Testimony to the City Planning Commission:
Proposed Revisions to the Waterfront Revitalization Program (WRP)
September 19, 2012

Founded in 1991, the New York City Environmental Justice Alliance (NYC-EJA) is a non-profit citywide membership network linking grassroots organizations from low-income neighborhoods and communities of color in their struggle for environmental justice. NYC-EJA empowers its member organizations to advocate for improved environmental conditions and against inequitable environmental burdens. Through these efforts, member organizations coalesce around specific common issues that threaten the ability of low-income communities of color to thrive, and coordinate campaigns designed to affect City and State policies. The impact of climate change and mitigation measures is central to NYC-EJA’s agenda.

NYC-EJA’s Waterfront Justice Project
In 2010, NYC-EJA launched the Waterfront Justice Project, New York City’s first citywide community resiliency campaign. When the City of New York initiated its overhaul of the Comprehensive Waterfront Plan (Vision 2020) in 2010, NYC-EJA began an advocacy campaign to convince the Bloomberg Administration to reform waterfront zones designated as the Significant Maritime and Industrial Areas (SMIAs.) These are zones created by the 2002 NYC Waterfront Revitalization Program (WRP) to encourage the protection and siting of industrial and maritime uses along the waterfront. Development applications in SMIAs are regulated by the WRP - the legal mechanism to determine consistency with NYC’s waterfront policies and regulations. The SMIAs are treated differently by the WRP than other waterfront areas by assuming that industrial and maritime uses are consistent there, resulting in the siting and clustering of potentially noxious and polluting uses and infrastructure. There are only six SMIAs in the City – all are located in classic “environmental justice” communities (the South Bronx, Sunset Park, Red Hook, Newtown Creek, Brooklyn Navy Yard & the North Shore of Staten Island) and predominantly low-income communities of color.

NYC-EJA discovered the six SMIAs are all in hurricane storm surge zones, and that the City of New York had not analyzed the cumulative contamination exposure risks associated with clusters of heavy industrial use in such vulnerable locations. In collaboration with Pratt Institute, NYC-EJA began a research project to assess facilities that use, transport, or store hazardous or toxic substances in order to identify community vulnerability for those working and living in and around SMIAs in the event of storm surge, flooding, strong winds, and severe weather. Our research shows that both the SMIAs and the communities
located within the half-a-mile buffer zone of the SMIAs are highly vulnerable to hurricane storm surge. For more information see Appendix A.

**Waterfront Justice: Building Resilient Communities & a Diverse Economy**

NYC-EJA endorses a balanced approach to waterfront policy that bolsters waterfront communities by promoting economic growth while protecting the environment and advancing equity. We envision innovative waterfront industrial regulations and zoning that set the standard for environmentally conscious development while enhancing community resiliency. New York City needs a diverse economy that supports working and middle class families. Promoting and preserving industrial jobs and manufacturing zoning in the city is a key component of creating a resilient and thriving economy.

However, the city's manufacturing zones located on the waterfront are vulnerable to climate change impacts, which pose a threat on industrial facilities handling, storing and transferring hazardous materials and toxic chemicals used in industrial processes. NYC-EJA believes that New York City can and must create policies that mitigate climate change impacts, reducing the risk of hazardous exposures and minimizing the negative impacts associated with industrial uses, in order to foster a healthy economic base for all New Yorkers. This process can start by strengthening and streamlining the Waterfront Revitalization Program policies that apply in the working waterfront and manufacturing zones.

**NYC-EJA's Waterfront Revitalization Program (WRP) Recommendations**

NYC-EJA commends the Department of City Planning (DCP) for the many positive changes in the proposed revisions to the Waterfront Revitalization Program (WRP). WRP policies are used in the consistency review process for new development proposals and have limited or no impact on existing and as-of-right uses. Even so, the WRP represents an important opportunity to support sustainable and climate resilient development on the waterfront. The Department of City Planning’s proposed revisions to the WRP show the WRP’s capacity to promote waterfront policies that are environmentally, socially, and fiscally responsible.

However, there are significant areas where the WRP updates still fall short of providing the strongest protections for residents, workers, and local businesses. NYC-EJA urges the City to fully address the contamination exposure risks associated with clusters of heavy industrial uses in the Significant Maritime and Industrial Areas (SMIAs).

NYC-EJA encourages the City Planning Commission to support the following recommendations:

1. **Risk Assessments**

   WRP Policy 6.2 A indicates that in the planning and design of projects, “vulnerabilities to and impacts of sea level rise, coastal flooding, and storm surge over the lifespan of the proposed project should be assessed.” NYC-EJA is concerned that the criteria to conduct and evaluate this assessment have not been defined adequately in the draft revisions.

   The “uncertainties of sea level rise” mean that advances in climate science will allow for greater precision in estimates of climate impacts in the years to come. Requiring a risk assessment in the current WRP using the “best available science-based projections,” will provide a means for applicants and reviewers to integrate climate change consciousness into “all other considerations” during the WRP consistency review process. Furthermore, any
assessment must be conducted by a qualified architect or engineer and must include an assessment of impacts on public safety as well as human health and well-being. For example, the San Francisco Bay Conservation and Development Commission (which plays an analogous role to the NYC Planning Commission, serving as the Bay Area’s coastal zone commission) amended the San Francisco Bay Plan to include climate change policies; to require risk assessments for shoreline projects; and to require that vulnerable projects be designed to be resilient to a mid-century sea level rise.

NYC-EJA's WRP Recommendation:

* Require a risk assessment to climate change impacts in the planning and design of all projects on the coastal zone that evaluates vulnerability to storm surge, flooding, and sea level rise using current and best available science-based projections, and potential exposure to humans and the environment of chemicals / hazardous materials during extreme weather events;
* Require that risk assessments be conducted by a qualified architect or engineer;
* Provide a clear definition of vulnerability that includes threats to public health and well-being in addition to other impacts on both residents and workers;
* Include guidance on how to evaluate impacted assets, potential hazards, and vulnerabilities;
* Require that applicants evaluate impacts on human health and livelihood, including but not limited to the potential exposure to chemicals / hazardous materials during extreme weather events, and to the degree feasible, mitigate these impacts; and
* Unless proven infeasible, mitigation measures should include but not be limited to best management, design, and construction practices; industrial pollution prevention, and sustainable development best practices.

2. Local industrial jobs & businesses

Supporting local industrial jobs and businesses in the Significant Maritime Industrial Areas (SMIAs) should be a key priority for the WRP. NYC-EJA is gravely concerned that the new WRP is opening the door to potential re-zonings in the SMIAs. This is a significant threat to manufacturing jobs in NYC given that the majority of land zoned for heavy manufacturing (excluding Fresh Kills, NYC’s airports, and Con Ed facilities) is in the SMIAs.

Policy 1 (Residential and Commercial Redevelopment) promotes revitalization of “underutilized” or “underused” industrial land through rezoning for housing and commercial development—but the WRP does not define what constitutes “underused.” Guidelines that provide transparent criteria for whether land is “underutilized” will help, rather than impede, contextual analyses in the WRP consistency review. Policy 2 (Maritime and Industrial Development) uses new language guiding “Discretionary actions relating to changes in land use” that will spur “revitalization and reinvestment” in the SMIAs.

NYC-EJA's WRP Recommendation:

* Provide clear guidelines that define the criteria for “underutilized / underused land” in the working waterfront; and
• Discourage discretionary actions in the SMIAs that reduce land zoned for manufacturing and introduce non-industrial, non-water-dependent uses.

3. Hazardous materials & toxic chemicals
NYC-EJA continues to advocate that language regarding hazardous materials and toxic chemicals should be consistent and clear throughout Policy 7—for example all policies should apply to facilities transferring and storing waste—not just those handling it.

**NYC-EJA’s WRP Recommendation:**
• Require an adequate control plan for pollution prevention, good housekeeping and control of hazardous wastes, toxic pollutants, and substances hazardous to the environment for any facility, not just handling, but transferring and storing these substances – that considers the impacts of projected climate change such as storm surge, flooding, high winds and flooding and sea level rise.

4. Protect & restore wetlands in industrial waterfront neighborhoods
Policy 2 includes provisions to “promote” ecologically sensitive industrial development in the Significant Maritime and Industrial Areas (SMIAs), but they fall short when compared to the strong protections that apply in the new “Arthur Kill Ecologically Sensitive Maritime and Industrial Area.” The SMIAs in Brooklyn, Queens, and the Bronx may contain a smaller amount of wetlands acreage than in Staten Island— but there is a need to provide for “sensitive industrial development” in these areas, nonetheless. The design and implementation criteria for such sensitive development must be clarified, where applying the ESMIA designation would provide greater transparency and wetlands protection.

**NYC-EJA’s WRP Recommendation:**
• “Ecologically Significant Maritime and Industrial Areas” (ESMIA) protections are limited to Staten Island – the WRP should protect other ecologically sensitive areas located inside or immediately adjacent to the South Bronx, Sunset Park and Newtown Creek SMIAs’s, where Special Natural Waterfront Areas (SNWAs) or Recognized Ecological Complexes (RECs) have been identified.

5. Waterfront Public Access
While WRP Policy 8 (Public Access) does encourage waterfront public access in industrial areas (such as the SMIAs), but it does not require it. This represents a missed opportunity to ensure waterfront public access, physical or visual, as appropriate, in industrial waterfront communities.

**NYC-EJA’s WRP Recommendation:**
• Require an appropriate form of waterfront public access, unless proven infeasible & unsafe, in the SMIAs and ESMIAs

For more detailed, line-by-line recommendations see Appendix B.
Appendix A:
Annotated presentation on the New York City Environmental Justice Alliance (NYC-EJA) Waterfront Justice Project

Testimony submitted to the City Planning Commission on the Proposed Revisions to the Waterfront Revitalization Program (WRP).
Founded in 1991, the New York City Environmental Justice Alliance (NYC-EJA) is a non-profit city-wide membership network linking grassroots organizations from low-income neighborhoods and communities of color in their struggle for environmental justice. Through these efforts, member organizations coalesce around specific common issues that threaten the ability of low-income communities of color to thrive, where the impact of climate change and mitigation measures is central to our agenda.
The six Significant Maritime and Industrial Areas (SMIAs) are zones designated under the WRP in order to encourage the protection and siting of industrial and maritime uses along the waterfront. There are only six SMIA’s in the City – the South Bronx, Sunset Park, Red Hook, Newtown Creek, Brooklyn Navy Yard & North Shore of Staten Island – all located in predominantly low-income, communities of color. NYC-EJA discovered the six SMIA’s are all in storm surge zones, and that the City of New York had not analyzed the cumulative contamination exposure risks associated with clusters of heavy industrial use.
This land use map shows that industrial and manufacturing uses are concentrated in the SMIAs. In addition to the SMIAs themselves (outlined in solid black), NYC-EJA defined a half-a-mile buffer to the SMIAs (outlined in a dashed line) to determine the communities located in close proximity. Half-a-mile is the distance often used to study environmental impact under NY’s environmental regulatory framework. The six SMIAs are mostly purple, accounting for “industrial and manufacturing” uses, but these areas are surrounded by shades of yellow denoting the presence of residential uses. Note that this map does not take into account non-conforming uses where former manufacturing buildings are being used for residential use, as is the case in Greenpoint or Williamsburg.
This is a map that shows the location of manufacturing zoning districts in shades of purple and the SMIAs in yellow. As this map shows, the majority of the SMIAs are zoned M2 and M3 for heavy manufacturing. The type of uses that are allowed as of right in M-3 zones permit the presence of hazardous substances and toxic chemicals -- like those allowed by land use group 18 that involve considerable danger of fire, explosion, hazards to public health and safety, among other toxics. While the WRP only applies to new development in the SMIAs, it represents an opportunity to promote sustainable industrial waterfront policies in New York City.
The SMIA boundaries, storm surge zones (as defined by the NYS Emergency Management Office), and 3 examples of the types of facilities handling hazardous substances or toxic chemicals in these areas that could represent a threat in the event of hurricane storm surge.
This map shows the location of NY State DEC regulated Class 2 Superfund Sites – sites determined to pose significant threat to public health or the environment & requiring immediate action – in the Newtown Creek SMIA. Of the total 43 sites in NYC, 8 of them (or 19%) are both vulnerable to storm surge and located within half a mile of the Newtown Creek SMIA. Among the types of business included in this category, we found a metal fabricator where the presence of trichloroethylene has been documented. This is a special health hazard substance considered to be a carcinogen that needs to be handled with extreme caution, because there may be no safe level of exposure.
This is map shows the location of NY State DEC regulated active chemical bulk and major oil storage facilities in the South Bronx SMIA. These facilities store hazardous substances or have the capacity to store 400,000 gallons of oil. Of the 171 facilities in NYC, 18 of them or 11% are both vulnerable to storm surge and located within half a mile of the South Bronx SMIA. Among the types of businesses included in this category, we found a petroleum bulk station and terminal where the presence of naphthalene has been documented. This is another special health hazard substance considered to be a carcinogen that can be absorbed through the skin damaging vision, kidneys and the liver.
Finally, this map shows the location of facilities reporting chemicals in the Toxics Release Inventory under the US EPA Emergency Planning and Community Right-to-Know Act. Of the 234 TRI Reporters in NYC, 17 of them or 7% are both vulnerable to storm surge and located within half a mile of the Sunset Park SMIA. Among the types of businesses included in this category, we found a **fossil fuel electric power generator** where the presence of **n-hexane** has been documented. This is another special health hazard substance that can cause reproductive damage where high exposures can lead to unconsciousness and death. In addition this is a flammable liquid and dangerous...
This map shows the percentage of population of color by census tract. Census tracts in dark purple denote areas where more than 66% of the community is population of color. As you can see, the majority of the areas around the SMIAs represent populations of color. In fact, of the total 5.5 million people of color in NYC, 2.8 million live in census tracts that are vulnerable to hurricane storm surge and approximately 430,000 live in census tracts that are both vulnerable to storm surge and fall within a half-mile of the SMIAs.
The following map shows the percentage of low-income population by census tract. Census tracts with dark red denote areas where more than 66% of the community is considered to be low-income population. In fact, of the total 3 million low-income population in NYC, 1.6 million live in census tracts that are vulnerable to hurricane storm surge, and 283,000 live in census tracts that are both vulnerable to storm surge and fall within a half-mile of the SMIAAs.
Finally, map that presents data from the NYC Department of Health and Mental Hygiene to show that the areas we have been pointing out also present some of the highest levels of uninsured population—which denote limited access to private health insurance in the event of a toxic exposure.
The following pictures show you the level of flooding that took place in Red Hook and Gowanus after Hurricane Irene. NYC-EJA has been documenting vulnerability to hurricane storm surge, but we also need to address the risk of flooding, strong winds, and sea-level-rise. These before-and-after pictures were taken in areas within the half-a-mile buffer to the SMIAsthe threats to public health if the hazardous substances and toxic chemicals described in the presentation break out and are released with this level of flooding. In fact, we have no way of knowing whether or not the New Yorkers shown in these pictures were actually exposed to toxic substances in these flood waters.
As a member of the Waterfront Advisory Board, NYC-EJA has been providing policy recommendations that foster a comprehensive approach to climate change impacts and coastal vulnerability in order to create a more resilient industrial waterfront. NYC-EJA’s recommendations identify ways to strengthen WRP Policies that will protect and support those who work and live around the SMIA's.

NYC-EJA WRP Recommendations:

1. Require risk assessment to climate change impacts in planning / design of all projects on the coastal zone
2. Mandate safe & responsible use of hazardous materials and toxic chemicals
3. Protect local industrial jobs and businesses
4. Protect & restore wetlands
5. Require waterfront public access, unless proven infeasible and unsafe, in the SMIA's and ESMIA's
Thank you for the opportunity to provide comments on the Waterfront Revitalization Program (WRP).
Appendix B:
NYC-EJA’s Detailed Recommendations on the Proposed Revisions to the WRP

Testimony submitted to the City Planning Commission on the Proposed Revisions to the Waterfront Revitalization Program (WRP).
Appendix B:
NYC-EJA’s Detailed Recommendations on the Proposed Revisions to the Waterfront Revitalization Program (WRP)

This document provides an overview of NYC-EJA’s recommendations on key WRP policies.

Note: All NYC-EJA suggestions are in BLUE. Original WRP text is in BLACK. DCP’s draft revisions are in RED. Suggested deletions are in the “notes” on the right hand side.

1. Require risk assessment to climate change impacts in planning / design of all projects on the coastal zone
   Key policies:
   Policy 6.2
   Policy 2.5
   Policy 7.1

2. Mandate safe & responsible use of hazardous materials and toxic chemicals
   Key Policies:
   Policy 7 Intro
   Policy 7.1
   Policy 2.1 F

3. Protect local industrial jobs and businesses
   Key Policies:
   Policy 1--Provide definition for “underused land” and “underutilized land”
   Policy 1
   Policy 1.4 Provide example & design guidelines for residential and commercial development near industrial uses
   Policy 2 Intro
   Policy 2 SMIA intro section
   Policy 2 "Policies for SMIA & ESMIA” section
   Policy 2.1 K

4. Protect & restore wetlands
   Key policies:
   Policy 2 Ecologically Sensitive Maritime and Industrial Development Section
   Policy 2.1 H
   Policy 4—should be consistent w/ Policy 2

5. Require waterfront public access, unless proven infeasible and unsafe, in the SMIAs and ESMIAs
   Key Policies:
   Policy 8.2 E
   Policy 8 Intro
   Policy 2 "Policies in the SMIAs and ESMIA" section
1. Require risk assessment to climate change impacts in planning / design of all projects on the coastal zone

Key policies:

Policy 6.2

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

A. A risk assessment is required in the planning and design of all projects—except for smaller projects involving the maintenance or replacement of existing facilities and projects unless they increase the population exposed or the level of exposure to coastal flooding—based on current conditions and the best available science-based projections of climate change impacts, including impacts of sea level rise, storm surge, high winds, and flooding. Risk assessments are required to evaluate impacted assets, potential hazards, and vulnerabilities—this includes an evaluation of impacts on human health and livelihood that considers the potential exposure to chemicals and hazardous substances as a result of extreme weather events. The risk assessment should be prepared by a qualified architect or engineer and should identify features of the project likely to be vulnerable to temporary flooding, frequent inundation, or erosion over the lifespan of the proposed project. For projects with a lifespan beyond the timeframe of any available projections, the furthest projection by the NPCC or its successor should be used. For smaller projects, involving the replacement of bulkheads or replacement of existing facilities as described above, a risk assessment is encouraged. Though the considerations will vary depending on the type and geographic scope of each project, the following are examples of the types of information that may be considered in this assessment:

- Current conditions and the projections of sea level rise,
- Features of the project likely to be vulnerable to temporary flooding, frequent inundation, wave action, or erosion,
- The elevation of the project’s major physical structures, and potentially vulnerable features. Potentially vulnerable features include, but are not limited to, residential living areas, public access areas, plants and materials, critical electrical and mechanical systems, temporary and long-term waste storage areas, fuel storage tanks, energy generators, hazardous materials storage, and maritime infrastructure,
- The current flood zone as established by FEMA FIRMs, any associated base flood elevation, and the range of the projected future flood elevations based on sea level rise projections,
- The elevation and extent of flood-protective structures or salt-water-resistant materials,
- How flood waters can enter and leave without causing disruption,
- Features which increase the project’s ability to withstand wind, wave action, and flooding.

B. Incorporate design techniques in projects that address the potential risks identified and/or which enhance the capacity to incorporate adaptive techniques in the future. Climate resilience techniques should aim to protect lives, minimize damage to systems and natural resources, prevent loss of property, and, if practicable, promote economic growth and provide additional benefits such as provision of public space and intertidal habitat. The appropriate technique for a given project depends on case-by-case considerations, including such factors as the project’s lifespan, the costs and benefits of incorporating a technique, and potential impacts on ecological health, public health and well-being, urban design, economic activity, and public space. Unless proven infeasible, mitigation measures should include but not be limited to best management, design, and construction practices; industrial pollution prevention, and sustainable development best practices. To the extent that potential...
techniques are identified but not incorporated, an explanation should be provided as to why incorporating a potential technique is not appropriate or practicable for the given project, or how the project may be adapted to incorporate such measures in the future. The following are potential techniques to be considered and incorporated into project design, as appropriate:

- Opportunities to elevate, encase, or design electrical and mechanical equipment to be submersible.
- Use of flood- and salt-water-resistant materials.
- Elevation of structures and usable space within a project to an appropriate design flood elevation that reduces risk with minimal impacts on public space and urban design. The selection of an appropriate design flood elevation should consider projections of climate risks, the lifespan of the project, and specific risks associated with the project.
- The raising of land or the placement of fill to elevate projects above projected future flood levels.
- Selection of plantings suited to the current and projected future climate including selection of salt-water-tolerant species.
- Securing hazardous materials from the impacts of flooding and wave action due to storm surge.
- Temporary and long term waste storage areas, fuel storage tanks, and hazardous materials should be sited outside of storm surge and flood zones on higher ground, wherever feasible, whether enclosed, unenclosed, or open.
- Incorporation of best practices in pollution prevention for the reduction or eliminations of toxic chemical uses and hazardous substances.
- Incorporation of structural and non-structural shoreline treatments to attenuate waves and protect inland areas from coastal flooding.
- Incorporation of design features that allow projects to be adapted on an ongoing basis in response to changing climate projections and conditions

C. The project should also provide a qualitative analysis of potential adverse impacts on existing resources (including ecological systems, residents and workers, public access, visual quality, water-dependent uses, infrastructure, and adjacent properties) as a result of the anticipated effects of climate change. For example, if a proposed project that includes storage of hazardous materials is located in a floodplain, consideration should be given to the possibility of flooding and, to the extent warranted, the methods to prevent adverse effects on the surrounding areas and water quality in such an event, such as raising or flood-proofing storage areas.

D. Projects that involve construction of new structures directly in the water or at the water line should be designed to protect inland structures and uses from flooding and storm surge when appropriate and practicable.

Policy 2.5

**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 and Policy 7.1.**

A. The climate risk assessment, as provided by policy 6.2(A), should identify, as appropriate and relevant, critical electrical and mechanical systems, temporary and long term waste storage areas, fuel storage tanks, and hazardous material storage.

B. To the extent practicable, as provided by policy 6.2(B), design waterfront industrial projects and infrastructure to account for the effects of climate change, such as sea level rise and storm surge, on the projects over their lifespan.
Appendix B: 4

C. As provided by policy 6.2(C), the project should also identify any adverse impacts on existing resources (including ecological resources, public access, visual quality, water- dependent uses, infrastructure, and adjacent properties) from proposed project features and minimize them to the extent practicable.

Policy 7.1

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

A. Prevent release of toxic pollutants, radioactive materials, or substances hazardous to the environment which would have a deleterious effect on fish and wildlife and human resources. Eliminate discharges of persistent, bioaccumulating, and toxic substances to the maximum extent feasible. Minimize resuspension of toxic pollutants and hazardous substances and wastes and reentry of bioaccumulative substances into the food chain for existing environmental sources. Limit use of pesticides to effectively target pest populations, herbicides, insecticides, and fertilizers and to prevent direct or indirect entry of pesticides into waterways.

B. Remediate inactive hazardous waste disposal sites and brownfields to ensure that the public health and the waters, wetlands, and habitats are protected. Consider vulnerability to climate change impacts including sea level rise, storm surge, and flooding when evaluating remediation strategies. The level of clean up may be determined by utilizing best practices during the future user remediation process to ensure safe containment of contaminants in the event of a coastal storm.

C. Pursuant to the NYC Community Right to Know Law and local and state water quality improvement programs, provide an adequate plan for pollution prevention, good housekeeping and control of hazardous wastes, toxic pollutants, and substances hazardous to the environment should be required for any facility using such materials. To the extent practicable, this plan should identify and minimize the impacts of projected climate change and sea level rise on risks from flooding, high winds, and sea level rise using best available science-based projections.

D. Use accepted best design and management practices, including industrial pollution prevention, for the storage, handling, use, transfer, and disposal of hazardous materials, toxic pollutants, and other materials that may pose risks to the environment and public health and safety. Use best practices to prevent the runoff of pollutants and potentially contaminated sediment into waterways. The NYS Dept. of Environmental Conservation’s New York State Stormwater Management Design Manual should be used as a reference.

E. Provide adequate wastewater collection facilities to the extent practicable to prevent direct discharge of treated sewage by vessels into the waterways.

F. Pursuant to WRP Policy 6.2 climate risk assessment requirements, incorporate consideration of climate change and sea level rise into the planning and design of projects which involve the storage, handling, use, transfer, or disposal of materials which may pose risks to public health and the environment. Projects should consider potential risks to features specific to each project, including but not limited to temporary and long-term waste storage areas, fuel storage tanks, and...
For all activities involving the use, handling, storage, or disposal of toxic chemicals, solid waste materials, and hazardous substances a risk assessment should be prepared which identifies potential impacts on local workers, ecosystems, and adjacent communities.

Following the risk assessment, emergency and disaster preparedness plans should be prepared and must include:

- an assessment of the increased risk of exposure to toxic chemicals and hazardous materials in the event of a spill or release; and
- an evaluation of the potential impacts on public health and safety to workers and to local residents in surrounding communities.

Incorporate design techniques in projects that address the potential risks identified and/or which enhance the capacity to incorporate adaptive techniques in the future. Strategies should include:

- Utilize best practices, including industrial pollution prevention, for the storage, use, and disposal of hazardous materials.
- Prohibit the open storage of hazardous materials unless proven infeasible.
- Require storm resistant containment and securing of hazardous materials used or stored in enclosed structures.
- Temporary and long term waste storage areas, fuel storage tanks, and hazardous materials should be sited outside of storm surge and flood zones wherever feasible, whether enclosed, unenclosed or open.
- Unless infeasible, use pollution prevention techniques to limit the hazardous materials used, stored, or produced in industrial processes associated with manufacturing and utilities. Where the industrial process necessitates the use, storage, or production of hazardous materials, require that those hazardous materials be stored and disposed of using best practices in order to minimize adverse impacts on workers and local residents.
2. Mandate safe & responsible use of hazardous materials and toxic chemicals

Key Policy:
Policy 7 Intro

Measures to ensure public health and safety in the event of a coastal flood or storm surge should be considered for all projects that involve the storage and/or use of these materials. As discussed further in Policy 6, climate change and sea level rise will likely increase the risks of flooding, high winds, and storm surge for the city’s Coastal Zone using best available science-based projections. These factors could pose additional risks in areas adjacent, up and downstream, or inland from sites where hazardous materials are present. The interactions among chemicals released by one or more facilities during a flood or storm surge event may increase the potential risk and severity of toxic impacts. While it is difficult to measure the synergistic effect of chemical mixtures, risk assessments and disaster preparedness plans must address this threat to public health and safety. Additional guidelines developed by the City of New York, should be used to assess the risk of synergistic toxic impacts from chemical mixtures and help businesses to incorporate these guidelines into risk assessments.

Policy 7.1 (see section above)

Policy 2.1 F
F. **Target public investment to improve transportation access for maritime and industrial operations.**
Public investment should also be used to support emergency preparedness planning and the integration of sustainable practices, pollution prevention, and climate resilience into the design and operation of facilities as well as the analysis of potential impacts of synergistic toxic exposures.
3. Protect local industrial jobs and businesses

Key Policies:
Policy 1--Provide definition for “underused land” and “underutilized land”

Policy 1--Introduction, 2nd & 3rd paragraph change wording

New York City has demonstrated success in achieving the revitalization of long-derelict waterfront areas with new residential and commercial development. In addition to bringing new activity to underutilized land and creating new housing, the rezoning of waterfront sites for housing and commercial development has created sufficient economic value to support the cleanup of sites that were contaminated by industrial uses and the provision of new waterfront public access areas, and has facilitated investments in affordable housing.

Where traditional industrial uses have declined or relocated, many coastal areas offer opportunities for commercial and residential development that would revitalize the waterfront. Benefits of redevelopment include providing new housing opportunities, fostering economic growth, and reestablishing the public’s connection to the waterfront. This Redevelopment should be encouraged on appropriately located vacant and underused land located outside of the SMIA’s, provided that this does not reduce any land currently zoned for manufacturing and with consideration of specific challenges, including the need to provide new infrastructure, to be compatible with adjacent uses and natural resources, and to address current and future risks from coastal storms climate change, flooding, storm surge, high winds, and sea level rise using best available science-based projections, not needed for other purposes, such as industrial, activity or natural resources protection. New activities generated by redevelopment of the coastal area should comply with applicable state and national air quality standards and should be carried out in accordance with zoning regulations for the waterfront.

Policy 1.4: DCP should provide an example and design guidelines for residential and commercial development near industrial uses

Policy 2—Introduction

The working waterfront remains a vital part of the city’s economy. Although manufacturing has declined, it is important to find ways to allow for investment in industrial, non-manufacturing uses on the waterfront while preserving and expanding maritime and industrial activity to support any industrial sectors that may experience growth. The WRP should encourage and promote the development of the maritime and industrial sectors on the waterfront both within and outside of the SMIA’s.

As manufacturing has declined, other sectors of the economy have grown, and this has brought increased demands for housing and services. It is important to find ways to maximize investment on the waterfront while preserving and expanding maritime activity. Other challenges facing the working waterfront today include promoting more environmentally sustainable business operations along the shore and providing public access where practicable, as described further in Policy 8.

Policy 2—SMIA intro section

Since 1992, manufacturing zoning has remained in place in all six SMIA’s, and new investment in intermodal infrastructure has supported these areas for maritime and maritime-related uses. The city’s SMIA’s remain concentrated areas of employment and are growing overall both in number of jobs and firms. For example, the Sunset Park SMIA has had a
number of meaningful Port-related improvements since 1992. These include major new leases with the Axis Group and SIMS Municipal Recycling at the South Brooklyn Marine Terminal (SBMT), which will return that facility to productive, job intensive maritime-dependent use for the first time in nearly 25 years. These leases have led to more than $100 million in improvements to bulkheads, piers, electric capacity, and rail infrastructure. At the Brooklyn Navy Yard, the City invested approximately $60 million in waterfront projects to retain approximately 200 maritime jobs while maintaining the integrity of 4.5 million square feet of upland industrial space. Since 2001 the City has invested more than $250 million in basic infrastructure at the Brooklyn Navy Yard, leveraging more than $400 million in private investment and creating more than 2,200 new jobs. The Red Hook Container Terminal is an important economic engine for New York City and the region—it generates 700 jobs and serves as a vital commercial port.

Policy 2.-“Policies for SMIA & ESMIA” section

Because the SMIAs and the ESMIAs are ideally suited for water-dependent uses, consistency reviews should prioritize would be given to maritime uses or uses that incorporate water-dependent activities. However, since the SMIAs and ESMIA encompass much of the city’s land zoned for heavy industrial uses, and since many industrial uses essential to the functioning of the city are not water-dependent and cannot incorporate water-dependent elements, non-water-dependent industrial uses may therefore be considered appropriate in the SMIAs and ESMIAs as long as the shorefront infrastructure is maintained to the extent practicable to permit subsequent water-dependent use, and all provisions to Policy 2.1K are fully met.

Policy 2.1 K

K. Where feasible, development on property leased or sold by public agencies should be designed so that future berthing of maritime support vessels would be possible. The WRP should discourage any discretionary actions relating to changes in land use that reduce land zoned for manufacturing and introduce non-industrial, non-water-dependent uses.
4. Protect & restore wetlands

Key policies:

Policy 2—Ecologically Sensitive Maritime and Industrial Development Section

The Ecologically Sensitive Maritime and Industrial Areas

On the northwest waterfront of Staten Island, land that is particularly well-suited for maritime and industrial uses also possesses significant natural resources and ecological systems. There is no other area of a similar size within the city’s Coastal Zone which currently presents a similar mix of opportunities and constraints. The area is well-suited for a mix of maritime and industrial development, with large tracts of vacant, industrially zoned land, close proximity to the New York Container Terminal, connections to rail and highways, and access to deep water. The area, along with the adjacent SNWA, also includes one of the most extensive concentrations of intact tidal wetlands in the city, rivaled only by Jamaica Bay and East River/Long Island Sound. In addition to tidal wetlands, the area also includes freshwater wetlands, ponds, vernal pools, meadows, grasslands, and woodland pockets. These features provide habitat for a diverse variety of flora and fauna. In addition, there are smaller Ecologically Sensitive Maritime and Industrial Areas within and adjacent to the SMIA where Recognized Ecological Complexes, wetlands, and other natural resources have been identified by city, state, and federal agencies. The principles of ecologically sensitive industrial development, including strategies identified in the New York City Department of Environmental Protection’s Green Infrastructure Plan, should apply in these sites and the adjacent industrial areas.

Recognizing the need for a balanced relationship between industrial uses and natural resources, this area and other smaller sites within the SMIA, and located within half a mile immediately adjacent to SMIA, where wetlands and significant natural resources have been designated as Ecologically Sensitive Maritime and Industrial Areas (ESMIA). Many large vacant sites within the ESMIA were historically utilized for industrial uses and are likely in need of remediation. Redevelopment for productive uses presents the opportunity for restoration of adjacent natural resources. Within an ESMIA, activities that support maritime and industrial activity and which are designed to protect and restore natural features and systems are consistent with this policy. Development should avoid disturbing intact wetlands and should concentrate development on degraded inland sites and shorelines that are, or have been in the past, bulkheaded. In smaller sites within the SMIA where wetlands, RECS, or other natural resources are present, development proposals are required to utilize the principles of ecologically sensitive industrial development.

Development projects within the ESMIA should utilize sustainable stormwater management, industrial pollution prevention, and other sustainable design strategies to minimize impacts on adjacent resources. Such strategies include but are not limited to vegetated buffers, preservation of hydrological connectivity and natural drainage patterns, use of ecological beneficial edge designs, and minimization of impervious surfaces. These same design strategies of ecologically sensitive industrial development should be required in other areas of the city’s Coastal Zone, including areas in and adjacent to SMIA where wetlands, RECS, and natural resources exist in predominantly industrial areas. In addition, the principles of ecologically sensitive industrial development should be required within areas subject to environmental remediation such as brownfields and superfund sites.

Policy 2.1 H

Develop & operate working waterfront uses in a manner that protects the health and well-being of surrounding communities, businesses and local workers, and natural resources. In reviewing proposed projects within SMIA, consideration should be given to suitable hydrologic and site conditions; presence and condition of waterfront, drawn: Arthur Kill

Deletion: Conservation

Deletion: can be used in

Deletion: Promote the development
infrastructure; appropriate zoning; proximity and access to rail and truck transportation routes; suitable access to markets, customers and delivery networks; adequate and appropriate buffering from surrounding residents; existing development patterns; sustainable stormwater management strategies; ecologically beneficial edge design, industrial pollution prevention; and other best practices for sustainable development. For areas in and adjacent to the SMIAs where Special Natural Waterfront Areas, Recognized Ecological Complexes, Significant Coastal Fish and Wildlife Habitats, and wetlands have been identified by city, state, and federal agencies should require ecologically sensitive industrial development as described in Policy 4.1 where relevant.

Policy 4: should be consistent w/ Policy 2
5. Require waterfront public access, unless proven infeasible and unsafe, in the SMIA's and ESMIA's

Key Policies:
Policy 8.2 E

E. Require the development of public access for private development in industrially zoned areas unless it has been documented that public areas cannot be made safely accessible. In areas where industrial land cuts off upland communities from the water, limited public access points and street-end parks located within or adjacent to the seaward termination of public streets may provide public access. Where waterfront public access would endanger public health and safety, alternative strategies to provide public access should be employed including access points or public overlooks that visually connect people to maritime activity.

Policy 8—Introduction

Although waterfront zoning regulations do not require linear public access in connection with industrial development, there are often appropriate opportunities for physical or visual access along the working waterfront. Where there is no identified risk to public health and safety or to industrial operations, this policy would require viewing areas, street end access points, and/or public parks, public piers, and bikeway/greenway routes along the industrial waterfront. Projects on public land or using public funds should provide some form of public access, unless there is no safe or practicable way of doing so.

Policy 2--"Policies in the SMIA's and ESMIA" section

While certain policies are prioritized for projects located within SMIA's and the ESMIA, projects located within those areas must be reviewed for consistency with all the policies other relevant policies the WRP. As per Policy 8, opportunities to incorporate compatible waterfront public access within industrial areas are required, part of public and private projects in order to expand public access to waterfront neighborhoods with limited existing access, as long as the design of the public areas does not inhibit current or anticipated industrial operations or compromise security or public safety. For guidance on best practices for designing waterfront public access see Policy 8.6. Public parks, esplanades, piers, and bikeway routes along the industrial waterfront are also not inconsistent with this Policy 2 as long as they do not inhibit the efficient operation of maritime and industrial activities. In many areas of the city where industrial land cuts off upland communities from the water, limited public access can sometimes be provided at specific points where it does not infringe on the activity of the working waterfront.

Locations within or adjacent to the seaward termination of public streets can provide opportunities for public access. In areas where direct access is dangerous or not feasible for other reasons, access points on public overlooks can visually connect people to the waterfront. Creating visual access at such sites, as well as visitor centers and tour programs, can educate the public about the ongoing activities and importance of the working waterfront. Likewise, as per Policy 4, industrial projects and non-industrial projects located in industrial areas, should use strategies, unless infeasible, to protect and restore the quality and function of coastal ecological systems. And per Policy 7, to protect public health, and safety and natural resources in coastal industrial areas and adjacent communities, best practices for the storage and handling of hazardous materials should be utilized.

Delete: Encourage
Delete: Where compatible and appropriate
Delete: encourage
Delete: For example, while public access is not required for industrial uses, per the Zoning Resolution, should be considered as
Delete: when practicable
Delete: to the extent practicable