residential population would increase by **21,481 residents on the Projected Development Sites alone**, which accounts for 1,708 residents not accounted for in the DSOW (DSOW, 46).

RWCDS Alternative 2 - Adding Potential Development Sites that should be considered Projected

The DSOW identifies 73 Potential Development Sites, considered less likely to be developed over a 15-year timeframe. The development impact of these sites is not included in the RWCDS analysis.

44 of the 73 lots identified in the DSOW as Potential Sites should be studied as Projected Sites (See map on following page). These sites include 91 lots that are owned by realty groups, development corporations, holding companies, LLCs, single owners of contiguous lots, and parcels with a lot area greater than 4,000 sf (or assemblages greater than 4,500 sf). Several of these sites have been confirmed by landowners as future development sites, are actively under construction, or currently listed for sale on the real estate market including:

- 452 Union
- 543 President Street
- 254 3rd Street
- 172 3rd Avenue
- 195 Douglass Street
- 80 4th Street

These examples alone suggest that the criteria for the identification of Projected Sites to be studied in the DSOW must be expanded and further examined.

An expanded analysis that includes these 44 Potential Sites as Projected Development Sites yields the following increase in projected residential density:

Total Residential Area: 11.802.209 sf

Residential Dwelling Units: 13,489 additional DU's
Residential Population: 28,326 additional residents

This analysis shows that the current RWCDS underestimates nearly 9,000 potential residents.

RWCDS Alternative 3 - Adding Other Sites that should be looked at

Additionally, there are 96 parcels that were excluded as Projected/Potential Development Sites in the DSOW that should be further examined as study sites. These sites are similarly owned by realty groups, development corporations, holding companies, LLCs, single owners of contiguous lots, have a Lot Area greater than 4,000 sf (or assemblages greater than 4,500 sf), and were built prior to 2003, not taking advantage of previous area re-zonings. Sites such as 361 3rd Avenue, The Can Factory, have proposed development and expansion plans that are not being studied in the DSOW. The redevelopment impact of these 96 sites would result in the following increase in residential density on those lots:

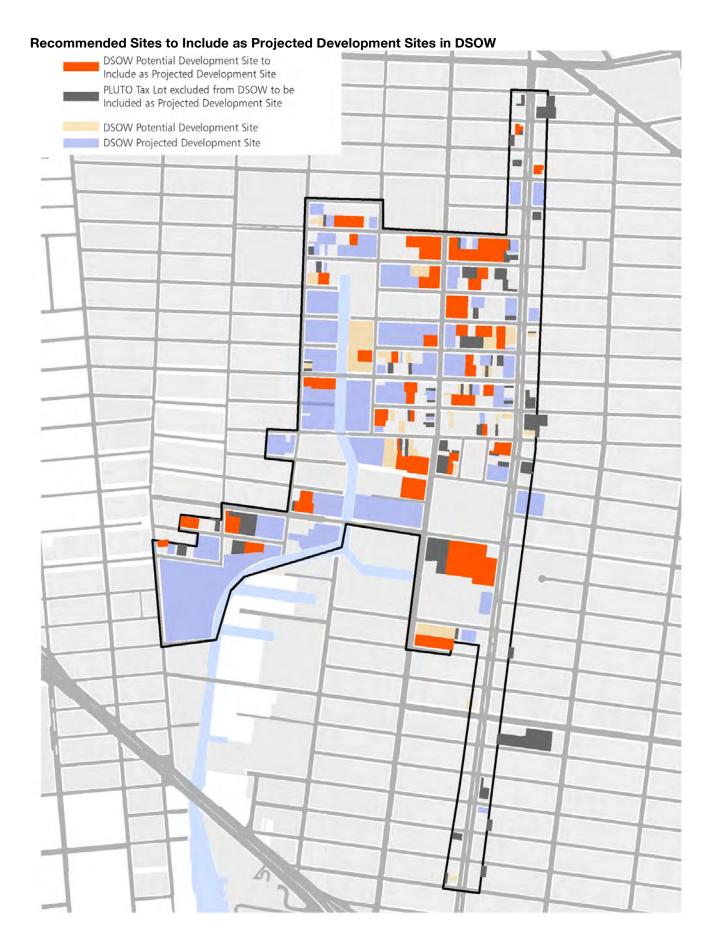
• Total Residential Area: 2,592,095 sf

Residential Dwelling Units: 2,413 additional DU's

Residential Population: 5,066 additional residents

An analysis that re-examines the selection of Projected Development sites to include both likely to develop Potential Sites and likely-to-develop sites excluded from the DSOW would more accurately represent a future RWCDS. By incorporating these sites in the DSOW, the predicted increase in population is closer to **15,902 residential dwelling units and 33,392 residents**. The current RWCDS does not account for an additional 13,619 residents, which will result in substantial underestimation of all tasks assessing environmental impacts of the rezoning.

Daily wastewater generation for 33,392 new residents is estimated to be approximately 3.3 Million Gallons per day – a volume nearly double what will be assumed with the RWCDS in the DSOW.



H. Proposed Draft Scope Of Work For The Environmental Impact Statement

TASK 1 - PROJECT DESCRIPTION

See comments above, in F. DESCRIPTION OF THE PROPOSED ACTIONS, to include in Project Description.

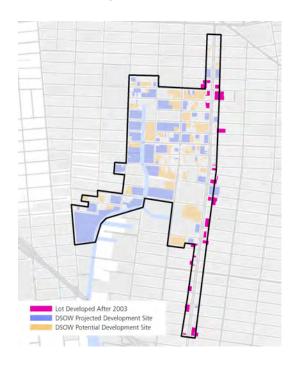
TASK 2 - LAND USE, ZONING AND PUBLIC POLICY

ANALYSIS

DEVELOPMENT

The land use analysis should include significant recent land use changes beyond the ¼ mile boundary that will have impact on area infrastructure, including Downtown Brooklyn and the entirety of Atlantic Yards / Pacific Park, half of which is just outside the ¼ mile boundary. This portion of the analysis should include the following built and projected development:

- DOWNTOWN BROOKLYN: The City grossly underestimated the residential density and subsequent environmental impacts of the 2004 Downtown Brooklyn rezoning¹, which shares numerous critical infrastructures with Gowanus, in particular the RH-034 CSO-shed, the Borough Hall Energy Service District, District 15 school seats, and the F, G and R train lines. The Gowanus EIS must include analysis of the actual density of Downtown Brooklyn redevelopment to fully understand the unmitigated impacts of that rezoning on Gowanus.
- ATLANTIC YARDS: This will almost double the amount of anticipated new housing units in our area and have significant impacts on critical infrastructure for Gowanus, in particular the RH-034 CSO-shed.
- WYCKOFF GARDENS INFILL: This NYCHA-led project will add additional residents to the immediate community in addition to the RWCDS, and rely on critical infrastructure in the RH-034 CSO-shed, the Borough Hall Energy Service District, District 15 school seats, and the F, G and R train lines.
- 4TH AVENUE: The DSOW suggests that only 43 parcels (13 sites) will be studied as Project Development Sites and 25 parcels (11 Sites) will be studied as Potential Development Sites on 4th Avenue. However, the impacts of construction underway through the previous 4th Avenue rezonings, including impacts on the RH-034, OH-007 and OH-006 CSO-sheds, the R train, the District 15 school system, and the Borough Hall Energy Service District, have not yet been fully felt by the community. Along 4th Avenue, 30 parcels have been developed since the Park Slope Rezoning proposal was approved in 2003². Collectively, these lots account for an increase of 1.434 residential dwelling units and 3.140



residents since 2003 (figure at right). This additional density must presented as part of this analysis.

REMEDIATION ACTIVITIES

The land use analysis should include careful consideration of the ongoing remediation actions in and around the Canal, including bulkhead construction, Canal dredging and capping, and upland brownfield remediation. and construction of the CSO tanks or tunnel. As these important projects will be under construction during the projected build-out of the proposed action, there must be analysis of worse case construction impacts, and clear and effective interagency coordination and/or phasing.

¹ A Tale of Two Rezonings: Taking a Harder Look at CEQR. (November 2018) Municipal Arts Society https://www.mas.org/wp-content/uploads/2018/11/ceqr-report-final-smaller.pdf

² Primary Land Use Tax Lot Output (PLUTO) Data. (September 2018). NYC Department of City Planning

HIGH LEVEL STORM SEWER CONSTRUCTION

Recent installation of the High Level Storm Sewer and side streets had negative impacts on 3rd Avenue businesses and resulted in the loss of 40 mature canopy trees on Carroll Street. These impacts must be considered and avoided as the City plans for further sewer separation projects.

CITY COMMITMENTS TO OPEN SPACE, INFRASTRUCTURE AND COMMUNITY AMENITIES

In addition to these trends of population growth and loss of green spaces, this section should acknowledge funding that has already been committed to neighborhood green infrastructure and community facilities but not spent. These commitments should be followed through on, and should not be counted towards City funding associated with the rezoning:

- District 39 Participatory Budget funding for 9th, 3rd and Union Street Green Corridors
- District 33 Participatory Budget funding for Gowanus Houses Community Center
- DEP has committed to installing green infrastructure assets that will manage 12 percent of the impervious surfaces within the Gowanus Canal combined sewer service area by 2030³. To date, DEP has reached the 50% target for this goal⁴ and additional ROW green infrastructure practices and public property retrofits are owed to the watershed through the Green Infrastructure Program.

TASK 3 - SOCIOECONOMIC CONDITIONS

ANALYSIS

• The overall wealth of Community District 6 masks significant economic disparities in the neighborhood. The study area for socioeconomic conditions should be a ½ mile offset but should also look at more localized populations and impacts, in particular impacts on public housing residents (DSOW, 49).

DIRECT RESIDENTIAL DISPLACEMENT

• The DSOW asserts that direct residential displacement does not need to be studied because less than 500 residents will be displaced (DSOW, 49). However, because of the small residential population of Gowanus, a displacement of even a small number has potential to alter the socioeconomic conditions of the neighborhood. Direct displacement should be studied and should account for buildings with rent stabilized units.

DIRECT BUSINESS DISPLACEMENT

- The EIS should analyze adverse impacts on low cost services like bodegas and laundromats that serve the majority low-income tenants of public housing.
- The EIS should also specifically look at displacement of the numerous "maker" businesses small scale
 manufacturers and artists that contribute to the unique economy of Gowanus. The analysis should show how
 much mitigation would be provided by requiring permanently affordable "Gowanus Mix" spaces in all new
 development.
- The EIS should analyze loss of sustainable jobs for low-income residents due to business displacement.

INDIRECT RESIDENTIAL DISPLACEMENT

• The EIS should look at potential displacement within rent stabilized units, which have been subject to tenant displacement as a result of landlord harassment.

INDIRECT BUSINESS DISPLACEMENT

• The EIS should pay particular attention to the Industrial Business Zone (IBZ). Mitigation measures should be identified as part of the IBZ planning process.

MITIGATION

• The City should require local CBO partnership and contracting for local recruitment, training and hiring of local low and moderate-income CB6 residents for maintenance of public open space.

Combined Sewer Overflow Long Term Control Plan for Gowanus Canal, DEP (2015)

NYC Green Infrastructure Annual Report, DEP (2018)

- The "Gowanus Mix" described in the project scope should be required throughout the Gowanus Special District
 including M1-4 zoning districts and all Mx districts to ensure that M zoned land continues to provide space
 for industrial and manufacturing uses.
- The City should look at increasing FAR for dedicated industrial and "maker" uses in the IBZ, as well as proposals for supporting more industrial and "maker" uses within the study area.
- The City must commit to funding critical building improvements at all three local NYCHA developments and must break ground on the long-shuttered Gowanus Community Center before the proposal goes through ULURP.

TASK 4 - COMMUNITY FACILITIES AND SERVICES

In addition to schools, libraries and child care centers, a larger residential population will increase demand for public indoor spaces such as community centers, museums, meeting spaces, boat houses, public bathrooms, and educational facilities. These important community facilities and associated programed should be provided and required or incentivized in new development.

ANALYSIS

- The EIS should enumerate the existing or recent low-cost or free public and community spaces and services in the neighborhood, and the populations served, including the Old Stone House & Washington Park, the Gowanus Dredgers, Spoke the Hub, Open Source Gallery, The Old American Can Factory, Gowanus Canal Conservancy, Proteus Gowanus, the Wyckoff Community Center, the Gowanus Houses Community Center and school gyms and auditoriums. Analysis should include whether the proposed action will displace the existing facility and/or greatly increase demand for the space and services. This indoor public space study should also specifically look at which public spaces are available during emergencies.
- School seat studies must include all other recent and probable development in District 15.

MITIGATION

- Indoor community spaces and uses must be included in Gowanus Mix.
- The City must invest in indoor community and educational spaces to serve the projected population:

GOWANUS COMMUNITY CENTER - The City must allocate sufficient funding to make necessary repairs that it has promised *before* ULURP begins, and then fund programming that is truly community-based, run in collaboration with local residents, and responsive to residents' needs.

GOWANUS PUMP STATION / CSO INFRASTRUCTURE - The City should invest in educational space in the Pump House or as part of the Head of Canal CSO infrastructure and proposed Open Space, in order to interpret the complex hydrological history and infrastructure in Gowanus, similar to the Visitor Center at the Newtown Creek Wastewater Treatment Plant.

DOUBLE D POOL HOUSE - As part of the remediation and renovation of Thomas Greene Park, the City should replace the pool house with a larger indoor public building that includes public meeting space and bathrooms that are accessible year round.

OLD STONE HOUSE ANNEX - The City should expand the programming capacity of the Old Stone House & Washington Park through the construction and programming of the Old Stone House Annex, which would provide affordable, ADA accessible restrooms and space for meetings, events and performances for city-wide organizations, including PTAs and not for profit organizations, as well as neighborhood residents.

HALL OF GOWANUS INDUSTRY AND ART in the COIGNET BUILDING - The City should help fund a museum and gallery of artifacts, maps and documents of Gowanus industry and art. This institution should host an annual

artist residency to interpret the unique history and ecology of Gowanus, and support ongoing workforce development and business services for the IBZ.

SALT LOT STEWARDSHIP CENTER AND FIELD STATION - As part of the investment in CSO, salt and composting infrastructure at the Salt Lot, the City should commit space for and invest in a environmental education and stewardship facility at the Salt Lot, similar to the recently constructed DPR Bronx River House, to support maintenance of public open space in the Gowanus Lowlands as well as citizen science and volunteer stewardship programming. This facility can also host an industrial business incubator and job training center, to fully unite the eco-industrial heart of Gowanus and gateway to the IBZ.

PACIFIC LIBRARY - The City should invest in ADA accessibility, staffing and resources for the Pacific Library, the only public library in the study area.

BOAT HOUSES - The City should invest in at least one public boat house and several boat launches to expand access to boating on the Canal, in partnership with the Gowanus Dredgers.

RESTROOMS - The City should invest in composting comfort stations in all public spaces, particularly St Mary's Playground, Thomas Greene Park, and other parks that serve young children.

- The City should also commit to funding programming at the listed community facilities to support the projected population growth.
- The DSOW states that the City plans to mitigate school impacts with an FAR incentive to build new schools as part of new development (DSOW, 37). The City should identify locations and services of needed schools before ULURP begins, to ensure that the demand for these critical community facilities doesn't outpace their construction, and use this as an opportunity to advance diversity goals for District 15.

TASK 5 - OPEN SPACE

Gowanus has a long history of environmental degradation and injustice, a higher vulnerability heat index than surrounding neighborhoods, and insufficient access to quality green space.

Residents in the north part of the neighborhood rely on Thomas Greene Playground and the swimming pool as the only open, green space in the immediate area. As the clean-up of the Canal and upland sites proceed, the Double D Pool and Thomas Greene Park will both be offline for years in a neighborhood with scarce open space and public recreation. The City must have a clear plan for a temporary park and pool to support both the existing residents and proposed population.

While the DSOW claims (DSOW, 54) that the Project Area does not encompass areas that are underserved by open space - the area of 4th Avenue south of Union Street is considered by NYC Parks to be underserved by park space⁵ with Washington Park the only large park serving this area. Though the recent investments in Ennis Park are very welcome, a growing population will mean the few parks in this area will be that much more needed, and present a clear case for investment in an additional City owned public spaces, including Under the Tracks, as well as continued support for Washington Park and Ennis Park.

A large portion of the 6.4 acres of new open space outlined in the DSOW relies on private development along the waterfront. Existing Waterfront Zoning requirements for privately owned public space along the waterfront often result in sterile and passive landscapes, which will not address the recreational, social and aesthetic needs of existing or new residents. We applaud DCP's attention to the Waterfront Access Plan, which is a key tool to create a resilient and accessible waterfront that serves the larger community, and look forward to seeing this tool expanded and implemented with robust community engagement and oversight.

⁵ NYC CEQR Technical Manual (2014) <u>www1.nyc.gov/assets/oec/technical-manual/2014_ceqr_tm_open_space_map_gowanus.jpg</u>

The public right-of-way, including streets, sidewalks and bridges, provides critical open space in Gowanus. The City must consider comfort, safety and neighborhood character of the public right-of-way when crafting requirements, modifying permitting, and planning for capital investment.

Gowanus represents a significant gap in the mature urban tree canopy (map below). 35% of street trees in the Gowanus area are under six inches in diameter, and fewer than 2% of street trees are more than 24 inches in diameter⁶. These small trees need protection and stewardship in order to grow large enough to effectively shade streets and mitigate environmental impacts.

At the same time, large canopy trees in Wyckoff Gardens campus, Thomas Greene Park and privately owned sites are threatened by development and remediation. In recent years, many more large canopy trees have been lost, on privately owned sites to development and remediation, and on Carroll Street to construction of the High Level Storm Sewer. The loss of these trees has and will continue to have negative impacts on stormwater capture, air quality, habitat, shade, and neighborhood character.

ANALYSIS

- The City must evaluate all open space needs in the context of other recent land use changes and development, specifically the Downtown Brooklyn rezoning which resulted in less open space and more residents than the City had predicted in the EIS⁷.
- The City must analyze expected loss of trees due to both the RWCSD and all City led construction, including High Level Storm Sewer construction, Wyckoff Gardens infill and 1st Street Turning Basin excavation.



Street Trees over 12" DBH (diameter at breast height)
NYC Street Tree Map https://tree-map.nycgovparks.org

 The City must analyze and identify needed public space maintenance funding for all proposed mapped parkland and other NYC capital projects in the public realm, including pedestrian bridges and new open space associated with CSO infrastructure.

MITIGATION

Public Realm Improvements: The rezoning must result in investment in public realm improvements as outlined in the <u>Gowanus Lowlands Master Plan</u>, including parks, streets, streets ends, NYCHA campuses, MTA easements + other city owned parcels.

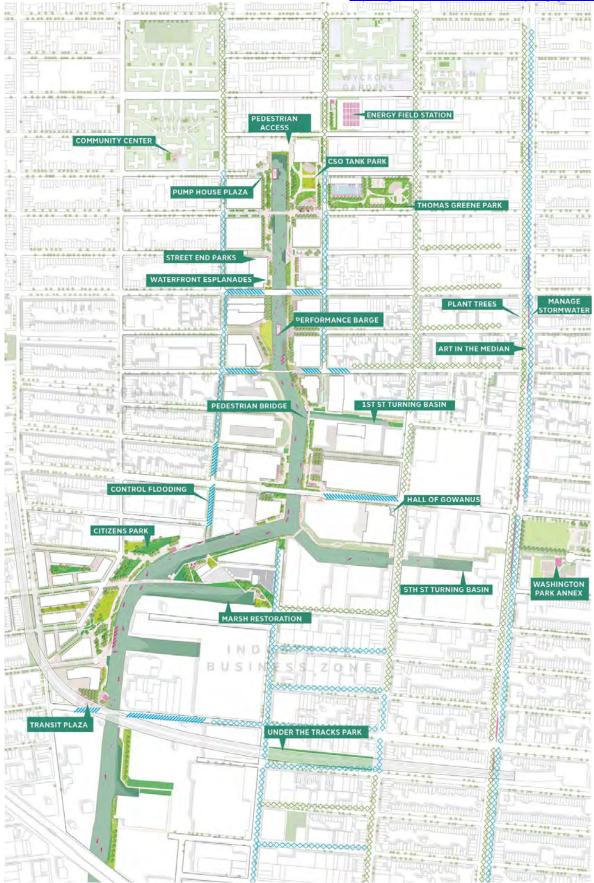
Parks & Public Spaces

GOWANUS HOUSES CAMPUS - Invest in community maintenance of gardens and green infrastructure. Provide an accessible green roof pilot, Community Center entrance garden and backyard improvements and lighting enhancements.

WYCKOFF GARDENS CAMPUS - Invest in community maintenance of gardens and green infrastructure. Provide an accessible green roof pilot and Community Center entrance garden improvements and lighting enhancements.

⁷ A Tale of Two Rezonings: Taking a Harder Look at CEQR. (November 2018) Municipal Arts Society https://www.mas.org/wp-content/uploads/2018/11/cegr-report-final-smaller.pdf

⁶ Gowanus Tree Management Plan (2017) Gowanus Canal Conservancy https://gowanuscanalconservancy.org/wp-content/uploads/2018/02/GOWANUS_TREE_PLAN_SM.pdf



HEAD OF CANAL - The City should allow access around the head of the Canal, either on DEP property or with a floating bridge. Public space on top of the CSO tank should include engaging and diverse programming. Interpretive access and programming should be provided for the Pump House and related water infrastructure. The Head of Canal should also include a green infrastructure demonstration.

THOMAS GREENE PARK - The Draft Scope notes that Thomas Greene Park is proposed to be remediated under the Superfund, however there is not currently sufficient funding to do reconstruction. Funds must be allocated to fully renovate the eastern 2/3rds of the park, supplementing National Grid funding from remediation, to make world-class NYC park that meets community needs. Renovations must include indoor gathering space and bathrooms as well as a year-round pool or winter use for a summer-only pool.

THE SALT LOT - The eco-industrial heart of Gowanus and gateway to the IBZ, the Salt Lot provides critical city infrastructure (salt, sewage and compost management) as well as a stewardship and education hub. The site should be improved and expanded to accommodate these uses in conjunction with sewage infrastructure. In addition, the site should be developed with public space, a large scale salt marsh restoration, and an industrial business incubator and job training center.

PUBLIC PLACE - The City should invest in the public realm at Public Place to ensure that the largest new public space planned for the Gowanus effectively serves the community's needs. This landscape should include safe and visible connections to St Mary's Playground, interpretation of the site history, a public boat house and launch, play areas, and a treatment wetland for a blackwater treatment system to serve the Public Place development.

TRANSIT PLAZA AT 9TH STREET - The MTA-owned parcel on the northwest corner of the 9th Street Bridge should become a public plaza that provides clear and safe access from the shore public walkway to the train entrance, with bicycle parking, area for food trucks and a public boathouse.

UNDER THE TRACKS - The space underneath the F/G train viaduct along 10th Street should be re-purposed as public space with programming that includes artist residencies in mobile studios, rotating art installations and a maker's market as well as a display area for the Kentile Sign and other historic artifacts.

Waterfront

- A large portion of the 6.4 acres of new open space outlined in the DSOW relies on private development along the
 waterfront. In order for this space to feel public and serve the growing neighborhood, the Waterfront Access
 Plan must encourage active uses and programmed spaces along the waterfront esplanade, including installation
 of BBQ areas, play structures, access to the water, boat launches, bathrooms, and public art.
- The WAP should promote low and intertidal bulkheads in order to allow better drainage, provide water access, and support tidal ecologies and habitat.
- For shoreline sites that will be required to meet higher design flood elevations the City must study the surrounding drainage and provide infrastructural mitigation for potential increased flooding to surrounding areas.
- For new privately-owned public spaces, the WAP should provide a mechanism for community oversight of maintenance and programming.
- City capital investment is needed to provide connectivity between sites and to ensure access and ecological performance. The following projects along the waterfront should be implemented to provide this:
 - Pedestrian Bridges at Degraw St, 1st St Turning Basin, Whole Foods to the Salt Lot, and the Salt Lot to Public Place, to increase connectivity
 - Salt marsh and wetland restoration areas at the Head of the Canal, the Salt Lot, and turning basins
 - At least one new public boathouse at the water's edge on Public Place or at the MTA site near 9th Street
 - Boat launches along the Canal

The City should look at extending East River Ferry Service to a stop just south of the 9th Street bridge, to allow
access to water based transportation without requiring excessive bridge opening.

Streetscape: Development Requirements & Capital Investment

- New development should mitigate the effects of urban heat island and manage stormwater by implementing
 streetscape improvements, green roofs and walls, and green infrastructure. The City should consider Gowanusspecific streetscape design goals when crafting requirements, modifying permitting, and planning for capital
 investment. These include developing tree specifications and public seating that account for flooding, high water
 table, truck loading, and the urban heat island effect.
- DPR should establish a Gowanus Tree Trust that new development can contribute to in lieu of planting *if and only if* it is entirely impossible to plant required trees on new frontages. This Tree Trust should be used to install street trees only within the Gowanus neighborhood, with clear community oversight.
- The City should invest in streetscapes and priority intersections (at left) to improve safety, wayfinding comfort and environmental performance.

NEVINS & BOND STREETS

- Manage stormwater with suspended paving and other site-based retention
- Plant salt and flood-tolerant species
- Reinforce Gowanus character with reused cobble, grove plantings and tree guards

3RD AVE

- Manage stormwater south of Carroll Street with suspended paving and other site-based retention
- Plant large canopy trees where possible and install tree guards
- Provide access to the waterfront at the 1st St Turning Basin and interpretation at the 4th St Turning Basin

4TH AVE - This wide corridor is subject to flooding, urban heat island effect, and safety issues. These issues should be addressed in association with any land use changes as they will only worsen with more residents and more buildings.

- Manage stormwater on uphill eastern side of avenue to mitigate street flooding
- Plant large canopy trees where possible and install tree guards
- Require above-ground planters or greened building facades, and payment into a Gowanus Tree Trust for new developments where tree planting is not possible due to below ground infrastructure
- Mitigate wind tunnel impacts to improve pedestrian experience next to proposed density
- Improve safety for bikes and trucks, through planned separated bike lane
- Improve crossings and streetscape at community facilities: Washington Park, Pacific Library, Greenspace on Fourth
- Activate the median at key "gateway" locations with wayfinding and rotating public art

BRIDGE STREETS - DOT and DCP should develop a plan that addresses increases in all forms of transportation across the Canal's limited and narrow bridges. Specific study and coordination is needed to allow for safe pedestrian connection of the future SPWW north of 3rd Street to the esplanade at Whole Foods south of 3rd St.

Manage stormwater and reinforce corridors with densely



- planted right-of-way rain gardens and enhanced tree beds
- Provide wayfinding at intersections with North/South streets
- Provide interpretation about the Canal on the bridges.
- Provide generous access to waterfront public space
- Provide multi-modal bridges to support added density

GOWANUS LOWLANDS STREETSCAPES

GUIDING PRINCIPLES

PROVIDE SAFE, COMFORTABLE AND VIBRANT STREETS FOR A DIVERSE RANGE OF USERS, INCLUDING PEDESTRIANS, BIKES AND TRUCKS

PROMOTE MULTIFUNCTIONAL DESIGNS THAT ADDRESS SUSTAINABILITY, SAFETY, COMFORT AND PLACEMAKING

REINFORCE GOWANUS CHARACTER AND COHESION THROUGH WAYFINDING, INTERPRETATION, MATERIAL AND PLANT PALETTES



Provide interretation at 4th Street Turning Basin 4TH AVE. Manage stormwater on uphill eastern side of avenue to mitigate street flooding.

Provide access at 1st Street Turning Basin

- mitigate street flooding

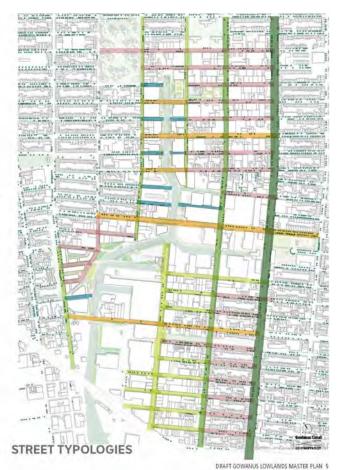
 Plant large canopy trees where possible

 Mitigate wind lunnel impacts to improve pedestrian
 expetience next to proposed density
- expenence next to proposed density

 Require above-ground planters or greened building facades for new developments where tree planting is not possible due to below ground infrastructure
- Improve safety for bikes and trucks, through planned separated bike lane
 Improve crossings and streetscape around key assets. Washington Park, Pacific Library, Greenspace on Fourth
- Activate the median at key "gateway" locations with way/indige and retaining rubble art.







STREET ENDS

- Keep street ends low to allow views of Canal and access, and to control flooding Provide large scale stormwater
- Promote water treatment at street ends, and maximize performance by allowing water from upland streets to cross intersections toward management assets
- Where possible, close part or all of street ends to regular traffic, to extend waterfront public space
- Plant salt and flood-tolerant species
- Reinforce Gowanus character with reused cobble, multi-tree plantings

MIXED USE STREETS

- Manage stormwater with right-of-way rain gardens, enhanced tree beds and suspended paving
- Plant trees, install tree guards, widen tree beds, plant perennials
- Support maintenance by Gowanus Tree Network block associations and stewardship groups

INDUSTRIAL STREETS

- Install tree guards or granite blocks that can stand up to loading and industrial activity
- Manage stormwater with suspended paving and other site-based retention to allow parking, loading and other industrial activities

Management of Public and Private Spaces

• The City must commit to funding sustainable maintenance of all existing City owned public and planted spaces, including parks and streets.

• The City must analyze and identify needed public space maintenance funding for all proposed mapped parkland and other NYC capital projects in the public realm.



• The City should look at creating a Park Improvement District or Environmental Improvement District, modeled on the City's Business Improvement Districts, where a local non-profit is responsible for the operation, management, and programming of the waterfront esplanade and street ends, assists the City with management of parks and other public space in the low-lying area surrounding the Gowanus Canal and provides community oversight to ensure City follow-through on all commitments. This PID/EID would be governed by a steering committee of existing neighborhood stakeholders and organizations that focus on environmental stewardship, job training and arts programming. The PID/EID would be funded by a special assessment on new development within the district, with a pro-rated assessment for waterfront owners who would otherwise be required to maintain the esplanade, and by city contracts for green infrastructure and park maintenance.

TASK 6 - SHADOWS

ANALYSIS

 The EIS should study shadow impacts on specific sunlight sensitive resources including aquatic habitat in the Canal; Thomas Greene Park, with specific attention to trees, garden beds, and the swimming pool; future waterfront esplanades and all public right-of ways, particularly 4th Avenue.

TASK 7 - HISTORIC AND CULTURAL RESOURCES

ANALYSIS

 In addition to consulting Landmarks Preservation Committee, the EIS contractors should consult with the Gowanus Landmarking Coalition and other neighborhood stakeholders with extensive knowledge of area history.

MITIGATION

- The City should invest in development and implementation of a comprehensive interpretive framework and programming to creatively tell the numerous stories that make Gowanus unique.
- As exacation in this area is very likely to uncover artifacts from numerous significant historic periods, there should be a clear and stringent protocol and oversight to document and preserve artifacts. This should be coordinated with the (to be determined) protocol for documenting and preserving artifacts dredged out of the Canal as part of the EPA Superfund.
- The City should allow and encourage the use of reused materials and artifacts in the public realm.

GOWANUS PUMP STATION / CSO TANK - The City should invest in educational space in the Pump House or as part of the Head of Canal CSO infrastructure, in order to interpret the complex hydrological history and infrastructure in Gowanus, similar to the Visitor Center at the Newtown Creek Wastewater Treatment Plant.

HALL OF GOWANUS INDUSTRY AND ART in the COIGNET
BUILDING - The City should help fund a museum and gallery of
artifacts, maps and documents of Gowanus industry and art in the Coignet Building. This institution should host an
annual artist residency to interpret the unique history and ecology of Gowanus, and support ongoing workforce
development and business services for the IBZ.

TASK 8 - URBAN DESIGN AND VISUAL RESOURCES

The proposed action will have significant impact on the streetscape and scale of buildings.

ANALYSIS

- Particular attention should be paid to 1) views of the Canal from public spaces including street ends, esplanades, bridges, and the Culver Viaduct and 2) views of the sky from the Canal and from streets, particularly 3rd and 4th Avenues.
- The city should analyze wind tunnel impacts on NS corridors, particularly 4th Avenue
- Additionally, the night-time impact of street, building and landscape lighting resulting from the proposed action, including visibility, safety, navigation, identity, and ambiance should be studied.

MITIGATION

• The WAP and building codes should include lighting parameters to preserve ambiance, avoid glare and light pollution and to provide the minimum light required for visibility, safety and comfort.

- In all instances, the minimum intensity needed for the intended purpose should be used.
- All private property lighting that is visible from the public right-of-way should be designed to control
 glare, minimize light trespass onto adjacent properties, and minimize direct upward light emission.
- Avoid the use of lighting as a means of competition between properties.
- Lighting of building facades and roofs should be considered for appropriateness, and should generally be discouraged, as it would not be consistent with energy conservation goals or the desired ambiance.
- Blinking, moving, or color-changing of illumination should be prohibited.
- Lighting of commercial spaces proximate to residential uses should be designed to be compatible with best-practice residential illumination levels.

TASK 9 - NATURAL RESOURCES

As a low-lying former salt marsh, Gowanus is rich in natural resources, including the Canal itself, a high groundwater table, numerous underground creeks, and pockets of feral vegetation. These resources make the Canal an important stop for migratory birds on the Atlantic flyway. The hydrologic resources and saturated soils also often complicate inhabitation of this low-lying area - streams run through many basements, and high groundwater causes almost immediate street flooding during rain events. These issues and mitigation must be looked at comprehensively in the EIS.

ANALYSIS

- The City must review finer resolution datasets to fully understand the nuances of the local landscape. The resources that the DSOW plans to review largely utilize national or regional datasets that that do not portray the nuances of the local soils or hydrology. The EIS should incorporate and synthesize locally available data, specifically soil boring records from planning for DEP Green Infrastructure⁸, DEC Brownfield remediation⁹ and EPA Superfund remediation¹⁰; as well as Eymund Diegel's Historic Stream Modeling¹¹, Gowanus Canal Conservancy Bioblitz reporting including observations documented on iNaturalist¹², Brooklyn Bird Club monitoring¹³, and NYC GreenThumb community garden inventory¹⁴.
- There must be a comprehensive hydrology study that includes modeling the impact of the RWCDS *during and* after construction on groundwater, stormwater and tidal flux, all in the context of rising sea levels and increased precipitation due to climate change.
- The DSOW notes that much of the Project Area and surrounding area has been developed with buildings and paved surfaces (DSOW, 59), however, there is significant wildlife in and around the Canal that should be captured as part of the field investigation effort. The feral vegetation along the canal and throughout the neighborhood, make up a patchwork ecology that provides habitat to fish, mollusks, aquatic invertebrates and migratory birds, and provides significant neighborhood character.

MITIGATION

- The City should require pre and post construction inspection and permitting for groundwater and stormwater management at a level consistent with DEP MS4 Guidelines.
- DOT, DOB and DEP should ease permitting restrictions and allocate resources for groundwater management, including subsurface wetlands and stream daylighting.
- The Waterfront Access Plan should encourage soft edges, diverse and adaptive plant palettes, and drainage through the following measures:
 - Allow planting or habitat installation installed below mean high tide to be included in the area of the waterfront yard
 - Allow plantings below boardwalks to count towards planting requirement

11 Eymund Diegel Map Archive (https://issuu.com/eymund)

⁸ Procedure Governing Limited Geotechnical Investigation for ROW Green Infrastructure Practices, DEP (2017)

⁹ Technical Guidance for Site Investigation and Remediation, NYSDEC (2010)

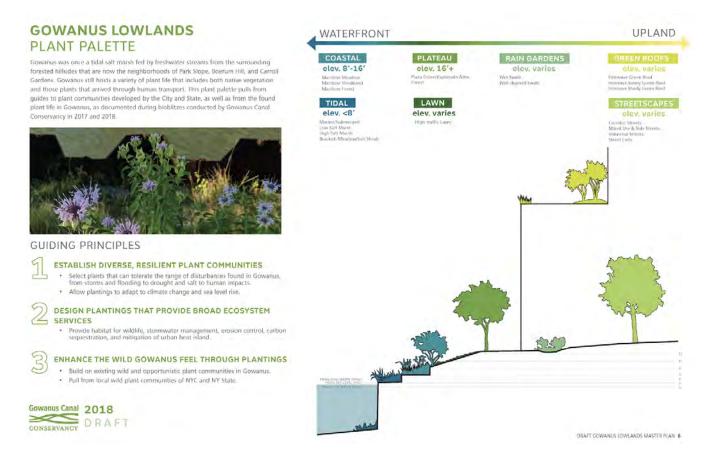
¹⁰ Gowanus Canal Remedial Investigation Report, USEPA (2011)

¹² Gowanus Canal Conservancy Bioblitz Reporting (https://www.inaturalist.org/observations?place_id=126632)

¹³ Brooklyn Bird Club's Clapper Rail (http://brooklynbirdclub.org/ClapperRail%20_Fall17.pdf) (2017)

¹⁴ NYC Green Thumb Community Garden Map (http://brooklynbirdclub.org/ClapperRail/ClapperRail%20 Fall17.pdf)

- Remove lawn requirement for supplemental public access areas.
- Promote bi-level esplanades and low bulkheads.
- Mitigation measures for impacts to natural resources should focus on resilient native ecosystems with salt and flood tolerant plants. Plant palettes should refer to the Gowanus Lowlands Plant Palette as well as State and City planting guides including the New York State.



TASK 10 - HAZARDOUS MATERIALS

The results for wet weather water samples indicate that CSOs containing CEQR-specified hazardous materials posing a threat to human health and the environment, including VOCs, PAHs, PCBs, pesticides and metals, are discharged to the canal during wet weather events. Increased CSO frequency and volume as a result of the proposed actions will increase exposure to hazardous materials resulting in potential public health and environmental impacts.

ANALYSIS

The City must assess the potential for increased human exposure to hazardous materials caused by CSO as part
of the DSOW.

MITIGATION

The existing Industrial Waterbody Classification and Use Designation must be reconsidered as enhanced access
and recreation at the Canal edge are likely to occur as a result of the proposed actions. The City must
coordinate with the State to ensure that waterbody designation supports future uses.

TASK 11 - WATER AND SEWER INFRASTRUCTURE

The Draft Scope of Work refers to CSO management the City is already required to construct under the Superfund and Clean Water Act to deal with existing conditions, including two planned CSO tanks. The city has recently presented an alternative plan to build a tunnel instead of the tanks (DSOW, 6-7) citing the potential of tunnel expansion as a primary reason. However, these remedies are designed only to address current needs, and do not account for additional CSO loading due to land use changes.

Furthermore, these remedies as currently outlined only address CSO volumes in two CSO sheds (RH-034 and OH-007), leaving 8 CSO (see map) sheds unmanaged. These existing workplans under DEP cannot be cited as sufficient mitigation for increased sewage and stormwater load, as the community is already promised this critical infrastructure under the Superfund, Waterbody/Watershed Facility Plan, and Long Term Control Plan.

It is anticipated that increased sanitary discharges from the RWCDS will increase CSO volumes and frequencies at individual CSO outfalls. DEP has claimed that planned infrastructure and the Stormwater Performance Standard, ¹⁵ which requires new development to manage 90% of on-site stormwater, as reasonable control for mitigating additional CSO caused by new density. The two case studies below argue that these mitigation measures will not be sufficient.



363-365 Bond

The 2009 FEIS¹⁶, 2014 AKRF Technical Memo to EPA¹⁷, and the 2010 SPDES Permit¹⁸ for the 363-365 Bond development describe the incremental impact on CSO discharges to the Canal. The development plan proposed to manage more than 100% of the on-site stormwater, including all stormwater runoff from the street in the area around Bond Street at 1st Street. Using CEQR-specified per-capita sanitary sewage rates with stormwater mitigation measures in place, the proposed project was reported to **increase annual volume of CSO discharged into the Canal by 0.8**MG/year. Ultimately, the FEIS reported a slight reduction in CSOs to the Canal by using a project-specific daily sanitary flow rate that was provided by the Lightstone Group and based on specifications for low-flow fixtures that were used in a comparable project. The FEIS did not include a description of the comparison project nor a summary of flow data used to inform the metric for assessing daily wastewater generation. Additionally, the development resulted in a higher residential density than what was initially projected, calling to question the negative declaration of impact. To ensure a net zero increase in CSO discharges, the City must require in-building water conservation as a mitigation measure but a more comprehensive assessment of best practices must be provided.

Public Place

To further investigate the potential net increase of combined sanitary and stormwater flows from new development, an independent study was conducted on Public Place, Projected Development Site 47 (Block 71, Lots 1 and 100). The HPD owned site is approximately 6 acres and projected to be the largest development site in the DSOW, providing nearly 1,000 units of affordable housing, community facilities, commercial retail, and open space.

¹⁵ Title 15 of the Rules of the City of New York; Chapter 31 Rule Governing House/Site Connections to the Sewer System (2012)

¹⁶ Final Environmental Impact Statement CEQR No.: 08DCP033K (2009)

¹⁷ AKRF to EPA RE 363-365 Bond Street Stormwater and Sanitary Sewage Analysis (2014)

¹⁸ NYS DEC SPDES General Permit for Stormwater Discharges from Construction Activity; Permit No. GP-OOIO-00 I (2010)

The Existing Site (see *map below*) is undeveloped and comprised mainly of impermeable paved surfaces (55.2%), semi-permeable gravel (39.7%), permeable grass shoulders (4.7%), and small structures (0.4%). Without a current connection to potable water, current daily wastewater generation is estimated at 0 MG/Day.

Existing Site Conditions:



To determine existing stormwater flows, the Rational Method was applied for site area conditions using DEP recommended coefficients (see table below). A precipitation threshold of 1.2" was chosen as the target storm, as it represents 90% of rainfall events in each year in New York City¹⁹. During a 1.2" storm, approximately **133,346 gal.** of stormwater runoff is generated from the Existing Site.

Existing Site Stormwater Summary:

Area Type	Area (sf)	Area (acre)	%Land Cover	DEP Coefficient ²⁰	Rain Event (in)	Stormwater Runoff (gal)
Undeveloped Grass Areas	11,568.5	0.27	4.7%	0.3	1.2	2,498.8
Pavement	137,203.7	3.15	55.2%	0.85	1.2	83,968.7
Building Roof Area	981.9	0.02	0.4%	0.95	1.2	671.6
Gravel	98,733.1	2.27	39.7%	0.65	1.2	46,207.1
Total	248,487.2	5.70	100.0%			133,346.2

The Proposed Site (see map below) development condition was based on the Gowanus Green master plan and proposed mapping amendments, specified in the DSOW (p.47). Projected stormwater flows were determined using the methodology described above and a summary of of stormwater runoff for the Proposed Site is presented below. During

¹⁹ Based on 2013 precipitation - NYS DEC Stormwater Design Manual 2015, Ch4. Unified Stormwater Sizing Criteria. Retrieved 2017

²⁰ Guidelines for the Design and Construction of Stormwater Management Systems; DEP (2012)

a 1.2" storm, approximately **120,582.7.** of stormwater runoff is generated from the Proposed Site. To comply with the Stormwater Performance Standard, the site will be required to manage 90% of this flow. With these mitigation measures in place, **12,058 gal.** of stormwater runoff remains unmanaged during a 1.2" storm.

Proposed Site:



Proposed Site Stormwater Summary:

Proposed Site Stormwater Summary.							
Area Type	Area (sf)	Area (acre)	%Land Cover	DEP Coefficient	Rain Event (in)	Stormwater Runoff (gal)	
Building Roof Area	85,475.7	1.96	34.4%	0.95	1.2	58,465.4	
Pavement	82,571.9	1.90	33.2%	0.85	1.2	50,534.0	
Grass & Landscaped Areas	80,439.6	1.85	32.4%	0.2	1.2	11,583.3	
Total	248,487.2	5.70	100.0%			120,582.7	

90% Stormwater Managed 108,524.4

Stormwater Runoff (Unmanaged) 12,058

The DSOW estimates a With-Action population projection of **951 Residential Dwelling Units**, or **2,083 additional residents**, for the future Projected Development Site. Using CEQR-specified per-capita sanitary sewage rates, an estimated daily wastewater generation of **208,269 gal.** is projected and a net combined sanitary and stormwater volume of **220,327.3 gal.** during a 1.2" storm.

The net combined sanitary and stormwater volume for the Proposed Site (220,327.3 gal.) exceeds the stormwater runoff estimated for the Existing Site (133,346 gal.) by 86,981 gal. during a 1.2" storm event. The site is located in CSO shed,

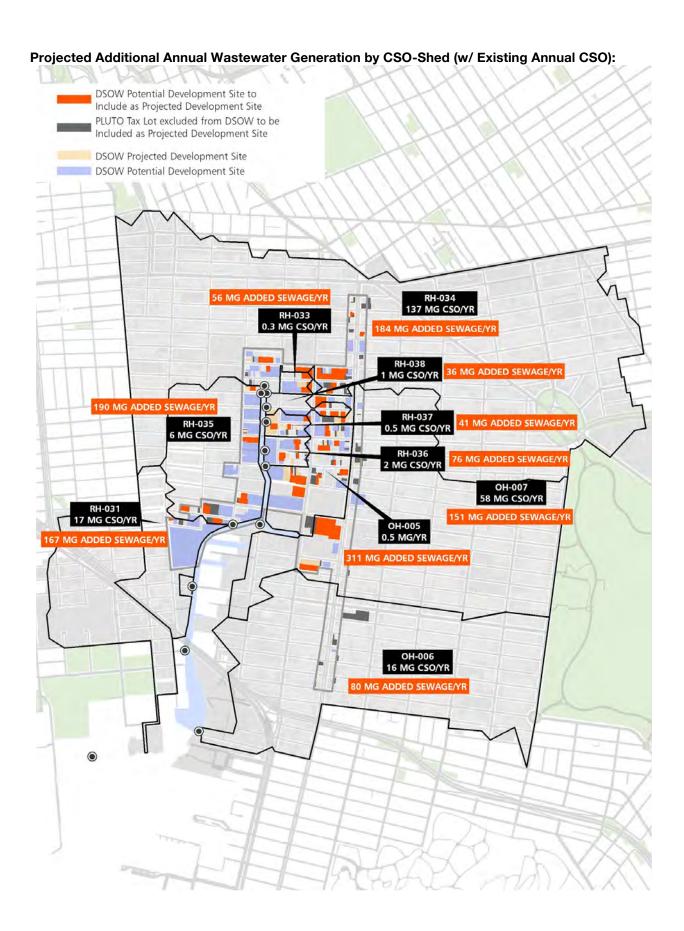
RH-031, the third largest contributor of CSO to the Gowanus Canal (16.7 MG/Yr) and will not receive upgrades or improvements with the currently planned infrastructure investments. The net increase of combined sanitary and stormwater flow for this site alone will impact CSO at RH-031, which will be further exacerbated by additional development in the CSO-shed. In order to accurately assess the RWCDS, a detailed site-scale analysis that determines net increase of combined sanitary and stormwater flow must be conducted for all recommended Projected Development sites (See Section G above). The cumulative impacts must be reported by CSO outfall.

The *map and table below* present future RWCDS for residential population density and daily wastewater generation by CSO shed. These estimates incorporate the recommended Projected Development sites (*Section G above*).

Estimated Residential Density and Daily Wastewater Generation by CSO Outfall:

CSO Outfall	Number of Lots	# Residential DU's	Residential Population	Wastewater Generation (gal./day)	Wastewater Generation (gal./year)
OH-005	84	4,062	8,530	852,993	311,342,590
Not in DSOW	28	571	1,199		
Potential	23	1,091	2,292		
Projected	33	2,400	5,039		
OH-006	12	1,056	2,217	221,721	80,928,178
Not in DSOW	11	1,005	2,110		
Projected	1	51	107		
OH-007	32	1,975	4,147	414,699	151,365,307
Not in DSOW	11	599	1,257		
Potential	7	514	1,080	1	
Projected	14	862	1,810		
RH-031	9	2,192	4,603	460,253	167,992,466
Not in DSOW	2	0	0		
Potential	1	16	34		
Projected	6	2,176	4,569		
RH-033	15	736	1,546	154,558	56,413,637
Potential	4	358	751	1	

Total	349	16,934	35,562	3,556,240	1,298,027,571
Projected	3	440	924		
Potential	3	0	0		
Not in DSOW	2	42	87		
RH-038	8	482	1,011	101,142	36,916,933
Projected	8	374	786		
Potential	3	130	274		
Not in DSOW	3	43	90		
RH-037	14	547	1,149	114,945	41,954,965
Projected	6	787	1,652		
Potential	12	178	373		
Not in DSOW	5	27	57		
RH-036	23	992	2,082	208,226	76,002,436
Projected	35	2,123	4,457		
Potential	13	340	715		
Not in DSOW	7	28	59		
RH-035	55	2,491	5,231	523,067	190,919,600
Projected	43	991	2,081		
Potential	25	677	1,421		
Not in DSOW	29	736	1,545		
RH-034	97	2,403	5,046	504,634	184,191,460
Projected	11	378	794		



ANALYSIS

- The study area for the assessment of wastewater and stormwater infrastructure will be established in consultation with DEP (DSOW, 62). The appropriate study area for this assessment is the watershed and should include projected wastewater generated from other developments in the watershed, including Atlantic Yards and Downtown Brooklyn. Impacts of this study should be evaluated by each CSO drainage area.
- The description of the existing stormwater drainage system and surfaces (DSOW, 62) must include an investigation into impervious sites with unpermitted direct discharge flowing into the canal. These areas should not be counted as contributors to existing annual CSO volume.
- The description of the existing sewer system will be based on by records obtained from DEP and the existing flows to the Red Hook and Owls Head WWTPs will be presented (DSOW, 62). A comprehensive study of the existing sewer system must include increased wastewater load by CSO drainage area and model impact at each CSO outfall. Furthermore, to ensure a comprehensive baseline for existing water quality, local data collected adjacent to CSO outfalls during wet weather should be incorporated.
- Sanitary sewage generation for the projected development sites identified in the RWCDS will be estimated to
 determine incremental demand on the system and impact on operations of the Red Hook and Owls Head
 WWTPs (DSOW, 62). The effects of the incremental demand on the system should be further assessed to
 determine if there will be a net increase in sewage and stormwater during a given rain event, which would result
 in more CSO.
- As the study above will show that increased sanitary or stormwater discharges from the RWCDS associated with the Proposed Actions will increase CSO volume and frequencies, a more detailed analysis should be completed and mitigation actions identified with ample time before ULURP begins.
- A comprehensive assessment of impact reduction for in-building water conservation practices (low-flow/no-flow fixtures and appliances, grey and black water recycling, in-building detention, etc.) must be conducted to ensure accuracy and consistency in reporting daily wastewater generation. Additionally, an alternative analysis scenario should investigate the impact of Projected Development with a 50% reduction of anticipated daily water consumption through water conservation measures or on-site CSO best management practices.

MITIGATION

A net increase in daily sanitary sewage generation contributing to additional sewer loadings under the RWCDS shall not be permissible. The following mitigation strategies should be studied and the appropriate mix should be identified in order to avoid additional CSO.

- In new development over 4 FAR, require mitigation of anticipated daily water consumption by at least 50% through water conservation measures or on-site CSO best management practices, including smart storage, black and greywater systems, or composting toilets.
- Require new development to include performance-based monitoring to allow impact tracking and ensure accountability for water storage assets exceeding a certain size.
- Require or provide incentives for new development to install site-appropriate right-of-way green infrastructure, including suspended pavement, subsurface wetlands and street end rain gardens, to manage a percentage of street stormwater along new frontages.
- Install high-performance green and grey infrastructure projects to completely mitigate any additional CSO
 created by higher density from Gowanus Neighborhood Plan in addition to what DEP has committed to
 installing to manage 12 percent of the impervious surfaces within the Gowanus Canal combined sewer service
 area.

- Fund design and technical assistance for sewage and storm water management in new development.
- Fund ongoing local education and technical assistance for water conservation and storm water management by residents, businesses and property owners throughout the Gowanus Watershed.
- Allocate Program Administrator resources through DEP's forthcoming Private Property Green Infrastructure
 Incentive Program to target new development projects in Gowanus for additional infrastructure investment.
- Maintain sewer main lines using preventative maintenance schedules that are shared with community stakeholders to stop sewer back-ups in 1st floor NYCHA apartments and neighborhood homes.

TASK 11 - SOLID WASTE AND SANITATION SERVICES

The Gowanus neighborhood is almost completely devoid of street side garbage cans. This results in significant litter throughout the neighborhood, particularly around new commercial development such as Whole Foods. As the projected action will result in a substantial increase in population, there will be a need to address public waste disposal.

ANALYSIS

 The EIS should study projected solid waste that will be produced in public spaces throughout the study area, including streets, parks and esplanades, using sanitation maintenance data from DSNY and BIDs in similar density public spaces throughout the city.

MITIGATION

• DSNY should install and service streetside trash and recycling cans throughout the neighborhood, especially along 3rd Avenue, Nevins, Bond Street and the bridge crossings, and including the IBZ.

TASK 12 - ENERGY

The Con Edison Borough Hall Energy Service Area serves the majority of the rezoning area, as well as rapidly growing Downtown Brooklyn. This service area is currently near capacity, so it is essential the the EIS accurately analyze probable density and energy demand inclusive of probable development in Downtown Brooklyn, Wyckoff Gardens and 4th Avenue that is not currently included in the RWCDS.

ANALYSIS

- The EIS must include a comprehensive energy impact analysis under the RWCDS that looks at the energy delivery system as well as energy use, across the Borough Hall Energy Service Area and the Sunset Park Energy Service Area. This energy impact analysis must include data and input from Con Edison as well as National Grid.
- The EIS should additionally account for energy needs of the CSO tunnel currently proposed by DEP.

MITIGATION

- The City should require or incentivize local energy production or savings in new development.
- The City should install efficient fixtures, solar and/or battery storage on all publicly owned or financed projects

TASK 13 - TRANSPORTATION

The DSOW outlines improvements to mobility as a key strategy for sustainability (DSOW, 10). In order to achieve this, the City should include the mitigation actions below for further investment in and expansion of public transportation, as well as bike and pedestrian infrastructure.

ANALYSIS

 The DSOW identifies specific intersections for traffic analysis (DSOW, 64). In addition to 3rd and 4th Avenues, and east-west streets that cross the Canal, this list should also include all intersections along Bond and Nevins Streets. • The future of Gowanus as a mixed use neighborhood relies on thoughtful planning for multi-modal streets. The analysis should pay specific attention to potential conflicts between truck routes, cars, bike lanes and pedestrians.

MITIGATION

- The scope of the GSD should be expanded to include provisions for right-of-way green infrastructure and areas of respite with seating.
- Existing safety issues on 4th Avenue must be addressed through traffic calming and pedestrian safety measures.
- The City should invest in Pedestrian Bridges at Degraw St, 1st St Turning Basin, Whole Foods to the Salt Lot, and the Salt Lot to Public Place, to increase connectivity and access.
- DOT and DCP should develop a plan that addresses increases in all forms of transportation across the Canal's limited and narrow bridges. Specific study and coordination is needed to allow for safe pedestrian connection of the future SPWW north of 3rd Street to the esplanade at Whole Foods south of 3rd St.
- Station improvement funding should be allocated and used to make stations universally accessible and flood-resilient, for MTA stations at Smith St / 9th St, 4th Ave / 9th St and 4th Ave and Union St.
- MTA should upgrade signals on the portions of the F/G and R lines running within the Gowanus neighborhood.
- MTA should commit to the proposed F Express service in addition to the local service, instead of substituting for it.
- MTA should introduce the "B71+" bus route for east west connectivity, including access to Manhattan
- DOT should provide a connected, safe network of bicycle lanes, including but not limited to extension of the 9th Street protected bike lanes west of 3rd Avenue and completion of the 4th Avenue protected bike lanes north to Atlantic Avenue.
- The City should require secure bicycle parking in new residential and commercial buildings, and install public bicycle racks throughout the neighborhood.
- The City should look at extending East River Ferry Service to a stop just south of the 9th Street bridge, to allow access to water based transportation without requiring excessive bridge opening.

TASK 15 - AIR QUALITY

Poor air quality in Gowanus is a result of extensive hardscape, which raises the ambient air temperature, increases ozone production and combines with high levels of particulates and emissions from vehicular traffic.

MITIGATION

• These impacts could be offset by an increase in vegetative cover and other landscape and streetscape requirements, which would have the added benefit of ameliorating flooding and combined sewage overflow. See Street Tree recommendations on page 13.

TASK 16 - GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

A key strategy identified in the Draft Scope is to manage current and future flood risk (DSOW, 10), including a requirement to raise the shoreline to account for future sea level rise (DSOW, 24). It is essential that new flood-resilient shorelines, buildings, and infrastructure allow for positive drainage to the canal. Raising the shoreline without accounting for quick drainage will exacerbate flooding for existing low-lying streets and buildings in the surrounding neighborhood.

ANALYSIS

• The City must study the impact of raising the shoreline and implementation of the Flood Resilience Zoning Text throughout new development on existing low-lying streets and buildings.

MITIGATION

- The WAP should allow for and require positive drainage to the Canal.
- Street ends should be designed to manage stormwater and encourage drainage.
- The City should provide technical assistance and funding to flood proof or adapt existing buildings in the floodplain.
- The DSOW also refers to engaging the community in emergency planning. There must be funding allocated to achieve this priority and it must include both existing and new residents of the floodplain, both inside and outside of the study area, including NYCHA developments and the IBZ.

TASK 18 - PUBLIC HEALTH

ANALYSIS

- The analysis of public health impacts should include an assessment of existing vulnerable populations and the compound effects of new construction on health as they relate to Superfund impacts, indoor health concerns at NYCHA, and other social determinants of health affecting vulnerable populations.
- Analysis should use data from the most recent American Community Survey, instead of the outdated 2010 census.

MITIGATION

- The City must provide a funding mechanism and resident training to mitigate indoor health hazards at NYCHA, including lead paint, mold and vermin infestations and sewage backups.
- The Waterfront Access Plan must encourage active uses and programmed spaces along the waterfront
 esplanade, including installation of BBQ areas, play structures, access to the water, boat launches, bathrooms,
 and public art.

TASK 19 - NEIGHBORHOOD CHARACTER

This analysis and mitigation should refer to comments on Socioeconomic Conditions, Community Facilities And Services, Historic And Cultural Resources, Urban Design And Visual Resources, and Natural Resources, all of which contribute to the unique neighborhood character of Gowanus.

TASK 20 - CONSTRUCTION

There are significant potential construction conflicts with the ongoing Superfund process which must be studied and coordinated.

ANALYSIS

• The EIS should study RWCDS construction timelines in the context of Superfund remediation timelines. Particular attention should be paid to conflicts with bridge utilization and barge traffic, noise impacts from pile and bulkhead driving, air quality and groundwater management.

MITIGATION

- All relevant city, state and federal agencies should coordinate closely on construction timelines and permitting.
- The City should require pre and post construction inspection and permitting for groundwater and stormwater management at a level consistent with DEP MS4 Guidelines.

TASK 21 - MITIGATION

There should be no unmitigable impacts to Water Quality in the Gowanus Canal.

All mitigation measures must be added to the Neighborhood Plan and tracked in the City Commitment Tracker.

TASK 22 - ALTERNATIVES

The EIS should study the following alternatives:

- Accurate RWCDS Alternatives 1-3 described on page 8-10
- Unreasonable Worst Case Development Scenario, in which all density is completely built out
- Optimal Environmental Special District, including all recommendations above
- Include increased FAR for dedicated industrial uses in the IBZ
- Include NYCHA development
- Include Gowanus Mix across the study area