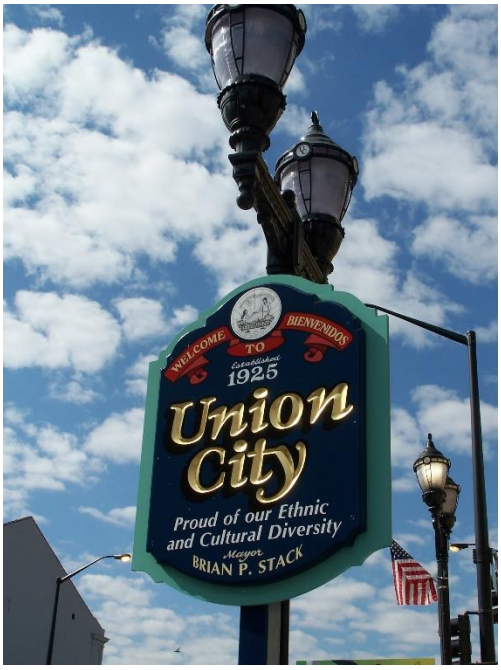
CITY OF UNION CITY

LAND USE ELEMENT UPDATE AND AMENDMENT

April 21, 2021





Prepared by HGA

HGA

Adopted _____

City of Union City

Land Use Element Update and Amendment

City of Union City

Hudson County, New Jersey

Mayor Brian P. Stack

April 21, 2021

Adopted _____, 2021

Prepared by

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The original of this report was signed and

sealed in accordance with N.J.S.A. 45:14A-12

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INTRODUCTION

The purpose of this Land Use Element is to provide short- and long-term planning recommendations intended to guide policies and development throughout the City of Union City. This Plan constitutes an update and amendment to the Land Use Element that was adopted as part of the comprehensive Master Plan, which was adopted by the Planning Board on April 23, 2009. Union City has had a long history of preparing Master Plans to guide their land use policies. The City's first Master Plan was adopted in 1963 with a subsequent Land Use Study and Plan adopted in 1975. Master Plan Reexamination Reports were adopted in 1994, 2000, 2018, and 2019. A Reexamination Report, on which this update is based, is expected to be adopted concurrent with this Land Use Element.

This Plan analyzes existing land uses and zoning, environmental characteristics, physical and visual form, and evaluates the current and future land use demands of the City. A climate change vulnerability assessment, as required by the Municipal Land Use Law, has also been prepared as a component of this Land Use Element with the purpose of examining the effects of climate change on the City and providing mitigation strategies to protect the City and its residents from future natural disasters.

The following goals were included in the 2019 Master Plan Reexamination Report that specifically relate to land use:

- Preserve the established residential character of Union City while simultaneously taking income consideration mechanisms to promote economic growth and development.
- Advocate for smart growth and planning principles that maintain the established neighborhood scale without exacerbating burdens on infrastructure.
- Encourage infill development and compact design that efficiently utilize the City's land.
- Provide housing options for a variety of income levels, including very low-, low-, and moderate-income households.
- Preserve and enhance the existing business districts of the City, maintaining sufficient retail and commercial uses to meet the needs of the City's residents.
- Provide for upper floor residential along the City's commercial corridors.
- Continue to upgrade streetscapes with additional lighting and trees, planted in a variety of local species that will thrive in an urban environment.
- Continue to pursue and work closely with the regional transportation organizations such as Port Authority and New Jersey Transit to improve the public transit opportunities for Union City residents.

The following goals were included in the 2009 Land Use Element that remain relevant to the City:

- Preserve residential neighborhoods.
- Provide a balance of land uses, and balanced development patterns, in appropriate locations including height and design considerations.
- Capitalize on the City's proximity to Manhattan and its ideal location within one of the largest financial, industrial, and cultural metropolises in the world.
- Preserve and build public spaces, community facilities, and recreational amenities as unique assets to the City.

The 2021 Reexamination Report puts forth the following new goals that are intended to further the City's vision for its future:

- Maintain the established historical residential densities and encourage the preservation of the City's older housing stock.
- Provide for appropriate bulk standards and densities that do not overburden the City's smaller residential lots.
- Ensure that future development can meet parking demands and requirements on-site so that future development does not result in parking overflow onto the City's streets thereby further compounding the City's parking problems.

Union City continues to focus on creating a strong sense of place while encouraging socioeconomic, economic, and community vitality through well-designed land development. While the City is no longer the densest municipality in the United States (it was surpassed by Guttenberg, New Jersey according to the 2010 Census), Union City continues to grow in population and remains a desirable place to live and work.

This Land Use Element provides the foundational framework for the City's zoning ordinance and establishes the basis for future development and redevelopment efforts within the City.

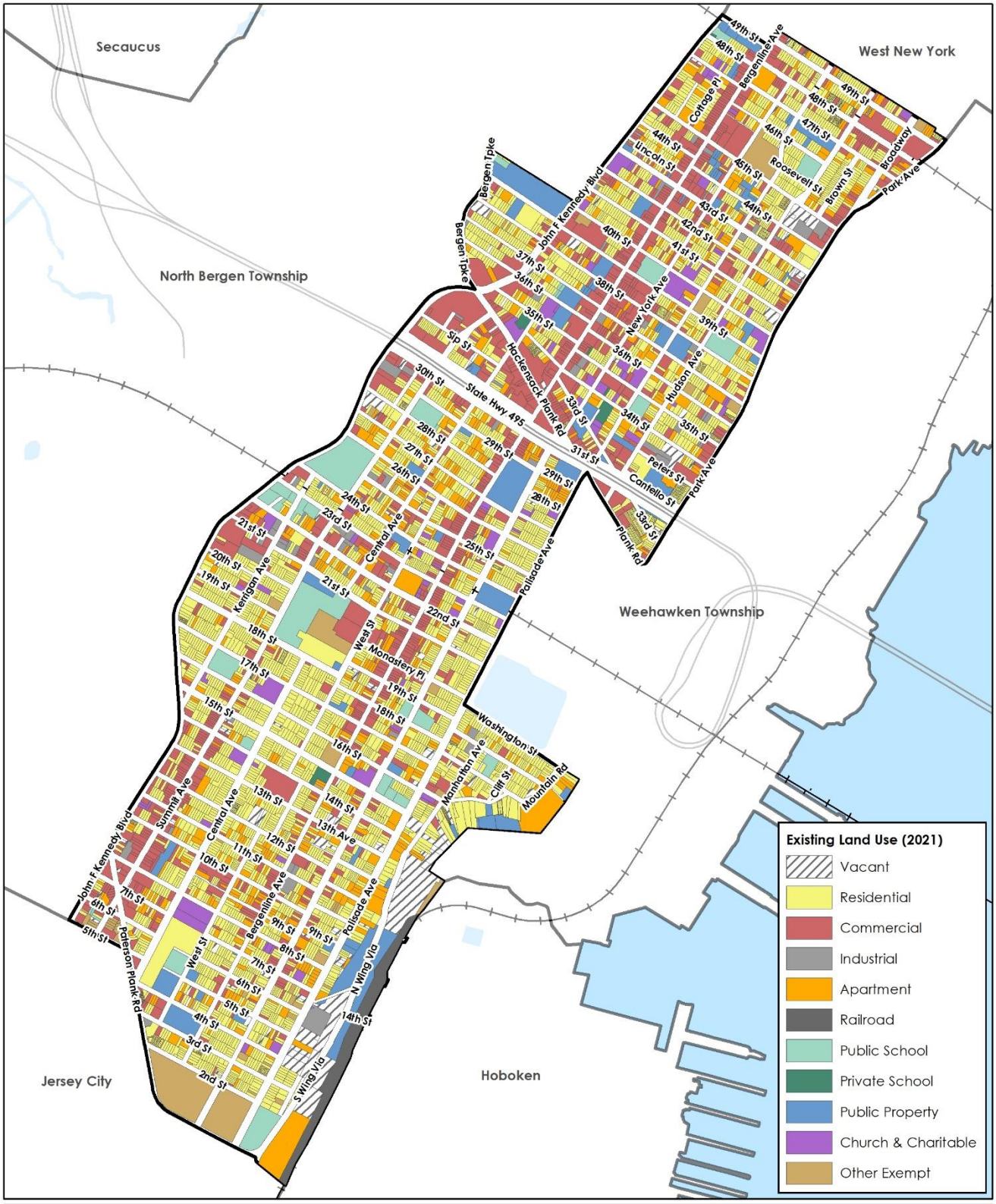
EXISTING LAND USES

In order to provide viable recommendations regarding the City's future growth, it's important to understand the existing land use patterns of development and have an awareness of areas of special concern. Union City consists of a total land area of 825 acres. When roads and railroad rights-of-way are subtracted, the City has approximately 569.6 acres of land. The following table provides a summary of summary of the land uses within the City of Union City.

Union City Land Use Summary (Excluding Roads and Railroad ROW)
2021 MOD IV Property Tax Data

Land Use	Class	Acres	% of Total	# of Parcels	% of Total
Vacant	1	25.3	4.4%	153	2.1%
One- to Four-Family Residential	2	236.0	41.4%	4,861	65.8%
Commercial	4A	125.5	22.0%	1,271	17.2%
Industrial	5B	11.6	2.0%	75	1.0%
Apartment	4C	65.6	11.5%	687	9.3%
Public Schools	15A	25.6	4.5%	35	0.5%
Private Schools	15B	1.6	0.3%	6	0.1%
Public Property	15C	36.7	6.4%	92	1.2%
Church & Charitable	15D	18.0	3.2%	91	1.2%
Other Exempt	15F	23.7	4.2%	119	1.6%
Totals	-	*569.6*	*100.0%*	*7,390*	*100.0%*

As the table shows, the amount of vacant land in Union City is minimal and when compared to previous years, it is clear it continues to shrink. The 2009 Land Use Element identified 287 parcels of vacant land, representing 29 acres. It should be noted that a majority of the vacant land in Union City is found along the Palisades and within the Palisades Preservation Overlay District, making development of these parcels difficult and nearly impossible. The low vacancy rates indicates that any new development within the City will have to occur through infill development or redevelopment.


Secaucus
West New York
North Bergen Township
Weehawken Township
Jersey City
Hoboken
Existing Land Use (2021)
Vacant
Residential
Commercial
Industrial
Apartment
Railroad
Public School
Private School
Public Property
Church & Charitable
Other Exempt
0 600 1,200 Feet
Source: NJOGIS, NJGIN, NJDEP, NJDOT
Existing Land Use
Union City, NJ
HGA
Heyer, Gruel & Associates
April 2021

Residential Land Uses

Residential land uses are split into two categories: one- to four-family residential and apartments i.e., residential development of more than four units. The City's highest percentage of land use is the one- to four-family residential property class (Class 2), which accounts for 41% of the total land area[1] within the City. This percentage has increased slightly since the 2009 Land Use Element when the one- to -four-family residential land use category accounted for 38.7% of the City's land area.

Apartment land use (Class 4C) on the other hand, accounts for the third highest land use category, representing 11.5% of the City's total land area.

As can be seen on the Existing Land Use map, the one- to four-family residential and apartment land uses are spread throughout the City. There are not two distinct areas where these uses are seen but instead, they coexist as neighbors within the same neighborhoods.

Commercial Land Uses

The commercial land use classification (Class 4A) accounts for 125.5 acres representing 22% of the City's land area, the second largest next to one- to four-family residential. While commercial properties can be found throughout the City, these uses are predominantly clustered around the retail corridors of Summit Avenue, Bergenline Avenue, and Hackensack Plank Road.

Industrial Land Uses

Industrial land uses within Union City have seen consistent decline over the decades. The 2009 Land Use Element identified 18 acres of industrial land where today there are 11.6 acres, representing a decrease of approximately 35%. This decrease in industrial uses is due in part to the broader decline in industry and manufacturing seen throughout New Jersey during the latter half of the 20th Century. This decline was partially caused by the increased demand for and subsequent growth of the service industry. Union City's fully built-out nature and smaller streets are not conducive to the type of warehousing/light industrial development that has become common in other parts of the State in recent years. Nor would such uses be appropriate for a city whose residential uses are scattered throughout.

The remaining industrial parcels within the City are typically smaller properties, many of them developed with abandoned or dilapidated structures posing as remnants of a bygone era. As the trends continue to show a decline in the number of industrial properties, it is anticipated that the City will eventually see the elimination of industrial land uses within their borders.

[1] The use of the phrase "land area" is used in this section reference to the total usable land area i.e., exempting roads and railroad rights-of-way.

Publicly Owned Land Uses

With the exception of public schools, there is 36.7 acres of publicly owned land, spread out across 92 parcels and representing about 6.4% of the total land area. The public land includes City-owned parks and playgrounds, City Hall, two City-owned libraries (the Main Library at 324 43rd Street and the Branch Library at 1800 Summit Avenue), as well as land owned by the County of Hudson, the Union City Housing Authority, the Parking Authority of Union City, the Hudson County Improvement Authority, and the New Jersey Transit Corporation.

EXISTING ZONING

A recommendation in the City's 2018 and 2019 Master Plan Reexamination Reports was a comprehensive reworking of the City's Land Development Ordinance. The new ordinance was adopted by the Board of Commissioners on October 8, 2019. The ordinance now consists of one residential zone, one commercial zone, one mixed-use zone, one public zone, and a parks-air rights zone. There are additionally five Redevelopment Areas and two overlay zones.

R Residential District

The City's residential zoning district is known as the R Residential District. While the R Zone covers the most amount of land area in the City, it provides for a minimum lot size of 2,500 square feet. The R Zone allows for one-, two-, and three-family dwellings as well as assisted living facilities, nursing homes, municipal uses, public parks and playgrounds, and legal preexisting multifamily developments.

Accessory uses include private ground floor garages, noncommercial private swimming pools, minor home occupations, family day-care homes, and other uses that are customarily incidental and accessory to the principal use.

The Zone allows for conditional uses, including places of worship, civic clubs, schools, and non-accessory parking lots.

The Zone also provides for supplemental requirements that are intended to help direct the design of the building.

C-N Neighborhood Commercial District

With the 2019 rezoning, the commercial districts were consolidated into one district: the C-N Neighborhood Commercial District. The 2018/2019 Reexamination Reports included an analysis of the previously existing commercial zones. This analysis concluded that there was significant overlap between the various commercial zones and their standards, resulting in unnecessary redundancy throughout the ordinance.

Consolidating the zones eliminated the replication and promoted the small-scale commercial development that already defined the commercial corridors.

The C-N Zone is now located along the City's major commercial corridors: Summit Avenue, between 5th Street and 18th Street; along Bergenline Avenue, between 8th Street and the West New York border; and along New York Avenue between 7th Street and 15th Street. Additional pockets of the C-N Zone can be found along John F. Kennedy Boulevard, Broadway, Park Avenue, and Hackensack Plan Road.

The purpose of the district is to provide commercial sales and service uses for the adjoining neighborhoods on lots at a minimum of 2,500 square feet. Permitted uses include retail sales and personal services, offices, medical offices, dwelling units on upper floors in mixed-use buildings, as well as restaurants, bars, and various other non-residential uses.

The Zone permits accessory uses, including minor home occupations, outdoor dining at sidewalk cafes, outdoor dining on private property, and other uses that are customarily incidental and accessory to the principal use.

Conditional uses that are permitted in the C-N Zone include public and private parking garages, wireless telecommunication facilities, major home occupations, non-accessory parking lots, drive-thru banks, drive-thru restaurants, and car washes.

MU Multiple Use District

The purpose of the MU Multiple Use Zone is to recognize the existing arrangement of industrial, commercial, and residential properties in close proximity to each other, and to encourage expansion and reinvestment in such properties when adhering to modern land use controls. The district is located on the western side of the City, on the eastbound side of 22nd Street between John F. Kennedy Boulevard and Summit Avenue. Another small portion of the zone extends half a block south along Kerrigan Avenue, and a final piece of this zone extends a third of the way down the block on the westbound side of 22nd Street.

The Zone permits multifamily dwellings, retail sales and personal services, office, dry-cleaning establishments, light industrial, self-storage facilities, live/work units in conjunction with adaptive reuse of building, child-care centers, municipal uses, government uses, and parks and playgrounds.

The permitted accessory uses include minor home occupations and other uses that are customarily incidental and accessory to the principal use.

The Zone permits the following conditional uses: places of worship, civic clubs, drive-thru banks, car washes, public and private parking garages, major home occupations, wireless telecommunication facilities, and non-accessory parking lots.

Similar to the R Residential Zone, the MU Multiple Use Zone includes a series of supplemental requirements that relate to design but also the relationship between a mixed-use building and the Residential Zone.

P Public District

The purpose of the Public District is to permit only the principal, accessory and conditional uses on properties that are owned by the City of Union City, the Union City Board of Education, the Parking Authority, or other governmental entity. In addition to municipal and government uses, the Zone also allows for age-restricted housing and affordable housing in multifamily buildings on parking lots that are owned by the City of Union City, the Union City Board of Education, the Parking Authority or other governmental entity.

P-A Parks-Air Rights District

The purpose of the P-A Parks-Air Rights District is to encourage decking and other streetscape improvements over Route 495 to create a public park to reduce the effects that Route 495 has on dividing the City. The standards of this zone are intended to create hardscape park space and do not advocate constructing buildings over Route 495, with the exception of small buildings of an accessory nature.

Overlays

The City of Union City also has two Overlay Zones – the HPOD Historic Preservation Overlay District and the PPOD Palisades Preservation Overlay District.

HPOD Historic Preservation Overlay District

The purpose of the Historic Preservation Overlay District is to provide additional protection to the Monastery of the Perpetual Rosary (the "Blue Chapel") and the Monastery and Church of Saint Michael the Archangel historic sites and the existing residential areas surrounding them by preventing the intrusion of incompatible uses into the neighborhoods and by maintaining existing development intensity and population density consistent with residential neighborhood patterns. Permitted uses include one- and two-family dwellings as well as existing institutional uses.

The HPOD is located over Residential Zone properties and is found in two locations in the City: the first is located on the southbound side of West Street between 21st Street and 18th Street; the second is located where West Street dead ends and is bound by 14th Street to the north, Morris Street to the east, 13th Street to the South, and Central Avenue to the west.

PPOD Palisades Preservation Overlay District

The purpose of the Palisades Preservation Overlay District is to provide for reasonable control of development within areas of steep slopes along the Palisades in the City of Union City. The regulations of this overlay district are intended to minimize the adverse impact caused by the development of such areas, including, but not limited to, erosion, siltation, flooding, and surface water runoff. The disturbance of soil

and construction and development on steep slopes and cliff faces creates an additional hazard to the lives and property of those dwelling on the slopes and below them. The most appropriate method of alleviating such conditions is through the regulation of vegetation and soil disturbances, construction, and development. Therefore, it is determined that the special and paramount public interest in these slopes justifies the regulation of property located thereon as provided below, which is the exercise of the police power by the City for the protection of persons and the property of its inhabitants and for the preservation of the public health, safety, and general welfare.

The PPOD is located over every property situated along the Palisades and provides for specific regulations regarding use, bulk, procedure, limits of disturbance, performance standards, and design and construction standards. All properties that fall within the PPOD must abide by these sets of standards.

Redevelopment Areas

The City has five Redevelopment Areas with adopted Redevelopment Plans that supersedes the previous zoning regulations:

- Bus Garage Redevelopment Area
- Yardley Building Redevelopment Area
- Swiss Town Redevelopment Area
- Roosevelt Stadium Redevelopment Area
- 8th Street Redevelopment Area

Bus Garage Redevelopment Area

The Bus Garage Redevelopment Area consist of lots 1-41 in Block 153 on the City's Tax Map. The area comprises one entire block, bound by Bergenline Avenue to the west, New York Avenue to the east, 29th Street to the north, and 27th Street to the south.

The Area was designated an area in need of redevelopment on June 29, 1999 and a Redevelopment Plan was prepared a few years later. The site is developed with a one-story brick building, approximately 135,000 square feet, in a deteriorating condition. The structure houses the City of Union City Department of Public Works operations, in addition to smaller City offices. The site was formerly occupied by Public Service Gas & Electric and then New Jersey Transit as a bus garage.

The Redevelopment Plan allows for the maintenance of a bus garage on a portion of the site and residential and commercial uses on the remainder of the site. Because the site has yet to redeveloped, the 2019 Master Plan Reexamination Report recommended this Redevelopment Plan be updated and reevaluated to consider the suitability for additional uses on the site. Such reassessment has not yet taken place.

Yardley Building Redevelopment Area

A Redevelopment Plan for the Yardley Building Redevelopment Area was adopted by the Board of Commissioners on July 29, 2003. The Area is located in the southeastern portion of the City of Union City, along the eastern side of Palisade Avenue between 4th Street and 7th Street. It is located less than 500 feet north of Washington Park, a county park that straddles the Jersey City/Union City border.

The purpose of Redevelopment Plan is to provide a comprehensive development plan that will allow and encourage the redevelopment of the Area in a manner that is consistent with the predominantly residential character of the surrounding neighborhood, while at the same time allowing for flexibility in the design and layout of buildings and structures in the Area to accommodate the unique characteristics of the Area. The Area has yet to be redeveloped.

Swiss Town Redevelopment Area

The Swiss Town Redevelopment Area was designated an area in need of redevelopment by the Board of Commissioners on May 1, 2001. The Area includes Lots 1-8 and 26-33 in Block 202 on the City's Tax Map.

The objective of the Swiss Town Redevelopment Plan is to develop the Area with multifamily residential uses and other uses compatible with such development. In keeping with that objective, the Redevelopment Area is broken down into two zones that permit high rise residential apartment buildings in Zone A and existing underlying residential uses in Zone B.

A 15-story 151-unit apartment building was constructed in 2008 on the properties located at 3312 Hudson Avenue. Single-family homes are located along the Hudson Avenue frontage of the block.

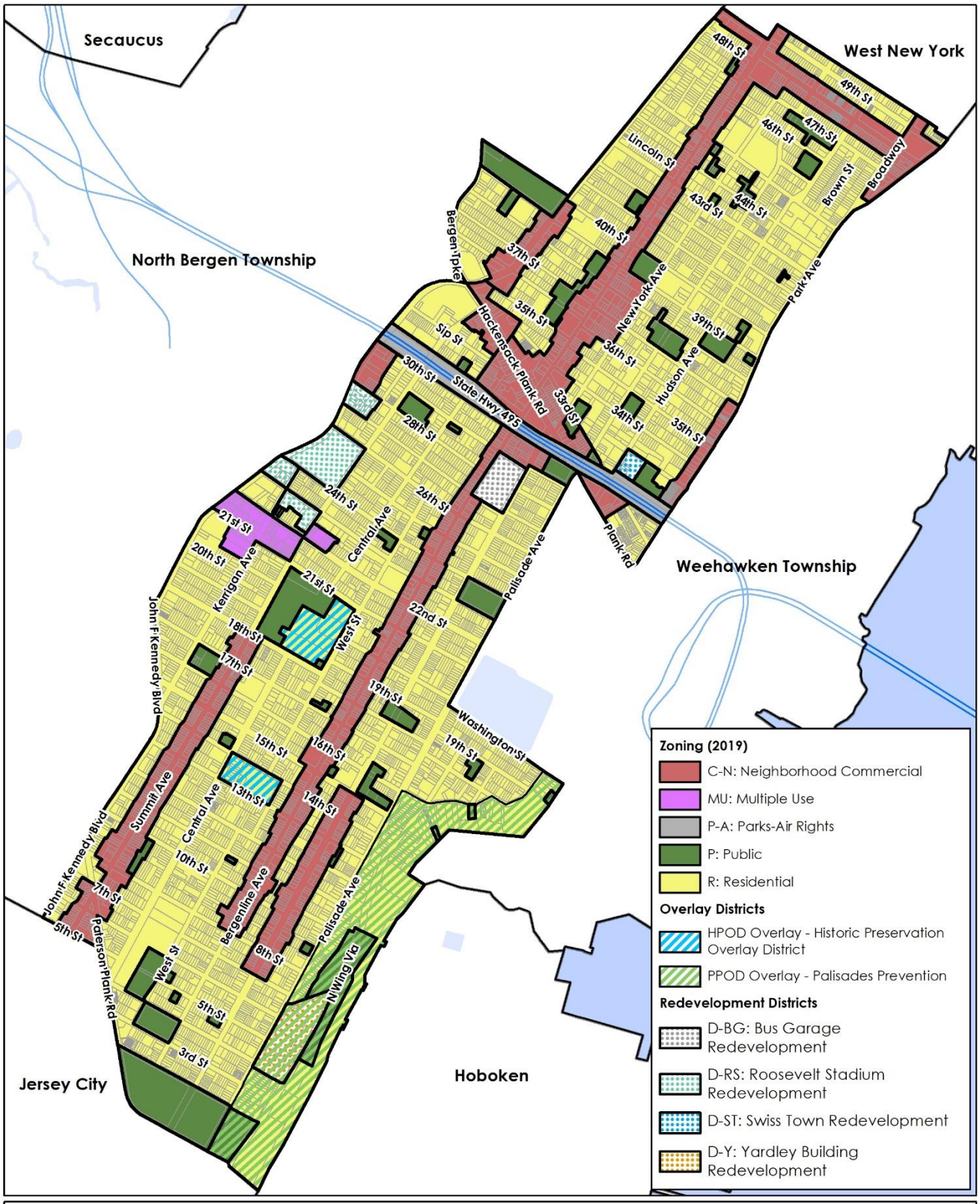
Roosevelt Stadium Redevelopment Area

The Roosevelt Stadium Redevelopment Area consists of the entire Block 134, as well as all Tax Lots found on Tax Blocks 132 and 133, Tax Lots 12 through 33 on Tax Block 120, and Block 156 Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 22, 23, 24, 25, 26, 27, 28 and 29 on the City's Tax Map.

The original Roosevelt Stadium Redevelopment Plan was adopted on December 6, 2004. The Plan was subsequently amended on November 14, 2006 to include provisions for the Mixed-Use B Zone. Since the time of the original and amended Plan, a portion of the Redevelopment Plan has been realized. The Union City High School opened on September 3, 2009 within the School Redevelopment Zone. The new Union City High School replaced the old Emerson High School and merged the student bodies of the Emerson and Union Hill High Schools. The High School covers 4.5 acres of land and includes a rooftop football field. A structured parking garage was constructed on a portion of Block 120 to the support the school. The Plan is currently in the process of being updated to reflect changing conditions on Block 156.

8th Street Redevelopment Area

The 8th Street Redevelopment Area is Block 42, Lot 9 on the City Tax Map, also known as 720 Eighth Street. The Area is developed with a municipal parking lot and structure utilized by the United States Postal Service. The Plan permits age restricted and affordable housing in low or mid-rise apartment buildings, commercial uses that serve the needs of the tenants, and a post office.


Secaucus
West New York
North Bergen Township
Weehawken Township
Jersey City
Hoboken
48th St
49th St
47th St
46th St
44th St
43rd St
40th St
37th St
35th St
39th St
38th St
34th St
33rd St
30th St
28th St
24th St
26th St
21st St
20th St
18th St
17th St
22nd St
19th St
16th St
15th St
13th St
14th St
10th St
7th St
5th St
8th St
3rd St
Lincoln St
Broadway
Brown St
Park Ave
New York Ave
Hudson Ave
Bergen Tpke
Slp St
Hackensack Plank Rd
State Hwy 495
Plank Rd
Palisade Ave
Central Ave
Kerrigan Ave
West St
John F Kennedy Blvd
Summit Ave
Bergenline Ave
Washington St
Paterson Plank Rd
N Wing Via
Zoning (2019)
C-N: Neighborhood Commercial
MU: Multiple Use
P-A: Parks-Air Rights
P: Public
R: Residential
Overlay Districts
HPOD Overlay - Historic Preservation Overlay District
PPOD Overlay - Palisades Prevention
Redevelopment Districts
D-BG: Bus Garage Redevelopment
D-RS: Roosevelt Stadium Redevelopment
D-ST: Swiss Town Redevelopment
D-Y: Yardley Building Redevelopment
N
W
E
S
0
600
1,200 Feet
Source: NJOGIS, NJGIN, NJDEP, NJDOT
Existing Zoning
Union City, NJ
HGA
Heyer, Gruel & Associates
April 2021

CLIMATE CHANGE VULNERABILITY ASSESSMENT

On February 8, 2021, Governor Murphy signed into law an amendment to the Municipal Land Use Law (N.J.S.A. 40:55D-28) requiring any Land Use Plan Element to include a Climate Change-Related Hazard Vulnerability Assessment. The Assessment shall rely on the most recent natural hazard projections and best available science provided by the N.J.D.E.P.

The Assessment is required to include:

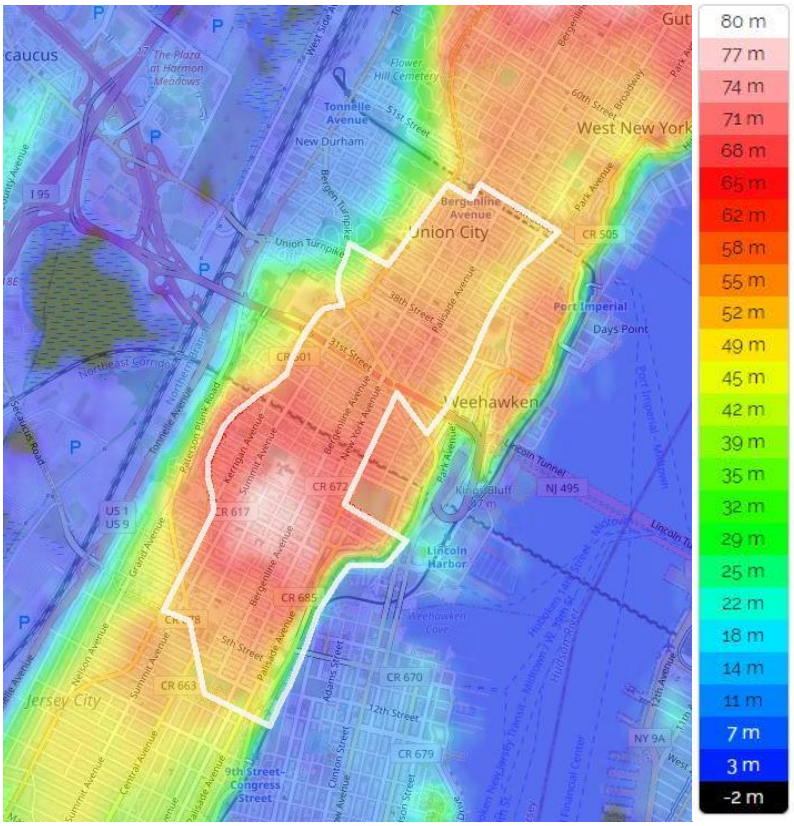
- Analysis of current and future threats and vulnerabilities of the municipality associated with climate change related natural hazards, including increased temperatures, drought, flooding, hurricanes, and sea level rise.
- A "Build-Out Analysis" of future development with an assessment of threats and vulnerabilities related to that development.
- Identification of facilities, utilities, roadways, and infrastructure necessary for evacuation and sustaining quality of life during a natural disaster.
- Potential impacts of natural hazards on components and elements of the Master Plan.
- Strategies and design standards available to reduce or avoid risks associated with natural hazards.
- A policy statement regarding consistency, coordination, and integration of the Vulnerability Assessment with various existing or proposed plans such as:
    - Natural Hazard Mitigation Plan
    - Floodplain Management Plan
    - Emergency Management Plan
    - Emergency Response Plan
    - Post-Disaster Recovery Plan

The City of Union City is an urbanized municipality completely covered by land. The City sits atop the Palisades, a line of steep cliffs that rise almost vertically along the west side of the lower Hudson River. The Township of Weehawken and Hoboken City are located directly east and at the base of the Palisades, separating Union City from the Hudson River. In accordance with the 2020 Hudson County Hazard Mitigation Plan (2020 HMP), the City has a total of 1,729 buildings, none of which are within the pathway of a Category 1 through 4 hurricanes. Additionally, none of Union City's population, buildings, or critical facilities are within a floodplain. The central threats to the City include extreme temperatures as well as high winds and severe winter storms.

Analysis of Current and Future Threats

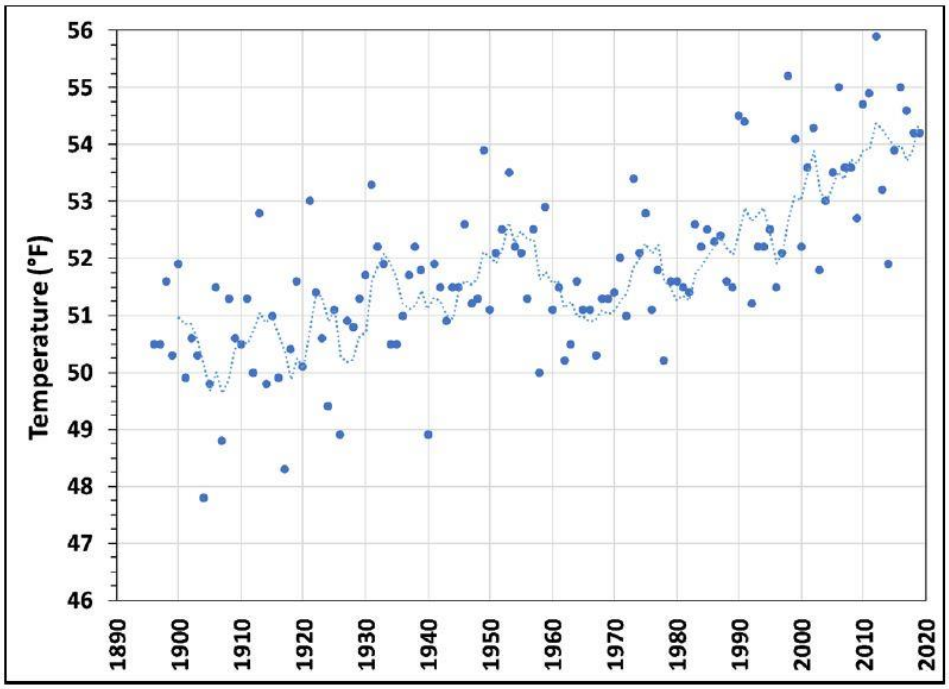
Given Union City's location above the Palisades, a significant portion of City is located at an elevation higher than 55 meters (approximately 180 feet) with portions of the City reaching 80 meters (+/- 262 feet). Given their higher terrain, the City has not been historically affected by flooding from the Hudson River. The following sections detail the City's vulnerability to increased temperatures, drought, flooding, hurricanes, and sea level rise. The data in the below sections is derived from various data sources, including but not limited to the New Jersey Department of Environmental Projection, the NJ Climate Change Resource Center at Rutgers University, and the 2020 Hudson County Hazard Mitigation Plan. All sources used are cited accordingly.

Union City Elevation Map



Increased Temperatures

Since 1895, the Office of the New Jersey State Climatologist at Rutgers University has gathered and tracked statewide temperature records. In accordance with this data, New Jersey has experienced a statistically significant statewide average increase in temperature over that 125-year period.



"New Jersey 12-Month Average Air Temperature from 1895 to 2019. Points represent the average annual temperature, and the dashed line represents a five-year average of those points."[2]

Increased temperatures represent a natural hazard threat to every community within New Jersey. In accordance with data gathered from the NJ Climate Change Resource Center at Rutgers University, Union City can expect to see temperature increases in relation to the amount of greenhouse gas emissions, as depicted in the chart on the following page. The "Moderate Emissions (RCP 4.5)" scenarios correspond to a future consistent with current global policies on greenhouse gas emissions. The "High Emissions (RCP 8.5)" scenarios correspond to a future consistent with the strong, continued growth of fossil fuel consumption, intended to be "very high" baseline.[3] The RCP ratings refer to "Representative Concentration Pathway," a greenhouse gas concentration trajectory adopted by the Intergovernmental Panel on Climate

[2] Source: Figure from "Climate Change in New Jersey: Temperature, Precipitation, Extreme Events, and Sea-level Rise, Environmental Trends Report" NJDEP, Division of Science and Research, updated 9/2020. Data in chart derived from the Office of the New Jersey State Climatologist 2020.

[3] NJ Climate Change Resource Center, NJ Adapt, NJ FloodMapper

Change. RCP 4.5 is an intermediate scenario where emissions peak around 2050 and then begin declining. In the RCP 8.5 scenario, emissions continue rising throughout the 21st century.[4]

Union City Projected Temperature Increased[5]

	Moderate Emissions (RCP 4.5)			High Emissions (RCP 8.5)		
	2030	2060	2090	2030	2060	2090
Change in Days Above 95 Deg. F (Days)	+5 to +10	+11 to +20	+11 to +20	+5 to +10	+11 to +30	+31 to +50
Change in Cooling Degree Days (Degree Days)	+200 to +400	+400 to +600	+600 to +800	+200 to +400	+800 to +1,000	+1,400 to +1,600
Change in Max. Temp. July (° F)	+2° F to +3° F	+4° F to +5° F	+5° F to + 6° F	+2° F to +3° F	+6° F to +8° F	+8° F to +12° F
Average Max. Temp in July (° F)	86° F to 90° F	86° F to 95° F	91° F to 95° F	86° F to 90° F	91° F to 95° F	96° F to 100° F

Extreme Temperatures

Not only is there a threat from increased temperatures, but the City is also vulnerable to extreme temperature situations, which include both heat *and* cold extremes. Heat and cold events can have direct impacts on human health and businesses with secondary impacts on infrastructure.[6]

The Centers for Disease Control and Prevention define extreme heat as temperatures 10 degrees or more above the average high temperature for a region for a period that lasts several weeks.[7] Given the minimal amount of pervious surface, the City is subject to experiencing the heat island effect, a phenomenon where urban areas experience higher temperatures than their suburban counterparts due to the higher amount of impervious coverage i.e., roads, buildings, sidewalks, and other infrastructure that will re-emit the sun's heat. The humid nature of the northeast can exacerbate extreme heat events. A Heat Index is the measurement of how hot it really feels outside in relation to humidity.

The City is also vulnerable to extreme cold temperatures. The Centers for Disease Control and Prevention characterizes extreme cold temperature as ambient air temperatures that drop to 0° F or below.[8] Risks associated with extreme cold includes icy road conditions that could lead to vehicular accidents or falling incidents. Extreme cold can also lead to pipes bursting and power outages.

[4] Intergovernmental Panel on Climate Change Assessment Report, 2014, https://ar5-syr.ipcc.ch/ipcc/ipcc/resources/pdf/IPCC_SynthesisReport.pdf
[5] "Union City: Public Health Exposure Snapshot;" NJ Climate Change Resource Center, NJ Adopt, Municipal Snapshots, https://njclimateresourcecenter.rutgers.edu/nj-adapt/
[6] 2020 Hudson County Hazard Mitigation Plan, Section 4.3.6. Extreme Temperature.
[7] Ibid.
[8] Ibid.

While extreme heat and cold events can have detrimental effects on the entire population, the over 65 population tends to be the most affected. According to the 2019 five-year American Community Survey Estimates, 10.9% of Union City's population is 65 years or older.

Drought

In the 2020 Hudson County Hazard Mitigation Plan (2020 HMP), Union City's drought hazard rating was marked as "*medium"* as the City's residents rely on above-ground reservoirs for their water, which could be put in jeopardy during a drought event. However, such event would not cause direct damage to the City's economy as Union City's economy lacks any major agricultural industry.

In accordance with the 2020 HMP, a drought event is "a period characterized by long durations of below normal precipitation. Drought conditions occur in virtually all climatic zones, yet characteristics of drought vary significantly from one region to another, relative to normal precipitation within respective regions. Drought can affect agriculture, water supply, aquatic ecology, wildlife, and plant life. Drought is a temporary irregularity in typical weather patterns and differs from aridity, which reflects low rainfall within a specific region and is a permanent feature of the climate of that area."

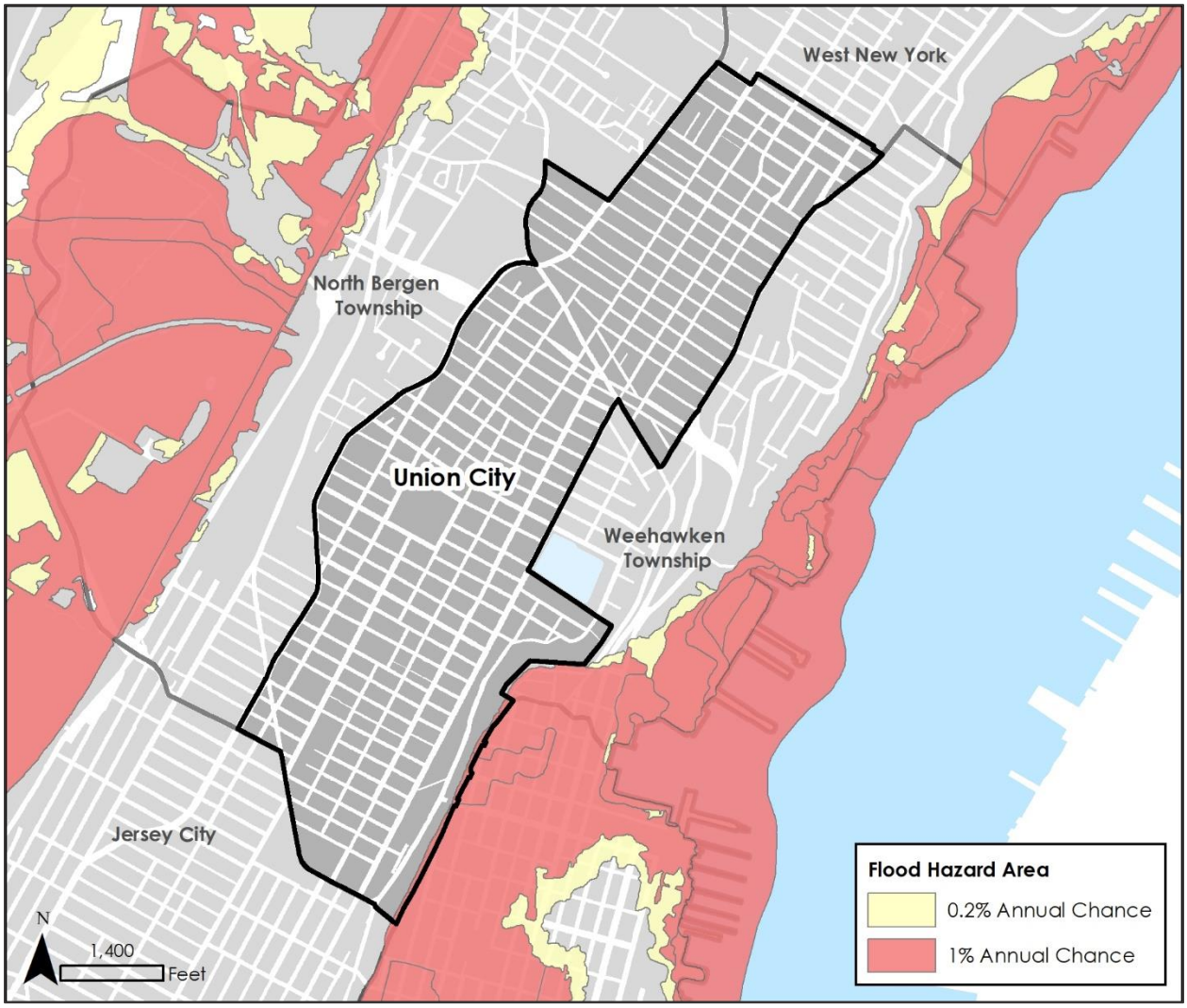
The 2020 HMP chronicles five drought events in Hudson County that have taken place since 2015:

- May 5, 2015 through June 22, 2015
- August 4, 2015 through January 18, 2016
- April 19, 2016 through April 10, 2017
- October 3, 2017 through October 31, 2017
- December 17, 2017 through February 12, 2018

Flooding

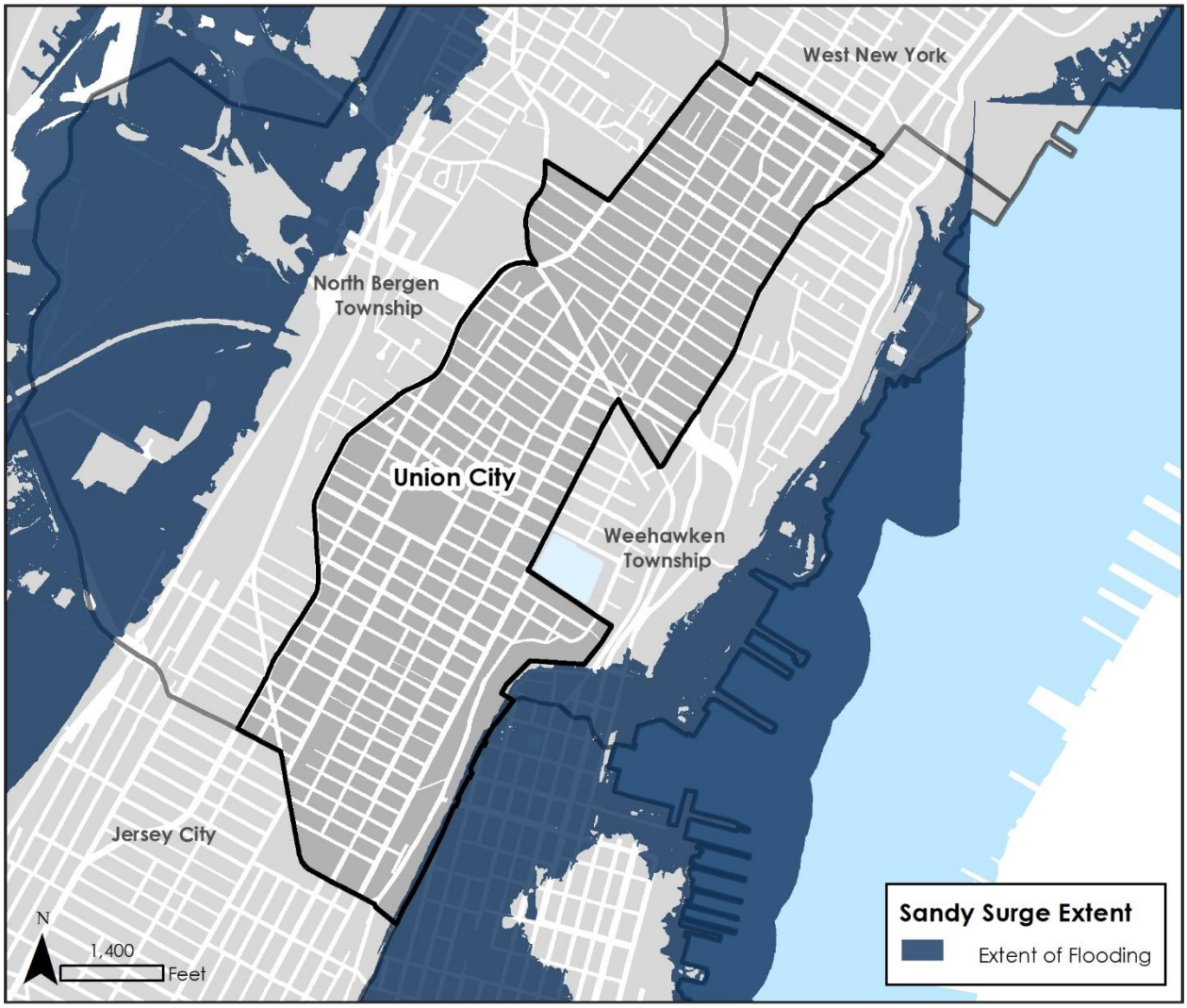
Given the City's distance from any major waterway, flooding from streams, rivers, tributaries, and tidal waters does not pose a risk to Union City. As shown on the below map, there are no buildings or portion of the population of Union City that falls within either the 100 or 500-year floodplain.

Union City Flood Hazard Area



The City is not threatened by storm surges, given its high altitude. The following map shows the storm surge from Super Storm Sandy, the most extreme recent weather event. Thanks to the Palisades, this storm surge did not affect the residents and business owners of Union City.

Union City Sandy Surge Extend



What does pose a risk, however, is an event known as "urban flooding," which occurs in densely populated urban areas with high amounts of impervious land coverings. Urban flooding is the result of heavy rainfall accompanied by insufficient drainage and can be caused by a variety of reasons, such as major storm events or infrastructure failure.[9] Union City identified urban flooding as an issue in their municipal snapshot in the 2020 HMP.

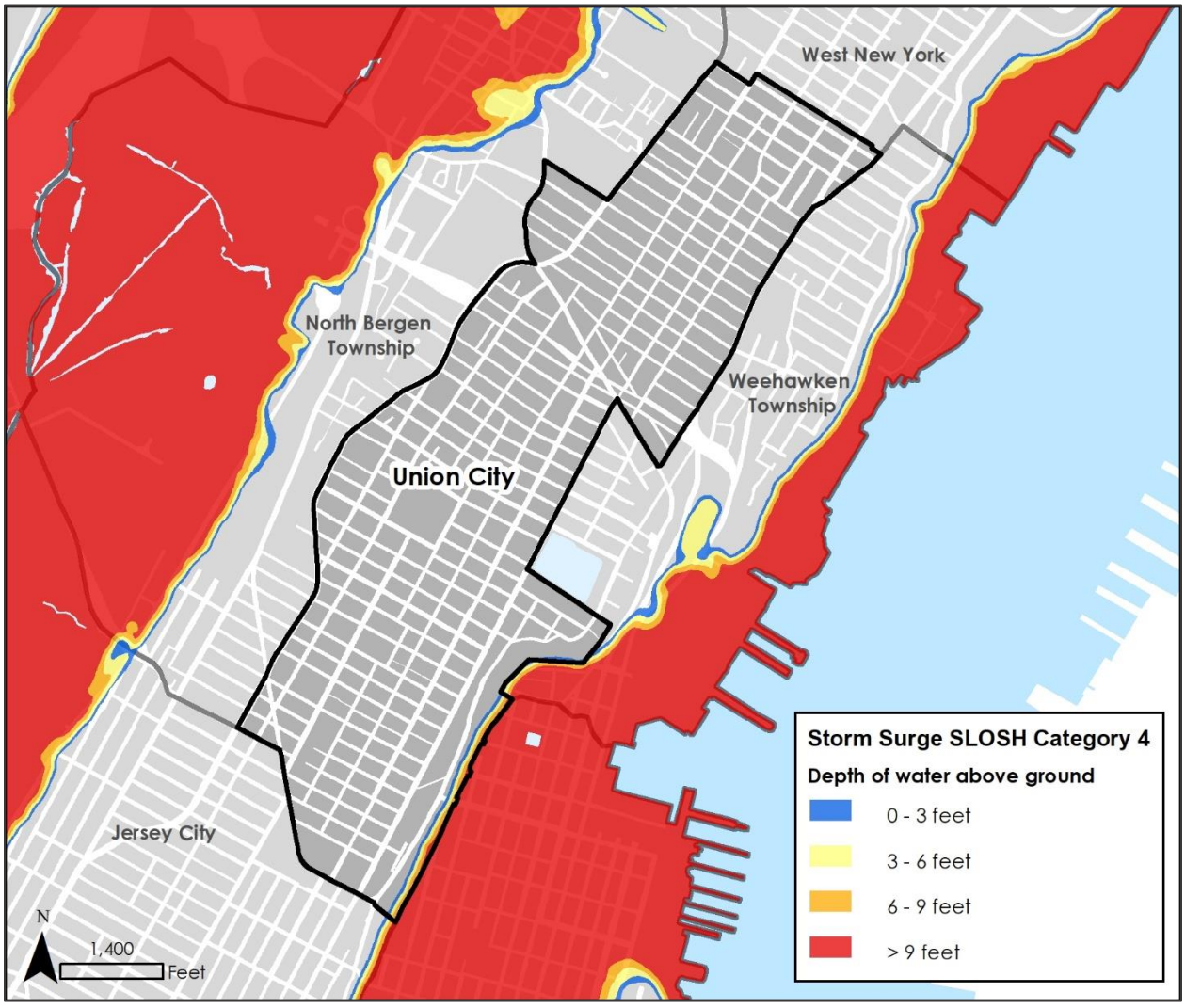
[9] 2020 Hudson County Hazard Mitigation Plan, Section 4.3.7. Flood

Hurricanes

As indicated in the previous section, Union City's vulnerability to urban flooding can be linked to major rain events, which could be a direct effect of a Hurricane. Pursuant to the 2020 HMP, a hurricane is classified as a tropical cycle, which is characterized by a low-pressure center and numerous thunderstorms that produce strong winds and heavy rain.

The SLOSH model, which stands for "sea, lake, and overland surges from hurricanes," provides a depiction of surges from hurricane events. As shown in the maps below, Union City is not at risk from surges from Category 1 through 4 hurricanes.[10]

Union City Storm Surge SLOSH Category 4



[10] The SLOSH ratings exclude Category 5 storms north of the North Carolina/Virginia border – https://www.nhc.noaa.gov/nationalsurge/

While the City is not affected by the storm surge from hurricanes, the wind that is associated with these events can be damaging. The hurricane rating system of Categroies 1 through 5 is based on a hurricane's sustained wind speed:, as found in the below table

Hurricane Wind Speed

Category	Wind Speed (mph)
1	74-95
2	96-110
3	111-156
4	130-156
5	>157

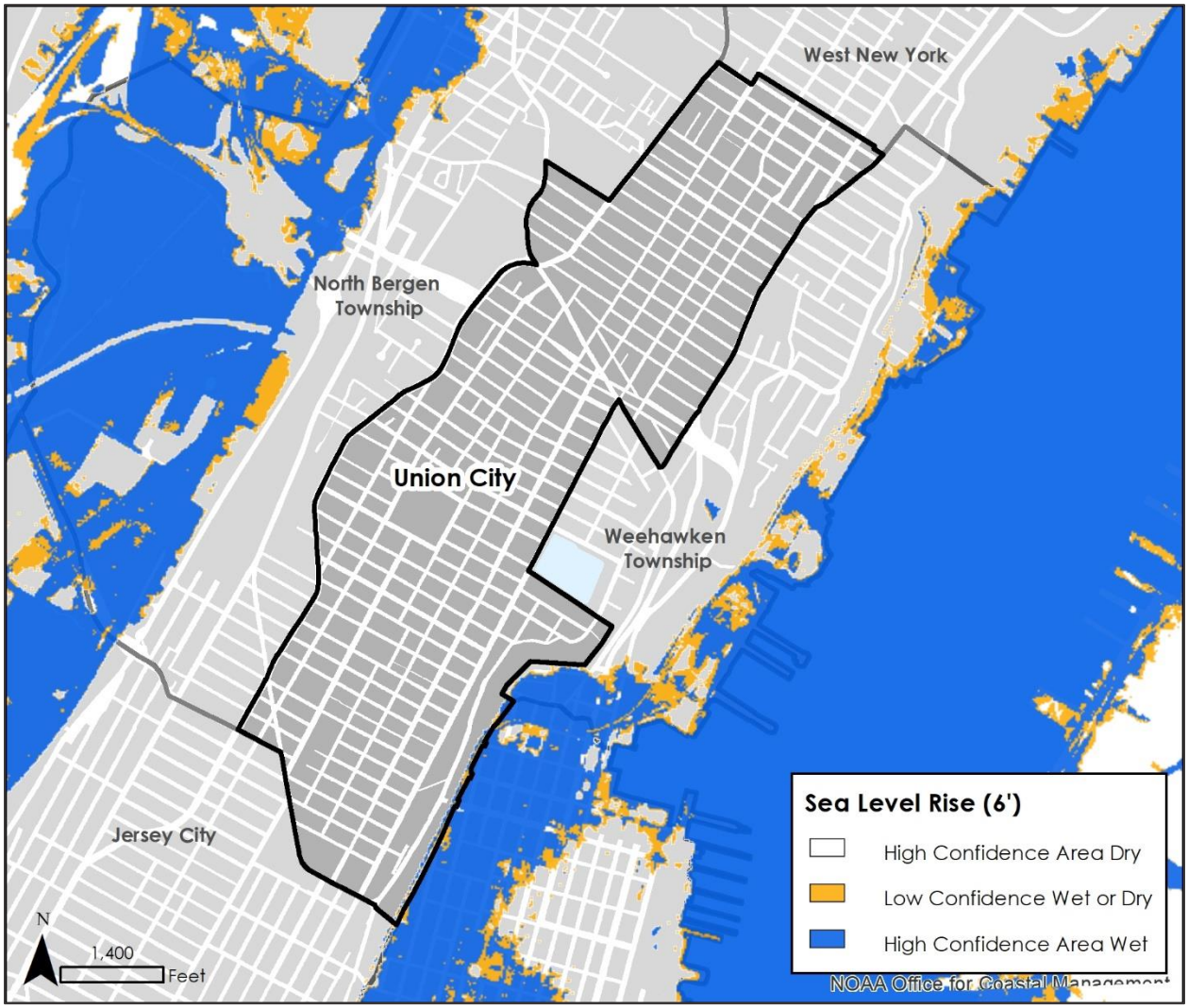
The 2020 HMP reviewed the estimated 3-second wind gust that would occur during 100- and 500-year storm events in Hudson County. For a 100-year storm event, the maximum 3-second gust wind speed ranges from 72 to 83 miles per hour, and for a 500-year storm event, the maximum 3-second gust wind speed ranges from 92 to 101 miles per hour. Union City reported damages of $6,821,114 during a 100-year storm event.

Strong winds can cause downed trees, damaged buildings, power outages, as well as injuries and potential loss of life.

Sea Level Rise

Sea level rise is caused by the added water from melting ice sheets and glaciers, as well as the expansion of sea water as it warms.[11] While Union City is technically near the Hudson River, its average elevation above 50 meters (+/- 164 feet) above sea level keeps it safe from future sea level rise. As indicated in the map below, even a 6-foot sea level rise would not affect any portion of the City.

Union City Sea Level Rise



[11] https://climate.nasa.gov/vital-signs/sea-level/

Build-Out Analysis

Development Trends

As one of the densest cities in America, Union City is left with little vacant available for development. The Existing Land Use section of this Element identifies that the amount of vacant land in the City has decreased over the last decade. GIS analysis of the MODIV tax data shows that there is approximately 25 acres of vacant land in the City, most of which is situated on the Palisades, which is nearly undevelopable due to the extremely steep slopes. Without the area in the Palisades, the remaining vacant land is approximately 8 acres scattered throughout the City.

Since 2000, the City has seen building permits issued for 2,230 new residential units, most of these in multifamily structures, which includes three-family buildings and up. The development trends reflect small scale redevelopment by which older, smaller residences are replaced by larger multifamily buildings.

Housing Units Authorized by Building Permits
City of Union City, Hudson County, New Jersey

Year	1 & 2 Family	Multifamily	Mixed-Use	Total
2000-2003*	-	-	-	767
2004	1	176	-	177
2005	-	76	-	76
2006	2	48	-	50
2007	-	348	-	348
2008	2	67	-	69
2009	2	76	-	75
2010	-	14	-	14
2011	-	2	-	2
2012	3	20	-	23
2013	5	36	-	41
2014	-	31	-	31
2015	-	175	-	175
2016	3	73	-	76
2017	1	154	-	155
2018	3	96	-	99
2019	2	48	-	50
2020	2	-	-	2
Total	**26**	**1,440**	**0**	**2,230**

Source: State of New Jersey Department of Community Affairs Building Permits: Yearly Summary Data
*The DCA Construction Reporter did not begin to report housing permits by type until 2004.

Build-Out Analysis

A typical build-out analysis would identify developable vacant acreage and properties designated for redevelopment as a base from which to project potential new construction. The next step would be to remove environmentally sensitive or otherwise undevelopable areas from the acreage. The net acreage remaining would be analyzed based on the development potential, or yield permitted by zoning. Residential density, floor area ratio, building coverage, impervious coverage, and other similar standards can be used to project the development potential.

In Union City, this exercise will not produce meaningful results. The vacant acreage in the City is scattered on small lots throughout the Residential, Neighborhood Commercial, and Multiple-Use Zones. One significant redevelopment parcel is in the Roosevelt Stadium Redevelopment Area.

In the Residential District, there are approximately 100 vacant parcels with a combined area of about 6.5 acres. A review of a sample of these properties shows that some are identified as vacant in the tax records but are in fact in the process of demolition or reconstruction. Pursuant to the current zoning ordinance that was amended in 2019, the permitted density of residential development is approximately 52 units per acre (assuming a three-family dwelling on a 2,500 square foot lot, which is the permitted model with the highest potential yield). The potential build-out of the vacant land in the Residential District is about 340 units.

In the Neighborhood Commercial District, there are about 20 vacant parcels with a combined area of approximately one acre. These are scattered parcels suitable for infill development with apartments and ground floor commercial storefronts. Individual developments are limited to three residential units per building, so the maximum development potential of these parcels is about 60 residential units and 20,000 -30,000 square feet of commercial space.

In the Multiple-Use District, there are two standalone parcels, each about 2,500 square feet. These parcels are well below the minimum lot area and the development of one- to three-family dwellings is not a permitted use. These parcels could be consolidated as part of a redevelopment project, but on their own have no appreciable development potential.

The Roosevelt Stadium Redevelopment Area has one vacant parcel that is about 0.6 acres in area. There has been consideration of amendments to the Redevelopment Plan and several development proposals have been identified for this property. Ultimately, the development potential is likely to be about 30 residential units.

Beyond vacant land, small scale redevelopment of expanding or replacing existing one- and two-family dwellings with three-unit buildings has been a consistent trend in Union City. Future build-out could include more such development. In addition, the application of the Local Redevelopment and Housing Law and

statutory redevelopment could permit larger scale projects, but at this time there is nothing that is reasonably certain to transpire that should be projected in the build-out analysis.

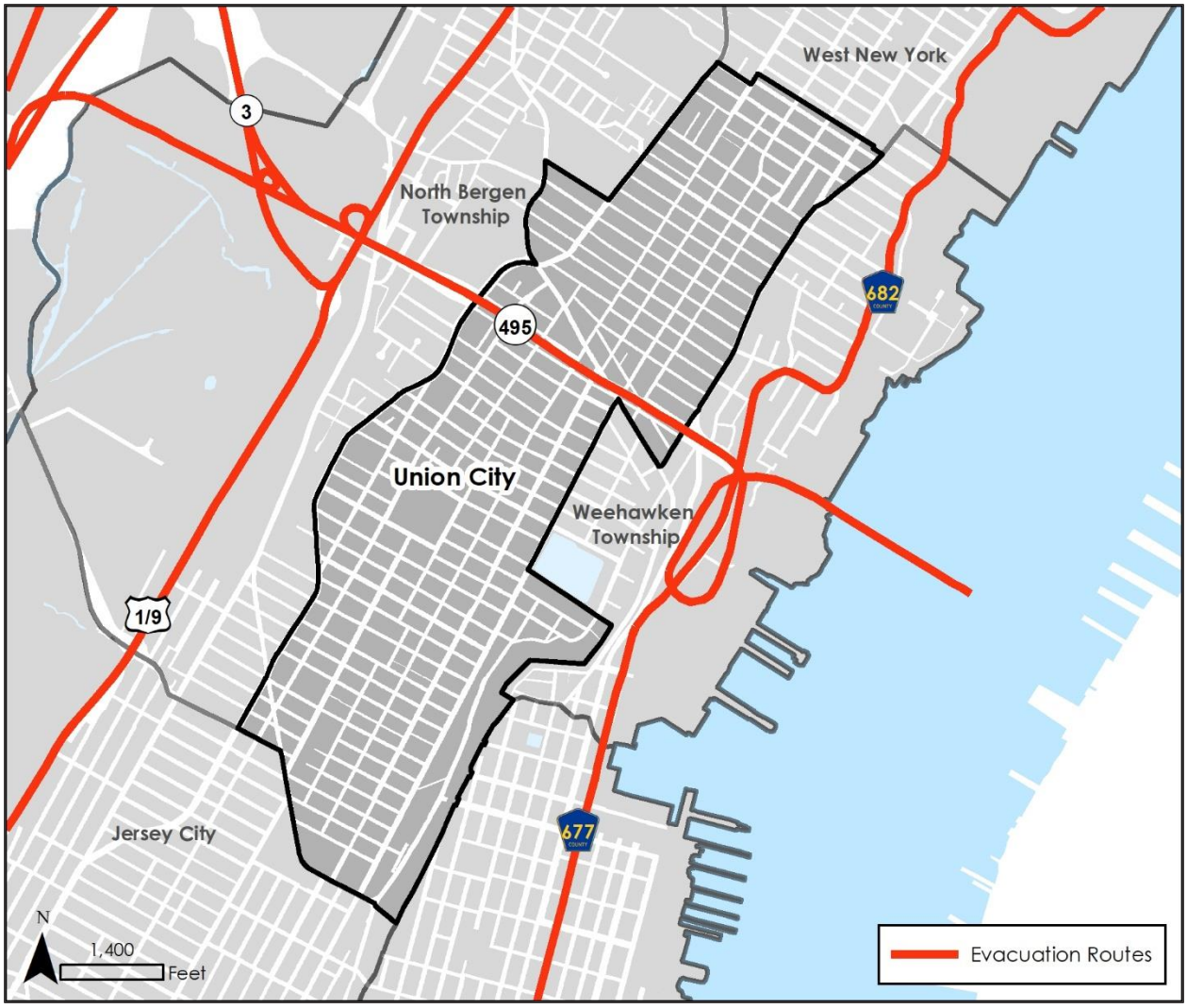
In summary, the potential build-out of the vacant land in Union City could yield a maximum of about 430 residential units and some neighborhood-scale commercial space. None of the potential new construction is in an area that is particularly vulnerable to climate change. The vacant parcels scattered throughout the City share the same risk associated with heat, wind, and sporadic urban flooding events as the rest of the existing properties. There is no concern about development within a flood hazard area, an area susceptible to sea level rise, or an area vulnerable to significant storm events.

Identification of facilities, utilities, roadways, and infrastructure necessary for evacuation and sustaining quality of life during a natural disaster

Evacuation Routes

The 2020 Hudson County HMP identifies Route 495 as the main evacuation route from Union City. Locally, 33rd Street is identified as the main connection to Route 495 to move people out of the City. The HMP recommends that 33rd Street be realigned to allow for better traffic flow during an emergency. Union City and the adjacent parts of Jersey City, Weehawken, North Bergen, and West New York are atop the Palisades and "high and dry" relative to any flooding and storm-related events. Local streets within the City and north-south routes between these towns are unlikely to be directly affected by sea level rise, flooding, and severe storm events.

Union City Evacuation Routes



Emergency Facilities

In Union City, the critical facilities for emergency response include fire stations, police stations, gas stations, and evacuation shelters. City Hall, the central location of Operations and Emergency Management and the Police Headquarters are located at 3715 Palisade Avenue in the north-central part of the City.

Police Facilities

- Downtown Precinct at 617 Bergenline Avenue
- Midtown Precinct at 2700 Bergenline Avenue

Fire Stations

The City is part of the North Hudson Regional Fire and Rescue squad that provides shared fire and emergency response services to Union City, North Bergen, West New York, Guttenberg, and Weehawken.

The North Hudson Regional Fire and Rescue is part of the Metro Urban Search and Recovery (USAR) Strike Team that responds to major emergency events.

- Rescue 2 / Ladder 1 / Battalion 1 – 1600 New York Avenue
- Deputy 1 / Engine 4 / Ladder 2 – 541 29th Street
- Engine 5 – 419 43rd Street

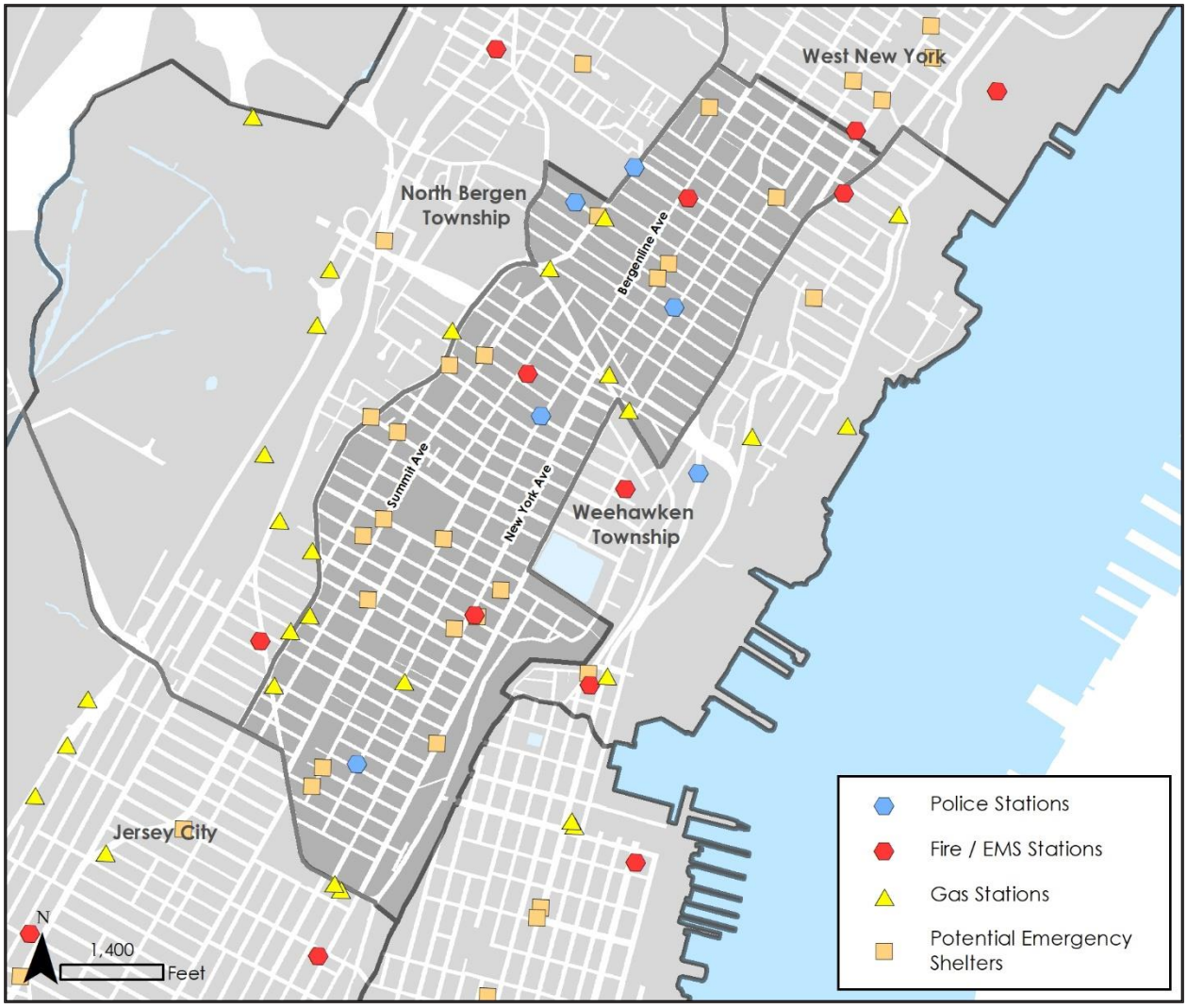
Potential Emergency Shelters

The Homeland Infrastructure Foundation – Level Data (HIFLD) is a subcommittee within the Department of Homeland Security (DHS) that is responsible for collecting geospatial data from all levels of government, processing it for uniformity and quality, and sharing with the end user. According to the emergency shelter data, there are eighteen locations within Union City that are potential shelters in case of emergency. These are facilities identified by either FEMA or the American Red Cross as places that can potentially house people in case of a disaster or emergency.

Gas Stations

Gas service stations are an important resource in case of power outage and during other emergency events. There are twelve gas stations in or immediately adjacent to the border of Union City. Seven of the gas stations are along the west side of the City on Kennedy Boulevard. Two are along Hackensack-Plank Road in the East-Central part of the City near 495. One is in the south-central part of the City at 417 12th Street. Two are just south of the City in Jersey City at New York Avenue and Paterson-Plank Road.

Union City Emergency Facilities



Potential impacts of natural hazards on components and elements of the Master Plan

Since Union City is located at high elevation and is not susceptible to flooding, sea-level rise, and storm surge effects, there is limited direct impact of natural hazards on the Land Use Element and other components of the Master Plan. The high percentage of impervious cover in the City is a consideration for stormwater management and localized flooding events. Extreme heat events in the summer may be exacerbated by the urban heat island effect. The City's Master Plan acknowledges the need for a broad look at sustainability related to climate impacts and will continue to work toward those efforts.

Strategies and design standards available to reduce or avoid risks associated with natural hazards.

As identified in the 2020 HMP, Union City would like to realign 33rd Street to increase access to the broader system of evacuation routes. The way the street is currently aligned does not allow for safe and efficient evacuation. During a significant evacuation event, traffic volumes would overwhelm the street, causing traffic jams during a time when free flow of traffic is crucial. The City indicated in the 2020 HMP that a traffic study/feasibility study will be conducted to determine the best way to reduce evacuation times by realigning 33rd Street. The City will in turn implement the solution identified in such study.

Other strategies identified in the 2020 HMP also include:

- Replace the roof on City Hall and the EMS building, which have been damaged by storm events. A new roof is needed to protect critical functions and continuity of operations at all times but specifically during emergencies.
- Installation of emergency generators at critical facilities, including City Hall, Emergency Medical Services Headquarters, Jose Marti Freshman Academy, and the Bruce Walter School Recreation Center.
- Purchase an additional Emergency Services vehicle that will be used for emergency response.
- Purchase GIS technology to better equip their Building Department.
- Repave and replace curbs on 47 Street, 49th Street, and Brown Street to prevent urban flooding issues and damage from snow events.
- Establish a Climate Change Resource contact person to collect materials from universities and state agencies.
- Update the Flood Damage Prevention Ordinance to include the state-mandated freeboard requirement.

A policy statement regarding consistency, coordination, and integration of the Vulnerability Assessment with various existing or proposed plans

Union City recently participated in the County's 2020 Hazard Mitigation Plan. It is the City's intention to continue to prepare for future hazards in a manner consistent with the 2020 HMP. This Land Use Element is intended to be consistent with and effectuate the Hudson County 2020 HMP.

LAND USE PLAN RECOMMENDATIONS

Residential Zoning

As Union City continues to evaluate the needs of their residents alongside the evolving trends and land uses seen within the City, the land use goals associated with preserving the neighborhood character have become even more important to maintaining a desired quality of life in Union City. In evaluating land development trends since the 2009 Land Use Element was written, there is a slight shift in development toward one- to four-family development and away from commercial and apartments.

Parking has historically been a critical issue in Union City. The City has attempted to provide multi-modal transportation options including access to the Hudson-Bergen Light Rail, NJ Transit bus service, and less formal jitney operations. However, the current transit options are not robust enough to provide a viable alternative to private automobile trips for many of the City's residents. With that reality in mind, the provision of adequate parking is an essential part of any new development.

The City amended its Zoning Ordinance in 2019 in response to recommendations from the 2019 Master Plan Reexamination Report. The 2019 Ordinance established new standards for the development of four-story three-family residential buildings on lots with a minimum of 2,500 square feet of area.

The ground floor garage design permitted in the 2019 Ordinance was intended to ensure that a minimum of two parking spaces per unit would be provided on-site for a new three-family dwelling. Since the Ordinance was adopted, the City has seen development applications employ the standards and has real-world examples of the design in operation. Despite the best efforts of the 2019 Ordinance, the parking design has not proven to be adequate. There are circulation and maneuverability issues that prevent the parking design from functioning as intended. It does not appear that there is a practical way to fit six parking spaces total (two per unit) on a 2,500 square foot lot.

The City's infrastructure is limited in its ability to handle the continued redevelopment of its small residential lots. The space needed to house the vehicles that accompany new residents of three-family homes does not exist on-site and there are ever fewer off-site options to handle the overflow. When the tenants of new three-family residences cannot park on-site, their only other option is to turn to street parking. The result is a spillover onto the streets, which already experience significant parking congestion. The additional burden this parking spillover places on the City's street parking is compounding the already serious parking problem and is creating further issues for residents.

In addition to the City's limited infrastructure and parking capacity, the execution of the 2019 Ordinance that has been implemented through predominately new three-family development is creating unintended impacts regarding the overall massing of these structures and their ramifications on the established neighborhood. Given the permitted 0-foot front setback requirement accompanied by the four-story height,

imposing “street walls” are constructed, creating an unfavorable dominating street feature at the right-of-way. The older, established residential neighborhoods within Union City were developed with buildings that are setback from the right-of-way line, and the new development is proving to appear of character and out of context with the established lots.

As a component of this Land Use Element, a land use analysis and build-out assessment were performed (see earlier sections). The result of those two analyses proved that Union City’s available, vacant, and developable land continues to shrink. Given that there is very little developable vacant land left within the City, the majority of future development can be expected to occur through infill development, teardowns of older buildings, and redevelopment. Since the 2019 Ordinance adoption, there has been an observed increase in the pattern of replacing one- and two-family structures with three-family models.

Not only does the redevelopment of these smaller lots create issues with massing, the resulting loss of existing one- and two-family dwellings is a cause for concern for Union City. The loss of these older structures is changing the neighborhoods that the residents consider part of the fabric and history of Union City. There is a desire to maintain these architecturally detailed buildings as they encapsulate the historic neighborhood character that has consistently remained an important feature for the City and its residents. The new three-family dwellings that are maxing out the sites are eliminating these characteristic one- and two-family residences and not replacing them with elements of equal detail. This loss has created negative consequences and is a trend the City wishes to reverse.

A new amendment to the City’s Residential Zoning District is recommended to address the parking and building massing problems associated with three-family dwellings on small lots. To address these concerns, the following changes are recommended:

- Changes to use:
    - Eliminate three-family dwellings as a principal permitted use.
- Changes to height:
    - The maximum height should be reduced from four stories and 45 feet to three stories and 38 feet to mitigate the towering feeling of the building at the right-of-way as well as in relation to neighboring properties.
    - Parking can still be accommodated on the ground floor with two stories of residential uses above. Based upon two units, four parking spaces would be required rather than six.
- Changes to coverage:
    - Building coverage and lot coverage should be reduced to 65 percent and 90 percent respectively to help reduce the massing of the structures.
    - The proposed building coverage will continue to allow for a large enough footprint to accommodate three-bedroom units.

- Changes to setbacks:
    - The front yard setback should be changed to a minimum of 7 feet and a maximum of 10 feet to allow for an open streetscape atmosphere. An applicant will have the option to build to the prevailing setback of the neighborhood or 7-foot minimum, whichever is greater. In no instance, however, can an applicant build closer to the right-of-way than 7 feet.
    - The rear yard setback should be increased to 20 feet to pull the massing of the building away from its neighbors and provide additional pervious space for residents.
    - The proposed setbacks will continue to allow for a large enough footprint to accommodate three-bedroom units.
    - The proposed increased setbacks continue to allow for a fairly large building footprint lot while simultaneously mitigating the negative effects of oversized buildings on smaller lots.
    - Parking spaces can be appropriately accommodated through ground floor garage parking.

§223-39 should be revised to reflect new R Zone bulk standards as follows (underlined items are those recommended to change):

R Residential Bulk Standards										
Minimum Lot Dimensions			**Yards – Principal Building**				**Max. Height - Principal Building**		**Max. Coverage**	
Area	**Width**	**Depth**	**Front**	**Side (one)**	**Side (both)**	**Rear**	**Stories**	**Feet**	**Building**	**Lot**
2,500 SF	25’	100’	Min: 7’ Max: 10’	Min: 2’	Min: 5’	Min: 20’	3	38’	65%	90%