Appendix C:
Waterfront Revitalization Program

FOR INTERNAL USE ONLY	WRP No. #25-025
Date Received: _____	DOS No. _____

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

Proposed actions that are subject to CEQR, ULURP or other local, state or federal discretionary review procedures, and that are within New York City's Coastal Zone, must be reviewed and assessed for their consistency with the *New York City Waterfront Revitalization Program (WRP)* which has been approved as part of the State's Coastal Management Program.

This form is intended to assist an applicant in certifying that the proposed activity is consistent with the WRP. It should be completed when the local, state, or federal application is prepared. The completed form and accompanying information will be used by the New York State Department of State, the New York City Department of City Planning, or other city or state agencies in their review of the applicant's certification of consistency.

A. APPLICANT INFORMATION

Name of Applicant: New York City Department of City Planning (DCP)

Name of Applicant Representative: Stephanie Shellooe, AICP

Address: 120 Broadway, 31st Floor, New York, NY 10271

Telephone: 212-720-3328 Email: sshellooe@planning.nyc.gov

Project site owner (if different than above): Multiple property owners (see DEIS Attachment A)

B. PROPOSED ACTIVITY

If more space is needed, include as an attachment.

1. Brief description of activity

The New York City Department of City Planning (DCP), is proposing a series of land use actions (the "Proposed Actions") that together would implement land use and zoning recommendations outlined in the Long Island City Neighborhood Plan (the "Neighborhood Plan" or "Plan"). The Proposed Actions apply to an approximately 50-block area of Long Island City, Queens, Community Districts 1 and 2 and the subject area is generally bounded by the East River to the west, Queens Plaza/40th Avenue to the north, 23rd/24th Streets to the east, and 44th Road/45th Avenue/46th Avenue/46th Road/47th Avenue to the south (the "Project Area").

2. Purpose of activity

The purpose of the Proposed Actions is to implement through a series of zoning modifications the goals of the Long Island City (LIC) Neighborhood Plan that were developed through extensive outreach beginning in the fall 2023 and developed with input from a range of stakeholders including the Community Boards and residents, elected officials, nonprofit organizations, advocacy groups, business leaders, property owners, and City-agencies through the DCP community engagement process. The Proposed Actions would implement these goals by encouraging the growth of market rate and affordable housing,waterfront access and open space and new industries with job growth,. The Proposed Actions would address allowing new residential development in key areas such as the waterfront and along many major corridor. Businesses located within the Industrial Business Zone (IBZ) are also restricted from expanding and being responsive to the expanding economic opportunities with the growing residential population. The geographic focus of these actions is the area of the neighborhood that was not addressed by prior rezonings such as the waterfront. Specifically, the proposed actions would:

- Protect existing affordable housing and generate significant new housing, especially affordable housing with a diversity of housing types.
- Invest in existing parks and deliver new open space along the waterfront and in the core that is high-quality, resilient, sustainable, and accessible.
- Enhance connectivity with multi-modal transportation, improve safety for pedestrians and bikers, and delivery services for goods and materials. .
- Plan for a more resilient and sustainable Long Island City by addressing existing challenges, planned development, population growth, and climate change.
- Support existing businesses and the creative community, increase local job growth, and improve access to diverse, quality jobs and training.

C. PROJECT LOCATION

Borough: Queens Tax Block/Lot(s): See Figure 2 of the EAS for tax map

Street Address: Approximately 50-block area within Long Island City Community Districts 1 and 2

Name of water body (if located on the waterfront): East River

D. REQUIRED ACTIONS OR APPROVALS

Check all that apply.

City Actions/Approvals/Funding

City Planning Commission ☑ Yes ☐ No

- ☑ City Map Amendment
- ☑ Zoning Map Amendment
- ☑ Zoning Text Amendment
- ☐ Site Selection – Public Facility
- ☐ Housing Plan & Project
- ☐ Special Permit
  (if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____
- ☐ Zoning Certification
- ☐ Zoning Authorizations
- ☐ Acquisition – Real Property
- ☑ Disposition – Real Property
- ☑ Other, explain: ULURP
- ☐ Concession
- ☐ UDAAP
- ☐ Revocable Consent
- ☐ Franchise

Board of Standards and Appeals ☐ Yes ☑ No

- ☐ Variance (use)
- ☐ Variance (bulk)
- ☐ Special Permit
  (if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____

Other City Approvals

- ☐ Legislation
- ☐ Rulemaking
- ☐ Construction of Public Facilities
- ☐ 384 (b) (4) Approval
- ☐ Other, explain: _____
- ☐ Funding for Construction, specify: _____
- ☐ Policy or Plan, specify: _____
- ☐ Funding of Program, specify: _____
- ☐ Permits, specify: _____

State Actions/Approvals/Funding

- ☐ State permit or license, specify Agency: _____ Permit type and number: _____
- ☐ Funding for Construction, specify: _____
- ☐ Funding of a Program, specify: _____
- ☐ Other, explain: _____

Federal Actions/Approvals/Funding

- ☐ Federal permit or license, specify Agency: _____ Permit type and number: _____
- ☐ Funding for Construction, specify: _____
- ☐ Funding of a Program, specify: _____
- ☐ Other, explain: _____

Is this being reviewed in conjunction with a Joint Application for Permits? ☐ Yes ☑ No

E. LOCATION QUESTIONS

1. Does the project require a waterfront site? ☑ Yes ☐ No
2. Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land under water or coastal waters? ☑ Yes ☐ No
3. Is the project located on publicly owned land or receiving public assistance? ☑ Yes ☐ No
4. Is the project located within a FEMA 1% annual chance floodplain? *(6.2)* ☑ Yes ☐ No
5. Is the project located within a FEMA 0.2% annual chance floodplain? *(6.2)* ☑ Yes ☐ No
6. Is the project located adjacent to or within a special area designation? *See Maps – Part III of the NYC WRP. If so, check appropriate boxes below and evaluate policies noted in parentheses as part of WRP Policy Assessment (Section F).* ☑ Yes ☐ No

   ☐ Significant Maritime and Industrial Area (SMIA) (*2.1*)
   ☐ Special Natural Waterfront Area (SNWA) (*4.1*)
   ☑ Priority Maritime Activity Zone (PMAZ) (*3.5*)
   ☐ Recognized Ecological Complex (REC) (*4.4*)
   ☐ West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA) (*2.2, 4.2*)

F. WRP POLICY ASSESSMENT

Review the project or action for consistency with the WRP policies. For each policy, check Promote, Hinder *or* Not Applicable (N/A). *For more information about consistency review process and determination, see* ***Part I*** *of the NYC Waterfront Revitalization Program. When assessing each policy, review the full policy language, including all sub-policies, contained within* ***Part II*** *of the WRP. The relevance of each applicable policy may vary depending upon the project type and where it is located (i.e. if it is located within one of the special area designations).*

For those policies checked Promote *or* Hinder, *provide a written statement on a separate page that assesses the effects of the proposed activity on the relevant policies or standards. If the project or action promotes a policy, explain how the action would be consistent with the goals of the policy. If it hinders a policy, consideration should be given toward any practical means of altering or modifying the project to eliminate the hindrance. Policies that would be advanced by the project should be balanced against those that would be hindered by the project. If reasonable modifications to eliminate the hindrance are not possible, consideration should be given as to whether the hindrance is of such a degree as to be substantial, and if so, those adverse effects should be mitigated to the extent practicable.*

		Promote	Hinder	N/A
1	**Support and facilitate commercial and residential redevelopment in areas well-suited to such development.**	☑	☐	☐
1.1	Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.	☑	☐	☐
1.2	Encourage non-industrial development with uses and design features that enliven the waterfront and attract the public.	☑	☐	☐
1.3	Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.	☑	☐	☐
1.4	In areas adjacent to SMIAs, ensure new residential development maximizes compatibility with existing adjacent maritime and industrial uses.	☑	☐	☐
1.5	Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.	☑	☐	☐

		Promote	Hinder	N/A
2	**Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.**	☐	☐	☑
2.1	Promote water-dependent and industrial uses in Significant Maritime and Industrial Areas.	☐	☐	☑
2.2	Encourage a compatible relationship between working waterfront uses, upland development and natural resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☑
2.3	Encourage working waterfront uses at appropriate sites outside the Significant Maritime and Industrial Areas or Ecologically Sensitive Maritime Industrial Area.	☐	☐	☑
2.4	Provide infrastructure improvements necessary to support working waterfront uses.	☐	☐	☑
2.5	Incorporate consideration of climate change and sea level rise into the planning and design of waterfront industrial development and infrastructure, pursuant to WRP Policy 6.2.	☐	☐	☑
3	**Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation.**	☑	☐	☐
3.1.	Support and encourage in-water recreational activities in suitable locations.	☑	☐	☐
3.2	Support and encourage recreational, educational and commercial boating in New York City's maritime centers.	☑	☐	☐
3.3	Minimize conflicts between recreational boating and commercial ship operations.	☑	☐	☐
3.4	Minimize impact of commercial and recreational boating activities on the aquatic environment and surrounding land and water uses.	☑	☐	☐
3.5	In Priority Marine Activity Zones, support the ongoing maintenance of maritime infrastructure for water-dependent uses.	☑	☐	☐
4	**Protect and restore the quality and function of ecological systems within the New York City coastal area.**	☑	☐	☐
4.1	Protect and restore the ecological quality and component habitats and resources within the Special Natural Waterfront Areas.	☐	☐	☑
4.2	Protect and restore the ecological quality and component habitats and resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☑
4.3	Protect designated Significant Coastal Fish and Wildlife Habitats.	☑	☐	☐
4.4	Identify, remediate and restore ecological functions within Recognized Ecological Complexes.	☐	☐	☑
4.5	Protect and restore tidal and freshwater wetlands.	☐	☐	☑
4.6	In addition to wetlands, seek opportunities to create a mosaic of habitats with high ecological value and function that provide environmental and societal benefits. Restoration should strive to incorporate multiple habitat characteristics to achieve the greatest ecological benefit at a single location.	☐	☐	☑
4.7	Protect vulnerable plant, fish and wildlife species, and rare ecological communities. Design and develop land and water uses to maximize their integration or compatibility with the identified ecological community.	☐	☐	☑
4.8	Maintain and protect living aquatic resources.	☐	☐	☑

		Promote	Hinder	N/A
5	**Protect and improve water quality in the New York City coastal area.**	☑	☐	☐
5.1	Manage direct or indirect discharges to waterbodies.	☐	☐	☑
5.2	Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution.	☑	☐	☐
5.3	Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.	☑	☐	☐
5.4	Protect the quality and quantity of groundwater, streams, and the sources of water for wetlands.	☑	☐	☐
5.5	Protect and improve water quality through cost-effective grey-infrastructure and in-water ecological strategies.	☑	☐	☐
6	**Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.**	☑	☐	☐
6.1	Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the site, the use of the property to be protected, and the surrounding area.	☑	☐	☐
6.2	Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in *New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms*) into the planning and design of projects in the city's Coastal Zone.	☑	☐	☐
6.3	Direct public funding for flood prevention or erosion control measures to those locations where the investment will yield significant public benefit.	☑	☐	☐
6.4	Protect and preserve non-renewable sources of sand for beach nourishment.	☐	☐	☑
7	**Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to the environment and public health and safety.**	☑	☐	☐
7.1	Manage solid waste material, hazardous wastes, toxic pollutants, substances hazardous to the environment, and the unenclosed storage of industrial materials to protect public health, control pollution and prevent degradation of coastal ecosystems.	☑	☐	☐
7.2	Prevent and remediate discharge of petroleum products.	☑	☐	☐
7.3	Transport solid waste and hazardous materials and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.	☑	☐	☐
8	**Provide public access to, from, and along New York City's coastal waters.**	☑	☐	☐
8.1	Preserve, protect, maintain, and enhance physical, visual and recreational access to the waterfront.	☑	☐	☐
8.2	Incorporate public access into new public and private development where compatible with proposed land use and coastal location.	☑	☐	☐
8.3	Provide visual access to the waterfront where physically practical.	☑	☐	☐
8.4	Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations.	☑	☐	☐

		Promote	Hinder	N/A
8.5	Preserve the public interest in and use of lands and waters held in public trust by the State and City.	☑	☐	☐
8.6	Design waterfront public spaces to encourage the waterfront's identity and encourage stewardship.	☑	☐	☐
9	**Protect scenic resources that contribute to the visual quality of the New York City coastal area.**	☑	☐	☐
9.1	Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.	☑	☐	☐
9.2	Protect and enhance scenic values associated with natural resources.	☑	☐	☐
10	**Protect, preserve, and enhance resources significant to the historical, archaeological, architectural, and cultural legacy of the New York City coastal area.**	☑	☐	☐
10.1	Retain and preserve historic resources, and enhance resources significant to the coastal culture of New York City.	☑	☐	☐
10.2	Protect and preserve archaeological resources and artifacts.	☑	☐	☐

G. CERTIFICATION

The applicant or agent must certify that the proposed activity is consistent with New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program, and will be conducted in a manner consistent with such program."

Applicant/Agent's Name: Stephanie Shellooe, AICP

Address: 120 Broadway, 31st Floor, New York, NY 10271

Telephone: 212-720-3328 Email: sshellooe@planning.nyc.gov

Applicant/Agent's Signature: _____

Date: _____

Submission Requirements

For all actions requiring City Planning Commission approval, materials should be submitted to the Department of City Planning.

For local actions not requiring City Planning Commission review, the applicant or agent shall submit materials to the Lead Agency responsible for environmental review. A copy should also be sent to the Department of City Planning.

For State actions or funding, the Lead Agency responsible for environmental review should transmit its WRP consistency assessment to the Department of City Planning.

For Federal direct actions, funding, or permits applications, including Joint Applicants for Permits, the applicant or agent shall also submit a copy of this completed form along with his/her application to the NYS Department of State Office of Planning and Development and other relevant state and federal agencies. A copy of the application should be provided to the NYC Department of City Planning.

The Department of City Planning is also available for consultation and advisement regarding WRP consistency procedural matters.

New York City Department of City Planning
Waterfront and Open Space Division
120 Broadway, 31st Floor
New York, New York 10271
212-720-3696
wrp@planning.nyc.gov
www.nyc.gov/wrp

New York State Department of State
Office of Planning and Development
Suite 1010
One Commerce Place, 99 Washington Avenue
Albany, New York 12231-0001
518-474-6000
www.dos.ny.gov/opd/programs/consistency

Applicant Checklist

- ☑ Copy of original signed NYC Consistency Assessment Form
- ☑ Attachment with consistency assessment statements for all relevant policies
- ☐ For Joint Applications for Permits, one (1) copy of the complete application package
- ☑ Environmental Review documents
- ☐ Drawings (plans, sections, elevations), surveys, photographs, maps, or other information or materials which would support the certification of consistency and are not included in other documents submitted. All drawings should be clearly labeled and at a scale that is legible.
- ☑ Policy 6.2 Flood Elevation worksheet, if applicable. For guidance on applicability, refer to the WRP Policy 6.2 Guidance document available at www.nyc.gov/wrp

Appendix C: Waterfront Revitalization Program (WRP) Policy Assessment

A. INTRODUCTION

The New York City Department of City Planning (DCP) is proposing a series of land use actions (the Proposed Actions) to support and facilitate implementation of the Long Island City Neighborhood Plan, which is the subject of an ongoing community planning process to meet the long-term vision of Long Island City and its surrounding neighborhoods as a unique, transit-rich, and culturally vibrant neighborhood. The Proposed Actions would affect an approximately 54-block area (the Project Area) focused on Long Island City's East River Waterfront and manufacturing zoned areas. The Proposed Actions are intended to facilitate development patterns that meet the long-term vision of a thriving, prosperous, and resilient Long Island City. The Proposed Actions are intended to facilitate new residential, commercial, community facility, and industrial development.

The Project Area is within the City's designated Coastal Zone (see **Figure C-1**). Therefore, in accordance with the guidelines of the 2021 *City Environmental Quality Review (CEQR) Technical Manual*, an evaluation of the Proposed Project's consistency with the New York City WRP policies is provided below. DCP determined that the Proposed Project was consistent with the WRP policies and given the project WRP #25-025.

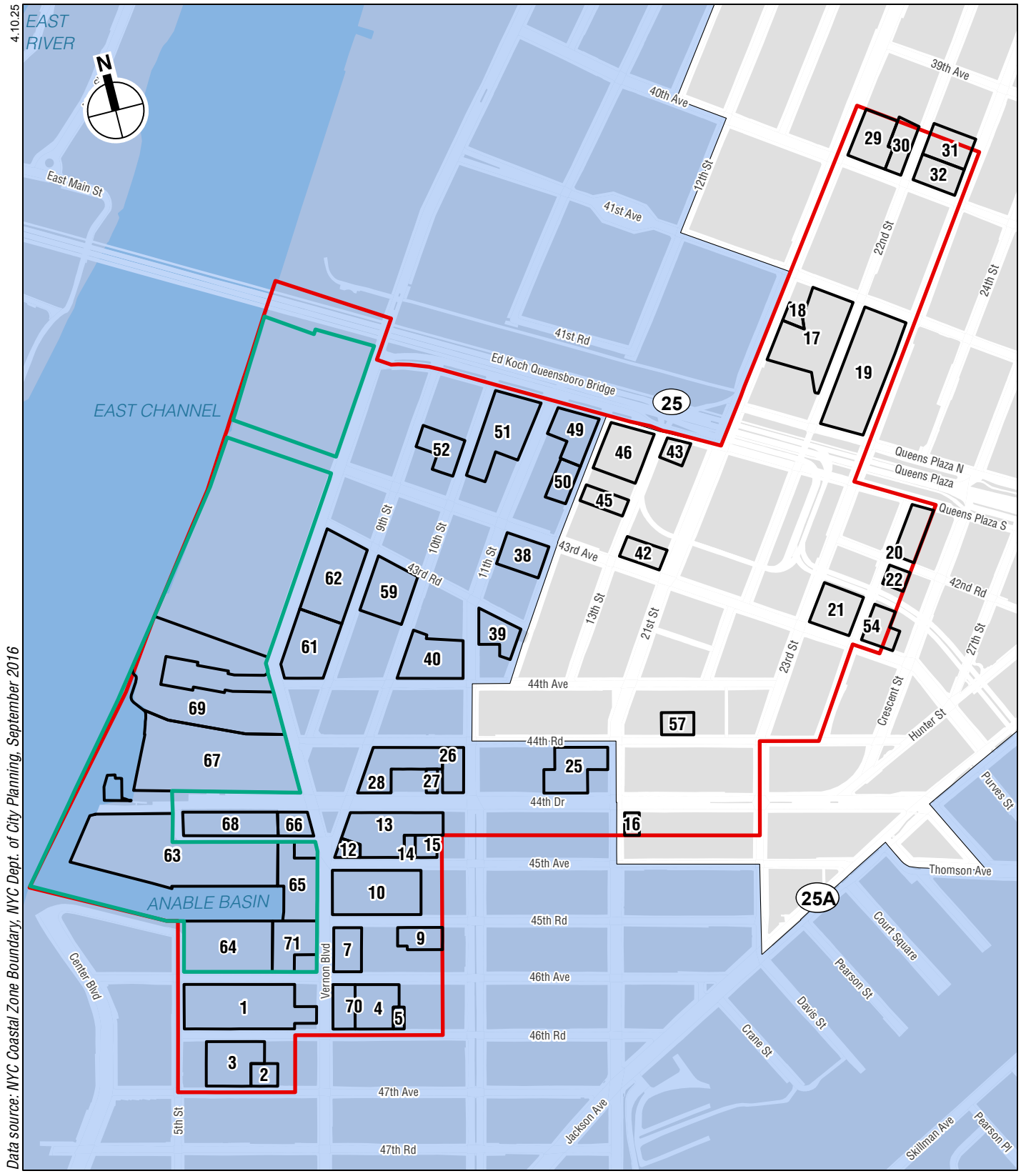
B. WRP POLICY ASSESSMENT

New York City's WRP includes 10 principal policies designed to maximize the benefits derived from economic development, environmental preservation, and public use of the waterfront, while minimizing conflicts among those objectives. Assessments of the Proposed Project's conformity with the City's WRP policies are provided below for all policy questions answered "Promote" or "Hinder" on the revised 2016 Coastal Assessment Form.

Policy 1: Support and facilitate commercial and residential redevelopment in areas well-suited to such development.

Policy 1.1: Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.

The Proposed Actions are intended to facilitate new residential, commercial, community facility, and industrial development. The Proposed Actions reflect and respond to the comments and feedback received through the City's on-going community engagement process, initiated in the fall of 2023. The plan seeks to leverage Long Island City's Central Business District status, excellent transportation access, unique waterfront, and open space opportunities to expand affordable housing, include public access to the waterfront,



Project Area

Projected Development Sites

Northern Hunter's Point Waterfront Access Plan

Coastal Zone Boundary

NYC Coastal Zone Boundary

LONG ISLAND CITY NEIGHBORHOOD PLAN

Figure C-1

facilitate revitalization of the waterfront and waterfront infrastructure, and position the area as Western Queens' primary employment hub for new and emerging industries.

The Proposed Actions would work in tandem with the recently approved citywide text amendment known as City of Yes for Housing Opportunity (CHO), which addresses the housing crisis by making it possible to build a modest amount of more housing in every neighborhood. The key elements of CHO that are most relevant to the Long Island City Neighborhood Plan include an increase in residential density or Floor Area Ratio (FAR) for Mandatory Inclusionary Housing (MIH) Areas that aligns with the Universal Affordability Preference (UAP) program. The UAP program provides a preferential FAR made available for affordable housing at an average of 60 percent of Area Median Income (AMI), allowing for a broader range of housing at different incomes. Further, UAP provides the opportunity to map MIH Option 3, the Deep Affordability Option, that requires 20 percent of housing to be affordable at an average of 40 percent AMI, as a stand-alone option.

With the proposed zoning changes, new housing would be developed along Anable Basin and the East River, along 44th Drive and Vernon Boulevard, and near Downtown Long Island City. Modification of the Northern Hunters Point Waterfront Access Plan (WAP) would facilitate the potential creation of up to 6 acres of waterfront open space, connecting Gantry State Park to Queensbridge Park. The Proposed Actions would create opportunities for new manufacturing space, commercial space, and community facility space, particularly in the core of the Long Island City Industrial Business Zone (IBZ) by expanding the allowable types of non-residential uses. The Proposed Actions would promote residential use outside of the IBZ.

Therefore, the Proposed Actions would promote this policy.

> *Policy 1.2: Encourage non-industrial development with uses and design features that enliven the waterfront and attract the public.*

The Proposed Actions would change the zoning in the Project Area to facilitate development patterns that meet the long-term vision of a sustainable, mixed-use neighborhood anchored by a resilient waterfront. The Proposed Actions would facilitate the creation of up to 6 acres of new waterfront open space along the East River and Anable Basin and would activate underutilized land for mixed use residential and commercial development along the waterfront. New bulk regulations would encourage a transition in heights from the waterfront to inland areas which would generally contain development at a more contextual scale and with lower building heights. The modified WAP would lay out requirements for thoughtful design that would be tailored to the unique characteristics and conditions of Long Island City, and would encourage both active and passive recreational uses, introduction of greenery, and shoreline treatments that would greatly improve the existing waterfront conditions.

Therefore, the Proposed Actions would promote this policy.

> *Policy 1.3: Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.*

The Project Area is located in Community Districts 1 and 2. The Proposed Actions are expected to result in a net increase of approximately 14,699 dwelling units (DUs), approximately 3,427,450 square feet of commercial space, and approximately 291,784

square feet of community facility space. There are adequate health care facilities, police and fire services, and intermediate and high schools in the Project Area to support the Proposed Actions without causing a significant adverse impact on those services. The Proposed Actions have the potential to significantly adversely affect elementary schools public libraries, and early childhood programs. However, families could make use of alternatives to publicly funded early childhood programs. Homes licensed to provide family-based childcare could be an option instead of public center childcare. Parents of eligible children are also not restricted to enrolling their children in early childhood programs in a specific geographical area and could use public early childhood programs outside of the study area. A new Court Square library branch is being planned in the Project Area to accommodate increased residential development, and residents would be able to use the two other libraries serving the Project Area as well as access to the entire Queens Public Library system through interlibrary loan. Additionally, the Proposed Actions would facilitate the development approximately 291,784 square feet of community facility space that could contribute to serving the community facilities and services demand generated by the Proposed Actions.

The Project Area has already been extensively developed. Existing water mains in the Project Area are expected to have sufficient capacity to handle the estimated increase in water demand expected as a result of the Proposed Actions. Under the Chapter 31 amendments, the Unified Stormwater Rule increases the amount of stormwater required to be managed on-site and further restricts the release rates for all new and redevelopment projects that require a DEP House or Site Connection Proposal Application (SCP). Because the City's sewers are sized and designed based on the designated zoning of an area, and related population density and surface coverage characteristics, the Proposed Actions may result in development that is inconsistent with the design of the existing built sewer system. It is expected that an Amended Drainage Plan (ADP) will be prepared for the Project Area, and upgrades to the sewer system may be required at the time of the SCP process. If required, sewer system upgrades would be built out as part of the overall project. The Project Area is served by combined sewers that convey flows to the Bowery Bay Wastewater Resource Recovery Facility (WRRF), located in the Astoria neighborhood in northern Queens. The projected growth under the Proposed Actions would increase sanitary flows to the City's combined sewer system. However, it is expected that there would be a decrease in the volume of combined sewer overflow (CSO) discharge during rain events as a result of the increased direct stormwater discharge from the waterfront projected development sites as well as the increased detention of stormwater runoff to be implemented with the new developments in accordance with the Unified Stormwater Rule under both current conditions and conditions of the Proposed Actions. The projected increase in sanitary flows would not result in any significant adverse impacts to the City's combined sewer systems or the Bowery Bay WRRF due to the adequacy of existing treatment capacity.

Therefore, the Proposed Actions would promote this policy.

> *Policy 1.5: Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.*

According to the Federal Emergency Management Agency's (FEMA) 2013 Preliminary Flood Insurance Rate Map (pFIRM), Panel 360497023G, much of the Project Area is

currently within either the 1 percent annual chance floodplain (100-year floodplain) or the 0.2 percent annual chance floodplain (500-year floodplain) (**Figure C-2**). Base flood elevations (BFEs) for the 1 percent annual chance floodplain within the Project Area range from +11 feet North American Vertical Datum of 1988 (NAVD88) to +12 feet NAVD88. According to the New York City Panel on Climate Change (NPCC) climate change projections, sea levels are likely to increase by up to 30 inches by the 2050s and up to 75 inches by the end of the century. With sea-level rise, the base flood elevations could potentially increase by 75 inches to approximately +17 and +18 feet NAVD88 by the end of the century under the NPCC "High" scenario.

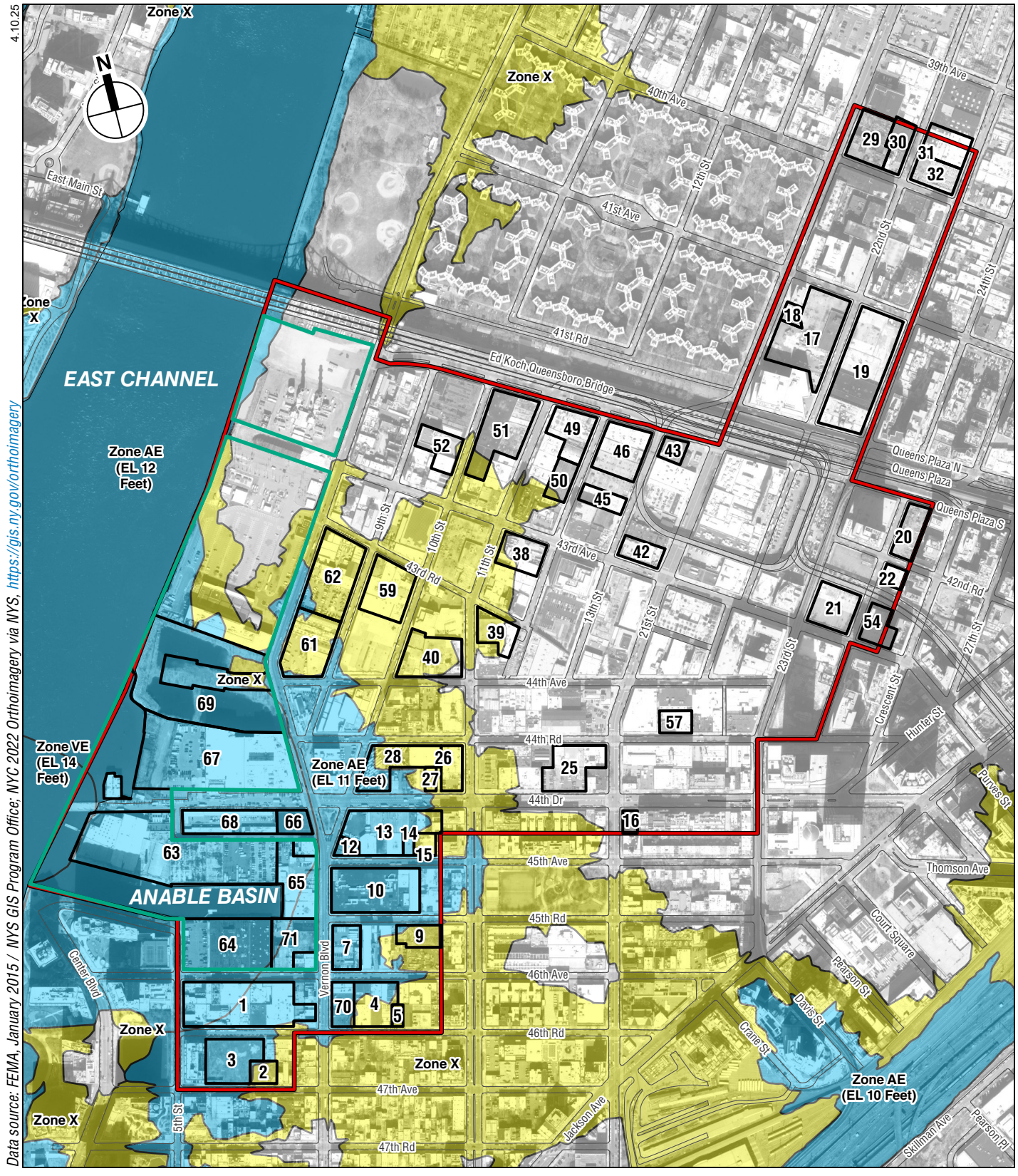
About half of the Project Area is projected to be within the 1 percent annual chance floodplain by the 2050s (**Figure C-3a**), and most of the Project Area is projected to be within it by the 2080s and 2100s (**Figure C-3b and Figure C-3c**). Portions of the Project Area in the southwest corner could be below the mean higher high water (MHHW), or high tide, elevation by the end of the century (**Figures 4a, 4b, and 4c**). Policy 6.2 (below) provides an in-depth assessment of how the Proposed Actions consider climate change and sea level rise. Any building or structure within the current 1 percent annual chance floodplain would be designed and constructed in accordance with Appendix G of the New York City Building Code, Flood-Resistant Construction. The proposed buildings at these sites will be required to have design flood elevations (DFEs) of at least +16 feet NAVD88 or +17 feet NAVD88. Residential units would need to be located at or above the DFE. Because the projected BFEs by the end of the century under the "High" scenario of sea level rise would be at +17 feet NAVD88 and +18 feet NAVD88, some of the DFEs could be below the BFE in the future. Other uses and critical infrastructure such as electrical equipment, plumbing, and heating and cooling systems should be located above the DFE, or otherwise dry floodproofed (fully sealed or protected from flood waters). New developments outside of the current 1 percent annual chance floodplain would not be required to be built in accordance with Appendix G of the New York City Building Code, but the 2021 Zoning for Coastal Flood Resiliency text amendment encourages those sites to plan for future flood risk. The modified WAP would elevate the shoreline along the East River, providing additional flood protections to inland developments within the Project Area.

Therefore, the Proposed Actions would promote this policy.

Policy 5: Protect and improve water quality in the New York City coastal area.

> *Policy 5.2: Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution*.

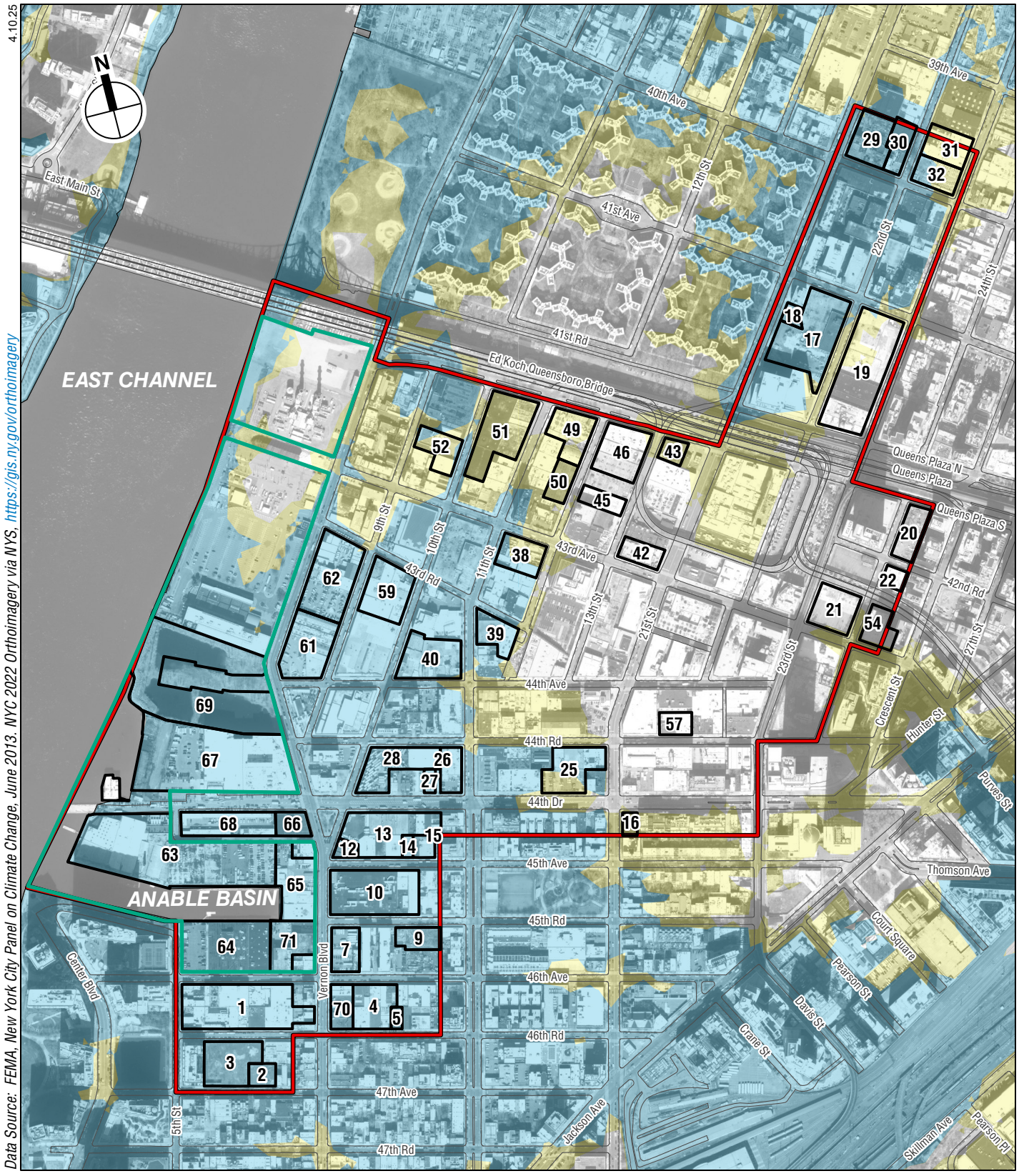
The Project Area is served by combined sewers. Because the City's sewers are sized and designed based on the designated zoning of an area, and related population density and surface coverage characteristics, the Proposed Actions may result in development that is inconsistent with the design of the existing built sewer system. It is expected that an Amended Drainage Plan (ADP) will be prepared by the New York City Department of Environmental Protection for the Project Area. The projected growth under the Proposed Actions would increase sanitary flows to the City's combined sewer system. However, it is expected that there would be a decrease in the volume of CSO discharge during rain events as a result of the increased direct stormwater discharge from the waterfront projected development sites as well as the increased detention of stormwater runoff to be implemented with the new developments in accordance with the Unified Stormwater



FEMA Preliminary FIRM 2015

LONG ISLAND CITY NEIGHBORHOOD PLAN

Figure C-2



Project Area

Projected Development Sites

Northern Hunter's Point Waterfront Access Plan

1% Annual Chance of Flooding

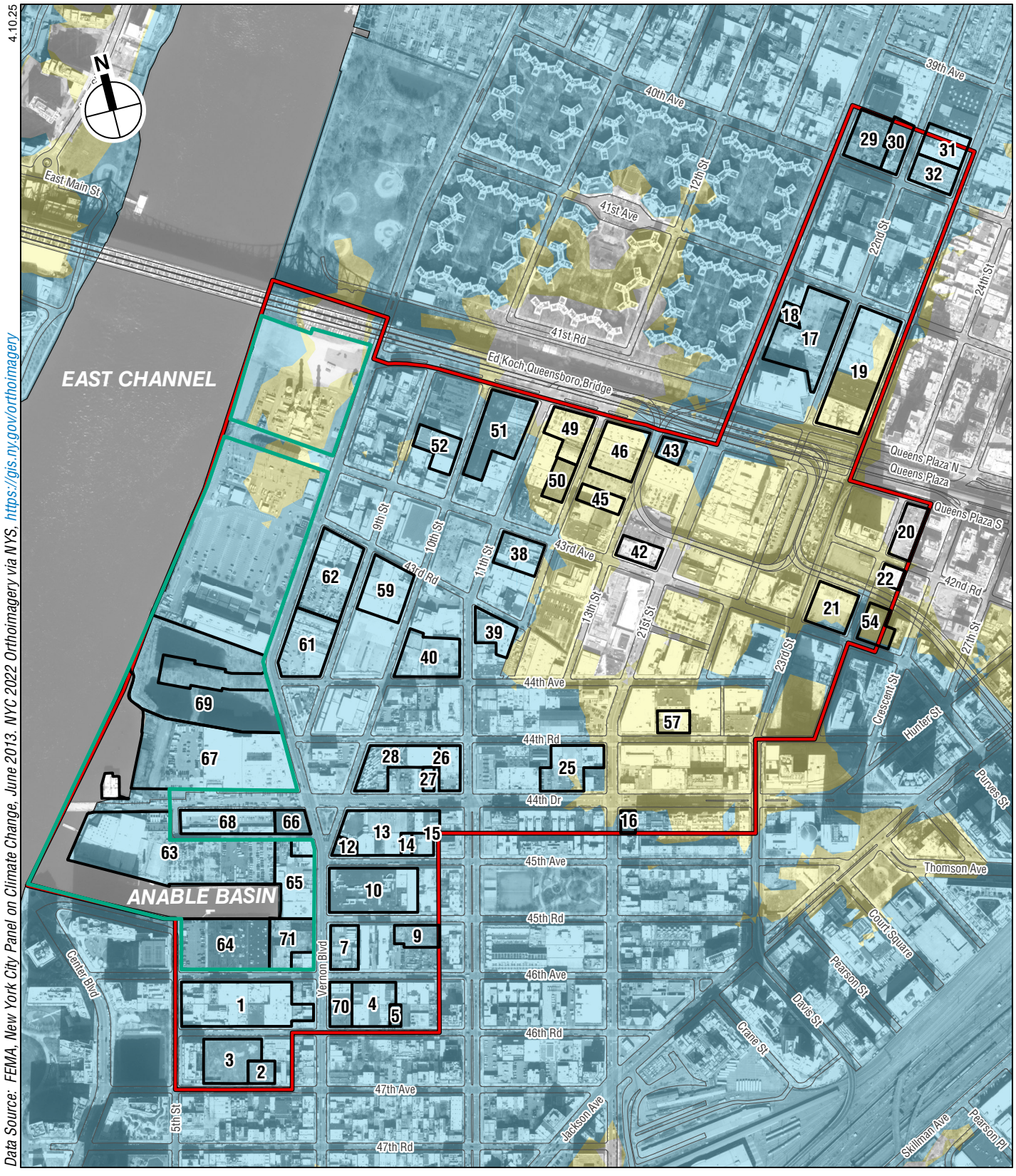
0.2% Annual Chance of Flooding

0 1,000 FEET

Future Floodplains 2050s

LONG ISLAND CITY NEIGHBORHOOD PLAN

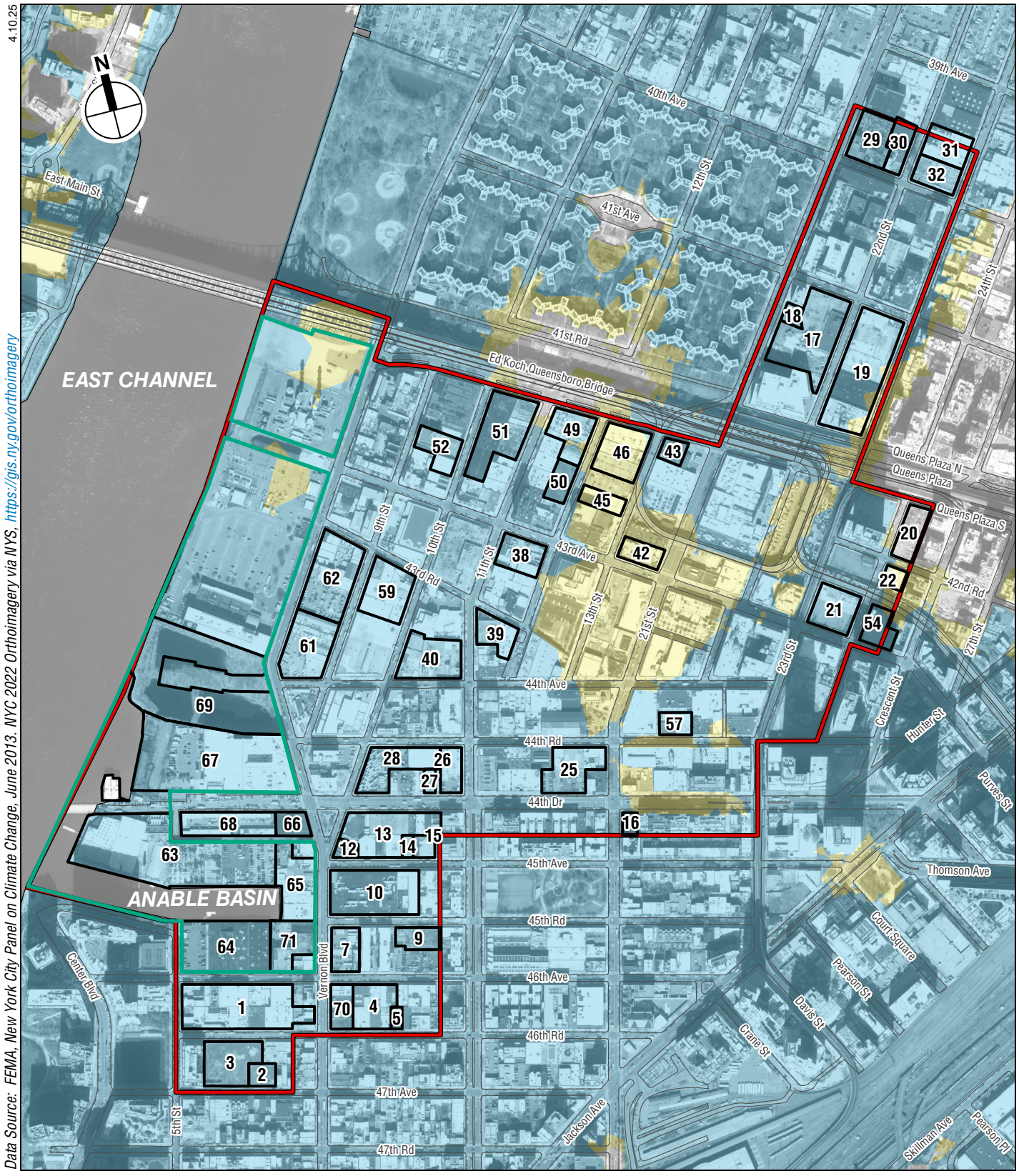
Figure C-3a



Future Floodplains 2080s

LONG ISLAND CITY NEIGHBORHOOD PLAN

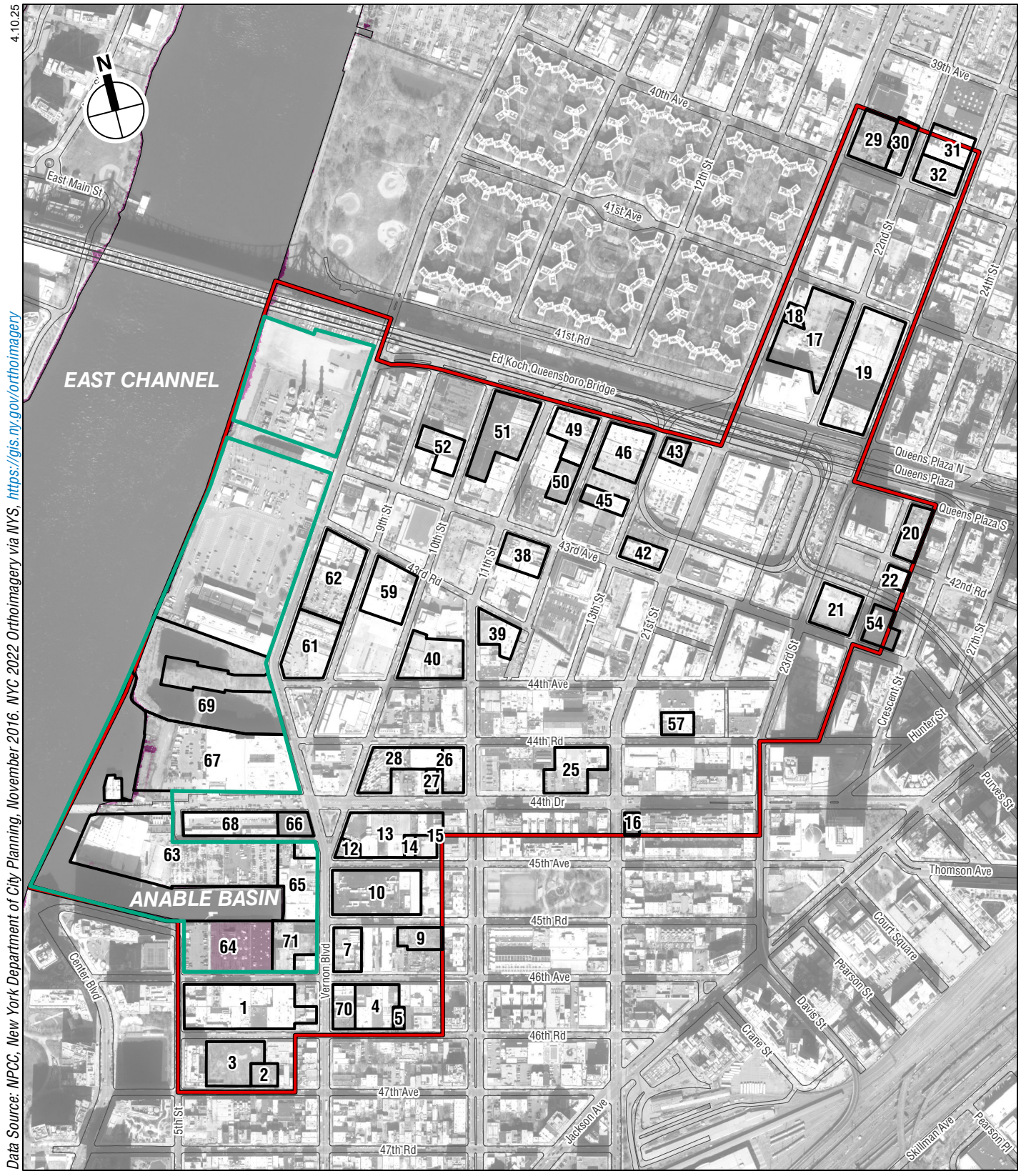
Figure C-3b



Future Floodplains 2100s

LONG ISLAND CITY NEIGHBORHOOD PLAN

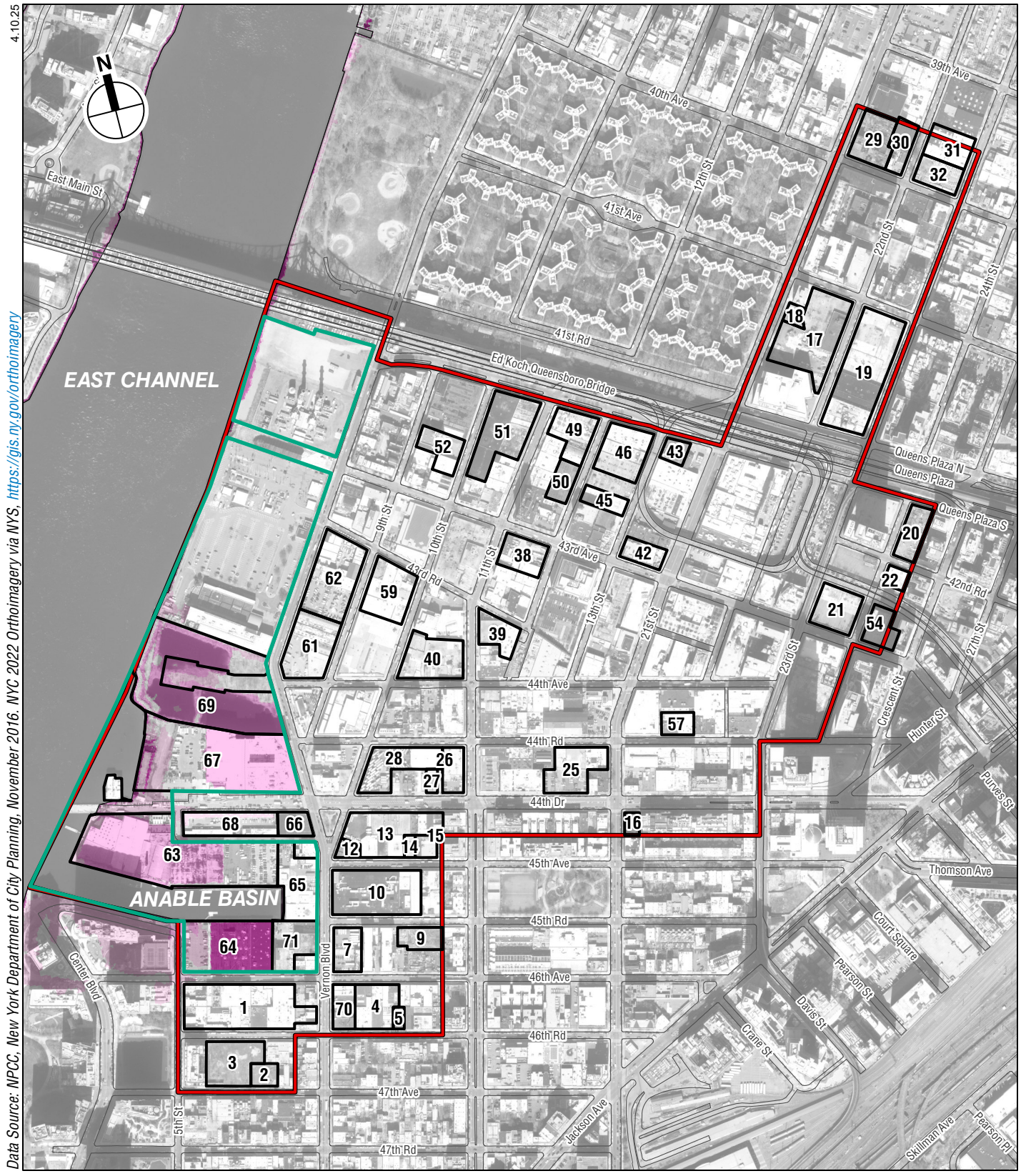
Figure C-3c



Future High Tide 2050s

LONG ISLAND CITY NEIGHBORHOOD PLAN

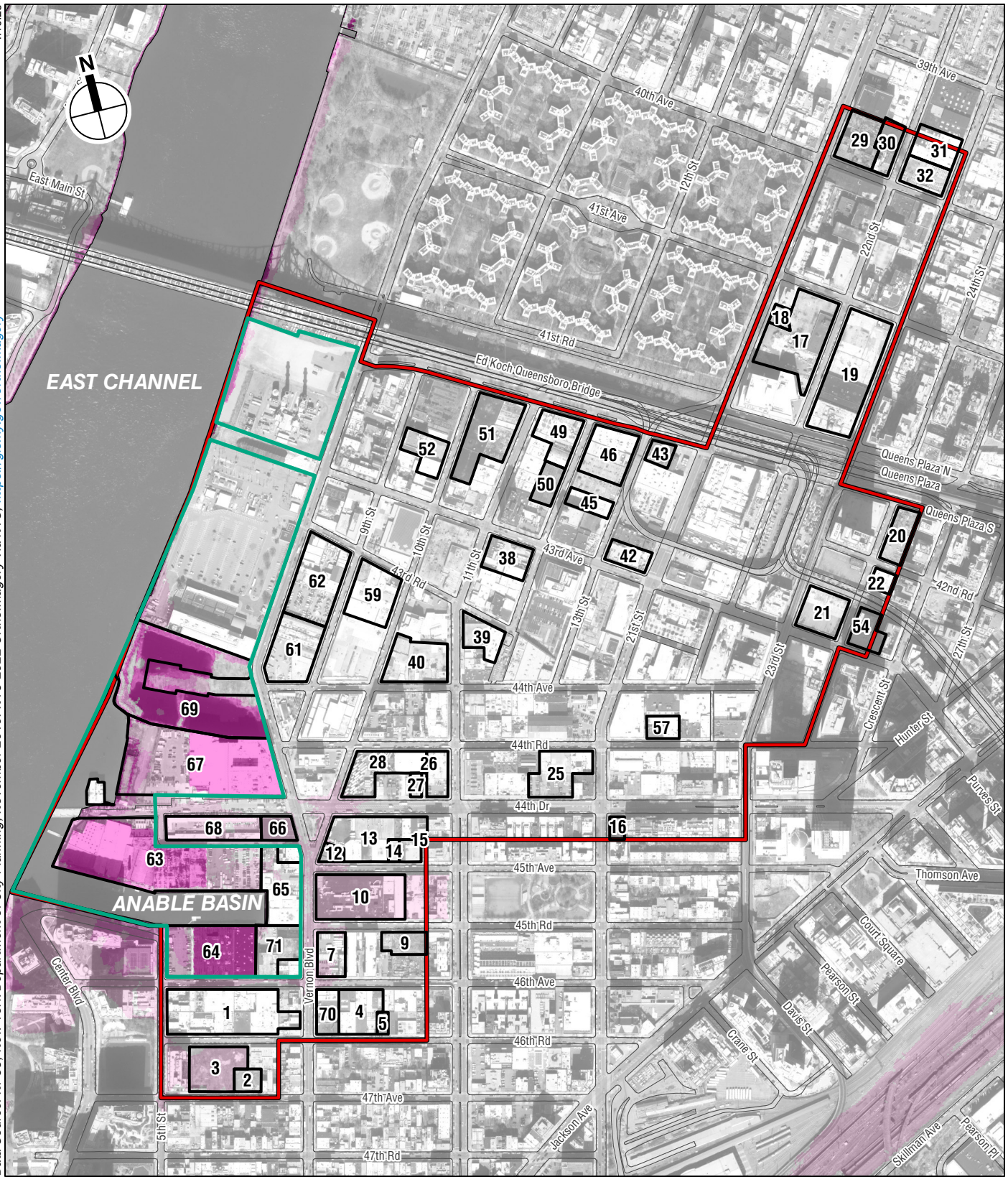
Figure C-4a



Future High Tide 2080s

LONG ISLAND CITY NEIGHBORHOOD PLAN

Figure C-4b



Future High Tide 2100s

LONG ISLAND CITY NEIGHBORHOOD PLAN

Figure C-4c

Rule. The Unified Stormwater rule ensures that redeveloped properties manage more total stormwater and manage it more efficiently than under pre-development conditions. Additionally, the Bowery Bay WRRF has sufficient capacity to handle the projected increase in sanitary flows that are expected as a result of the Proposed Actions. During construction, appropriate erosion and sediment control measures including silt fences and stockpile protection would be implemented in accordance with a Stormwater Pollution Prevention Plan (SWPPP) developed in compliance with the New York State Department of Environmental Conservation (DEC) State Pollutant Discharge Elimination System (SPDES) General Permit GP-25-001 for stormwater discharges from construction activity.

Therefore, the Proposed Actions would promote this policy.

Policy 5.5: Protect and improve water quality through cost-effective grey-infrastructure and in-water ecological strategies.

As discussed above under Policy 5.2, it is expected that an ADP will be prepared for the Project Area and upgrades to the sewer system may be required at the time of the SCP process. Should in-water work be required for development of the waterfront open space, property owners would be required to seek the applicable permits and approvals necessary to protect water quality.

Therefore, the Proposed Actions would promote this policy.

Policy 6: Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.

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

The Project Area lies along the shoreline of the East River and Anable Basin, and as such, is vulnerable to flooding and erosion. The existing shoreline in these areas are either bulkheaded or protected with riprap. The Proposed Actions would result in a new resilient waterfront by raising the grade of the waterfront in connection with the construction of mixed-use developments. The modified WAP would create a continuous raised shoreline that would include a mix of hard infrastructure as well as natural features such as native coastal plantings to provide flood protection and erosion control.

As discussed in Policy 6.2 below, development facilitated by the Proposed Actions would be designed and constructed to be resilient to sea level rise and coastal flooding.

For these reasons, the Proposed Actions would promote this policy.

Policy 6.2: Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms) into the planning and design of projects in the city's Coastal Zone.

Guidance provided by DCP recommends a general methodology to determine consistency with Policy 6.2 for actions that facilitate programmatic non-site-specific actions (e.g., area-wide zoning map changes or amendments), like the Proposed Actions. A summary of this process is provided below, and Flood Elevation Worksheets for each

BFE within the Project Area are provided in **Attachment C-1**. Because the Proposed Actions are an area-wide rezoning and do not have detailed site plans or building designs, information provided in the Flood Elevation Worksheets is based off the presumed future uses at the Projected Development Sites within the Project Area that are evaluated in the Draft Environmental Impact Statement (DEIS). These sites were identified as having the highest likelihood of being developed within the 10-year analysis period for the Proposed Actions.

Attachment C-2 provides a detailed list of each Projected Development Site, as shown in **Figure 1-11** of the DEIS, its existing and proposed zoning, current site elevation, current BFE, calculated DFE, future projected flood elevations, and the year the site would be within the 1 percent annual chance floodplain. The proposed zoning reflects the Reasonable Worst-Case Development Scenario (RWCDS), as presented in Chapter 1, "Project Description," of the DEIS. **Table C-1** below provides an abbreviated version of the detail contained in **Attachment C-2**.

Step 1(a): Assess the project area's exposure to current and future flood risk.

As discussed above under Policy 1.5, much of the Project Area is currently within either the 1 percent annual chance floodplain (100-year floodplain) or the 0.2 percent annual chance floodplain (500-year floodplain) according to FEMA's 2013 pFIRM), Panel 360497023G, (**Figure C-2**). BFEs for the 1 percent annual chance floodplain within the Project Area range from +11 feet NAVD88 to +12 feet NAVD88. According to NPCC climate change projections, sea levels are likely to increase by up to 30 inches by the 2050s and up to 75 inches by the end of the century. With sea-level rise, the base flood elevations within the Project Area could potentially increase by 75 inches to approximately +17 and +18 feet NAVD88 by the end of the century under the NPCC "High" scenario.

Of the 52 total Projected Development Sites within the Project Area, 18 sites are currently within the 1 percent annual chance floodplain with a BFE of either +11 or +12 feet NAVD88 and another 14 sites are within the 0.2 percent annual chance floodplain. FEMA does not assign BFEs to the 0.2 percent annual chance floodplain, but these can be estimated from data provided in the 2013 Flood Insurance Study (FIS) for the City of New York, which provides estimates of flood elevations along the New York City shoreline at various transects. A BFE of +14 feet NAVD88 was assumed for the 0.2 percent annual chance floodplain, which is the starting Stillwater elevation (includes the contribution from wave setup) at Transect Q-56, the transect nearest the Project Area. A total of 20 Projected Development Sites are currently not within any floodplain. For these sites, the BFE nearest the site was used for analysis purposes.

About half of the Project Area is projected to be within the 1 percent annual chance floodplain by the 2050s (**Figure C-3a**), and most of the Project Area is projected to be within it by the 2080s and 2100 (**Figure C-3b and Figure C-3c**). Of the 34 sites not currently within the 1 percent annual chance floodplain, 18 sites would be within it by the 2050s, 9 sites would be within it by the 2080s, and 7 sites would be within it by the 2100s. Projected Development Sites 42 and 45 would remain outside of the 1 percent annual chance floodplain through the end of the century, but would fall within the 0.2 percent annual chance floodplain by the 2100s. One site, Projected Development Site 20, would remain outside any floodplain beyond the 2100s. **Table**

C-1 below shows a summary of the information provided in **Attachment C-2** and does not include the zoning changes proposed. The three Flood Elevation Worksheets in **Attachment C-1** represent each of the three BFEs in the table below. Using the three BFEs in the Project Area (+11 feet, +12 feet, and +14 feet NAVD88) and assuming the High Scenario of sea level rise projections issued by the NPCC, design flood elevations (DFEs), as well as future flood elevations for the 2050s, 2080s, and 2100s, were determined for each Projected Development Site. The Flood Elevation Worksheets in **Attachment C-1** contain graphs showing the increase in flood elevations over time relative to the calculated DFEs for each BFE. For sites within the 1 percent annual chance floodplain with a BFE of +11 feet NAVD88, the DFE would be below the 1 percent annual chance floodplain elevation by the 2100s and the 0.2 percent annual chance floodplain elevation by the 2050s under the High Scenario of sea level rise. For sites within the 1 percent annual chance floodplain with a BFE of +12 feet NAVD88, the DFE would be below the 1 percent annual chance floodplain elevation by the 2100s and within the 0.2 percent annual chance floodplain elevation by the 2080s under both the High and High-Mid Scenarios of sea level rise. For sites within the current 0.2 percent annual chance floodplain with an estimated BFE of +14 feet NAVD88, the DFE would be below the 1 percent annual chance floodplain elevation and the 0.2 percent annual chance floodplain elevation by the 2100s under the High Scenario of sea level rise.

Figures C-4a through **C-4c** show the progression of MHHW over time in the 2050s, 2080s, and 2100s. According to these maps, a portion of Projected Development Site 67 and most of Site 64, which have a current side grade of +8 feet NAVD88, would become vulnerable to high tides by the 2050s, and several more sites around Anable Basin and along the shoreline of the East River directly north of the Basin by the 2100s. The projection estimates provided in the Flood Elevation Worksheets in **Attachment 1** show that the MHHW elevation would only exceed +8 feet NAVD88 by the 2100s under the High Scenario of sea level rise. The projected development sites with a current site grade of +8 feet NAVD88 that would be at risk of flooding from high tide by the 2100s are Sites 63 through 67.

Table C-1
Flood Hazard Projections for Projected Development Sites

Projected Development Site ID	Existing Ground Level Elevation (NAVD88)	Current Annual Chance Floodplain	BFE[1] (ft NAVD88)	DFE[2] (ft NAVD88)	2050s Projected BFE (ft NAVD88)	2080s Projected BFE (ft NAVD88)	2100 Projected BFE (ft NAVD88)	Projected Year Site would be in Floodplain
20	20	None	11	16	13.5	15.83	17.25	>2100s
42	20	None	11	16	13.5	15.83	17.25	>2100s[3]
45	18	None	11	16	13.5	15.83	17.25	>2100s[3]
17	16	None	11	16	13.5	15.83	17.25	2050s
18	16	None	11	16	13.5	15.83	17.25	2050s
25	16	None	11	16	13.51	15.83	17.25	2050s
16	16	None	11	16	13.5	15.83	17.25	2080s
19	16	None	11	16	13.5	15.83	17.25	2080s
21	16	None	11	16	13.5	15.83	17.25	2080s
43	16	None	11	16	13.5	15.83	17.25	2080s
46	18	None	11	16	13.5	15.83	17.25	2080s
52	16	None	11	16	13.5	15.83	17.25	2080s
54	16	None	11	16	13.5	15.83	17.25	2080s
22	16	None	11	16	13.5	15.83	17.25	2100s
49	16	None	11	16	13.5	15.83	17.25	2100s
57	18	None	11	16	13.5	15.83	17.25	2100s
3	6	1%, Zone AE	11	16	13.5	15.83	17.25	n/a
4	10	1%, Zone AE	11	16	13.5	15.83	17.25	n/a
7	10	1%, Zone AE	11	16	13.5	15.83	17.25	n/a
10	10	1%, Zone AE	11	16	13.5	15.83	17.25	n/a
12	10	1%, Zone AE	11	16	13.5	15.83	17.25	n/a
13	10	1%, Zone AE	11	16	13.5	15.83	17.25	n/a
14	10	1%, Zone AE	11	16	13.5	15.83	17.25	n/a
28	10	1%, Zone AE	11	16	13.5	15.83	17.25	n/a
70	10	1%, Zone AE	11	16	13.5	15.83	17.25	n/a
29	14	None	12	17	14.5	16.83	18.25	2050s
30	14	None	12	17	14.5	16.83	18.25	2050s
32	14	None	12	17	14.5	16.83	18.25	2050s

Table C-1
Flood Hazard Projections for Projected Development Sites

Projected Development Site ID	Existing Ground Level Elevation (NAVD88)	Current Annual Chance Floodplain	BFE[1] (ft NAVD88)	DFE[2] (ft NAVD88)	2050s Projected BFE (ft NAVD88)	2080s Projected BFE (ft NAVD88)	2100 Projected BFE (ft NAVD88)	Projected Year Site would be in Floodplain
31	14	None	12	17	14.5	16.83	18.25	2080s
1	10	1%, Zone AE	12	17	14.5	16.83	18.25	n/a
63	8	1%, Zone AE	12	17	14.5	16.83	18.25	n/a
64	8	1%, Zone AE	12	17	14.5	16.83	18.25	n/a
65	8	1%, Zone AE	12	17	14.5	16.83	18.25	n/a
66	8	1%, Zone AE	12	17	14.5	16.83	18.25	n/a
67	8	1%, Zone AE	12	17	14.5	16.83	18.25	n/a
68	8	1%, Zone AE	12	17	14.5	16.83	18.25	n/a
69	8	1%, Zone AE	12	17	14.5	16.83	18.25	n/a
71	10	1%, Zone AE	12	17	14.5	16.83	18.25	n/a
2	12	0.2%	**14**	19	16.5	18.83	20.25	2050s
5	12	0.2%	**14**	19	16.5	18.83	20.25	2050s
9	12	0.2%	**14**	19	16.5	18.83	20.25	2050s
15	10	0.2%	**14**	19	16.5	18.83	20.25	2050s
26	12	0.2%	**14**	19	16.5	18.83	20.25	2050s
27	12	0.2%	**14**	19	16.5	18.83	20.25	2050s
38	14	0.2%	**14**	19	16.5	18.83	20.25	2050s
39	14	0.2%	**14**	19	16.5	18.83	20.25	2050s
40	12	0.2%	**14**	19	16.5	18.83	20.25	2050s
59	12	0.2%	**14**	19	16.5	18.83	20.25	2050s
61	12	0.2%	**14**	19	16.5	18.83	20.25	2050s
62	12	0.2%	**14**	19	16.5	18.83	20.25	2050s
51	16	0.2%	**14**	19	16.5	18.83	20.25	2080s
50	16	0.2%	**14**	19	16.5	18.83	20.25	2100s

Table C-1
Flood Hazard Projections for Projected Development Sites

Projected Development Site ID	Existing Ground Level Elevation (NAVD88)	Current Annual Chance Floodplain	BFE[1] (ft NAVD88)	DFE[2] (ft NAVD88)	2050s Projected BFE (ft NAVD88)	2080s Projected BFE (ft NAVD88)	2100 Projected BFE (ft NAVD88)	Projected Year Site would be in Floodplain

Notes: **Bold** represents the 0.2% Annual Chance BFEs estimated using the 2013 Flood Insurance Study for City of New York, Transect Q-56.

Shaded sites represent the sites subject to the Northern Hunters Point Waterfront Access Plan.

[1] For sites that are outside any current floodplain, and therefore have no BFE, the BFE nearest to the site was used.

[2] DFEs were calculated using Table 5 in the NYC Climate Resiliency Design Guidelines, which take the current BFE and adds 24 inches of Freeboard plus a sea level rise adjustment, in order to calculate future sea level rise-adjusted DFEs.

[3] These sites are not projected to be within the 1 percent annual chance floodplain by the 2100s but are projected to be within the 0.2 percent annual chance floodplain by the 2100s.

Sources:

Step 1(b): Identify if the project or action would facilitate the development of any vulnerable, critical, or potentially hazardous features within areas exposed to flooding from Mean Higher High Water or 1% Annual Chance Flood by the 2050s under the 90th percentile of sea level rise projections.

The Proposed Actions are intended to facilitate new residential, commercial, community facility, and industrial development. As such, future developments within the Project Area would contain a wide range of uses. Many of these new developments would be mixed-use buildings containing some combination of residential, community facility, office, and parking spaces. These buildings would therefore contain a mix of vulnerable and critical features. Vulnerable features within a building include residential units, commercial, industrial, or community facility spaces, enclosed parking structures, and storage. Critical features are those that would have severe impacts on the project if damaged and include things like electrical utilities, plumbing, and heating and cooling systems. The proposed developments would also have other features, such as open spaces surrounding the buildings.

Table C-2 shows the Projected Development Sites and anticipated uses that would be within the current 1 percent annual chance floodplain, and the incremental increase in sites and uses that would become vulnerable to flooding over time as flood elevations increase. Within the current 1 percent annual chance floodplain, there would be 12,499 residential dwelling units at Projected Development Sites that would be vulnerable to flooding. By the 2050s, an additional 1,780 residential dwelling units would become vulnerable. By the end of the century, a total of 17,010 residential dwelling units would be vulnerable to flooding. The Proposed Actions would not increase the amount of community facility space that would be vulnerable to flooding, but there would be an increase in commercial and industrial space that would become vulnerable to flooding by the 2050s and by the end of the century.

Table C-2
Projected Development Sites/Uses Within Current and Future Floodplains

	Current	2050s	2080s	2100s	Total by 2100s
Number Projected Development Sites	18	+18	+9	+7	52
Number of Dwelling Units	12,499	+1,780	+2,163	+568	17,010
Community Facility Space (sf)	291,784	+0	+0	+0	291,784
Commercial Space (sf)	1,167,645	+1,824,223	+1,664,599	+974,117	5,630,584
Industrial Space (sf)	0	+850,708	+44,717	+34,725	930,150

Sources: RWCDS projections from the DEIS. Square footages are total gross square feet calculated for each use type.

As stated above, portions of the Project Area in the southwest corner that include Projected Development Sites 63 through 69 could be below the MHHW, or high tide,

elevation by the end of the century under the High Scenario of sea level rise (**Figures 4a, 4b, and 4c**).

There are six projected development sites as well as a large portion of waterfront area to the north of Anable Basin that would be subject to the modified Northern Hunters Point WAP. The proposed WAP would specify the location of required shore public walkways, supplemental public access areas, upland connections, and visual corridors to ensure access to Anable Basin from surrounding neighborhoods and to address the configuration of and varied conditions along the Basin. Most of the proposed WAP would be within the current 1 percent annual chance floodplain by the end of the century. The southern half of the proposed WAP would be below the MHHW elevation by the end of the century as well.

Step 2: Assess how applicable codes and regulations, planned flood damage reduction elements and adaptive measures, or likely future infrastructure investments (beyond the scope of the proposed project), would or would not reduce potential flood damage for any proposed vulnerable, critical, or potentially hazardous features.

Any new buildings within the current 1 percent annual chance floodplain would be built in accordance with Appendix G of the New York City Building Code "Flood Resistant Construction," which regulates construction and substantial building improvements in flood hazard areas. Appendix G requirements for construction in A Zones dictate that:

- Enclosures below the DFE are wet floodproofed and uses are limited to vehicle parking, storage, or building access.
    - Wet floodproofing means the space is designed to allow floodwaters to enter with the goal of reducing overall damage to the building. Measures include using flood-resistant materials in spaces below the DFE that are wet-floodproofed, installing sump pumps, or elevating critical infrastructure to prevent damage from floodwaters.
- Buildings and structures that are nonresidential (or non-residential portions of mixed-use buildings) must be "designed to be dry floodproofed with walls that are substantially impermeable to the passage of water and that all walls, floors, and flood shields are designed to resist hydrostatic, hydrodynamic, and other flood-related loads, including the effects of buoyancy resulting from flooding to the elevation listed in Table 6-1 in accordance with ASCE 24."
    - Dry floodproofing measures include sealing walls and foundations, installing watertight shields or panels at windows and doors, and installing temporary flood barriers, stairs, or ramps.
- Utility or mechanical equipment, such as plumbing, heating, and electrical, is elevated above the DFE or dry floodproofed.

Although specific building designs are not yet proposed, any necessary wet or dry flood protection measures would be incorporated and required for construction bids. Any residential dwelling units and critical infrastructure in buildings proposed within the 1 percent annual chance floodplain would be required to be elevated above the DFE in accordance with Appendix G. It is expected that City-owned sites would also

be required to comply with the Climate Resiliency Design Guidelines (CRDG), which provide a framework for going above and beyond Appendix G standards. Some of the proposed design features these guidelines list that go beyond Appendix G requirements include incorporating natural systems-based approaches where possible, such as living shorelines, installing perimeter floodwalls or levees, utility redundancy, and raising road elevations surrounding the site. Any projects receiving funding from the New York City Housing and Preservation Department (HPD) are required to meet the agency's resiliency guidelines, which incorporate CRDG definitions and climate projections, and require that new construction be floodproofed up to the projected 2080s DFE. HPD's resiliency guidelines place emphasis on the modernization and protection of critical infrastructure such as heating and cooling systems, domestic hot water systems, and adequate backup power generation.

While new buildings or substantial improvements outside of the 1 percent annual chance floodplain would not need to comply with Appendix G of the NYC Building Code, the 2021 Zoning for Coastal Flood Resiliency text amendment allows building owners and developers both within and outside the current floodplain to proactively design new buildings or retrofit existing buildings to exceed existing flood resiliency standards by modifying underlying zoning restrictions.

Future regulatory measures may also require adaptation or retrofits. The Proposed Actions would not preclude buildings that are not in the current floodplain but are projected to be within a future floodplain from adaptation to future flood risk through retrofitting methods such as wet- or dry-floodproofing ground floor spaces or relocating critical equipment or vulnerable uses to higher elevations in the building envelope and would facilitate the integration of these adaptive protections as part of the redevelopment of each site. One way to do this is to provide enough ceiling clearance on the ground floor to provide sufficient space for elevating equipment.

Additional flood protection to the Project Area would be provided by the modified WAP, which would result in a continuous raised shoreline along the waterfront to protect landward redevelopment areas from the effects of sea level rise and flooding. The proposed new grades at the ends of 44th Avenue, 44th Drive, and 45th Drive would be approximately 13.8 feet NAVD88, 12.7 feet NAVD88, and 11.6 feet NAVD88, respectively. These proposed elevations would further protect inland areas up to the High-Mid scenario of sea level rise projections by the 2100s.

Step 3: Assess policy consistency.

As discussed in the previous sections of Policy 6.2, the Proposed Actions would introduce new vulnerable and critical uses within the current and future floodplains. Any new developments within the current 1 percent annual chance floodplain would be built in accordance with Appendix G of the New York City Building Code, and any new developments outside of the current 1 percent annual chance floodplain would be encouraged to either incorporate floodproofing measures allowable by the Zoning for Coastal Resiliency text amendment to plan for future flooding or design proposed buildings to allow for future floodproofing adaptive measures or retrofits. The modified WAP would provide additional protection against high tide and coastal flooding by raising the shoreline.

Therefore, the Proposed Actions would promote this policy.

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

As discussed under Policy 1.1, the Proposed Actions are in response to objectives and recommendations derived from many years of planning work in and around Long Island City by community members, elected officials, and City agencies, and through the City's on-going community engagement process, which was initiated in Fall of 2023. The Proposed Actions would support community goals, informed by engagement with Community Boards 1 and 2, elected officials, nonprofits, advocacy groups, residents, businesses, property owners, and various stakeholders. These goals are intended to spur housing creation, including affordable housing; develop waterfront open spaces; and encourage job growth. One of the specific land use objectives identified through this process is to plan for a more resilient and sustainable Long Island City by addressing existing challenges, planned development, population growth, and climate change.

Therefore, the Proposed Actions would promote this policy.

Policy 7: Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to the environment and public health and safety.

Policy 7.1: Manage solid waste material, hazardous wastes, toxic pollutants, substances hazardous to the environment, and the unenclosed storage of industrial materials to protect public health, control pollution and prevent degradation of coastal ecosystems

Currently, the Project Area is densely developed and is composed of a mix of land uses, including residential, commercial, manufacturing, industrial, and infrastructure (transportation and utility) uses. Based on the age of most of the structures on the projected and potential development sites, building materials are likely to include asbestos containing material (ACM), lead-based paint (LBP), and/or polychlorinated biphenyls (PCBs). At currently vacant sites, such materials and/or buried petroleum storage tanks may also remain from the debris of former structures in the subsurface.

Historical uses potentially of environmental concern are principally associated with the following uses and activities in the study area:

- Oil refineries and oil terminals;
- Manufacturing and industrial uses on the development site or an adjacent site;
- Automotive-related, transportation, or utility uses on the development site or an adjacent site (e.g., garage, gasoline filling station and/or automotive repair);
- Underground storage tanks (USTs) or leaking USTs on the development site or an adjacent site;
- Spills of petroleum or chemicals on the development site or an adjacent site;
- Identified contamination on the development site or an adjacent site, including BCP sites; and
- Aboveground storage tanks on the development site or an adjacent site.

Projected Development Sites 21 (Block 428, Lot 1) and 25 (Block 447, Lot 4) have existing (E) Designations for hazardous materials. Projected Development Site 3 (Block

28, Lots 12,15, 17, 18, and 121) is the subject of an existing restrictive declaration. A restrictive declaration, similar to an (E) Designation, requires current and future site owners / developers to undertake required testing and remediation to the satisfaction of New York City Mayor's Office of Environmental Remediation (OER) as part of proposed development. Development of certain sites, such as those enrolled in the BCP may require additional coordination with tDEC and/or the U.S. Environmental Protection Agency (EPA).

Construction-related activities during future developments within the Project Area could increase pathways for exposure to hazardous materials. However, the possibility of impacts to the health and safety of workers, the community, and future occupants would be reduced by performing demolition and construction in accordance with the measures identified below:

- Prior to construction, further investigation would be performed on each site. This would start with preparation of a Phase I Environmental Site Assessment (ESA) in accordance with American Society of Testing Materials (ASTM) Standard E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Practice*. The findings would be used to prepare a subsurface investigation protocol for agency review. Upon approval of the protocol, the investigation (typically including laboratory analysis of soil, groundwater, and soil vapor samples from the site) would be implemented and a report of the findings submitted to the agency along with the proposed remediation plan (i.e., measures to be implemented prior to or as part of construction to avoid impacts to the health and safety of workers, the community, and future occupants), which would include a construction health and safety plan to protect workers and the surrounding community during development activities.
- Any renovation or demolition activities with the potential to disturb LBP would be performed in accordance with the applicable Occupational Safety and Health Administration (OSHA) regulation (OSHA 29 CRF 1926.62 – *Lead Exposure in Construction*).
- Prior to any renovation or demolition activities with the potential to disturb suspect ACMs, an asbestos survey would be conducted to determine whether these materials are ACM. If these materials prove to contain asbestos, they would be properly removed and disposed of in accordance with all state and federal regulations.
- Unless there is labeling or test data that indicates that florescent lights, other electrical equipment, and hydraulic fluid are not mercury- and/or PCB-containing, if disposal is required, it would be performed in accordance with applicable federal, state, and local regulations and guidelines.
- All excavated soil requiring off-site disposal would be managed in accordance with applicable regulatory requirements. All soil and any other materials intended for off-site disposal would be tested in accordance with the requirements of the intended receiving facility. Transportation of material leaving the site for off-site disposal would be in accordance with federal, state, and local requirements covering licensing of haulers and trucks, placarding, truck routes, manifesting, etc. All on-site petroleum storage tanks (and any unforeseen tanks encountered during redevelopment) would be properly closed and removed in accordance with applicable requirements.

- If dewatering is required for construction, testing would be performed to ensure compliance with New York City Department of Environmental Protection (DEP) sewer discharge permit/approval requirements and, if necessary, pre-treatment world be conducted prior to discharge to the sewer.

With these measures in place, the Proposed Actions would promote this policy.

Policy 7.2 Prevent and remediate discharge of petroleum products.

See response to Policy 7.1. All on-site petroleum storage tanks (and any unforeseen tanks encountered during redevelopment) would be properly closed and removed in accordance with applicable requirements.

Therefore, the Proposed Action would promote this policy.

Policy 7.3 Transport solid waste and hazardous materials and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.

See response to Policy 7.1. All excavated soil requiring off-site disposal would be managed in accordance with applicable regulatory requirements. All soil and any other materials intended for off-site disposal would be tested in accordance with the requirements of the intended receiving facility. Transportation of material leaving the site for off-site disposal would be in accordance with federal, state, and local requirements covering licensing of haulers and trucks, placarding, truck routes, manifesting, etc. All on-site petroleum storage tanks (and any unforeseen tanks encountered during redevelopment) would be properly closed and removed in accordance with applicable requirements.

Therefore, the Proposed Actions would promote this policy.

Policy 8: Provide public access to, from, and along New York City's coastal waters.

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

The Proposed Actions would promote Policy 8.1 through the modification of the Northern Hunters Point WAP. The proposed WAP would specify the location of required shore public walkways, supplemental public access areas, upland connections, and visual corridors to ensure access to Anable Basin from surrounding neighborhoods and to address the configuration of and varied conditions along the Basin. The WAP would also modify requirements and standards for public access to address the unique character of the Basin and align with modern citywide standards.

Therefore, the Proposed Actions would promote this policy.

Policy 8.2 Incorporate public access into new public and private development where compatible with proposed land use and coastal location.

As described further in Chapter 5, “Open Space,” the proposed modified Northern Hunters Point WAP would encourage the development of waterfront open space. The WAP would include a set of rules and regulations to facilitate the creation of high quality public open space through future redevelopment along the waterfront.

Therefore, the Proposed Actions would promote this policy.

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

The WAP would establish the location of visual corridors to provide additional opportunities for visual access to the East River and Anable Basin. The WAP would encourage street end design that provides public access and continuity across sites, while supporting the provision of new vantage points with visual access to the waterfront.

Therefore, the Proposed Actions would promote this policy.

*Policy 8.4 Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations***.**

In 1997, DCP submitted an application to amend the zoning resolution (ZR) to establish a WAP at the Northern Hunters Point Waterfront. The proposal was adopted by the City Planning Commission on September 3, 1997. To date the WAP has not rendered any waterfront open space as the area has experienced no redevelopment since its establishment. The Proposed Actions would modify the existing WAP to guide the development of new, high-quality open space that will connect the waterfront with the surrounding community. The WAP would also incentivize uses and programs to ensure a variety of uses, both active and passive. Moreover, the modified WAP would also require more robust elevation requirements to create a more resilient waterfront, ensuring the waterfront is accessible in the long term. Changing the underlying zoning of waterfront lots would encourage redevelopment, thereby requiring development of the WAP. The proposed street mapping action would create the framework for a new open space along the East River that that would invite the public to the waterfront. This would accomplish a long-held community goal of connecting Gantry State Park to the south to Queensbridge Park to the north.

Therefore, the Proposed Actions would promote this policy.

Policy 8.5 Preserve the public interest in and use of lands and waters held in public trust by the State and City.

The Proposed Actions would preserve the public interest by comprehensively updating zoning to permit a wider range of uses including residential, commercial, light-industrial, community facilities, and new open space.

The modified WAP would expand the neighborhood's public space amenities with the development of up to 6 acres of new open space, facilitate vibrant public spaces, improve coastal resiliency and local ecology, and address the unique character of Anable Basin. The proposed changes to the City Map, including widening portions of 45th Street, narrowing portions of 44th Drive, and mapping a new street along the waterfront, would further enhance connections to the waterfront, facilitate the creation of new publicly accessible waterfront open space, and improve pedestrian circulation.

Therefore, the Proposed Actions would promote this policy.

Policy 8.6 Design waterfront public spaces to encourage the waterfront's identity and encourage stewardship

The Northern Hunters Point WAP would be modified for the waterfront blocks within the Project Area. The proposed modified WAP would specify the location of required shore public walkways, supplemental public access areas, upland connections, and visual corridors to ensure access to the Basin from surrounding neighborhoods and to address

the configuration of and varied conditions along the Basin and the East River waterfront. The WAP would also modify requirements and standards for public access to expand the neighborhood's public space amenities, facilitate vibrant public spaces, improve coastal resiliency and local ecology, and address the unique character of the Basin.

Therefore, the Proposed Actions would promote this policy.

Policy 9: Protect scenic resources that contribute to the visual quality of the New York City coastal area.

Policy 9.1 Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.

See the response to Policy 8. The WAP would establish visual corridors to provide additional opportunities for visual access to the waterfront. The Proposed Actions would modify the existing WAP to guide the development of new, high-quality open space that will connect the waterfront with the surrounding community. The WAP would also incentivize uses and programs to ensure a variety of uses, both active and passive. Under the Proposed Actions, views along streets through the Project Area would include a mix of new buildings with transparent and active ground floors and older industrial, commercial, and residential buildings. While views of the Midtown Manhattan skyline would be blocked or partially obscured from some locations within the study area, some of those views would be blocked regardless of the Proposed Actions and the extent that views would be obscured would be variable due to distance and the building forms and heights of projected developments along the view corridors. Along the waterfront, the Proposed Actions would have beneficial effects on views and visual resources. The proposed east-west upland connections along with the proposed mapped street would create new view corridors from Vernon Boulevard to the East River, with views of the Midtown Manhattan skyline in the distance. The proposed upland connections to the shore public walkway around Anable Basin would provide new views to Anable Basin, which is currently only visible from within the primary study area at the north end of 5th Street. The Proposed Actions would result in beneficial effects on views through the creation of the proposed shore public walkway, which would provide water-front access along the entire East River shoreline within the primary study area. The proposed shore public walkway would provide new vantage points for viewing the East River and East River vista that includes the Manhattan Skyline and Queensboro Bridge.

Therefore, the Proposed Actions would promote this policy.

Policy 9.2 Protect and enhance scenic values associated with natural resources.

See the response to Policy 9.1. The WAP would establish visual corridors to provide additional opportunities for visual access to the East River.

Therefore, the Proposed Actions would promote this policy.

Policy 10: Protect, preserve, and enhance resources significant to the historical, archaeological, architectural, and cultural legacy of the New York City coastal area.

Policy 10.1 Retain and preserve historic resources, and enhance resources significant to the coastal culture of New York City.

There are 20 known architectural resources, including one historic district, located in the Project Area. Six of the known architectural resources are located on projected and

potential development sites. A survey was conducted to identify any previously undesignated properties that appear to meet State and National Registers of Historic Places (S/NR)-eligible or New York City Landmark (NYCL) eligibility criteria ("potential architectural resources"). Nineteen potential architectural resources were identified within the Project Area, and an additional seven potential architectural resources were identified within the 400-foot study area.

The Proposed Actions would result in significant direct adverse impacts to five S/NR-eligible buildings located on projected development sites, which would be demolished for redevelopment of the projected development sites in the With Action condition. These resources are: the former New York and Queens Electric Light and Power Substation Number 4 (Resource No. 2); the Walter Lippmann Building at 43-42 10th Street (Resource No. 11); 43-50 10th Street (Resource No. 12); the M. Henry Chernay Building at 10-03 44th Avenue (Resource No. 15); and the Jerome Perlstein Building at 43-58 11th Street (Resource No. 16). In addition, the building at 21-23 43rd Avenue (Resource F), which has been identified as a potential architectural resource, would be demolished for redevelopment of Potential Development Site G.

These significant adverse impacts would be unavoidable, as the resources are privately owned and could be demolished and modified to allow for developments constructed as-of-right subsequent to approval of the Proposed Actions.

Potential significant adverse impacts also could occur to 10 known and 8 potential architectural resources located within 90 feet of projected or potential development sites as a result of adjacent construction. The known architectural resources are: the S/NR-eligible former New York and Queens Electric Light and Power Substation Number 4 (Resource No. 2); the S/NR-eligible Steinway Van Storage building at 42-45 12th Street (Resource No. 3); the S/NR-eligible former Silvercup Bakery at 42-22 22nd Street (Resource No. 4); the Queensboro Bridge (Resource No. 7), which is a NYCL and S/NR-listed; the S/NR-eligible Walter Lippmann Building at 43-42 10th Street (Resource No. 11); the S/NR-eligible 43-50 10th Street (Resource No. 12); the S/NR-eligible building at 43-56 10th Street (Resource No. 13); the S/NR-eligible Tom Cat Bakery at 43-05 10th Street (Resource No. 14); the S/NR-eligible M. Henry Chernay Building at 10-03 44th Avenue (Resource No. 15); and the S/NR-eligible Jerome Perlstein Building at 43-58 11th Street (Resource No. 16). The potential architectural resources are: 10-15 and 10-27 46th Avenue (Resource B); 40-18 22nd Street (Resource I); 40-15 22nd Street (Resource J); 44-02 23rd Street (Resource K); 44-01 21st Street (Resource M); 21-49 44th Drive (Resource N); 42-25 Vernon Boulevard (Resource S); and 45-32 to 43-44 11th Street (Resource Z).

It is expected that DOB's *Technical Policy and Procedure Notice (TPPN) #10/88* would be implemented for the development that could affect NYCLs and S/NR-listed Queensboro Bridge. Other resources that are not S/NR-listed or designated NYCLs or New York City Historic Districts (NYCHD) would be afforded limited protection under DOB regulations applicable to all buildings located adjacent to construction sites (C26-112.4), but they are not afforded special protections under *TPPN #10/88.* Since potential development sites within 90 feet of these resources are not City-owned and are not anticipated to be developed in accordance with City disposition or development agreements, there is no mechanism to require the implementation of *TPPN #10/88* or preparation of a Construction Protection Plan. Additional protective measures afforded

under *TPPN #10/88* would only become applicable if the resources were listed on the S/NR or designated as NYCLs or NYCHDs in the future prior to the initiation of construction. If that does not occur, the resources would not be subject to *TPPN #10/88* and may therefore be adversely impacted by adjacent development resulting from the Proposed Actions.

The Proposed Actions also have the potential to result in indirect significant adverse impacts to five individual historic architectural resources, with new buildings on the projected and potential development sites in close proximity to these resources that could adversely impact their setting. The affected resources are: the S/NR-eligible Steinway Van & Storage Company building at 42-45 12th Street (Resource No. 3); the S/NR-eligible Tom Cat Bakery at 43-05 10th Street (Resource No. 14); the S/NR-eligible building at 43-56 10th Street (Resource No. 13); and the S/NR-eligible Metropolitan Building at 44-01 11th Street (Resource No. 17). In addition, views of the "Silvercup" metal-frame sign above the S/NR-eligible former Silvercup Bakery (Resource No. 4) along Queens Plaza South and from the Queensboro Bridge would be obscured by the new development along Queens Plaza South west of 21st Street in the future with the Proposed Actions.

Measures to partially mitigate these significant adverse impacts will be explored in consultation with LPC between the DEIS and FEIS. If no feasible mitigation is identified, these significant adverse impacts would be unmitigated.

Therefore, the Proposed Actions would promote this policy.

Policy 10.2 Protect and preserve archaeological resources and artifacts.

The New York City Landmarks Preservation Commission (LPC) conducted an initial review of the potential and projected development sites and determined that none of the sites possess potential archaeological significance.

Therefore, the Proposed Actions would promote this policy. ✷

NYC Waterfront Revitalization Program - Policy 6.2 Flood Elevation Workhsheet

COMPLETE INSTRUCTIONS ON HOW TO USE THIS WORKSHEET ARE PROVIDED IN THE "CLIMATE CHANGE ADAPTATION GUIDANCE" DOCUMENT AVAILABLE AT www.nyc.gov/wrp

Enter information about the project and site in highlighted cells in Tabs 1-3. Tab 4, "Summary Charts" contains primary results. Tab 5, "0.2%+SLR" produces charts to be used for critical infrastructure or facilities. Tab 6, "Calculations" contains background computations. Appendix A contains tide elevations for station across the city to be used for the elevation of MHHW if a site survey is not available. Non-highlighted cells have been locked.

Background Information	
Project Name	Long Island City Neighborhood Plan
Location	A portion of Long Island City, Queens NY
Type(s)	☑ Residential, Commercial, Community Facility ☑ Parkland, Open Space, and Natural Areas ☐ Tidal Wetland Restoration ☑ Critical Infrastructure or Facility ☑ Industrial Uses ☐ Over-water Structures ☑ Shoreline Structures ☐ Transportation ☐ Wastewater Treatment/Drainage ☑ Coastal Protection
Description	The NYC DCP is proposing a series of land use actions (the Proposed Actions) to support and facilitate implementation of the Long Island City Neighborhood Plan. The Proposed Actions would affect an approximately 54-block area in Long Island City, with a focus on the waterfront north of Anable Basin, manufacturing districts west of the central business district, and key corridors including 44th Drive, Vernon Boulevard, Queens Plaza South and 21st Street. The Proposed Actions include a number of land use approvals including Zoning Map Amendments, Zoning Text Amendments, modified height restrictions, among others.
Planned Completion Date	2035
Expected Project Lifespan	2100

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For technical assistance on using this worksheet, email wrp@planning.nyc.gov, using the message subject "Policy 6.2 Worksheet."

Last update: Sept. 7, 2018

Establish current tidal and flood heights.

	FT (NAVD88)	Feet	Datum	Source
MHHW	2.60	**2.60**	**NAVD88**	*Appendix A, 8518687 Queensborough Bridge*
1% flood height	11.00	**11.00**	**NAVD88**	*2015 Preliminary FIRM*
Design flood elevation	16.00	**16.00**	**NAVD88**	*Climate Resiliency Design Guidelines*
As relevant:				
0.2% flood height	14.00	14.00	**NAVD88**	*City of NY 2013 FIS Transect Q-56*

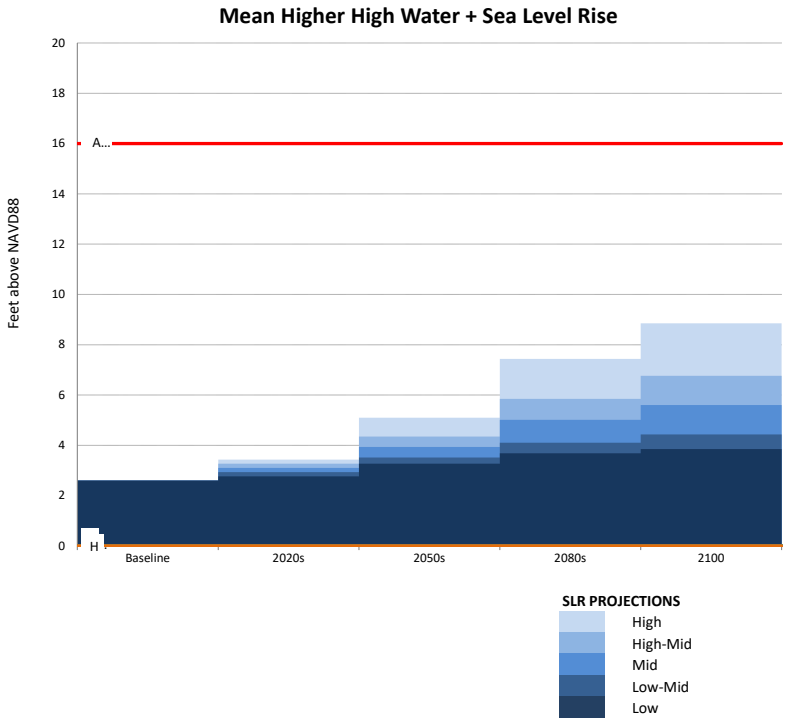
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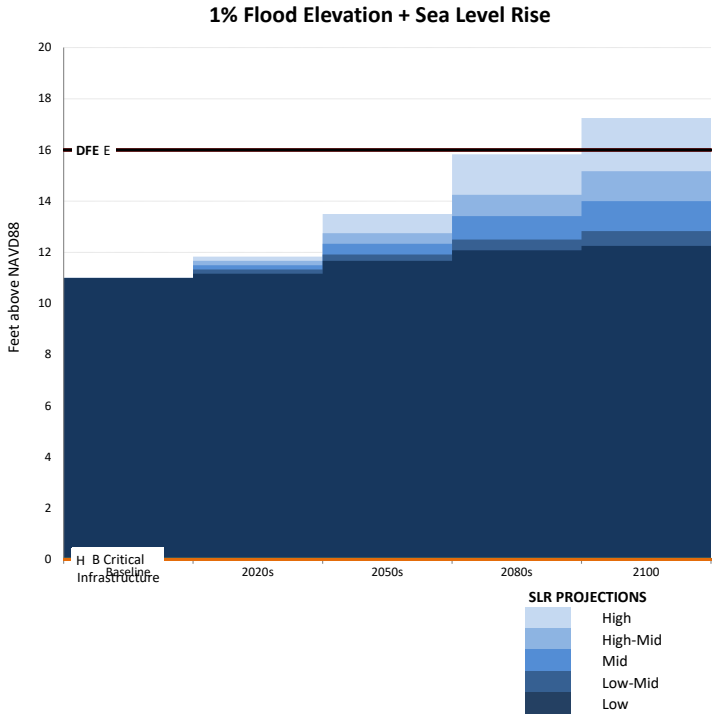
Datum	FT (NAVD88)
NAVD88	*0.00*
NGVD29	*-1.10*
Manhattan Datum	*1.65*
Bronx Datum	*1.51*
Brooklyn Datum (Sewer)	*0.61*
Brooklyn Datum (Highway)	*1.45*
Queens Datum	*1.63*
Richmond Datum	*2.09*

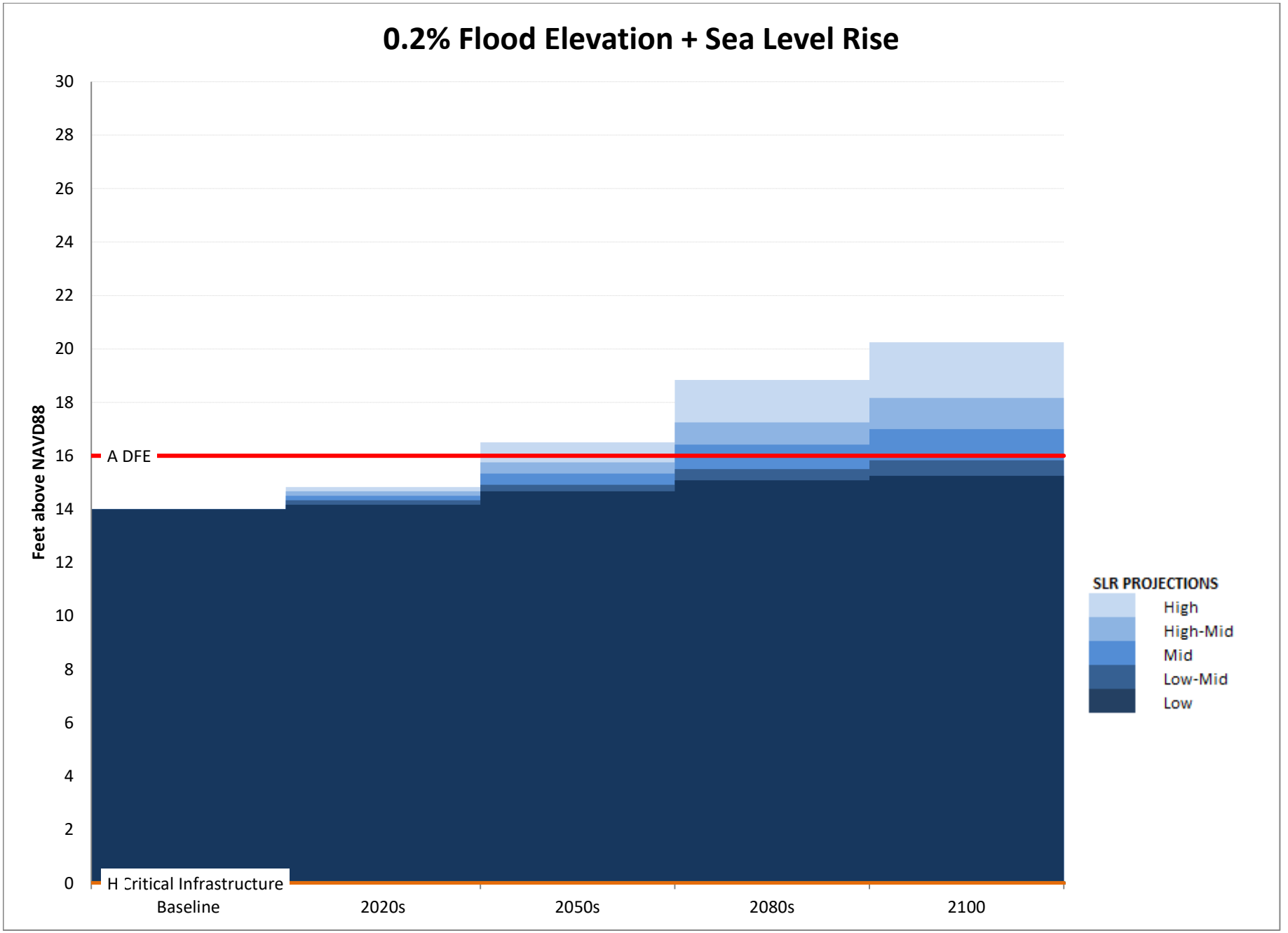
Describe key physical features of the project.

Feature *(enter name)*	Feature Category	Lifespan	Elevation	Units	Datum	Ft	Ft Above NAVD88	Ft Above MHHW	Ft Above 0.2% flood height
A DFE	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	2100	16.0	Feet	NAVD88	*16.0*	*16.0*	*13.4*	*2.0*
The calculated Design Flood Elevation for sites within the 1 percent annual chance floodplain with a BFE of +11 feet NAVD88									
B Critical Infrastructure	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
C	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
D	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
E	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
F	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
G	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
H	☐ Vulnerable ☐ Critical ☑ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									

Assess project vulnerability over a range of sea level rise projections.






0.2% Flood Elevation + Sea Level Rise
Feet above NAVD88
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
A DFE
H Critical Infrastructure
Baseline
2020s
2050s
2080s
2100
SLR PROJECTIONS
High
High-Mid
Mid
Low-Mid
Low

	SLR (ft)				
	Low	Low-Mid	Mid	High-Mid	High
Baseline	0.00	0.00	0.00	0.00	0.00
2020s	0.17	0.33	0.50	0.67	0.83
2050s	0.67	0.92	1.33	1.75	2.50
2080s	1.08	1.50	2.42	3.25	4.83
2100	1.25	1.83	3.00	4.17	6.25

	SLR (in)				
	Low	Low-Mid	Mid	High-Mid	High
2014	0	0	0	0	0
2020s	2	4	6	8	10
2050s	8	11	16	21	30
2080s	13	18	29	39	58
2100	15	22	36	50	75

MHHW+SLR (ft above NAVD88)

	Low	Low-Mid	Mid	High-Mid	High
Baseline	2.60	2.60	2.60	2.60	2.60
2020s	2.77	2.93	3.10	3.27	3.43
2050s	3.27	3.52	3.93	4.35	5.10
2080s	3.68	4.10	5.02	5.85	7.43
2100	3.85	4.43	5.60	6.77	8.85

1%+SLR (ft above NAVD88)

	Low	Low-Mid	Mid	High-Mid	High
Baseline	11.00	11.00	11.00	11.00	11.00
2020s	11.17	11.33	11.50	11.67	11.83
2050s	11.67	11.92	12.33	12.75	13.50
2080s	12.08	12.50	13.42	14.25	15.83
2100	12.25	12.83	14.00	15.17	17.25

0.2%+SLR (ft above NAVD88)

	Low	Low-Mid	Mid	High-Mid	High
Baseline	14.00	14.00	14.00	14.00	14.00
2020s	14.17	14.33	14.50	14.67	14.83
2050s	14.67	14.92	15.33	15.75	16.50
2080s	15.08	15.50	16.42	17.25	18.83
2100	15.25	15.83	17.00	18.17	20.25

	0	1
A DFE	16	16
B Critical Infrastructure	0	0
C	0	0
D	0	0
E	0	0
F	0	0
G	0	0
H	0	0
DFE	16.00	16.00

NOAA Tide Station Data

(to be used only when a site survey is unavailable)

Station ID	*Station Name*	*Source MHHW (Feet, NAVD88)**	*Adjusted MHHW (Feet, NAVD88)**	*Source*
8518687	Queensboro Bridge	2.27	2.60	NOAA Tides and Currents
8530095	Alpine	2.11	2.44	NOAA Tides and Currents
8516614	Glen Cove	3.72	4.05	NOAA Tides and Currents
8516990	Willets Point	3.72	4.05	NOAA Tides and Currents
8518639	Port Morris	3.33	3.66	NOAA Tides and Currents
8518699	Williamsburg Bridge	2.14	2.47	NOAA Tides and Currents
8518750	The Battery	2.28	2.61	NOAA Tides and Currents
8531680	Sandy Hook	2.41	2.74	NOAA Tides and Currents
8518490	New Rochelle	3.71	4.04	NOAA Tides and Currents
8531545	Keyport	2.66	2.99	NOAA Tides and Currents
8516891	Norton Point	2.08	2.41	NOAA VDATUM
8517201	North Channel	2.72	3.05	NOAA Tides and Currents
8517137	Beach Channel	2.10	2.43	NOAA VDATUM
8517756	Kingsborough	2.13	2.46	NOAA VDATUM
8519436	Great Kills	2.22	2.55	NOAA VDATUM
8531142	Port Reading	2.82	3.15	NOAA VDATUM
8519483	Bergen Point	2.56	2.89	NOAA VDATUM
8519050	USCG	2.28	2.61	NOAA Tides and Currents
8518902	Dyckman St	2.01	2.34	NOAA Tides and Currents
8517251	Worlds Fair Marina	3.59	3.92	NOAA VDATUM
8518668	Horns Hook	2.54	2.87	NOAA VDATUM
8518643	Randalls Island	2.60	2.93	NOAA VDATUM
8518526	Throggs Neck	3.68	4.01	NOAA Tides and Currents

* MHHW values include an addition 0.33 feet to account for changes in sea level since the 1983-2001 tidal epoch.



NYC Waterfront Revitalization Program - Policy 6.2 Flood Elevation Workhsheet

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Last update: Sept. 7, 2018

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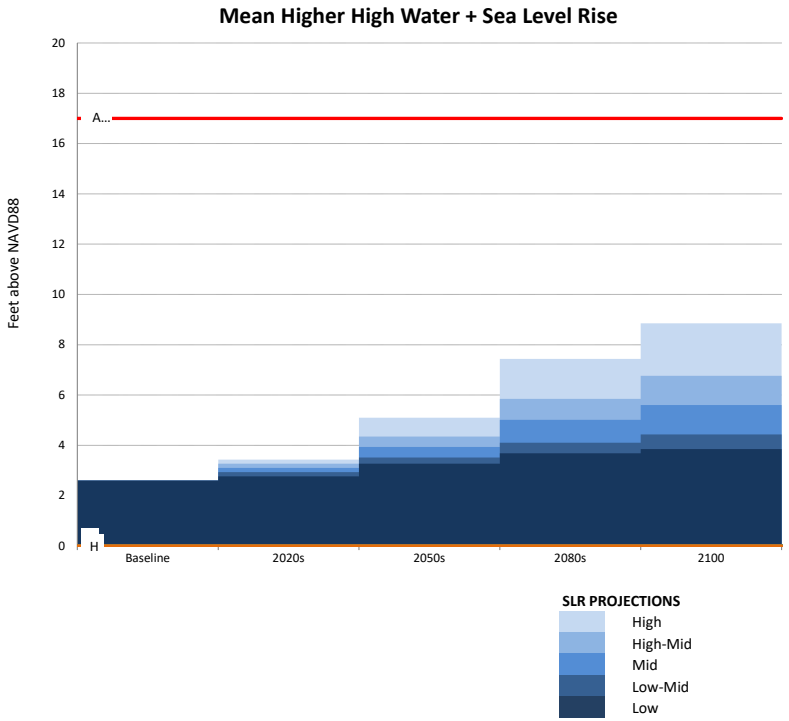
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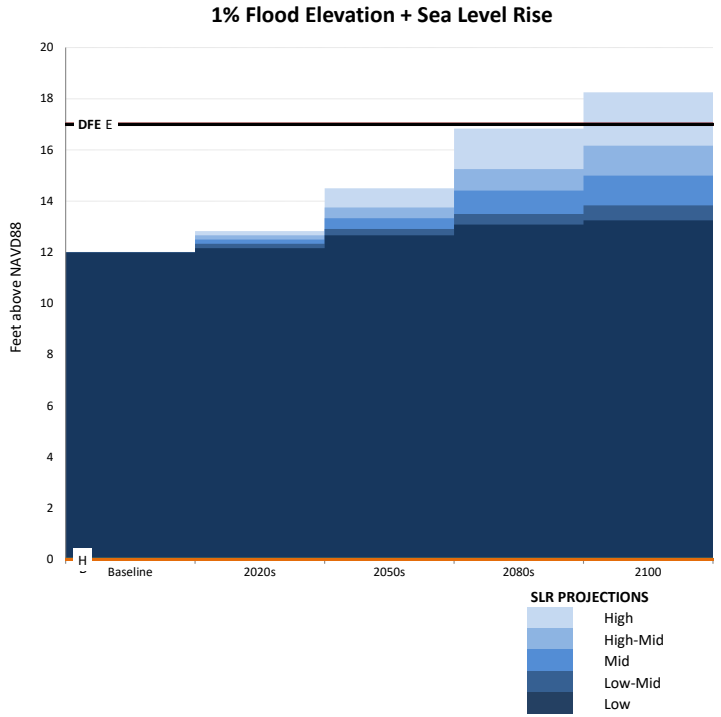
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NGVD29	*-1.10*
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Queens Datum	*1.63*
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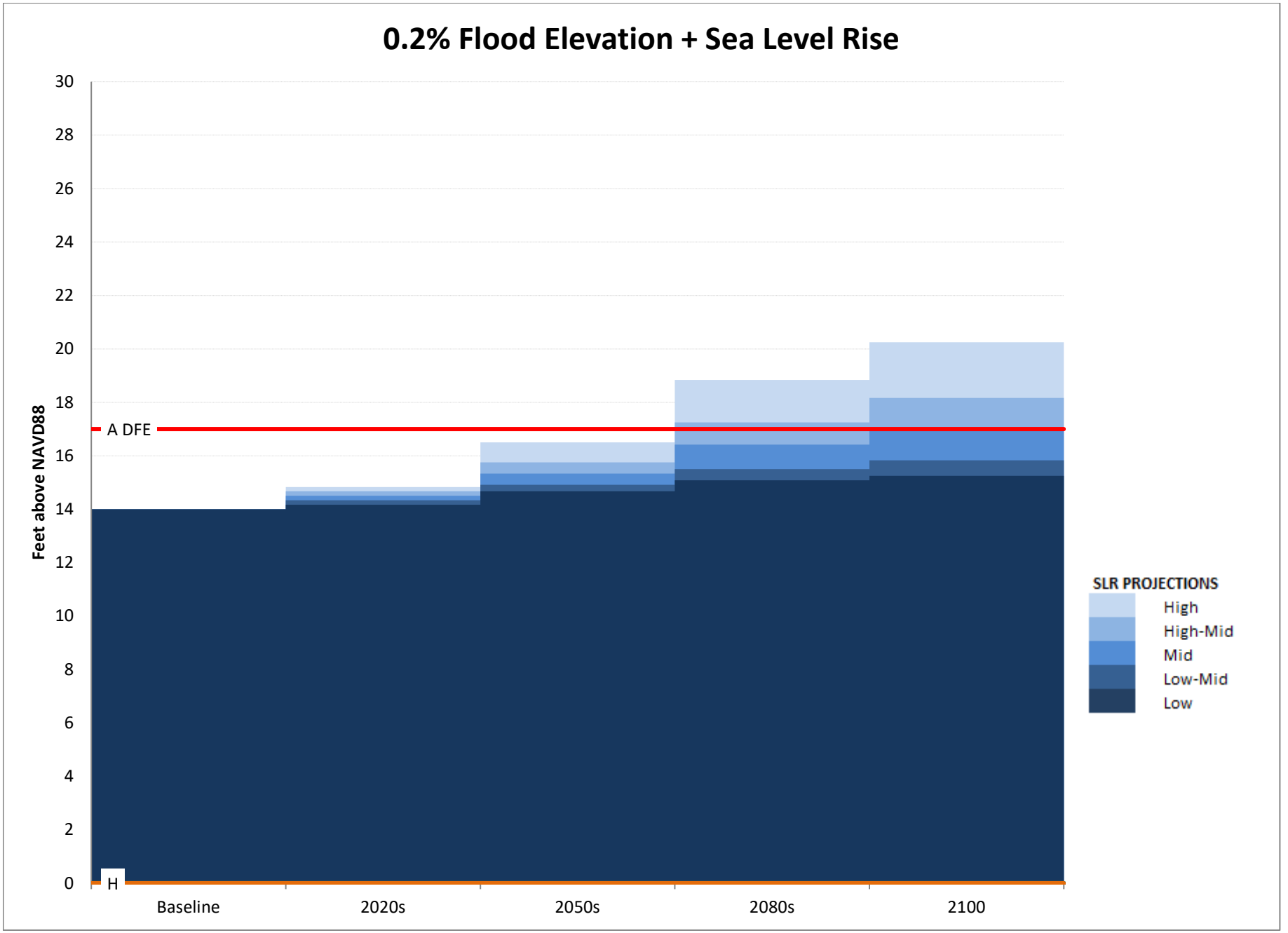
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B	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
C	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
D	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
E	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
F	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
G	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
H	☐ Vulnerable ☐ Critical ☑ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									

Assess project vulnerability over a range of sea level rise projections.






0.2% Flood Elevation + Sea Level Rise
Feet above NAVD88
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
A DFE
H
Baseline
2020s
2050s
2080s
2100
SLR PROJECTIONS
High
High-Mid
Mid
Low-Mid
Low

	SLR (ft)					
	Low	**Low-Mid**	**Mid**	**High-Mid**	**High**	
Baseline	0.00	0.00	0.00	0.00	0.00	**2014**
2020s	0.17	0.33	0.50	0.67	0.83	**2020s**
2050s	0.67	0.92	1.33	1.75	2.50	**2050s**
2080s	1.08	1.50	2.42	3.25	4.83	**2080s**
2100	1.25	1.83	3.00	4.17	6.25	**2100**

	MHHW+SLR (ft above NAVD88)				
	Low	**Low-Mid**	**Mid**	**High-Mid**	**High**
Baseline	2.60	2.60	2.60	2.60	2.60
2020s	2.77	2.93	3.10	3.27	3.43
2050s	3.27	3.52	3.93	4.35	5.10
2080s	3.68	4.10	5.02	5.85	7.43
2100	3.85	4.43	5.60	6.77	8.85

	1%+SLR (ft above NAVD88)				
	Low	**Low-Mid**	**Mid**	**High-Mid**	**High**
Baseline	12.00	12.00	12.00	12.00	12.00
2020s	12.17	12.33	12.50	12.67	12.83
2050s	12.67	12.92	13.33	13.75	14.50
2080s	13.08	13.50	14.42	15.25	16.83
2100	13.25	13.83	15.00	16.17	18.25

	0.2%+SLR (ft above NAVD88)				
	Low	**Low-Mid**	**Mid**	**High-Mid**	**High**
Baseline	14.00	14.00	14.00	14.00	14.00
2020s	14.17	14.33	14.50	14.67	14.83
2050s	14.67	14.92	15.33	15.75	16.50
2080s	15.08	15.50	16.42	17.25	18.83
2100	15.25	15.83	17.00	18.17	20.25

	0	1
A DFE	17	17
B	0	0
C	0	0
D	0	0
E	0	0
F	0	0
G	0	0
H	0	0
DFE	17.00	17.00

SLR (in)				
Low	**Low-Mid**	**Mid**	**High-Mid**	**High**
0	0	0	0	0
2	4	6	8	10
8	11	16	21	30
13	18	29	39	58
15	22	36	50	75

NOAA Tide Station Data

(to be used only when a site survey is unavailable)

Station ID	*Station Name*	*Source MHHW (Feet, NAVD88)**	*Adjusted MHHW (Feet, NAVD88)**
8518687	Queensboro Bridge	2.27	2.60
8530095	Alpine	2.11	2.44
8516614	Glen Cove	3.72	4.05
8516990	Willets Point	3.72	4.05
8518639	Port Morris	3.33	3.66
8518699	Williamsburg Bridge	2.14	2.47
8518750	The Battery	2.28	2.61
8531680	Sandy Hook	2.41	2.74
8518490	New Rochelle	3.71	4.04
8531545	Keyport	2.66	2.99
8516891	Norton Point	2.08	2.41
8517201	North Channel	2.72	3.05
8517137	Beach Channel	2.10	2.43
8517756	Kingsborough	2.13	2.46
8519436	Great Kills	2.22	2.55
8531142	Port Reading	2.82	3.15
8519483	Bergen Point	2.56	2.89
8519050	USCG	2.28	2.61
8518902	Dyckman St	2.01	2.34
8517251	Worlds Fair Marina	3.59	3.92
8518668	Horns Hook	2.54	2.87
8518643	Randalls Island	2.60	2.93
8518526	Throggs Neck	3.68	4.01

* MHHW values include an addition 0.33 feet to account for changes in sea level since the 1983-20(

Source
NOAA Tides and Currents
NOAA Tides and Currents
NOAA Tides and Currents
NOAA Tides and Currents
NOAA Tides and Currents
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NOAA VDATUM
NOAA Tides and Currents

)1 tidal epoch.




Alpine
8530095
New
Rochelle
8518490
Dyckman St
8518902
Glen Cove
8516614
Randalls
Island
8518643
Port
Morris
8518639
Throggs
Neck
8518526
Willets
Point
8516990
Worlds Fair
Marina
8517251
Queensboro
Bridge
8518687
Horns Hook
8518668
Williamsburg
Bridge
8518699
The Battery
8518750
North
Channel
8507201
Norton
Point
8516891
CG
9050
Beach
Channel
8517137
Kingsborough
8517756
Sandy Hook
8531680

NYC Waterfront Revitalization Program - Policy 6.2 Flood Elevation Workhsheet

COMPLETE INSTRUCTIONS ON HOW TO USE THIS WORKSHEET ARE PROVIDED IN THE "CLIMATE CHANGE ADAPTATION GUIDANCE" DOCUMENT AVAILABLE AT www.nyc.gov/wrp

Enter information about the project and site in highlighted cells in Tabs 1-3. Tab 4, "Summary Charts" contains primary results. Tab 5, "0.2%+SLR" produces charts to be used for critical infrastructure or facilities. Tab 6, "Calculations" contains background computations. Appendix A contains tide elevations for station across the city to be used for the elevation of MHHW if a site survey is not available. Non-highlighted cells have been locked.

Background Information	
Project Name	Long Island City Neighborhood Plan
Location	A portion of Long Island City, Queens NY
Type(s)	☑ Residential, Commercial, Community Facility ☑ Parkland, Open Space, and Natural Areas ☐ Tidal Wetland Restoration ☑ Critical Infrastructure or Facility ☑ Industrial Uses ☐ Over-water Structures ☑ Shoreline Structures ☐ Transportation ☐ Wastewater Treatment/Drainage ☑ Coastal Protection
Description	The NYC DCP is proposing a series of land use actions (the Proposed Actions) to support and facilitate implementation of the Long Island City Neighborhood Plan. The Proposed Actions would affect an approximately 54-block area in Long Island City, with a focus on the waterfront north of Anable Basin, manufacturing districts west of the central business district, and key corridors including 44th Drive, Vernon Boulevard, Queens Plaza South and 21st Street. The Proposed Actions include a number of land use approvals including Zoning Map Amendments, Zoning Text Amendments, modified height restrictions, among others.
Planned Completion Date	2035
Expected Project Lifespan	2100

The New York City Waterfront Revitalization Program Climate Change Adaptation Guidance document was developed by the NYC Department of City Planning. It is a guidance document only and is not intended to serve as a substitute for actual regulations. The City disclaims any liability for errors that may be contained herein and shall not be responsible for any damages, consequential or actual, arising out of or in connection with the use of this information. The City reserves the right to update or correct information in this guidance document at any time and without notice.

For technical assistance on using this worksheet, email wrp@planning.nyc.gov, using the message subject "Policy 6.2 Worksheet."

Last update: Sept. 7, 2018

Establish current tidal and flood heights.

	FT (NAVD88)	Feet	Datum	Source
MHHW	2.60	**2.60**	**NAVD88**	*Appendix A, 8518687 Queensborough Bridge*
1% flood height	14.00	**14.00**	**NAVD88**	*2015 Preliminary FIRM*
Design flood elevation	19.00	**19.00**	**NAVD88**	*Climate Resiliency Design Guidelines*
As relevant:				
0.2% flood height	14.00	14.00	**NAVD88**	*City of NY 2013 FIS Transect Q-56*

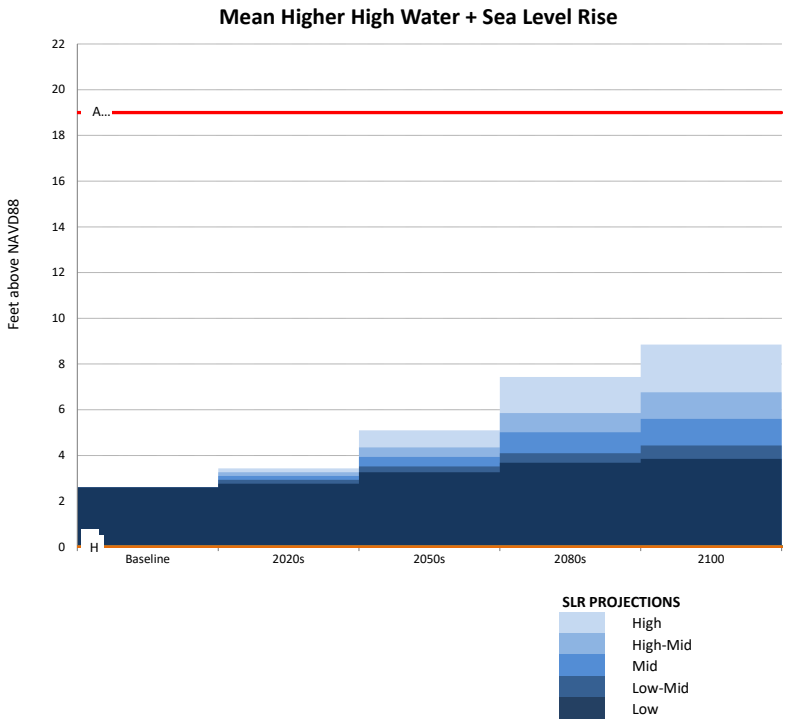
Data will be converted based on the following datums:

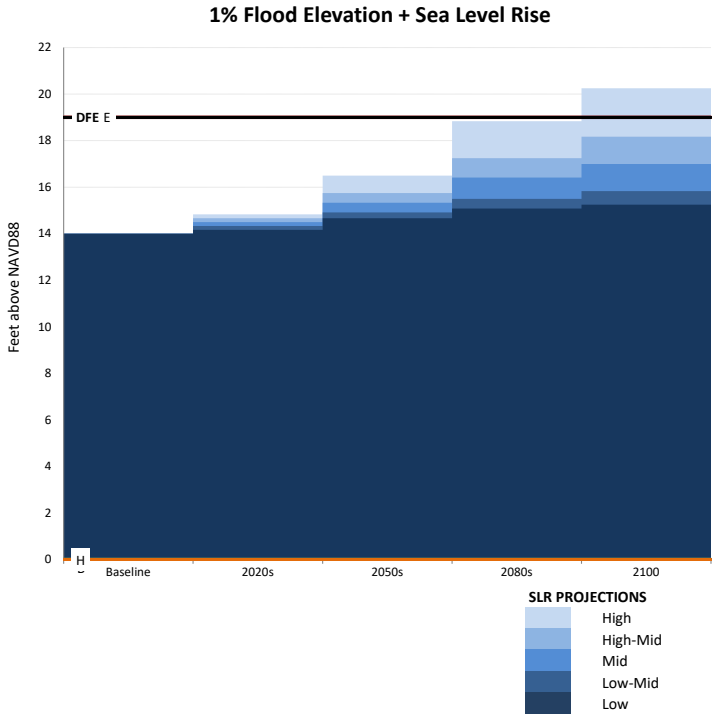
Datum	FT (NAVD88)
NAVD88	*0.00*
NGVD29	*-1.10*
Manhattan Datum	*1.65*
Bronx Datum	*1.51*
Brooklyn Datum (Sewer)	*0.61*
Brooklyn Datum (Highway)	*1.45*
Queens Datum	*1.63*
Richmond Datum	*2.09*

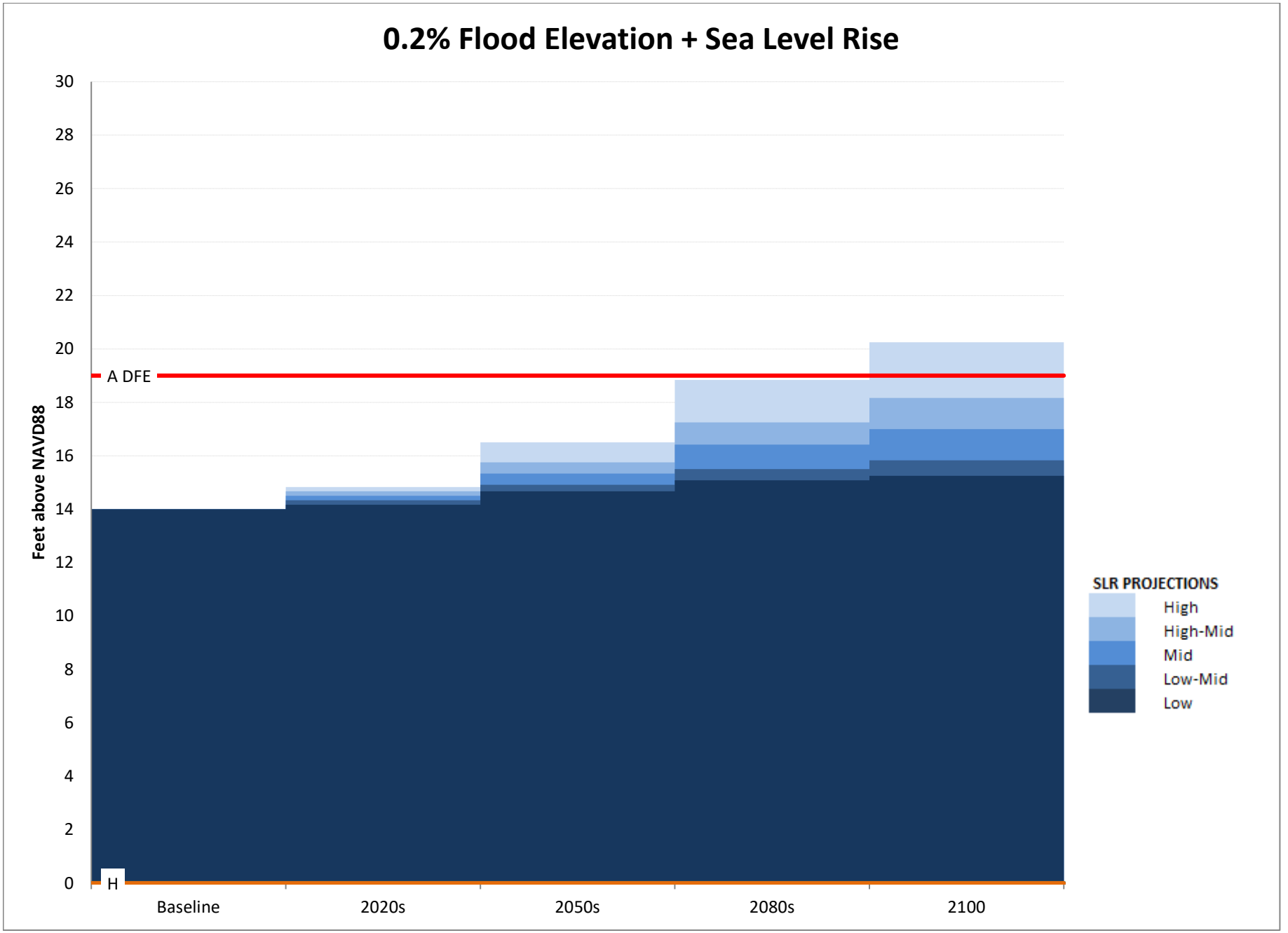
Describe key physical features of the project.

Feature *(enter name)*	Feature Category	Lifespan	Elevation	Units	Datum	Ft	Ft Above NAVD88	Ft Above MHHW	Ft Above 0.2% flood height
A DFE	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	2100	19.0	Feet	NAVD88	*19.0*	*19.0*	*16.4*	*5.0*
The calculated Design Flood Elevation for sites within the current 0.2 percent annual chance floodplain. BFE was calculated from nearest Transect Q-56 in the 2013 Flood Insurance Study for the City of New York.									
B	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
C	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
D	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
E	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
F	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
G	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
H	☐ Vulnerable ☐ Critical ☑ Potentially Hazardous ☐ Other			Feet	NAVD88				
Description of Planned Uses and Materials									

Assess project vulnerability over a range of sea level rise projections.






0.2% Flood Elevation + Sea Level Rise
Feet above NAVD88
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
A DFE
H
Baseline
2020s
2050s
2080s
2100
SLR PROJECTIONS
High
High-Mid
Mid
Low-Mid
Low

	SLR (ft)				
	Low	Low-Mid	Mid	High-Mid	High
Baseline	0.00	0.00	0.00	0.00	0.00
2020s	0.17	0.33	0.50	0.67	0.83
2050s	0.67	0.92	1.33	1.75	2.50
2080s	1.08	1.50	2.42	3.25	4.83
2100	1.25	1.83	3.00	4.17	6.25

	SLR (in)				
	Low	Low-Mid	Mid	High-Mid	High
2014	0	0	0	0	0
2020s	2	4	6	8	10
2050s	8	11	16	21	30
2080s	13	18	29	39	58
2100	15	22	36	50	75

MHHW+SLR (ft above NAVD88)

	Low	Low-Mid	Mid	High-Mid	High
Baseline	2.60	2.60	2.60	2.60	2.60
2020s	2.77	2.93	3.10	3.27	3.43
2050s	3.27	3.52	3.93	4.35	5.10
2080s	3.68	4.10	5.02	5.85	7.43
2100	3.85	4.43	5.60	6.77	8.85

1%+SLR (ft above NAVD88)

	Low	Low-Mid	Mid	High-Mid	High
Baseline	14.00	14.00	14.00	14.00	14.00
2020s	14.17	14.33	14.50	14.67	14.83
2050s	14.67	14.92	15.33	15.75	16.50
2080s	15.08	15.50	16.42	17.25	18.83
2100	15.25	15.83	17.00	18.17	20.25

0.2%+SLR (ft above NAVD88)

	Low	Low-Mid	Mid	High-Mid	High
Baseline	14.00	14.00	14.00	14.00	14.00
2020s	14.17	14.33	14.50	14.67	14.83
2050s	14.67	14.92	15.33	15.75	16.50
2080s	15.08	15.50	16.42	17.25	18.83
2100	15.25	15.83	17.00	18.17	20.25

	0	1
A DFE	19	19
B	0	0
C	0	0
D	0	0
E	0	0
F	0	0
G	0	0
H	0	0
DFE	19.00	19.00

NOAA Tide Station Data

(to be used only when a site survey is unavailable)

Station ID	*Station Name*	*Source MHHW (Feet, NAVD88)**	*Adjusted MHHW (Feet, NAVD88)**	*Source*
8518687	Queensboro Bridge	2.27	2.60	NOAA Tides and Currents
8530095	Alpine	2.11	2.44	NOAA Tides and Currents
8516614	Glen Cove	3.72	4.05	NOAA Tides and Currents
8516990	Willets Point	3.72	4.05	NOAA Tides and Currents
8518639	Port Morris	3.33	3.66	NOAA Tides and Currents
8518699	Williamsburg Bridge	2.14	2.47	NOAA Tides and Currents
8518750	The Battery	2.28	2.61	NOAA Tides and Currents
8531680	Sandy Hook	2.41	2.74	NOAA Tides and Currents
8518490	New Rochelle	3.71	4.04	NOAA Tides and Currents
8531545	Keyport	2.66	2.99	NOAA Tides and Currents
8516891	Norton Point	2.08	2.41	NOAA VDATUM
8517201	North Channel	2.72	3.05	NOAA Tides and Currents
8517137	Beach Channel	2.10	2.43	NOAA VDATUM
8517756	Kingsborough	2.13	2.46	NOAA VDATUM
8519436	Great Kills	2.22	2.55	NOAA VDATUM
8531142	Port Reading	2.82	3.15	NOAA VDATUM
8519483	Bergen Point	2.56	2.89	NOAA VDATUM
8519050	USCG	2.28	2.61	NOAA Tides and Currents
8518902	Dyckman St	2.01	2.34	NOAA Tides and Currents
8517251	Worlds Fair Marina	3.59	3.92	NOAA VDATUM
8518668	Horns Hook	2.54	2.87	NOAA VDATUM
8518643	Randalls Island	2.60	2.93	NOAA VDATUM
8518526	Throggs Neck	3.68	4.01	NOAA Tides and Currents

* MHHW values include an addition 0.33 feet to account for changes in sea level since the 1983-2001 tidal epoch.



Site ID	Projected or Potential Development Site	Tax Lot	Existing Zoning	Proposed Zoning	Existing Ground Level Elevation (NAVD88)	Current Floodplain	Current Base Flood Elevation (NAVD88)	Nearest Adjacent Current Base Flood Elevation (NAVD88)	Base Flood Elevation Combined (NAVD88)	Design Flood Elevation (NAVD88)	2050s Projected Base Flood Elevation (NAVD88)	2080s Projected Base Flood Elevation (NAVD88)	2100 Projected Base Flood Elevation (NAVD88)	Projected Year Site Would be in Floodplain
1	Projected	4000270023, 4000270005, 4000270025, 4000270015, 4000270017, 4000270037	M1-4, M1-4_R6A	M1-5A/R8, M1-3A/R7A	10	1% Annual Chance, Zone AE	12	n/a	12	17	14.5	16.83	18.25	n/a
2	Projected	4000280009, 4000280010, 4000280011	M1-4	M1-3A/R7X	12	0.2% Annual Chance	None	**14**	**14**	19	16.5	18.83	20.25	2050s
3	Projected	4000280012, 4000280015, 4000280017, 4000280018, 4000280121	M1-4	M1-3A/R7X	6	1% Annual Chance, Zone AE	11	n/a	11	16	13.5	15.83	17.25	n/a
4	Projected	4000480005, 4000480008, 4000480037, 4000480040, 4000480043	M1-4	M1-2A/R6A	10	1% Annual Chance, Zone AE	11	n/a	11	16	13.5	15.83	17.25	n/a
5	Projected	4000480012	M1-4	M1-2A/R6A	12	0.2% Annual Chance	None	**14**	**14**	19	16.5	18.83	20.25	2050s
7	Projected	4000490001, 4000490005, 4000490044	M1-4, R6A_C1-5	M1-3A/R7A, M1-2A/R6A	10	1% Annual Chance, Zone AE	11	n/a	11	16	13.5	15.83	17.25	n/a
9	Projected	4000490035, 4000490037	M1-4	M1-2A/R6A	12	0.2% Annual Chance	None	**14**	**14**	19	16.5	18.83	20.25	2050s
10	Projected	4000500001	M1-4	M1-2A/R6A, M1-3A/R7X	10	1% Annual Chance, Zone AE	11	n/a	11	16	13.5	15.83	17.25	n/a
12	Projected	4000510001	M1-4	M1-4A/R8A	10	1% Annual Chance, Zone AE	11	n/a	11	16	13.5	15.83	17.25	n/a
13	Projected	4000510006, 4000510011, 4000510028, 4000510033, 4000510036, 4000510038, 4000510042	M1-4	M1-2A/R6A, M1-4A/R8A	10	1% Annual Chance, Zone AE	11	n/a	11	16	13.5	15.83	17.25	n/a
14	Projected	4000510013	M1-4	M1-2A/R6A	10	1% Annual Chance, Zone AE	11	n/a	11	16	13.5	15.83	17.25	n/a
15	Projected	4000510015, 4000510016	M1-4	M1-2A/R6A	10	0.2% Annual Chance	None	**14**	**14**	19	16.5	18.83	20.25	2050s
16	Projected	4000780054	M1-4_R7A	M1-4A/R8A	16	None	None	11	11	16	13.5	15.83	17.25	2080s
17	Projected	4004110012, 4004110031	M1-5	M1-6A/R10	16	None	None	11	11	16	13.5	15.83	17.25	2050s
18	Projected	4004110018	M1-5	M1-6A/R10	16	None	None	11	11	16	13.5	15.83	17.25	2050s
19	Projected	4004120001, 4004120025	M1-5	M1-6A/R10	16	None	None	11	11	16	13.5	15.83	17.25	2080s
20	Projected	4004240001	M1-5_R9	M1-6, R9	20	None	None	11	11	16	13.5	15.83	17.25	>2100s
21	Projected	4004280001	M1-5_R9	M1-6/R10	16	None	None	11	11	16	13.5	15.83	17.25	2080s
22	Projected	4004290016	M1-5_R9	M1-6/R10	16	None	None	11	11	16	13.5	15.83	17.25	2100s
25	Projected	4004470040, 4004470035	M1-4_R7A, M1-4	M1-4A/R8A, M1-6A, M1-4A	16	None	None	11	11	16	13.51	15.83	17.25	2050s
26	Projected	4004480001	M1-4_R7A, M1-4	M1-4A/R8A, M1-4A	12	0.2% Annual Chance	None	**14**	**14**	19	16.5	18.83	20.25	2050s
27	Projected	4004480006	M1-4	M1-4A/R8A	12	0.2% Annual Chance	None	**14**	**14**	19	16.5	18.83	20.25	2050s

Site ID	Projected or Potential Development Site	Tax Lot	Existing Zoning	Proposed Zoning	Existing Ground Level Elevation (NAVD88)	Current Floodplain	Current Base Flood Elevation (NAVD88)	Nearest Adjacent Current Base Flood Elevation (NAVD88)	Base Flood Elevation Combined (NAVD88)	Design Flood Elevation (NAVD88)	2050s Projected Base Flood Elevation (NAVD88)	2080s Projected Base Flood Elevation (NAVD88)	2100 Projected Base Flood Elevation (NAVD88)	Projected Year Site Would be in Floodplain
28	Projected	4004480024	M1-4_R7A, M1-4	M1-4A/R8A, M1-4A	10	1% Annual Chance, Zone AE	11	n/a	11	16	13.5	15.83	17.25	n/a
29	Projected	4003920001, 4003920005, 4003920043	M1-3	M1-5A	14	None	None	12	12	17	14.5	16.83	18.25	2050s
30	Projected	4003920040, 4003920041, 4003920038, 4003920039	M1-3	M1-5A	14	None	None	12	12	17	14.5	16.83	18.25	2050s
31	Projected	4003930001, 4003930027	M1-3	M1-5A, M1-4A	14	None	None	12	12	17	14.5	16.83	18.25	2080s
32	Projected	4003930034	M1-3	M1-5A, M1-4A	14	None	None	12	12	17	14.5	16.83	18.25	2050s
38	Projected	4004440012, 4004440014	M1-4	M1-4A	14	0.2% Annual Chance	None	**14**	**14**	19	16.5	18.83	20.25	2050s
39	Projected	4004450001, 4004450012	M1-4	M1-4A	14	0.2% Annual Chance	None	**14**	**14**	19	16.5	18.83	20.25	2050s
40	Projected	4004530001	M1-4	M1-4A	12	0.2% Annual Chance	None	**14**	**14**	19	16.5	18.83	20.25	2050s
42	Projected	4004570143, 4004570144, 4004570149	M1-4	M1-6A	20	None	None	11	11	16	13.5	15.83	17.25	>2100s*
43	Projected	4004570169	M1-4	M1-6A	16	None	None	11	11	16	13.5	15.83	17.25	2080s
45	Projected	4004580087, 4004580129	M1-4	M1-5A	18	None	None	11	11	16	13.5	15.83	17.25	>2100s*
46	Projected	4004580101	M1-4	M1-5A	18	None	None	11	11	16	13.5	15.83	17.25	2080s
49	Projected	4004590023, 4004590064	M1-4	M1-5A	16	None	None	11	11	16	13.5	15.83	17.25	2100s
50	Projected	4004590065	M1-4	M1-5A	16	0.2% Annual Chance	None	**14**	**14**	19	16.5	18.83	20.25	2100s
51	Projected	4004600010, 4004600016, 4004600030, 4004600040	M1-4	M1-5A	16	0.2% Annual Chance	None	**14**	**14**	19	16.5	18.83	20.25	2080s
52	Projected	4004610012, 4004610013, 4004610047	M1-4	M1-5A	16	None	None	11	11	16	13.5	15.83	17.25	2080s
54	Projected	4004290003	M1-5_R9, M1-5_R7-3	M1-6/R10	16	None	None	11	11	16	13.5	15.83	17.25	2080s
57	Projected	4004390008	M1-4	M1-5A	18	None	None	11	11	16	13.5	15.83	17.25	2100s
59	Projected	4004540021, 4004540022, 4004540025, 4004540026, 4004540039	M1-4	M1-4A	12	0.2% Annual Chance	None	**14**	**14**	19	16.5	18.83	20.25	2050s
61	Projected	4004860001, 4004860005, 4004860013	M1-4	M1-5A	12	0.2% Annual Chance	None	**14**	**14**	19	16.5	18.83	20.25	2050s
62	Projected	4004860024	M1-4	M1-5A	12	0.2% Annual Chance	None	**14**	**14**	19	16.5	18.83	20.25	2050s
63	Projected	4000250015	M1-4	M1-6A/R9	8	1% Annual Chance, Zone AE	12	n/a	12	17	14.5	16.83	18.25	n/a
64	Projected	4000260017, 4000260021	M1-4	M1-6A/R9	8	1% Annual Chance, Zone AE	12	n/a	12	17	14.5	16.83	18.25	n/a
65	Projected	4000250001, 4000260010	M1-4	M1-6A/R9	8	1% Annual Chance, Zone AE	12	n/a	12	17	14.5	16.83	18.25	n/a

Site ID	Projected or Potential Development Site	Tax Lot	Existing Zoning	Proposed Zoning	Existing Ground Level Elevation (NAVD88)	Current Floodplain	Current Base Flood Elevation (NAVD88)	Nearest Adjacent Current Base Flood Elevation (NAVD88)	Base Flood Elevation Combined (NAVD88)	Design Flood Elevation (NAVD88)	2050s Projected Base Flood Elevation (NAVD88)	2080s Projected Base Flood Elevation (NAVD88)	2100 Projected Base Flood Elevation (NAVD88)	Projected Year Site Would be in Floodplain
66	Projected	4000240001	M1-4	M1-5A/R8	8	1% Annual Chance, Zone AE	12	n/a	12	17	14.5	16.83	18.25	n/a
67	Projected	4004890001, 4004890023, 4004880011, 4004880015	M1-4, R9	M1-5A/R8	8	1% Annual Chance, Zone AE	12	n/a	12	17	14.5	16.83	18.25	n/a
68	Projected	4000240007	M1-4	M1-5A/R8	8	1% Annual Chance, Zone AE	12	n/a	12	17	14.5	16.83	18.25	n/a
69	Projected	4004880003, 4004880001	R7A/C1-5, R9	M1-6A/R9	8	1% Annual Chance, Zone AE	12	n/a	12	17	14.5	16.83	18.25	n/a
70	Projected	4000480001, 4000480045, 4000480046, 4000480047, 4000480048	R6A_C1-5	M1-3A/R7A	10	1% Annual Chance, Zone AE	11	n/a	11	16	13.5	15.83	17.25	n/a
71	Projected	4000260004, 4000260008	M1-4	M1-6A/R9	10	1% Annual Chance, Zone AE	12	n/a	12	17	14.5	16.83	18.25	n/a
Bold represents the 0.2% Annual Chance BFE estimated using 2013 Flood Insurance Study for City of New York, transect Q-56														
*These sites are not projected to be within the 1 percent annual chance floodplain by the 2100s but are within the 0.2 percent annual chance floodplain.														