

View looking east at opening to Long Slip Canal

1.0 INTRODUCTION

The United States Department of Housing and Urban Development (HUD) launched the Rebuild by Design (RBD) competition in 2013, inviting interdisciplinary design teams to craft pioneering resiliency solutions to address needs for flood risk reduction within the Superstorm Sandy-affected region. During the course of this competition, a comprehensive urban stormwater management strategy was developed for the Hoboken, Jersey City, and Weehawken area that included hard infrastructure and soft landscape for coastal defense (Resist); policy recommendations, guidelines, and urban infrastructure to slow stormwater runoff (Delay); green and grey infrastructure improvements to allow for greater storage of excess rainwater (Store); and water pumps and alternative routes to support drainage (Discharge) (see **Figure 1.1**). This proposal was selected as a

winner of the RBD competition and HUD subsequently awarded the State of New Jersey \$230 million for the implementation of the first phase of the “Hudson River Project: Resist, Delay, Store, Discharge” (the Project).

Phase 1 of the Project is described on page 15 of the April 2014 Resist, Delay, Store, Discharge final proposal, which states that Phase 1 includes: (1) a master plan for the entire strategy, (2) studies and pilot projects on various aspects of the overall strategy, and (3) the following catalytic projects: coastal defense at Hoboken Station and surroundings, coastal defense at Weehawken Cove, and pump station and greenbelt combined sewer outflow (CSO) wetland pilot project. This first phase includes the environmental impact analysis of the overall comprehensive master plan for the entire project (including the Resist and

Delay, Store, Discharge components) and funding for the construction of the Resist components (the catalytic coastal defense projects). The Delay, Store, Discharge (DSD) elements would be implemented separately by the City of Hoboken or other partners as funding becomes available. The development of the project (including dismissal of certain project concepts) is included in Section 3.0.

As presented in the Notice of Intent (NOI), dated September 4, 2015 and located at 80 FR 53555, this Draft Environmental Impact Statement (DEIS) addresses the comprehensive stormwater management project. Because the need for solutions is urgent, an engineering feasibility study and cost benefit study for the Project are being prepared simultaneously with the DEIS.



Figure 1.1 Comprehensive Stormwater Management Schematic

The DEIS is supported by detailed scientific analyses, called Technical Environmental Study (TES) reports that have been prepared for the Project. These TES reports address: Socioeconomics, Land Use and Environmental Justice, Natural Ecosystems, Phase 1A Cultural Resources Assessment, and Hazardous Waste Screening. The findings of these TES reports are summarized in this DEIS and included in Attachments 1-8 and are summarized in Section 4.0.

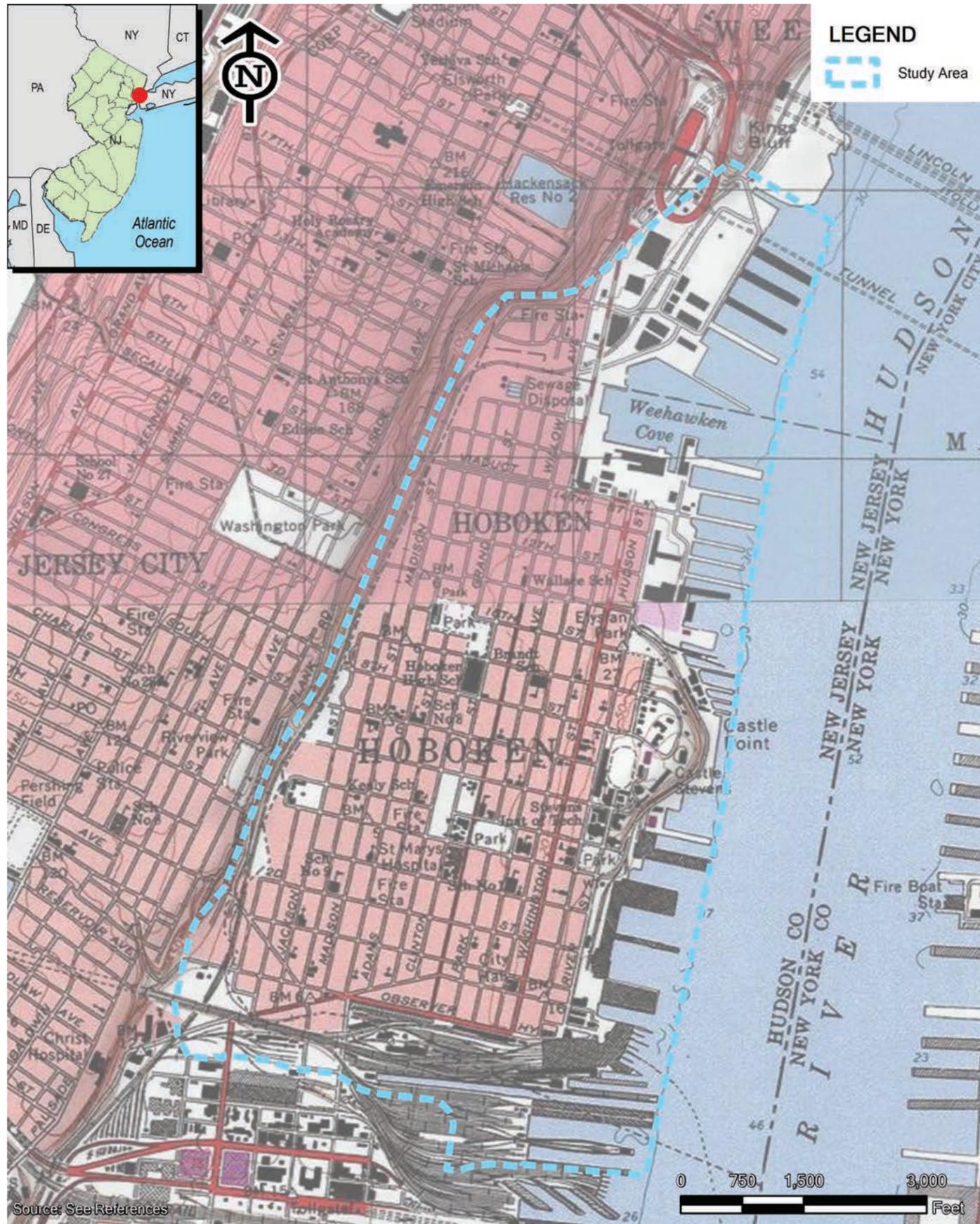
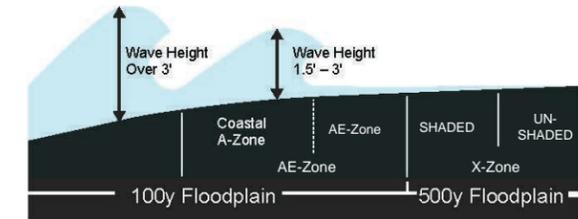


Figure 1.2 Project Location Map

What are flood zones?

The Federal Emergency Management Agency (FEMA) uses Flood Insurance Rate Maps (FIRMs) to designate areas that lie within risk premium zones. These zones are called Special Flood Hazard Areas (SFHAs). SFHAs are delineated according to their levels of risk: However, floods can still occur outside of these high risk zones.

- Zone VE - Areas along coasts subject to flooding by the 1-percent-annual-chance flood event with additional hazards associated with storm-induced waves.
- Coastal Zone AE - An area of special flood hazard extending inland to the limit of the 1.5-foot breaking wave.
- Zone AE - Areas subject to flooding by the 1-percent-annual-chance flood event.
- Zone X - Areas subject to flooding by the 0.2-percent-annual-chance flood event.
- Zone X Shaded - Areas subject to flooding by the 0.2%-annual chance flood
- Zone X UnShaded - Area outside 0.2% annual chance flood



Identifying areas of risk



Figure 1.3 Flood Zone Schematic

1.1 Project Location and Topography

The Project is located in the City of Hoboken and includes the southern portion of the Township of Weehawken and the northern portion of Jersey City. The Project's Study Area has the following approximate boundaries: the portion of the Hudson River, which encompasses piers within the Study Area to the east; Baldwin Avenue (in Weehawken) to the north; the Palisades to the west; and 18th Street, Washington Boulevard, and 14th Street (in Jersey City) to the south (see **Figures 1.2 and 1.4**, Project Location and Study Area, respectively). The Project includes the entire comprehensive stormwater management approach, which consists of the four components—Resist, Store, Delay, and Discharge.

The Study Area—located along the banks of the Hudson River, beneath the Palisades, which rise to the west—was formerly an industrial waterfront community. Over the past several decades, the area has become increasingly developed with multi-family residential and mid- and high-rise commercial development. Unobstructed views of Manhattan across the Hudson River have led much of this development to be located along the waterfront, but areas in the north and central interior portions of the Study Area have also seen an influx in residential development over the past decade.

The upland portion of the Study Area is the land area above mean high tide and is approximately 1,020 acres. The Study Area encompasses approximately 233 acres of the Hudson River. **Figure 1.5** shows the



Figure 1.4 Study Area Map

Preliminary Flood Insurance Rate Map (FIRM) for the Study Area. The Base Flood Elevation (BFE) is the computed elevation to which floodwater is anticipated to rise during a one-percent chance annual flood. This area is also known as the 100-year floodplain. The BFE is the regulatory requirement for the elevation or flood proofing of structures. The relationship between the BFE and a structure's elevation determines the flood insurance premium. Approximately 73 percent of the land within the Study Area, or 16,800 parcels, are within the Hudson River's one-percent annual chance floodplain (Zone AE/VE). The AE and VE zones are both one percent annual-chance floodplains, but the VE zone (four percent of the Study Area), which is usually along coastlines and typically does not extend beyond the waterfront is also subject to storm-induced velocity wave actions. **Figure 1.3** describes the AE and VE zones. About four percent of the land within the Study Area is within the VE zone and has BFEs of between 16 and 17 feet North American Vertical Datum (NAVD) 88 (the base flood elevation is the anticipated water level during a flood event). The majority of the Study Area (69 percent) is within the AE flood zone, with BFEs of between 10 and 12 feet NAVD 88. Within this area, there is a one-percent probability of flooding in any given year. The area depicted in **Figure 1.5** as having a 0.2-percent annual chance of flooding is also known as the 500-year floodplain. The area depicted in white on **Figure 1.5** has an elevation higher than the estimated 500-year flood level.

Within the Study Area, there are two main entry points

of floodwater during coastal storm surge events, such as Superstorm Sandy: the area around Long Slip Canal and Hoboken Terminal, as well as Weehawken Cove (see **Figure 1.6**). Flood waters enter at these points because they are the lowest topographic areas. Following a storm event, low-lying topography prevents water from receding. The topography of the Study Area is highest along the east-central portion near the coastline of the Hudson River close to Castle Point. From here, the land slopes gently downward to the north (towards Weehawken Cove), south (towards the Hoboken Terminal and Jersey City), and to the west (towards the foot of the Palisades). When originally settled, Castle Point was an island surrounded to the north, south, and west by wetlands. These wetlands were gradually filled in as the area grew. Today, these areas—particularly those to the west—are still extremely low lying, in some places no more than three feet above mean sea level.

1.2 Project Background

The municipalities of Hoboken, Weehawken, and Jersey City were inundated by flood waters during Superstorm Sandy in October 2012 (see **Photographs 1.1 through 1.4**). With half of Hoboken flooded for several days, most emergency services were unavailable, many residents were evacuated, and the National Guard was deployed to rescue those who could not evacuate. The magnitude of Superstorm Sandy's devastation, primarily attributed to a record-breaking storm surge during high tide, has overshadowed the fact that little precipitation



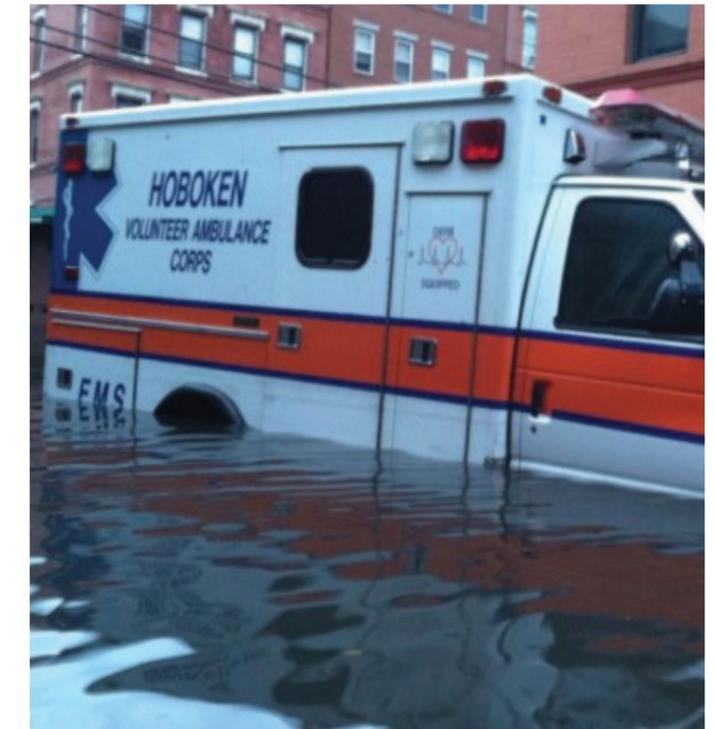
Photograph 1.1 Flooding after Superstorm Sandy near Hoboken Terminal



Photograph 1.2 Flooding after Superstorm Sandy - Shop Rite near 10th and Madison Street



Photograph 1.3 Flooding after Superstorm Sandy - Willow Avenue near Observer Highway



Photograph 1.4 Flooding after Superstorm Sandy - Emergency Vehicle submerged

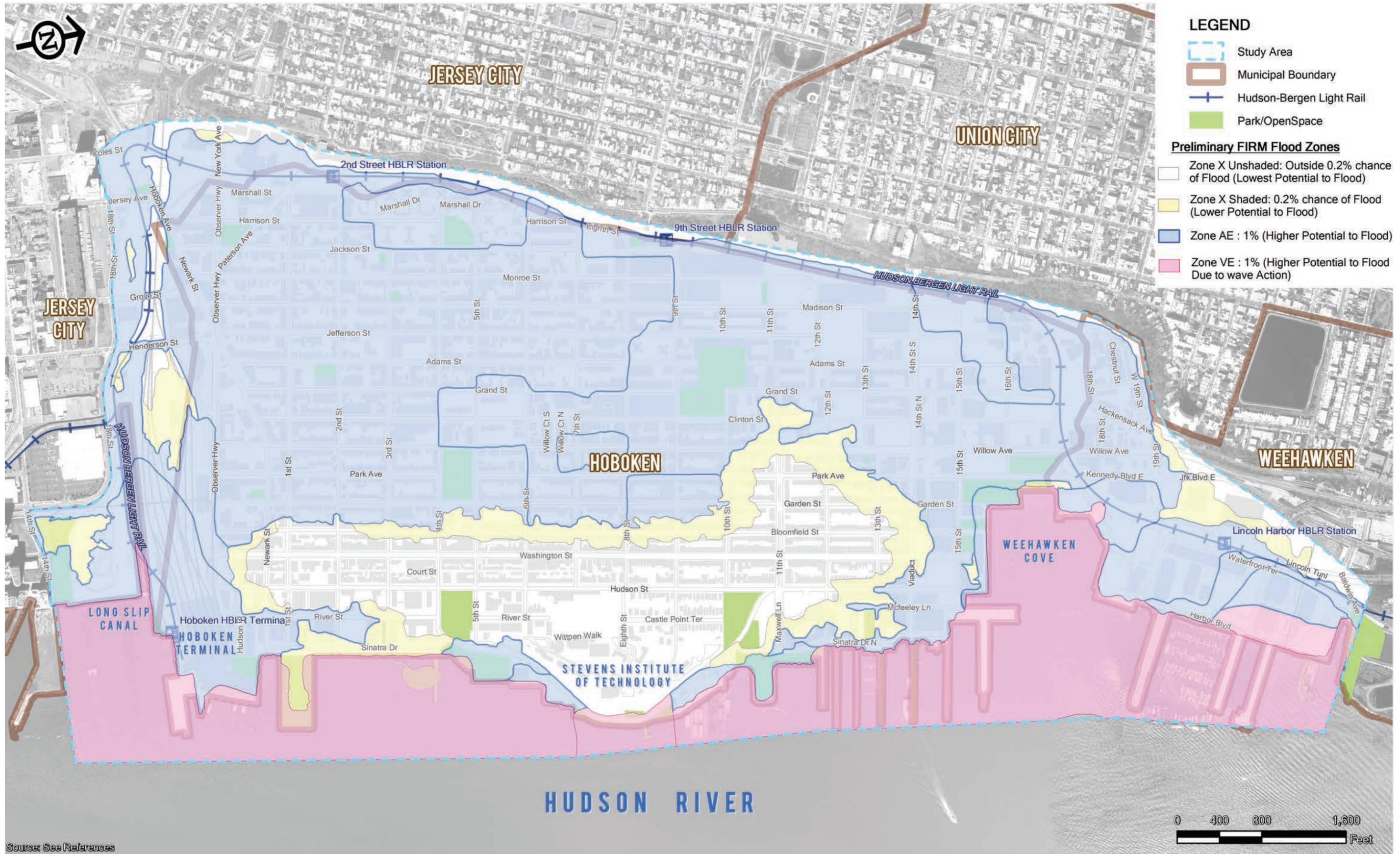


Figure 1.5 Preliminary FIRM Flood Zone Map

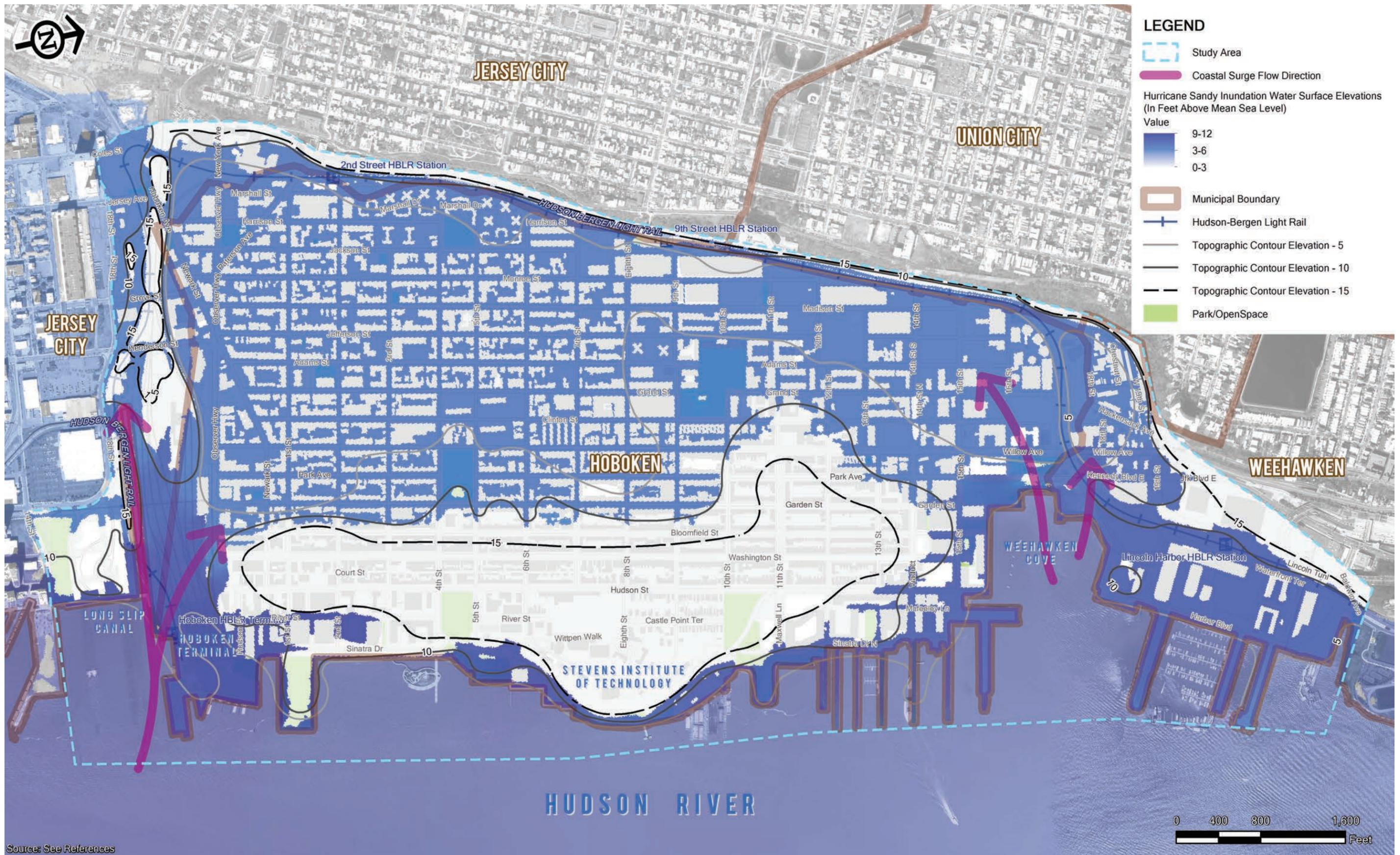


Figure 1.6 Study Area Inundation during Superstorm Sandy

fell during that storm. Had Superstorm Sandy been accompanied by a more typical heavy rainfall event, the Study Area's past history suggests that flooding levels and property damage could have been even higher.

The Study Area is vulnerable to two interconnected types of flooding: coastal flooding (from both storm surges and high tides) and systemic inland flooding (rainfall), which typically occurs during rainfall events that coincide with high tide. These flooding problems are attributed to several factors including naturally low topography and proximity to waterways; impervious surface coverage and associated runoff; existing, relatively old sewer infrastructure with interconnected storm and sanitary sewer lines; and insufficient discharge capability, particularly during high tide.

As seen with Superstorm Sandy, coastal flooding can devastate a substantial portion of the Study Area and cause significant economic damage and safety concerns. In addition, systemic inland flooding associated with rainfall tends to be more localized to inland areas of lower elevation, but happens with much greater frequency than coastal surges. The systemic inland flooding typically occurs when high volumes of water are brought into the combined storm-sewer system from rainfall events that coincide with an approaching high tide and/or storm surge. During a high tide or storm surge, the water level of the Hudson River can rise above the level of the combined storm-sewer outfalls. As a result, the river traps the water inside the combined storm-sewer system. Water

then backs up within the system, flooding low-lying elevation inland areas with stormwater and at times sanitary sewage (see **Figure 1.7**).

1.3 Coastal Flooding

Historically, the coastal communities of Hudson County have been vulnerable to coastal flood events. This can be in the form of abnormally high tides that occur roughly twice a month (coinciding with full or

new moons), or from storm surges brought on by coastal storms. According to Federal Emergency Management Agency's (FEMA) Preliminary Flood Insurance Study of Hudson County, New Jersey (FEMA, 2013), the most severe flooding for the coastal communities of Hudson County occurs from coastal storm surges during hurricanes. Coastal storm surge water is brought into the area from the Upper New York Bay, New York Bay and the Kill Van Kull, where it is then driven by winds upriver along the Hackensack, Passaic, and Hudson Rivers, eventually overflowing onto the shoreline communities. The duration of coastal surges can be increased if the storm also brings high amounts of rainfall. For example, in 2011, Hurricane Irene brought a five-foot storm surge to the Hudson River along with 10 inches of rainfall, flooding parts of Jersey City and Hoboken. After the storm passed, flooding conditions remained because the vast amount of rainfall from the storm was draining through tributaries to the Hudson River, which was already swollen by the storm surge.

The coastal surge can be further exacerbated if it coincides with a high tide. For example, a strong storm surge on the Hackensack River on November 25, 1950 resulted in flood waters of 6.5 feet (nine feet above the low-tide level). If this coastal storm surge had occurred during high tide, flood levels would have reached 12 feet. A situation like this occurred during Superstorm Sandy. The storm surge coincided with a full moon, which caused an abnormally high tide, contributing significantly to Superstorm Sandy's devastating flooding.

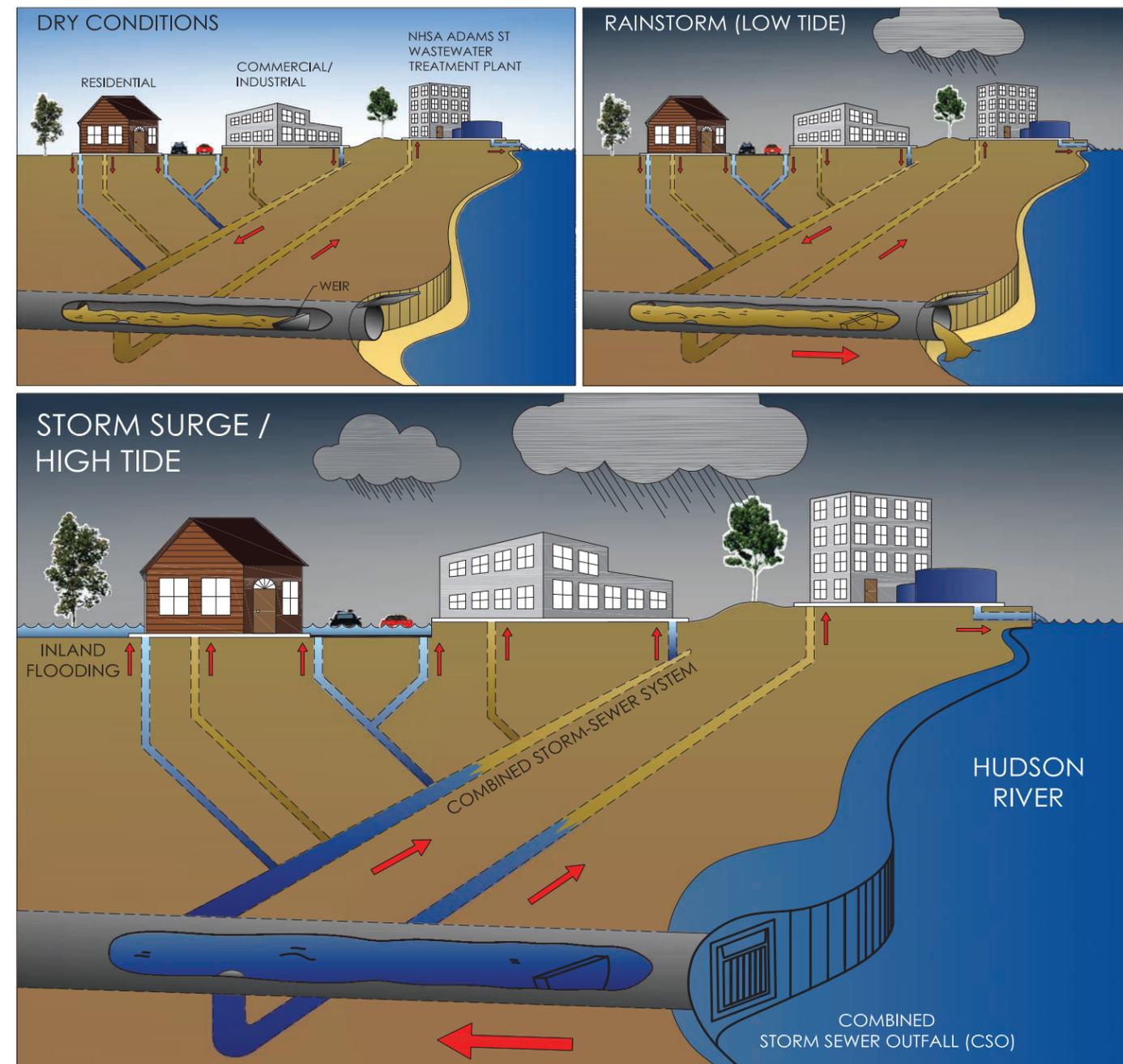


Figure 1.7 Combined Sewer Schematic

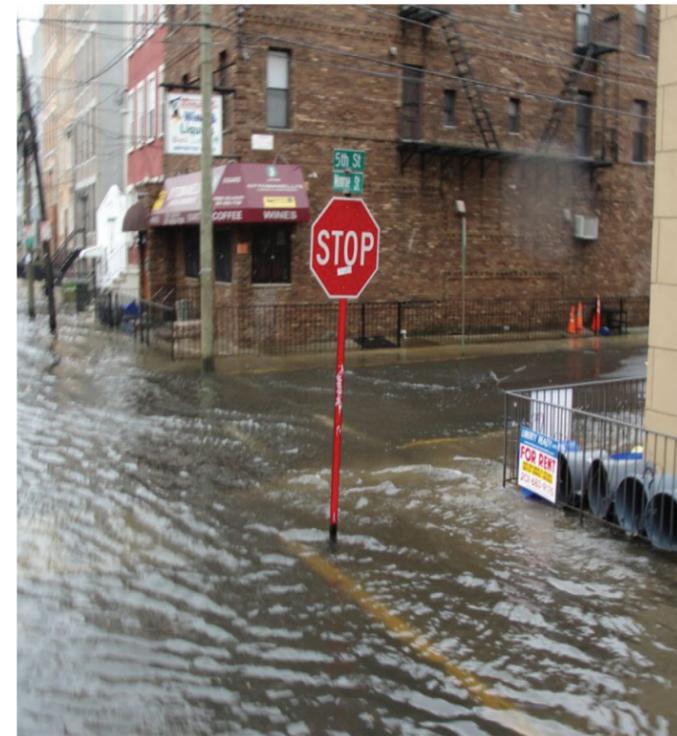
Superstorm Sandy exposed the vulnerabilities within the Study Area by flooding the coastal areas of Jersey City, Weehawken, and Hoboken, as well as over two thirds of the City of Hoboken’s low-lying elevation interior areas (see **Photograph 1.5-1.12**). Coastal storm surge waters flooded electric utility substations and transformers and power was not restored to many Jersey City and Hoboken residents for nearly two weeks. In addition, the storm surge flooded critical transportation infrastructure including the Port Authority Trans Hudson (PATH) line at the Hoboken Terminal. Service on this line was not restored for several months, impacting 10,000-15,000 commuters on a daily basis.

Studies conducted by the Stevens Institute of Technology Davidson Laboratory (Davidson Laboratory Technical Report TR-2933, October 2014) found that approximately 466 million gallons of water inundated Hoboken. The water entered at the lowest areas of elevation (see **Figure 1.8**). Within the Study Area, there were two main entry points: the area around Long Slip Canal and Hoboken Terminal in the south of Hoboken and Weehawken Cove in the north. In the south, the surface elevation ranges between two and five feet above sea level in and around Warrington Plaza and the Hoboken Terminal. Superstorm Sandy brought approximately 11 feet of coastal storm surge water into Warrington Plaza and Hoboken Terminal, resulting in flood waters of between six to nine feet above ground elevation. In the area around Weehawken Cove, the elevations range between six and seven feet above sea level.

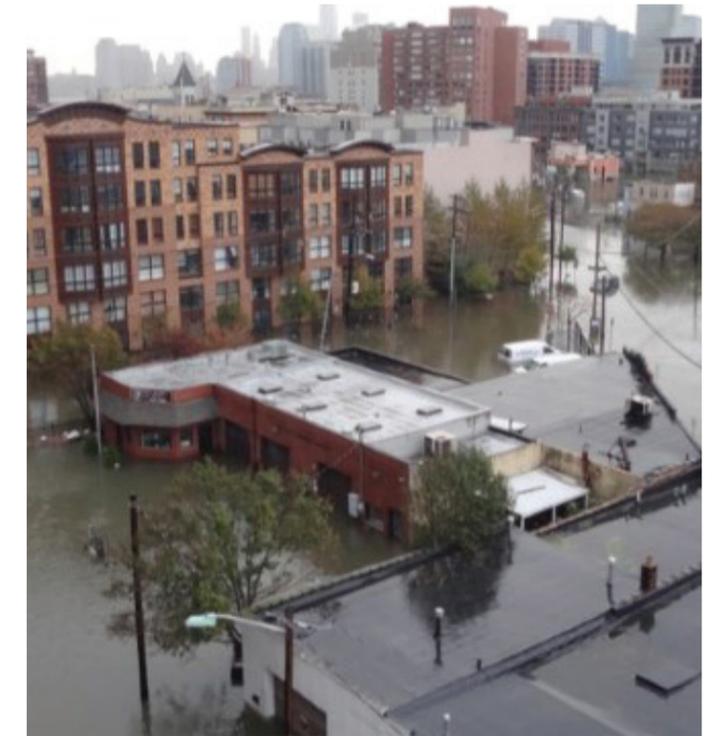
When these elevations are compared to the storm surge levels caused by Superstorm Sandy, the degree of flooding becomes apparent.

The southern and northern low-lying elevation areas of the Study Area along the Hudson River acted as an inlet for flood waters into western Hoboken. During Superstorm Sandy, according to the Stevens Study, approximately 232 million gallons of water entered at the southern breach point alone (Hoboken Terminal). Approximately 78 million gallons of this water remained within the NJ TRANSIT rail yard and the balance of the water (154 million gallons) entered the western portion of the Study Area. Of the portion that entered from the south, 98 million gallons flowed across the rail yard before entering Hoboken along Observer Highway at Park and Willow Avenues and 56 million gallons moved through Long Slip Canal towards Marin Boulevard. Some water passed from southwest Hoboken into Jersey City via Marin Boulevard, Grove Street, and Jersey Avenue, which run beneath the Hudson Bergen Light Rail and NJ TRANSIT rail crossings. In addition, 191 million gallons of coastal storm surge water entered through northern Hoboken, in and around Weehawken Cove. The water flowed to the west into Weehawken and then south into the H7, H5, and ultimately H1 sewersheds, respectively (Hoboken is divided into seven main drainage areas, for reference of the combined sewersheds, see **Figure 1.8** for a depiction of the sewersheds).

The ground elevation in western Hoboken is low-



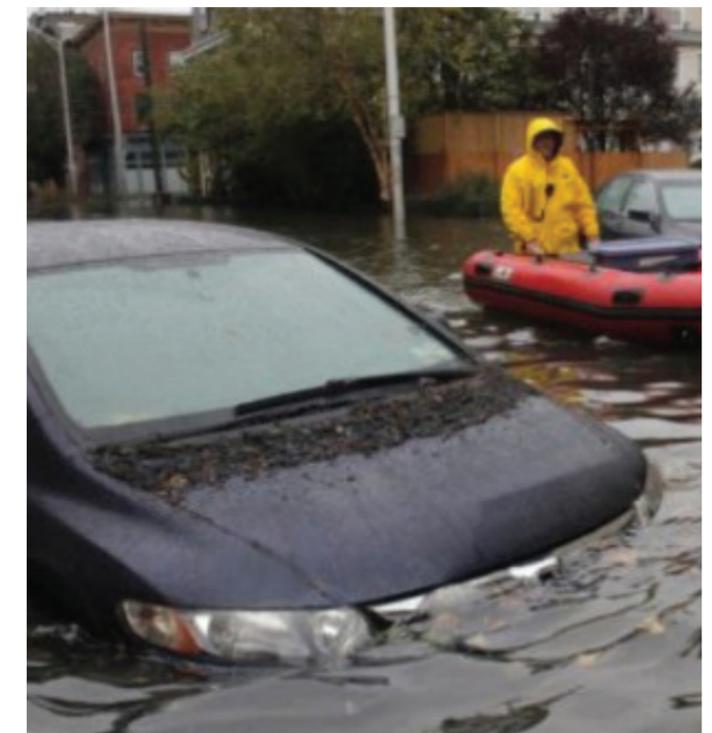
Photograph 1.5 Flooding after Superstorm Sandy at 5th Street



Photograph 1.6 Flooding after Superstorm Sandy within the Study Area



Photograph 1.7 Flooding after Superstorm Sandy within the Study Area



Photograph 1.8 Flooding after Superstorm Sandy within the Study Area

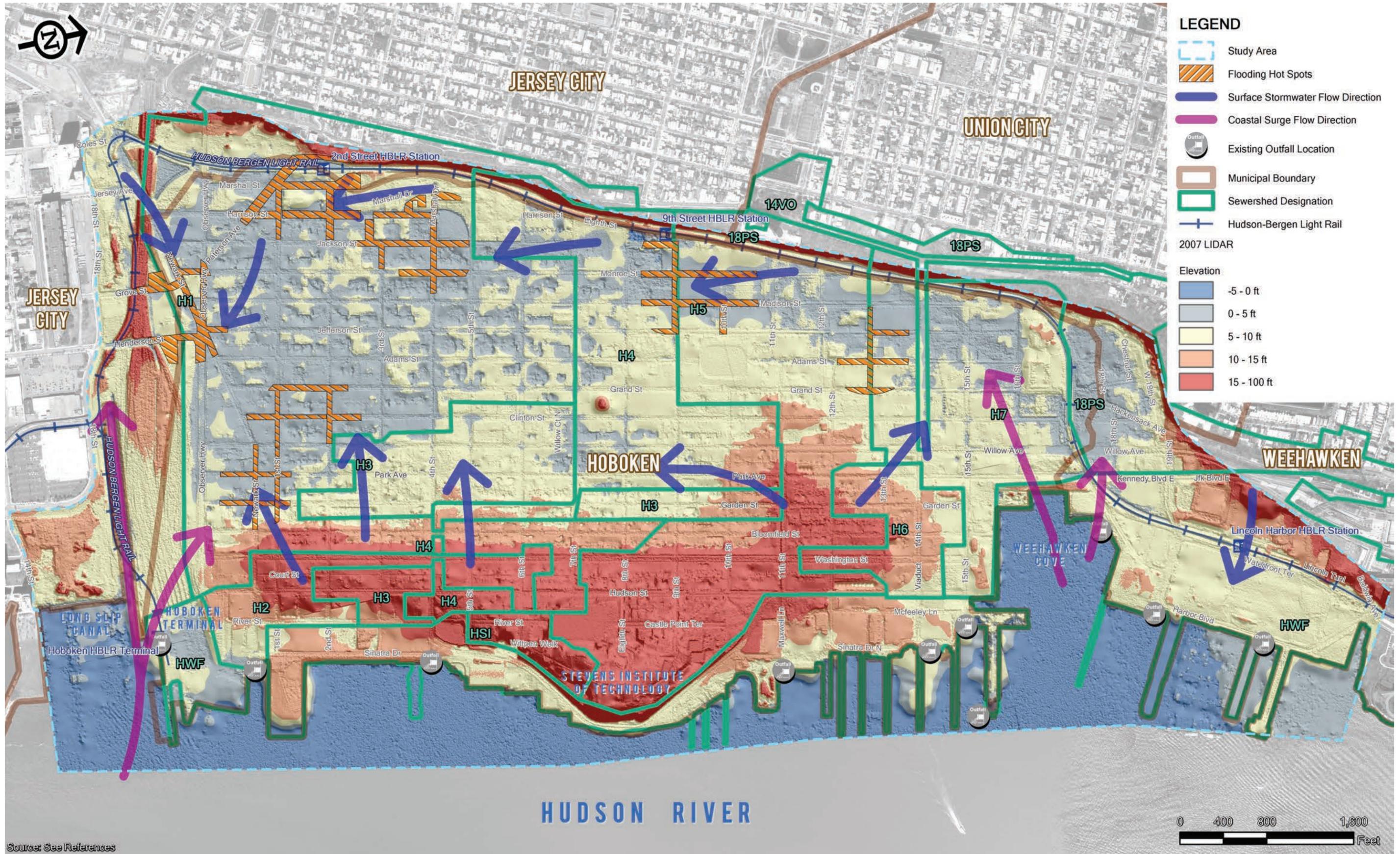


Figure 1.8 Topography / NHTSA Sewershed / Flooding Hot Spots Map



Photograph 1.9 Flooding after Superstorm Sandy - Intersection of Observer Highway and Monroe Street



Photograph 1.10 Flooding after Superstorm Sandy within the Study Area



Photograph 1.11 Flooding after Superstorm Sandy within the Study Area



Photograph 1.12 Flooding after Superstorm Sandy within the Study Area

lying. The H1 sewershed (the southwestern area of Hoboken) in particular is on average about three feet above sea level. Floodwaters were funneled in from the north and south, inundating this portion of Hoboken, as well as the western areas of the H4, H5, and H7 sewersheds. Because the coastal storm surge prevented outflow from the combined storm-sewer system (the surge water elevation was above the outflow level), the surge waters had nowhere to flow and persistent inland flooding occurred. Ultimately, the outflows were underwater and the combined storm-sewer system was unable to discharge. In addition, because the storm surge prevented sewer outflow, domestic sanitary sewage backed up in residences and businesses, posing a public health risk (see **Figure 1.7**).

Overall, Superstorm Sandy caused approximately \$100 million in damages to private property and \$10 million in damages to City-owned property in Hoboken. Notably, Hoboken University Medical Center (the only hospital within the Study Area, located in south-central Hoboken) suffered significant flood damage. The hospital was forced to evacuate all patients the day prior to the storm and was not able to fully reopen until November 14, over two weeks after the storm hit. In the interim, patients were redirected to other nearby hospitals—many of which were also damaged by Superstorm Sandy.

Sea-level rise and high tides also represent distinct coastal flooding concerns. The National Oceanic and Atmospheric Administration (NOAA) estimates

sea levels may rise from between 0.5 to 3.5 feet by the year 2075. Based on these projections of sea level rise, the associated base flood elevations along the Study Area’s coastline would likewise increase, further compounding the risk of flooding. High tides would increasingly overtop the existing bulkheads, particularly during storm surges, thereby inundating the low-lying areas of the community with much greater frequency. Studies have shown that in the mid-1800s, there was a one-percent annual chance of a bulkhead being overtopped by a storm surge within the New York Harbor area. Today there is a 20- to 25-percent annual chance of bulkhead overtopping (Blumberg et al, 2015). Rising sea level also means that the North Hudson Sewerage Authority (NHSA) outfalls and other critical infrastructure would be closer to mean sea level and would be inundated more frequently during high tides. As the vertical distance between the elevation of the water and the elevation of the outfalls decreases, less intense storm surges (which happen with greater frequency than stronger storms) will have the ability to inundate the outfalls, thereby reducing the ability of the system to properly drain stormwaters. This means that over time, coastal flood events are expected to occur with greater frequency, which would increase the urgency for flood risk reduction measures.

1.4 Systemic Inland Flooding

The NHSA, which provides storm and sanitary sewer utility service to the Study Area, has a combined sewer system that was built in two periods, during



Photograph 1.13 Stormwater outfall - normal conditions



Photograph 1.14 Stormwater outfall at Sinatra Drive and 3rd Street



Photograph 1.15 Combined Storm Sewer (CSO) outfall at Weehawken Cove in closed position

the 1850s and from the 1920s to the 1940s. The combined sewer system handles both sanitary sewage and stormwater runoff. A sewershed is a division of a drainage area that is managed by a stormwater utility. NHSA manages the sewersheds within the Study Area. Sewage is conveyed through the system by gravity from its source (e.g., a residence or business) through combined sewer mains beneath street beds to the system's main interceptor pipelines. During dry conditions, a system of pump stations located within the NHSA's service area pumps the sewage to the NHSA's Adam's Street Wastewater Treatment Plant (WWTP). This WWTP serves Hoboken, Weehawken, and Union City. During rainstorms, stormwater (i.e., rainfall runoff) flows into the combined sewer mains via street and curb inlets and combines with the

sanitary sewage. If the combined sewer flow volume exceeds the treatment volume capacity (between 32 and 36 million gallons per day) of the WWTP, a portion of the combined sewer overflow volume flows into the Hudson River through the various outfalls located along Hoboken's waterfront (see **Photographs 1.13 through 1.15**)

Inland flooding occurs when the combined sewer system is unable to outflow excess water into the Hudson River. This typically occurs when high volumes of water are brought into the combined sewer system during a high tide and/or storm surge and the outfalls are closed thereby not allowing for discharge. Rainfall events of greater than two inches, combined with a high tide of four feet or greater, occurred 26 times in Hoboken from 2002 to 2012. This is

...the water level of the Hudson River can rise above the level of the combined sewer outfalls and the river traps the water inside the combined sewer system. Raw sewage and stormwater then backs up through curb inlets and domestic interior plumbing, and floods streets as well as basements of homes and businesses.

expected to increase in frequency over time based on projections of sea levels rising. As a result, high tides and storm surges are expected to block or obstruct the outfalls for increasingly longer periods of time. Potential flooding can be further exacerbated if rainfall occurs during high tide and during the daytime hours when sanitary flows are highest. During a high tide or storm surge, the water level of the Hudson River can rise above the level of the combined sewer outfalls and the river traps the water inside the combined sewer system. Raw sewage and stormwater then backs up through curb inlets and domestic interior plumbing and floods streets as well as basements of homes and businesses. After flood waters recede, sewage residue (as well as residues from diesel, gasoline, and other common roadside chemicals and contaminants) coats roadways, sidewalks, homes, and businesses, representing a public health risk and necessitating cleanup subsequent to the storms.

The most significant inland flooding typically occurs in the H1 sewershed (see **Figure 1.8**). The H1 sewershed is located in the southwest area of

...the inability of the system to discharge during a high tide or storm surge results in inundation of the combined sewer system during a rainfall event and backing up of the sewer system. Ultimately, this leads to the flooding events in low-lying areas, resulting in damage to buildings, residences, cars and infrastructure.

Hoboken and is bounded generally by Observer Highway to the south, Clinton Street to the east, 7th Street to the north, and the NJ TRANSIT Hudson-Bergen Light Rail to the west. This sewershed is extremely low-lying, generally less than three feet above sea level. The most frequent flooding in this sewershed typically occurs around Patterson Avenue and 1st Street (in the vicinity of the 2nd Street Light Rail Station) and Jackson Street and 4th Street. This part of the Study Area is also home to several of the Hoboken Housing Authority's communities, including the Andrew Jackson Gardens and the Monroe Gardens senior housing center, whose residents (i.e., low income and/or elderly) are particularly vulnerable to the impacts from flooding.

The NHSA installed a 50-million gallon-per-day (MGD) wet-weather pump for the H1 sewershed in 2012; however, analysis in 2013 by EmNet indicated that flooding still occurs in severe storms. The pump was activated 36 times between December 2012 and August 2013 and of these activations, four storm events led to flooding. In addition to the H1

sewershed, the western areas of sewersheds H4 and H5 (just to the north of H1) also experience significant flooding, notably along 9th Street between Monroe Street and Madison Street. NHSA has also installed a wet-weather pump for the H5 sewershed (see **Photograph 1.16**), which was on-line in late 2016.

The Study Area's flooding is greatly exacerbated by its high degree of impervious surface coverage: it is approximately 94 percent impervious from building footprints or paved areas such as streets, sidewalks, and parking lots. This is a product of the area's population density; with a population per square mile of 39,066, Hoboken is the nation's fourth densest municipality. The area's high impervious cover means that almost all of the rainfall that reaches the ground is funneled rapidly into the combined sewer system through building downspouts and street-level storm drains instead of being discharged onto permeable ground for gradual infiltration, as would be the case in areas with lower impervious coverage. This, coupled with the inability of the system to discharge during a high tide or storm surge, results in inundation of the combined sewer system during a rainfall event and backing up of the sewer system. Ultimately, this leads to the flooding events in low-lying areas, resulting in damage to buildings, residences, cars, and infrastructure.

These various factors all contribute to the need to develop a comprehensive flood risk reduction strategy to safeguard against damage to people, property, and infrastructure.

1.5 Project Authorization and Regulatory Framework

This Project is funded by HUD Community Development Block Grant - Disaster Relief (CDBG-DR) funds and compliance with a full range of federal, state, and local environmental laws is required, as provided in FR notice 79 FR 62182, published October 16, 2014 [Docket No. FR-5696-N-11]. The Project's compliance with all applicable environmental laws and authorities, as stated in HUD regulations (24 CFR 58.5 and 58.6), will be demonstrated.

In accordance with 24 CFR 58.1(b)(1), the State of New Jersey, acting through the New Jersey Department of Community Affairs (NJDCA), has assumed environmental compliance responsibilities for the Superstorm Sandy CDBG-DR programs on behalf of HUD. NJDCA has designated the New Jersey Department of Environmental Protection (NJDEP) as the lead agency to assist with the environmental review. NJDEP has prepared the DEIS in accordance with HUD's procedures for National Environmental Policy Act (NEPA) found at 24 CFR Part 58, et al. An NOI to prepare the EIS (as defined at 40 CFR 1508.22) was published on September 4, 2015. Simultaneously, the Draft Scoping Document was made available for a 30-day public comment period and a public meeting was held to discuss scoping on September 24, 2015, followed by drop-in sessions open to the public on September 29 and October 1, 2015. The Final Scoping Document was published on the Project website ([*The cooperating agencies are:*](http://www.rbd-</p></div><div data-bbox=)

- *NJ TRANSIT*
- *Port Authority of New York/New Jersey (PANYNJ)*
- *Environmental Protection Agency (EPA)*

hudsonriver.nj.gov) in November 2015.

The DEIS is being made available to the general public for comment, as well as circulated to stakeholders, organizations, and government agencies that have jurisdiction by law or special expertise with respect to the proposed action. Three agencies/organizations have been identified as being cooperating agencies: U.S. Environmental Protection Agency (EPA), NJ TRANSIT, and the Port Authority of New York/New Jersey (PANYNJ). Additionally, three agencies/organizations have been identified as participating agencies: Federal Transit Agency (FTA), National Marine Fisheries Service (NMFS), and Amtrak. A Notice of Availability (NOA) of the DEIS has been published in the Federal Register and local media outlets in accordance with HUD and the Council on Environmental Quality (CEQ) regulations. After a 45-day public comment period has elapsed, public comments will be addressed in a Final EIS (FEIS). The FEIS will be circulated in the same manner as the DEIS (including the publication of a Notice of Availability) and will have a comment period of 30 days. If no additional significant



Photograph 1.16 Hoboken H-5 Wet Weather Pump Station on 11th Street, online October 2016

comments are received after the completion of the FEIS comment period, the NJDEP will complete the Record of Decision (ROD). The ROD designates the selected action and provides the basis for its selection. It identifies environmental impacts, as well as any required mitigation measures that were developed during the EIS process.

1.6 Funding

The Disaster Relief Appropriations Act of 2013 (Public Law 113-2, approved January 29, 2013) was enacted to assist New Jersey's and other disaster-impacted states' recovery efforts for disasters that occurred between 2011 and 2013, including Superstorm Sandy. It appropriates monies targeted for disaster

recovery to various federal agencies. Among those monies, the federal government appropriated \$16 billion in CDBG-DR funds to be split among states that experienced natural disasters from 2011 to 2013, which the President declared to be Major Disasters. These CDBG-DR funds are administered by HUD and are to be used to address unmet disaster recovery needs including funding needs not satisfied by other public or private funding sources like FEMA Individual Assistance, Small Business Administration Disaster Loans, or private insurance. As a precondition to receiving CDBG-DR funds, New Jersey was required to submit a comprehensive action plan that detailed its unmet needs and described the proposed uses of CDBG-DR funds to address those needs.

The CDBG-DR Action Plan was developed by the NJDCA and approved on April 29, 2013. The Action Plan proposes a range of programs to provide relief following the extensive devastation caused by the storm to the affected residential/business communities and infrastructure. The Action Plan is updated periodically and Amendment 12 "Substantial Amendment for the Third Allocation of CDBG-DR Funds" was approved on April 20, 2015. Amendment 12 was prepared pursuant to FR-5696-N-11 to access the third round of CDBG-DR funds allocated for the New Jersey RBD projects. Amendment 12 provides details on funding, timeline, and citizen participation regarding the Project. Another amendment to the Action Plan will be required to finalize the allocation of funding towards the Preferred Alternative that will be identified through the NEPA process.

In the Federal Register notice announcing award of this funding (79 Federal Register 62182), HUD provided the following direction, "CDBG-DR funds are provided to assist in the implementation of the first phase ("Phase 1") of the proposal titled "Resist, Delay, Store, Discharge." Page 15 of the April 2014 Resist, Delay, Store, Discharge final proposal states that Phase 1 includes: (1) a master plan for the entire strategy, (2) studies and pilot projects on various aspects of the overall strategy, and (3) the following catalytic projects: coastal defense at Hoboken Station and surroundings, coastal defense at Weehawken Cove, and pump station and greenbelt CSO wetland pilot project. Therefore, the current HUD funding will be provided for the implementation of Phase 1 elements only. This includes the environmental impact analysis of the overall comprehensive master plan for the entire project (including Resist and Delay, Store, Discharge), and the construction of the Resist components only. The Delay, Store, Discharge (DSD) elements would be implemented separately by the City of Hoboken or other partners as funding becomes available.