Zoning for Coastal Flood Resiliency
Chapter 26: Irreversible & Irretrievable Commitment of Resources

A. INTRODUCTION

This chapter considers the irreversible and irretrievable commitment of resources associated with the Proposed Action. As detailed in the 20201~~4~~ *City Environmental Quality Review* (CEQR) *Technical Manual*, an irreversible or irretrievable commitment of resources refers to impacts on or losses to resources that cannot be recovered or reversed. Examples include permanent conversion of wetlands and loss of cultural resources, soils, wildlife, agricultural production, or socioeconomic conditions. Irreversible is a term that describes the loss of future options. It applies primarily to the impacts of use of non-renewable resources, such as minerals or cultural resources, or to those factors, such as soil productivity, that are renewable only over long periods of time. Irretrievable is a term that applies to the loss of production, harvest, or use of natural resources. For example, if farmland is used for a non-agricultural event, some or all of the agricultural production from an area of farmland is lost irretrievably while the area is temporarily used for another purpose. The production lost is irretrievable, but the action is not irreversible.

As detailed in **Chapter 1, "Project Description,"** the New York City Department of City Planning (DCP) is proposing a zoning text amendment to update the Special Regulations Applying in Flood Hazard Areas (Article VI, Chapter 4) of the New York City Zoning Resolution (ZR), which includes the "Flood Resilience Zoning Text" (the "2013 Flood Text") and "Special Regulations for Neighborhood Recovery" (the "2015 Recovery Text"). These temporary zoning rules were adopted on an emergency basis to remove zoning barriers that were hindering the reconstruction and retrofitting of buildings affected by Hurricane Sandy and to help ensure that new construction there would be more resilient. The 2013 Flood Text provisions are set to expire with the adoption of new and final Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs), which is anticipated to occur within the next few years. Applicability of the 2015 Recovery Text expired in July 2020. Therefore, DCP is proposing a citywide zoning text amendment, "Zoning for Coastal Flood Resiliency" (the "Proposed Action"), to improve upon and make permanent the relevant provisions of the existing temporary zoning rules of the 2013 Flood Text and 2015 Recovery Text. In addition, the Proposed Action includes special provisions to help facilitate the city's long-term recovery from the COVID-19 pandemic and its associated economic effects by providing more time for existing non-conforming uses to reopen and builders to undertake certain construction projects. The Proposed Action also includes updates to other sections of the ZR, including the Special Regulations Applying in the Waterfront Area (Article VI, Chapter 2) and provisions within various Special Purpose Districts. The Proposed Action would mostly affect New York City's current 1% annual and 0.2% annual chance floodplains. However, select provisions of the Proposed Action would be applicable citywide. To help the City prepare for or respond to other disasters, select provisions in the Proposed Action regarding power systems and other mechanical equipment, ramps and lifts, vulnerable populations, and disaster recovery rules, would be applicable citywide.

Due to the broad applicability of the Proposed Action, it is difficult to predict the sites where development would be facilitated. In addition, the Proposed Action is not in-and-of-itself expected to induce development where it would not otherwise have occurred absent the Proposed Action. Although the Proposed Action may allow developments and existing buildings to retrofit to resilient standards, the overall amount, type, and location of construction within the affected area is not anticipated to change.

Owing to the generic nature of this action, there are no known or projected as-of-right development sites identified as part of the Proposed Action's Reasonable Worst-Case Development Scenario (RWCDS). To produce a reasonable analysis of the likely effects of the Proposed Action, 14 representative Prototypical Analysis Sites containing either new developments, infill, reconstructions, or retrofits of existing buildings in the city's 1% and 0.2% annual chance floodplains were identified to demonstrate the wide range of proposed regulations for sites that would be able to develop as-of-right in the future with the Proposed Action, as detailed further in **Chapter 1**.

B. PRINCIPAL CONCLUSIONS

Several resources, both natural and built, would be expended in the construction and operation of any retrofitting work that may result from the Proposed Action. These resources include building materials used in construction; energy in the form of natural gas, petroleum products, and electricity consumed during construction and operation of buildings; and the human effort required to develop, construct, and operate various components of any potential development. These resources are considered irretrievably committed because their reuse for some other purpose would be impossible or highly unlikely. However, these short-term losses would result in long-term gains, as the building stock of the city's floodplains would become more resilient to future sea level rise and storm surges.

As detailed in **Chapter 1, "Project Description"** and discussed above, the Proposed Action is a generic action with no defined development sites. The Proposed Action would not significantly change or increase the rate of growth in the city's floodplains, which is controlled primarily by the supply of developable land and by the local supply of skilled professionals in the construction industry. Any development pursuant to that consistent rate of growth would require consumption of resources. However, with the implementation of the Proposed Action, it is expected that future development in the floodplains would result in increased building resiliency in response to the increasing threats of sea level rise and storm surges. As such, the short-term consumption of resources associated with development would result in long-term resiliency gains in the city's floodplains.

Therefore it is concluded that, while the Proposed Action constitutes an irreversible and irretrievable commitment of potential development sites as a land resource, thereby rendering land use for other purposes infeasible, these short-term losses would result in the long-term benefits of coastal flood resiliency in the city's current and future floodplains.

C. PRELIMINARY SCREENING

As detailed in the 2020 *CEQR Technical Manual*, the irreversible and irretrievable commitment of resources summarizes a proposed action and its impacts on the loss of environmental resources, both in the immediate future and in the long-term. Resources include both man-made and natural resources. Examples of losses include removal of vegetation without replacement, use of fossil fuels and materials for construction, etc. The extent to which a proposed action forecloses future options or involves trade-offs between short-term environmental gains and long-term losses should also be addressed. In considering the trade-offs of a proposed action, it is also possible to compare short-term losses with long-term benefits.

As detailed in **Chapter 1, "Project Description,"** the City believes that resilient construction should become the new normal in the floodplain. By making the current regulations permanent and addressing the various identified issues with them, the Proposed Action would facilitate this goal and make for more resilient neighborhoods, since places with a resilient building stock would be able to bounce back more

quickly from a coastal flood event. In conjunction with coastal protection strategies and infrastructure improvements that are being pursued by the City collectively with other state and federal agencies, this will help the City to fully realize the vision of a more resilient New York City.

Additionally, as discussed further in **Chapter 9, "Natural Resources,"** the Proposed Action and associated reasonable worst-case development scenario (RWCDS) would not induce development or otherwise affect the many natural areas and parkland located in the floodplain. Development projected under the RWCDS with the Proposed Action is expected to occur exclusively on the Prototypical Analysis Sites, resulting in the disturbance of sites previously developed with commercial and residential uses including structures, paved roads/paths, domestic lawns with trees, or urban yard habitats. The conditions of the Prototypical Analysis Sites within the built environment of the floodplain provide limited habitat for vegetation and wildlife apart from the species common to the city's built environments. Therefore, the Proposed Action and the related potential changes in land cover would not result in any significant adverse impacts to the natural environment or populations of plant and wildlife species in New York City or the metropolitan region.

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