



# 2015 Master Plan Reexamination Report and Amendment

Union Beach Borough  
Monmouth County, New Jersey

# 2015 Master Plan Reexamination Report and Amendment

ACCEPTED — July 29, 2015

Prepared for:



Union Beach Borough  
Monmouth County, New Jersey

Prepared by:



T&M Associates  
11 Tindall Road  
Middletown, NJ 07748

A handwritten signature in black ink, appearing to read "Stan Slachetka".

---

Stan Slachetka, PP, AICP  
NJ Professional Planner No.: 3508

A handwritten signature in black ink, appearing to read "Martin P. Truscott".

---

Martin Truscott, PP, AICP, LEED GA  
NJ Professional Planner No.: 2443

*The original of this document was signed  
and sealed in accordance with New Jersey Law*

**Planning Board Members**

Charles Steiner, Chairman  
Carol Schultz, Vice Chairman  
Mayor Paul Smith  
Councilman Larry Mascilak  
Sgt. Gabriel Farese  
Frank Wells  
Lloyd Coffey  
Laurette Wade  
Kenneth Connors  
Betty Lemkul  
Anthony Cavallo  
Councilman Louis Andreuzzi, Mayor Designee  
Madeline Russo, Secretary  
Edward G. Broberg, P.E., Board Engineer  
Rick DeNoia, Esq. Board Attorney

**Acknowledgements**

**Mayor and Council**

Paul J. Smith, Jr., Mayor  
Albin J. Wicki, Council President  
Jeffrey D. Williams, Councilman  
Charles Cocuzza, Councilman  
Louis Andreuzzi, Councilman  
Lawrence T. Mascilak, Councilman  
Cherlanne Roche, Councilwoman

## **Introduction**

The New Jersey Municipal Land Use Law (MLUL) requires that each municipality in New Jersey undertake a periodic review and reexamination of its local master plan. The purpose of the Reexamination Report is to review and evaluate the master plan and municipal development regulations on a regular basis in order to determine the need for updates and revisions. The Reexamination Report also reviews the progress of the borough in achieving its planning objectives, and to consider the need for changes in order to ensure that the municipal plan is current and meets the needs of the borough. The Planning Board of the Borough of Union Beach is responsible for completing the reexamination, and preparing and adopting by resolution a report on the findings of the reexamination.

The Borough of Union Beach adopted its last comprehensive master plan in 2005. The 2005 Master Plan includes a land use element, housing plan element, stormwater management plan element, and a recycling plan element. The 2015 Master Plan Reexamination Report serves as the first reexamination of the 2005 Master Plan and is informed by the experience of Hurricane Sandy.

The 2015 Master Plan Reexamination Report provides opportunities for examining community resiliency, and is the borough's response to Hurricane Sandy's impacts. It, therefore, places special emphasis on facilitating recovery from Hurricane Sandy, as well as promoting resiliency to future storm impacts and other potential natural hazards. To achieve this, the 2015 Master Plan Reexamination Report recommends a number of updates and revisions to the 2005 Master Plan, which have the combined effect of promoting resilience in the borough. These changes have been compiled and incorporated into a master plan amendment.

## **Impacts of Hurricane Sandy**

Hurricane Sandy struck the coast of New Jersey on October 29, 2012, and caused extensive damage to the Borough of Union Beach from high winds, storm surge, and floodwaters of up to ten feet. A total of 60 properties were completely destroyed, and 629 properties were substantially damaged. Approximately 24,500 tons of storm damage debris littered the borough. Trees and power lines fell throughout the borough, and electricity service was disrupted for over two weeks.

With the impacts of Hurricane Sandy so great, the Borough of Union Beach has significant concern and reason for promoting not only recovery from Sandy, but also

building resiliency to future storm impacts and other potential natural hazards. While the current 2015 Master Plan Reexamination Report is broad in scope, the experience of Hurricane Sandy and the need to build resiliency has influenced and informed its preparation.

## **The Local and Regional Reaction to Hurricane Sandy**

### **Strategic Recovery Planning Report**

As a response to Hurricane Sandy, the Borough of Union Beach adopted a Strategic Recovery Planning Report in 2014. The purpose of the Strategic Recovery Planning Report is to outline a recommended set of actions to guide the borough in promoting recovery from the impacts of Hurricane Sandy and resiliency to future storms. The actions recommended by the Strategic Recovery Planning Report have been incorporated and described in detail in the 2015 Master Plan Reexamination Report.

### **Monmouth County Multi-Jurisdictional All Hazard Mitigation Plan**

Monmouth County adopted its Multi-Jurisdictional All Hazard Mitigation Plan (HMP) in 2009. The Plan identifies natural hazards that could affect the county's jurisdictions, evaluates the risks associated with these hazards, and identifies the mitigation actions to lessen the impacts of a disaster on Monmouth County communities. Monmouth County employed a multi-jurisdictional approach to develop the plan, and every municipality in the county was invited to participate as an equal partner with the county. The county is in the process of updating the HMP to incorporate elements of mitigation planning post Hurricane Sandy. As part of its participation in the HMP outreach process, the Borough of Union Beach has collaborated with the county in the development of a list of recovery actions, which have been incorporated as recommendations in the Master Plan Reexamination Report.

## **Specific Changes Recommended for the Master Plan and Development Regulations**

To promote recovery from Hurricane Sandy and resiliency to future storms and other hazards over the long-term, the 2015 Master Plan Reexamination Report recommends a number of changes to the borough's municipal master plan and development regulations. These are outlined in the following subsections.

## **Changes to the Master Plan**

The 2015 Master Plan Reexamination Report recommends that the general objectives of the master plan be updated to reflect current conditions. In addition, the 2015 Master Plan Reexamination Report adds new objectives that are intended to promote sustainability and resiliency. The new sustainability- and resiliency-related objectives are outlined below:

### **Sustainability and Resiliency**

- Install a town-wide Supervisory Control and Data Acquisition (SCADA) system.
- Provide generators that can supply energy to the entire Municipal Building, the Department of Public Works complex, the Construction Department, and Memorial School.
- Relocate the Department of Public Works site out of a major flood prone area and plan for the appropriate reuse of the current site.
- Contract a construction company to perform sand and debris removal after natural disasters.
- Finish demolishing the approximate 98 “hazard” homes that remain standing and vacant.
- Amend flood zone lines in flood maps to more accurately depict which properties are truly at risk.
- Prepare a Capital Improvement Plan that will focus on municipal capital investments on public facilities, fleets, and equipment to build community resiliency in plants and equipment.
- Develop a GIS database and user interface to catalog all borough-owned infrastructure including roadways and stormwater and sanitary sewer collection systems.
- Encourage all new development to employ storm- resistant infrastructure and building strategies.
- Update the borough’s tax map and codify its ordinance.
- Increase and update street signage and signage on empty lots.
- Continue to increase the borough’s participation in FEMA’s Community Rating System (CRS).

- Work with the Army Corps of Engineers to implement the Army Corps of Engineers Shore Protection and Flood Control Project for Union Beach.
- Work with Monmouth County and the State of New Jersey to raise roadways to decrease the occurrence and severity of flooding.
- Consider the potential for relocating the Harris Garden Fire Company Building;
- Install flood warning signage.
- Remove debris and sediment accumulation from terrestrial waterways.
- Maintain existing shore protection features.
- Clean and maintain existing storm drains and inlets.
- Consider the potential for upgrades to existing emergency warning systems.

To reflect the recommendations of the 2015 Master Plan Reexamination Report, the 2015 Master Plan Amendment also contains a Land Use Element update that includes: updated existing and future land use mapping; updated wetlands and 100-year floodplain mapping; mapping of public facilities and other critical infrastructure; detailed information on specific land use changes that address coastal vulnerabilities; an update to the list of land use recommendations that was included in the original 2005 land use element; and, a discussion of green building and infrastructure techniques to aid the borough to build resiliency through development regulations.

### **Changes to Development Regulations**

In addition to the numerous changes to the borough's 2005 Master Plan, the 2015 Master Plan Reexamination Report recommends that the borough update its zoning policies to promote sustainable development and resilience to future storms through the use of green infrastructure and building techniques throughout the borough.

The 2015 Master Plan Reexamination Report also recommends that the borough revise its development regulations to:

- Provide design guidelines for ground level enclosures on elevated structures;
- Increase the minimum lot size in the B-1 district according to use;
- Revise the B-2 district on Route 36 to better reflect existing land use conditions;
- Increase lot sizes and setbacks in the B-2 district to encourage lot consolidation to encourage modern day commercial uses that require larger lot sizes; and,
- Consider adding a floor area ratio (FAR) requirement to control the intensity of both residential and commercial properties.

- Require a minimum separation between a solid fence and a dwelling on an adjoining lot.
- Update and revise the fee schedule to be more realistic relative to the municipal effort and expense.
- Be clearer in the definition of the number of permitted principal and accessory structures on each residential lot.
- Encourage the location of air conditioning units at the rear of the structure to minimize the potential impact on neighboring properties.
- Require that structures over 100 square feet be anchored for flood hazard purposes.
- Require the stabilization of disturbed areas prior to the issuance of a certificate of occupancy.

## **Summary**

Hurricane Sandy caused extensive damage in the Borough of Union Beach and exposed many vulnerabilities. While much has been done to promote recovery, additional work is needed. Furthermore, it is important to ensure that the master plan helps the borough to promote sustainable development and build resiliency to future storms. The 2015 Master Plan Reexamination Report and accompanying master plan amendments will help the borough to meet these needs.



## Table of Contents

|   |    |
|---|----|
| Master Plan Reexamination Report.....   | 1  |
| Introduction .....  | 1  |
| Requirements of the Reexamination Report .....  | 1  |
| Major Problems and Objectives in 2005.....  | 2  |
| Master Plan Objectives .....  | 2  |
| Land Use Plan Element .....   | 6  |
| Housing Plan Element.....   | 7  |
| Stormwater Management Plan Element.....   | 7  |
| Recycling Plan Element.....   | 9  |
| The Extent to Which Major Problems and Objectives in 2005 Have Been Reduced or Increased.....         | 9  |
| General Goals and Objectives .....  | 9  |
| Land Use Element .....  | 14 |
| Housing Plan Element.....   | 15 |
| Stormwater Management Plan Element.....   | 16 |
| Recycling Plan Element.....   | 16 |
| The Extent to Which There Have Been Significant Changes in Assumptions, Policies and Objectives ..... | 17 |
| Changes at the Local Level .....  | 17 |
| Hurricane Sandy .....   | 17 |
| Strategic Recovery Planning Report.....   | 17 |
| Demographic Changes .....   | 19 |
| Stormwater Management Plan .....  | 21 |
| Zoning Board of Adjustment Annual Reports .....   | 22 |
| Changes at the County Level .....   | 23 |
| Multi-Jurisdictional All Hazard Mitigation Plan .....   | 23 |

|  |    |
|--|----|
| Bayshore Regional Strategic Plan .....                                       | 24 |
| Water Quality Management Plan .....  | 25 |
| Summer Coastal Evacuation Routes Study .....                                 | 25 |
| Summer Coastal Population Study .....  | 26 |
| Changes at the State Level .....   | 26 |
| State Development and Redevelopment Plan/State Strategic Plan .....          | 26 |
| Affordable Housing (COAH).....   | 26 |
| Complete Streets .....   | 28 |
| Coastal Area Review Act (CAFRA).....   | 28 |
| Coastal Permit Program Rules and Coastal Zone Management Rules.....          | 28 |
| Time of Decision.....  | 29 |
| Solar and Wind Facilities as Permitted Uses in Industrial Zones.....         | 29 |
| Stormwater Management .....  | 29 |
| Green Buildings and Environmental Sustainability Element.....                | 29 |
| Redevelopment Case Law .....   | 30 |
| Changes at the Federal Level .....   | 30 |
| Flood Insurance Mapping.....   | 30 |
| Army Corp of Engineers Shore Protection Plan.....                            | 31 |
| Specific Changes Recommended for the Master Plan and Development Regulations | 31 |
| Changes to the Master Plan.....  | 31 |
| Master Plan Objectives .....   | 31 |
| Land Use Element .....   | 34 |
| Circulation Plan Element .....   | 35 |
| Changes to Development Regulations.....                                      | 35 |
| Land Use Plan.....   | 36 |
| Recommendations Concerning Redevelopment Plans .....                         | 37 |
| Master Plan Amendment .....  | 38 |

|  |    |
|--|----|
| Introduction .....                                       | 38 |
| Master Plan Objectives .....                             | 38 |
| Land Use Plan Element .....                              | 43 |
| Changes to the Land Use Plan: .....                      | 43 |
| Building Resiliency through Development Regulations..... | 49 |
| Green Building and Infrastructure Techniques.....        | 50 |
| Downspout Disconnection .....                            | 50 |
| Rain Gardens .....                                       | 50 |
| Bioswales .....  | 51 |
| Permeable Pavements .....                                | 51 |
| Green Roofs.....   | 51 |
| Tree Cover .....   | 52 |
| Living Shorelines.....                                   | 52 |
| Open Space Preservation .....                            | 52 |

## **List of Tables**

|  |    |
|--|----|
| Table 1: Population 1930–2010 .....                          | 19 |
| Table 2: Population Distribution 2000 and 2010 .....         | 20 |
| Table 3: Zoning Board of Adjustment Annual Report Data ..... | 22 |

## **List of Appendices**

|  |  |
|--|--|
| Appendix A: Existing Land Use Map  |  |
| Appendix B: Future Land Use Map  |  |
| Appendix C: Wetlands and 100-Year Floodplain Map   |  |
| Appendix D: Community Facilities Map   |  |
| Appendix E: Language on Bicycle and Pedestrian Linkages for Potential Inclusion in a<br>New Traffic Circulation Plan |  |

# Master Plan Reexamination Report

---

## Introduction

New Jersey's Municipal Land Use Law requires that each municipality in the state undertake a periodic review and reexamination of its local master plan. The purpose of the reexamination report is to review and evaluate the master plan and municipal development regulations on a regular basis in order to determine the need for updates and revisions. In addition, the preparation of a statutorily compliant reexamination report provides a legal presumption of validity of the municipal zoning ordinance. This report constitutes the master plan reexamination report for Union Beach Borough as required by the Municipal Land Use Law at NJSA 40:55D-89.

Union Beach Borough adopted its current master plan in 2005. The 2005 Master Plan includes a land use element, housing plan element, stormwater management plan element, and a recycling plan element. The current document (hereinafter referred to as the 2015 Master Plan Reexamination Report) serves as the first reexamination of the 2005 Master Plan.

While the 2015 Master Plan Reexamination Report is broad in scope, it has been prepared in light of the experience of Hurricane Sandy, which struck the coast of New Jersey on October 29, 2012 and brought extensive damage to Union Beach. It, therefore, places special emphasis on facilitating recovery from Hurricane Sandy's impacts, as well as promoting resiliency to future storm impacts and other potential natural hazards. To achieve this, the 2015 Master Plan Reexamination Report recommends a number of updates and revisions to the municipal master plan. These changes have been compiled into a master plan amendment, which is included in this volume.

## Requirements of the Reexamination Report

The Municipal Land Use Law requires that Union Beach Borough provide for the reexamination of the municipal master plan and development regulations at least once every ten years. The purpose of the reexamination is to review the progress of the borough in achieving its planning objectives, and to consider the need for changes in order to ensure that the municipal plan is current and meets the needs of the borough. The municipal planning board is responsible for completing the reexamination, and preparing and adopting by resolution a report on the findings of the reexamination.

The Municipal Land Use Law requires that the reexamination report state the following:

- The major problems and objectives relating to land development in the municipality at the time of the adoption of the last reexamination report.
- The extent to which such problems and objectives have been reduced or have increased subsequent to such date.
- The extent to which there have been significant changes in the assumptions, policies and objectives forming the basis for the master plan or development regulations as last revised, with particular regard to the density and distribution of population and land uses, housing conditions, circulation, conservation of natural resources, energy conservation, collection, disposition and recycling of designated recyclable materials, and changes in state, county and municipal policies and objectives.
- The specific changes recommended for the master plan or development regulations, if any, including underlying objectives, policies and standards, or whether a new plan or regulations should be prepared.
- The recommendations of the planning board concerning the incorporation of redevelopment plans adopted pursuant to the Local Redevelopment and Housing Law (NJSA 40A:12A-1 et seq.) into the land use plan element of the municipal master plan, and recommended changes, if any, in the local development regulations necessary to effectuate the redevelopment plans of the municipality.

The 2015 Master Plan Reexamination Report addresses each of these statutory requirements.

## **Major Problems and Objectives in 2005**

The following subsections describe the major problems and objectives of Union Beach Borough at the time of the 2005 Master Plan.

### **Master Plan Objectives**

The 2005 Master Plan identified the following objectives:

- Residential
  - Preserve and protect the existing residential character of the borough. Require that infill development be compatible with the neighborhood and conform to the setbacks of existing buildings on the block.
  - In developed areas, limit new development and infill development that increases the intensity of neighborhood land and property use.
  - Ensure that public and quasi-public land use remains compatible with the needs and character of adjacent neighborhoods.
  - Limit developments that would generate a high volume of traffic on local streets.

- Encourage the maintenance and preservation of residential properties.
- Identify sources of funds for rehabilitation of residential dwellings and provide assistance to property owners in procuring funds.
- Promote preservation and restoration of housing that has historical significance when feasible.
- Commercial
  - Continue the improvement of commercial properties in the borough.
  - Strive to enhance and retain existing businesses and promote new business development along commercially zoned areas of Route 36, Union Avenue, Florence Avenue, and Front Street.
  - Provide for adequate parking to serve established residential and commercial areas. Incorporate adequate parking into new developments.
  - Encourage shared parking when appropriate to meet parking demands while limiting the amount of impervious surfaces.
  - Require buffering around commercial properties to soften the visual and functional impact of their design and use.
  - Strictly enforce sign regulations.
  - Encourage revitalization of commercial properties that need rehabilitation or improvement.
  - Encourage upgrading of commercial properties and their surroundings.
  - Encourage the development of small-scale commercial and office uses and encourage the design of buildings with a residential scale in the Office-Residential District.
  - Create attractive gateways at the principal entrances to the borough through upgraded land uses, streetscape improvements and signage.
- Circulation
  - Increase bicycle/ pedestrian safety and circulation at key intersections by utilizing traffic calming measures and providing bike lanes that connect with the Henry Hudson Trail and community facilities throughout the borough.
  - Ensure a well-maintained and safe circulation system.
  - Coordinate maintenance and improvement actions with neighboring communities and Monmouth County.
  - Monitor areas with high traffic accident rates and develop improvement programs.
  - Discourage developments that do not meet minimum frontage requirements on public or private roads.

- Encourage circulation patterns that are compatible with land use goals and public safety.
- Improve the appearance of intermediate and major thoroughfares, such as Route 36, Union Avenue, and Florence Avenue.
- Encourage landscaping along intermediate and major thoroughfares to buffer residential and non-residential land uses from the noise and pollution of vehicle traffic.
- Cooperate with New Jersey Department of Transportation and adjacent communities to improve the appearance of entranceways into the borough from Route 36.
- Economic Development and Redevelopment
  - Encourage the development of a diversified economic base that generates employment growth, provides increased tax ratables, increases income levels, and promotes the reuse of underutilized properties.
  - Focus economic activity in the borough's economic centers including the International Flavor and Fragrance Company, JCP&L properties and existing non-residential areas. Recognize the unique character of each area and promote development that will strengthen and reinforce market niches.
  - Capitalize on the borough's competitive advantages for economic development purposes including its location in the New Jersey/ New York City region, extensive transportation and quality of life.
- Housing
  - Preserve established residential character wherever possible by preventing the intrusion of incompatible commercial and industrial uses into residential neighborhoods and promoting the rehabilitation of substandard units.
  - Provide a balance of housing options to meet the needs of all residents including low- and moderate-income housing and market rate housing.
  - Encourage residential rehabilitation to improve substandard units and preserve neighborhood stability.
  - Encourage the development of housing that is affordable to younger couples and families seeking to remain in, or move to, the borough.
  - Promote the development of senior citizen housing that enables older residents to "age in place" including independent living, assisted living, and congregate care housing.
  - Enforce the property maintenance code to improve the aesthetic and image of the borough.



- Review the possibility of adopting a “growth share” ordinance to capture opportunities for new affordable housing and address the borough’s growth share obligation as new development occurs.
- Community Facilities and Utility Infrastructure
  - Provide adequate sewer and water services to meet the demands of proposed economic development and a growing population in a manner that will limit sprawl and promote concentrated development.
  - Improve stormwater management facilities along the bay front, roads, and intersections through effective infrastructure, maintenance, and replacement.
  - To achieve the stormwater quality standards established by the NJ Department of Environmental Protection.
  - Preserve and upgrade the existing utility infrastructure including water, stormwater management, and wastewater treatment. Continue rehabilitation programs while pursuing selected replacement and expansion projects in order to accommodate growth and revitalization.
  - Encourage regularly scheduled infrastructure maintenance consistent with long-range plans to avoid system failures.
  - Study and periodically review future service needs and implementation methods.
  - Continue trash reduction, reuse, and recycling efforts in cooperation with appropriate county, regional, and state agencies.
  - Maximize the use of existing and planned facilities consistent with the efficient use of public funds.
  - Maintain facilities that are in current use and renovate or reuse obsolete facilities for other uses.
  - Cooperate with surrounding communities, county, and state organizations to make the best use of available public facilities.
- Open Space and Recreation
  - Provide adequate park, open space, and recreational facilities for all borough residents.
  - Cooperate with public and quasi-public institutions to utilize and maintain recreation facilities and their undeveloped land for open space or recreation.
  - Consider the preparation of a recreation and open space plan element.
- Community Identity
  - Develop and effectively communicate a strong and appealing identify for the borough.
  - Create attractive, memorable “gateways” into the borough.

- Develop and implement streetscape projects for major public thoroughfares.
- Preserve and protect historic and major natural features in the borough.
- Enhance and maintain the appearance of community facilities and borough owned properties.
- Encourage higher quality architectural and landscape design through the use of design standards.
- Encourage neighborhoods to improve their aesthetic appeal and identity.
- Culture
  - To encourage sensitive design in the conversion and re-use of the building and their environment and to mitigate the effect of adjoining developments.
  - Expand recreational and cultural facilities and services.

### **Land Use Plan Element**

The 2005 Land Use Element outlined a number of specific recommendations for changes to the land development ordinance. These are outlined below:

- Rezone the O-R zone adjacent to Bayview Avenue to R-8.
- Remove multi-family dwellings as a conditionally permitted use in the R-8 district.
- Create a new Townhouse district in accordance with the Land Use Plan Element.
- Eliminate the B-3 district on Front Street in accordance with the Land Use Plan.
- Create a Public (P) district along the Raritan Bay Waterfront.
- Rezone areas of the B-1 district to align with the rear lot line of properties.
- Furthermore redraw the B-1 zone district line, one parcel to the south in accordance with the Future Land Use Plan.
- Increase the minimum lot size in the B-1 district based upon use.
- Revise the B-2 district on Route 36 to better reflect existing land use conditions.
- Increase lot sizes and setbacks in the B-2 district to encourage lot consolidation to encourage modern day commercial uses that require larger lot sizes.
- Create a new land use vision for the Corporate Campus (CC) district in accordance with recommendations from the Smart Growth Grant.
- Consider adding a floor area ratio (FAR) requirement to control the intensity of both residential and commercial properties.
- A complete overhaul to the borough's sign ordinance should be undertaken. Areas of emphasis include appropriate commercial signage along Union Avenue and Highway 36.
- The zoning ordinance should be amended to indicate densities in all residential zoning districts.

- Update the fee schedule for application and review fees consistent with neighboring communities.
- Create a new ordinance and user-friendly manual that clearly articulates guidelines for raising housing out of the floodplain. Such an ordinance should provide a purpose statement and indicate when a variance is required.
- Permit family daycare homes in all districts.
- The maintenance of residential and commercial property in a few areas of the borough is substandard. New policies and implementation strategies are needed to upgrade property maintenance and the image of the borough. This process should begin as a municipal effort at the Department of Public Works yard and continue to the remaining portions of the borough.
- Revise the ordinance to limit the number of consecutive attached townhouses. Create specific regulations for townhouses which:
  - Maximize views to the waterfront from the public realm;
  - Are constructed at a height that is compatible with surrounding properties; and,
  - Are architecturally compatible with surrounding properties; and,
- Create an ordinance to grandfather existing single-family residential units in every zoning district.

### **Housing Plan Element**

The borough adopted a third round housing element in 2005. The 2005 Housing Element outlined the means by which Union Beach intended to meet its fair share affordable housing obligation. Since the adoption of the 2005 Housing Element, however, there have been numerous legal challenges and resulting changes to the COAH process and rules. As a result, the borough may need to adopt a new housing element and fair share plan. Please see the section “Affordable Housing (COAH)” of this report for an expanded discussion of the challenges to the COAH process and the impacts they have on the borough.

### **Stormwater Management Plan Element**

The 2005 Stormwater Management Plan Element identified the following goals and objectives:

- Reduce flood damage, including damage to life and property;
- Minimize, to the extent practical, any increase in stormwater runoff from any new development or redevelopment;
- Reduce soil erosion from any development, redevelopment or construction project;

- Seek to assure the adequacy of existing and proposed culverts and bridges, and other in-stream structures;
- Maintain groundwater recharge;
- Prevent, to the greatest extent feasible, an increase in non-point pollution;
- Maintain the integrity of stream channels for their biological function, as well as for drainage;
- Minimize pollutants in storm water runoff from new and existing development to restore, enhance, and maintain the chemical, physical, and biological integrity of the waters of the state, to protect public health, to safeguard fish and aquatic life and scenic and ecological values, and to enhance the domestic, municipal, recreational, industrial, and other uses of water;
- Protect public safety through the proper design and operation of stormwater basins and best management practices; and,
- Increase public awareness of stormwater management through public education.

### **Floodplain Management Plan**

The Borough adopted a Floodplain Management Plan in September 2003 that included four (4) goals and seven (7) recommendations. The goals are as follows:

- Goal 1: Increase resident awareness of the impacts of tidal flooding on the Borough and measures that can be implemented to reduce the risks of flooding.
- Goal 2: Acquire additional property along the Bayshore, along streams and flood prone areas to reduce the number of dwellings that are subject to flooding.
- Goal 3: Encourage new development and construction to implement the best management practices and soil erosion and sediment control measures.
- Goal 4: Control development in areas subject to frequent flooding in order to avoid or mitigate the detrimental effects of development on the environment and the safety, health and general welfare of the people of Union Beach.

The recommendations consisted of implementation of a complete flood protection system, acquisition of property in the flood hazard areas for preservation, adoption of zoning measures to accommodate new base flood elevations, encouragement of flood-proofing, capital improvements to improve drainage systems to reduce flooding, continuation of the operation of emergency/flood warning notifications and implementation of erosion and sediment controls

## Recycling Plan Element

The major problem identified in the 2005 Recycling Plan Element is that there is a lack of enforcement powers. The recycling plan element notes that the borough's recycling contractor is required to inform the borough's recycling coordinator if residents are recycling improperly, but record keeping is difficult to enforce and maintain.

## The Extent to Which Major Problems and Objectives in 2005 Have Been Reduced or Increased

The extent to which the major problems and objectives identified in the 2005 Master Plan have been reduced or increased is discussed in the following subsections.

### General Goals and Objectives

The objectives of the 2005 Master Plan are listed below. Commentary on the extent to which major problems and objectives have been reduced or increased is provided in italics:

- Residential
  - Preserve and protect the existing residential character of the borough. Require that infill development be compatible with the neighborhood and conform to the setbacks of existing buildings on the block. *This objective remains valid. In addition, infill development should conform to the published flood elevations of the Federal Emergency Management Agency.*
  - In developed areas, limit new development and infill development that increases the intensity of neighborhood land and property use. *This objective remains valid.*
  - Ensure that public and quasi-public land use remains compatible with the needs and character of adjacent neighborhoods. *This objective remains valid. In addition, public and quasi-public development should conform to the published flood elevations of the Federal Emergency Management Agency and include other flood protection measures.*
  - Limit developments that would generate a high volume of traffic on local streets. *This objective remains valid.*
  - Encourage the maintenance and preservation of residential properties. *This objective remains valid. In addition, the enhancement of residential properties with the latest in flood protection mechanisms and other techniques to promote resiliency should also be encouraged.*
  - Identify sources of funds for rehabilitation of residential dwellings and provide assistance to property owners in procuring funds. *This objective remains valid.*

*Sources of funds to restore and elevate dwellings above the advisory base flood elevation should also be identified.*

- Promote preservation and restoration of housing that has historical significance when feasible. *This objective remains valid.*
- Commercial
  - Continue the improvement of commercial properties in the borough. *This objective remains valid.*
  - Strive to enhance and retain existing businesses and promote new business development along commercially zoned areas of Route 36, Union Avenue, Florence Avenue, and Front Street. *While this objective remains valid for Route 36 and Union Avenue, commercial zoning has been deleted from Florence Avenue and Front Street as a result of recommendations made in the land use element of the 2005 Master Plan. However, it is important for the Borough to have a sustainable economic base and this reexamination report recommends revisions to the future land use plan for Union Avenue and Front Street.*
  - Provide for adequate parking to serve established residential and commercial areas. Incorporate adequate parking into new developments. *This objective remains valid.*
  - Encourage shared parking when appropriate to meet parking demands while limiting the amount of impervious surfaces. *This objective remains valid.*
  - Require buffering around commercial properties to soften the visual and functional impact of their design and use. *This objective remains valid.*
  - Strictly enforce sign regulations. *This objective remains valid. In particular, regulations for temporary signage should be strictly enforced. There has been a problem with temporary signage not being removed in a timely manner; this should be abated. In addition the sign regulations should be reviewed to insure that they are up-to-date and appropriate for the types of businesses within the Borough and on the highway.*
  - Encourage revitalization of commercial properties that need rehabilitation or improvement. *This objective remains valid. Enhanced flood protection should also be encouraged.*
  - Encourage upgrading of commercial properties and their surroundings. *This objective remains valid.*
  - Encourage the development of small-scale commercial and office uses and encourage the design of buildings with a residential scale in the Office-Residential District. *This objective remains valid.*

- Create attractive gateways at the principal entrances to the borough through upgraded land uses, streetscape improvements and signage. *This objective remains valid and is addressed in the Commercial Corridors Resiliency Plan.*
- Circulation
  - Increase bicycle/ pedestrian safety and circulation at key intersections by utilizing traffic calming measures and providing bike lanes that connect with the Henry Hudson Trail and community facilities throughout the borough. *This objective remains valid.*
  - Ensure a well-maintained and safe circulation system. *This objective remains valid.*
  - Coordinate maintenance and improvement actions with neighboring communities and Monmouth County. *This objective remains valid.*
  - Monitor areas with high traffic accident rates and develop improvement programs. *This objective remains valid.*
  - Discourage developments that do not meet minimum frontage requirements on public or private roads. *This objective remains valid.*
  - Encourage circulation patterns that are compatible with land use goals and public safety. *This objective remains valid.*
  - Improve the appearance of intermediate and major thoroughfares, such as Route 36, Union Avenue, and Florence Avenue. *This objective remains valid.*
  - Encourage landscaping along intermediate and major thoroughfares to buffer residential and non-residential land uses from the noise and pollution of vehicle traffic. *This objective remains valid.*
  - Cooperate with New Jersey Department of Transportation and adjacent communities to improve the appearance of entranceways into the borough from Route 36. *This objective remains valid.*
- Economic Development and Redevelopment
  - Encourage the development of a diversified economic base that generates employment growth, provides increased tax ratables, increases income levels, and promotes the reuse of underutilized properties. *This objective remains valid.*
  - Focus economic activity in the borough's economic centers including the International Flavor and Fragrance Company, JCP&L properties and existing non-residential areas. Recognize the unique character of each area and promote development that will strengthen and reinforce market niches. *This objective remains valid.*
  - Capitalize on the borough's competitive advantages for economic development purposes including its location in the New Jersey/ New York City region, extensive transportation and quality of life. *This objective remains valid.*

- Housing
  - Preserve established residential character wherever possible by preventing the intrusion of incompatible commercial and industrial uses into residential neighborhoods and promoting the rehabilitation of substandard units. *This objective remains valid.*
  - Provide a balance of housing options to meet the needs of all residents including low- and moderate-income housing and market rate housing. *This objective remains valid.*
  - Encourage residential rehabilitation to improve substandard units and preserve neighborhood stability. *This objective remains valid. Enhanced flood protection measures should also be encouraged.*
  - Encourage the development of housing that is affordable to younger couples and families seeking to remain in, or move to, the borough. *This objective remains valid.*
  - Promote the development of senior citizen housing that enables older residents to “age in place” including independent living, assisted living, and congregate care housing. *This objective remains valid.*
  - Enforce the property maintenance code to improve the aesthetic and image of the borough. *This objective remains valid.*
  - Review the possibility of adopting a “growth share” ordinance to capture opportunities for new affordable housing and address the borough’s growth share obligation as new development occurs. *This objective requires modification based on the New Jersey Supreme Court’s March 2015 decision concerning affordable housing.*
- Community Facilities and Utility Infrastructure
  - Provide adequate sewer and water services to meet the demands of proposed economic development and a growing population in a manner that will limit sprawl and promote concentrated development. *This objective remains valid.*
  - Improve stormwater management facilities along the bay front, roads, and intersections through effective infrastructure, maintenance, and replacement. *This objective remains valid.*
  - To achieve the stormwater quality standards established by the NJ Department of Environmental Protection. *This objective remains valid.*
  - Preserve and upgrade the existing utility infrastructure including water, stormwater management, and wastewater treatment. Continue rehabilitation programs while pursuing selected replacement and expansion projects in order to accommodate growth and revitalization. *This objective remains valid.*



- Encourage regularly scheduled infrastructure maintenance consistent with long-range plans to avoid system failures. *This objective remains valid.*
- Study and periodically review future service needs and implementation methods. *This objective remains valid.*
- Continue trash reduction, reuse, and recycling efforts in cooperation with appropriate county, regional, and state agencies. *This objective remains valid.*
- Maximize the use of existing and planned facilities consistent with the efficient use of public funds. *This objective remains valid.*
- Maintain facilities that are in current use and renovate or reuse obsolete facilities for other uses. *This objective remains valid.*
- Cooperate with surrounding communities, county, and state organizations to make the best use of available public facilities. *This objective remains valid.*
- Open Space and Recreation
  - Provide adequate , open space, and recreational facilities for all borough residents. *This objective remains valid.*
  - Cooperate with public and quasi-public institutions to utilize and maintain recreation facilities and their undeveloped land for open space or recreation. *This objective remains valid.*
  - Consider the preparation of a recreation and open space plan element. *This objective remains valid.*
- Community Identity
  - Develop and effectively communicate a strong and appealing identify for the borough. *This objective remains valid. The borough needs signage to identify assets (e.g., beach, parks, Henry Hudson Trail, fishing beach, etc.). In addition, a high-quality appearance should be maintained by enforcing local regulations (e.g., signage regulations).*
  - Create attractive, memorable “gateways” into the borough. *This objective remains valid and is addressed in the Commercial Corridors Resiliency Plan, which was adopted in May 2015.*



- Develop and implement streetscape projects for major public thoroughfares. *This objective remains valid.*
- Preserve and protect historic and major natural features in the borough. *This objective remains valid.*
- Enhance and maintain the appearance of community facilities and borough owned properties. *This objective remains valid.*
- Encourage higher quality architectural and landscape design through the use of design standards. *This objective remains valid, and is important for both residential and non-residential development.*
- Encourage neighborhoods to improve their aesthetic appeal and identity. *This objective remains valid.*
- Culture
  - To encourage sensitive design in the conversion and re-use of the building and their environment and to mitigate the effect of adjoining developments. *This objective remains valid.*
  - Expand recreational and cultural facilities and services. *This objective remains valid.*

## Land Use Element

The 2005 Land Use Element outlined a number of specific recommendations for changes to the land development ordinance. The status of these changes is presented below (*commentary in italicized text*):

- Rezone the O-R zone adjacent to Bayview Avenue to R-8. *This has been completed.*
- Remove multi-family dwellings as a conditionally permitted use in the R-8 district. *This has been completed.*
- Create a new Townhouse district in accordance with the Land Use Plan Element. *This has been completed.*
- Eliminate the B-3 district on Front Street in accordance with the Land Use Plan. *This has been completed.*
- Create a Public (P) district along the Raritan Bay Waterfront. *This has been completed.*
- Rezone areas of the B-1 district to align with the rear lot line of properties. Furthermore, redraw the B-1 zone district line, one parcel to the south in accordance with the Future Land Use Plan. *The district has been aligned with the rear lot line of properties.*
- Increase the minimum lot size in the B-1 district based upon use. *This is still valid.*
- Revise the B-2 district on Route 36 to better reflect existing land use conditions. *This is ongoing.*

- Increase lot sizes and setbacks in the B-2 district to encourage lot consolidation to encourage modern day commercial uses that require larger lot sizes. *This is ongoing.*
- Create a new land use vision for the Corporate Campus (CC) district in accordance with recommendations from the Smart Growth Grant. *This has been completed.*
- Consider adding a floor area ratio (FAR) requirement to control the intensity of both residential and commercial properties. *The Planning Board reviewed floor area provisions several years ago and decided not to pursue such requirements.*
- A complete overhaul to the borough's sign ordinance should be undertaken. Areas of emphasis include appropriate commercial signage along Union Avenue and Highway 36. *This is still valid.*
- The zoning ordinance should be amended to indicate densities in all residential zoning districts. *This is still valid.*
- Update the fee schedule for application and review fees consistent with neighboring communities. *This remains to be completed.*
- Create a new ordinance and user-friendly manual that clearly articulates guidelines for raising housing out of the floodplain. Such an ordinance should provide a purpose statement and indicate when a variance is required. *This is ongoing.*
- Permit family daycare homes in all districts. *This has been completed.*
- The maintenance of residential and commercial property in a few areas of the borough is substandard. New policies and implementation strategies are needed to upgrade property maintenance and the image of the borough. This process should begin as a municipal effort at the Department of Public Works yard and continue to the remaining portions of the borough. *This is still valid. It appears that part of the problem may be attributable to absentee landlords.*
- Revise the ordinance to limit the number of consecutive attached townhouses. Create specific regulations for townhouses which:
  - Maximize views to the waterfront from the public realm;
  - Are constructed at a height that is compatible with surrounding properties; and,
  - Are architecturally compatible with surrounding properties. *This has been completed; and,*
- Create an ordinance to grandfather existing single-family residential units in every zoning district. *This has been completed.*

## Housing Plan Element

Although, as has been previously stated, the borough will need to eventually adopt a new housing element and fair share plan when legal issues surrounding the COAH process are resolved, it should be noted that the targeted goals of the borough's housing

policy, which is outlined in the housing plan element, remain valid. These goals are listed below:

- Preserve established residential character wherever possible by preventing the intrusion of incompatible commercial and industrial uses into residential neighborhoods and promoting the rehabilitation of substandard units;
- Provide a balance of housing options to meet the needs of all residents including low- and moderate-income housing and market rate housing;
- Encourage residential rehabilitation to improve substandard units and preserve neighborhood stability;
- Encourage the development of housing that is affordable to younger couples and families seeking to remain in, or move to, the borough;
- Promote the development of senior citizen housing that enables older residents to “age in place” including independent living, assisted living and congregate care housing; and,
- Enforce the property maintenance code to improve the aesthetics and image of the borough.

### **Stormwater Management Plan Element**

While the goals and objectives of the Stormwater Management Plan Element remain valid, the plan should be updated to incorporate information on the latest technologies for stormwater management, including green infrastructure techniques. By ensuring that Union Beach Borough has access to the latest in stormwater management technologies, it will become more environmentally sustainable and resilient to future storms.

### **Recycling Plan Element**

Union Beach Borough’s recycling plan element remains valid. In the aftermath of Hurricane Sandy, however, a total of approximately 24,500 tons of storm damage debris littered the borough. This was burdensome and made disaster recovery difficult. In light of this experience, the Recycling Plan Element should be amended to identify strategies to make the removal of storm damage debris more efficient in the future. One such strategy is the establishment of a contract with a construction company for sand and debris removal to be performed after natural disasters. By establishing such a contract before a disaster happens, borough resources can be more used efficiently in times of crisis.

## The Extent to Which There Have Been Significant Changes in Assumptions, Policies and Objectives

The following changes in assumptions, policies and objectives relating to land use and development in Union Beach Borough are noted:

### Changes at the Local Level

As indicated in the following subsections, there have been considerable changes at the local level since the adoption of the 2005 Master Plan.

#### Hurricane Sandy

Hurricane Sandy struck the coast of New Jersey on October 29, 2012, and brought extensive damage to Union Beach Borough from high winds, storm surge, and floodwaters of up to ten feet. A total of 60 properties were completely destroyed, and 629 properties were substantially damaged. Approximately 24,500 tons of storm damage debris littered the borough. Trees and power lines fell throughout the borough, and electricity service was disrupted for over two weeks.

With the impacts of Hurricane Sandy so great and the vulnerabilities so significant, Union Beach Borough has serious concern and reason for promoting not only recovery from Sandy, but also building resiliency to future storm impacts and other potential natural hazards. While the current 2015 Master Plan Reexamination Report is broad in scope, the experience of Hurricane Sandy and the need to build resiliency has influenced and informed its development.

#### Strategic Recovery Planning Report

As a response to Hurricane Sandy, Union Beach Borough prepared and adopted a Strategic Recovery Planning Report in 2014. The purpose of the Strategic Recovery Planning Report is to



outline a recommended set of actions to guide the borough in promoting recovery from the impacts of Hurricane Sandy and resiliency to future storms.

The actions recommended by the Strategic Recovery Planning Report are as follows:

- Reexamine the borough’s master plan elements and prepare a sustainability element to address post-Sandy strategies and policies related to hazard mitigation, community resiliency, and forecasted sea level rise and its impacts. This should involve amending the goals and objectives, incorporating areas of redevelopment, as well as up-to-date mapping of current land uses, new FEMA mapping, community facilities, and important natural resources areas.
- Develop a GIS database and user interface to catalog and inventory all infrastructure that is owned by the borough, including roadways and its stormwater and sanitary sewer collection systems. This will include up-to-date GPS mapping of the utility infrastructure, as well as inventory and classification of the road network to build a borough-wide capital improvement plan.
- Prepare a capital improvement plan to identify needed capital improvements to improve local resiliency.
- Automate, update, and expedite the borough’s system for processing zoning and construction permits, including allowing inspectors to receive and manage permits with state of the art technology such as laptops and electronic tablets.
- Renew efforts to make the Route 36 Corridor redevelopment area a priority. This should involve promoting new business and economic development as well as non-residential design standards.
- Relocate Union Beach’s Department of Public Works site out of a major flood prone area, to include redevelopment of the current site.
- Prepare a redevelopment plan and design standards for the area to the north of the Brook Avenue Neighborhood.
- Finish demolishing the approximate 98 “hazard” homes that remain standing and vacant.
- Amend flood zone lines in flood maps to more accurately depict which properties are truly at risk to flooding.
- Increase and update signage on streets and on empty lots.
- Continue to increase borough participation in the Federal Emergency Management Administration's Community Rating System (CRS) program.
- Install a town-wide Supervisory Control and Data Acquisition (SCADA) system in conjunction with the borough’s owned and operated facilities (including Borough Hall and Police Department, fire houses, etc.) to communicate critical alarms to a centralized location or operational personnel.

- Provide generators that can supply energy to the entire Municipal Building (including the administration side of the building), the DPW complex, the Construction Department (temporarily housed at the Florence Avenue School Administration Building), and Memorial School (which is used as an evacuation area).
- Contract a construction company for sand and debris removal after natural disasters.
- Update the borough’s tax map and codify the borough’s ordinance.

Implementation of the recommendations that have been listed above will promote recovery from Hurricane Sandy, and increased resiliency to future storms. Where relevant, individual actions are discussed elsewhere in this report.

### Demographic Changes

Since the adoption of the 2005 Master Plan, 2010 US Census information has been released. This information demonstrates that Union Beach Borough’s population has declined by 6.1 percent in the period from 2000 and 2010. By comparison, the populations of Monmouth County and the State of New Jersey grew by 2.5 percent and 4.5 percent, respectively. While it is too early to reliably tell if the population decrease that the borough experienced between 2000 and 2010 is the start of a long-term trend, it is important to note that the borough’s population also declined by 1.8 percent in the period from 1970 to 1980, and by 3.1 percent in the period from 1980 to 1990; the borough experienced growth in all other decades since at least 1930. Table 1 depicts historical population development of Union Beach Borough, Monmouth County, and the State of New Jersey from 1930 onwards.

**Table 1: Population 1930–2010**

|         | Union Beach Borough |        | Monmouth County |        | New Jersey |        |
|---------|---------------------|--------|-----------------|--------|------------|--------|
|         | Population          | Change | Population      | Change | Population | Change |
| 1930    | 1,893               | —      | 147,209         | —      | 4,041,334  | —      |
| 1940    | 2,076               | 9.7%   | 161,238         | 9.5%   | 4,160,165  | 2.9%   |
| 1950    | 3,636               | 75.1%  | 225,327         | 39.7%  | 4,835,329  | 16.2%  |
| 1960    | 5,862               | 61.2%  | 334,401         | 48.4%  | 6,066,782  | 25.5%  |
| 1970    | 6,472               | 10.4%  | 461,849         | 38.1%  | 7,171,112  | 18.2%  |
| 1980    | 6,354               | -1.8%  | 503,173         | 8.9%   | 7,365,011  | 2.7%   |
| 1990    | 6,156               | -3.1%  | 553,124         | 9.9%   | 7,730,188  | 5.0%   |
| 2000    | 6,649               | 8.0%   | 615,301         | 11.2%  | 8,414,350  | 8.9%   |
| 2010    | 6,245               | -6.1%  | 630,380         | 2.5%   | 8,791,894  | 4.5%   |
| Average | —                   | 19.2%  | —               | 21.0%  | —          | 10.5%  |

Source: US Census Bureau

In the period from 2000 to 2010, the borough’s population has aged. The median age in the borough (38.6 in 2010) increased by 4.2 years between 2000 and 2010, while the median age in the county (41.3 in 2010) increased by 3.6 years during the same time period. This development is supported by the fact that, from 2000 to 2010, the borough saw a significant increase of 10.4 percent in the percentage of the population aged 45 and over. For comparison, the percentage of population aged over 45 grew by only 7.8 percent in Monmouth County. There were declines of -10.6 percent and -7.8 percent in the under-45 age cohorts between 2000 and 2010 in Union Beach Borough and Monmouth County, respectively. The percentage of 2000 and 2010 populations by age cohort for Union Beach Borough and Monmouth County are listed in Table 2.

Population trends within Union Beach Borough are influenced by a variety of factors including national, state, and regional economic conditions, social changes, and government policy. Changing birth rates, changing employment trends and consumer preferences, the availability of land, flood insurance rates, and other factors can affect future development within the borough. The planning board should monitor population growth and composition and review its planning program to determine how the needs and desires of present and future residents of Union Beach Borough may be changing.

**Table 2: Population Distribution 2000 and 2010**

|             | 2000 Population |        | 2010 Population |        | Change (2000–2010) |        |
|-------------|-----------------|--------|-----------------|--------|--------------------|--------|
|             | Borough         | County | Borough         | County | Borough            | County |
| Under 5     | 7.3%            | 6.9%   | 6.0%            | 5.5%   | -1.3%              | -1.4%  |
| 5-14        | 16.8%           | 15.1%  | 13.2%           | 13.7%  | -3.6%              | -1.4%  |
| 15-24       | 13.4%           | 11.0%  | 13.7%           | 12.4%  | 0.3%               | 1.4%   |
| 25-34       | 13.8%           | 12.2%  | 12.1%           | 10.3%  | -1.7%              | -1.9%  |
| 35-44       | 19.3%           | 18.2%  | 15.0%           | 13.7%  | -4.3%              | -4.5%  |
| 45-54       | 14.1%           | 15.0%  | 18.0%           | 17.6%  | 3.9%               | 2.6%   |
| 55-64       | 8.0%            | 9.1%   | 12.7%           | 13.0%  | 4.7%               | 3.9%   |
| 65 and Over | 7.5%            | 12.5%  | 9.3%            | 13.8%  | 1.8%               | 1.3%   |
| Total       | 100.0%          | 100.0% | 100.0%          | 100.0% | 0.0%               | 0.0%   |
| Median Age  | 34.4            | 37.7   | 38.6            | 41.3   | 4.2                | 3.6    |

Source: US Census Bureau

With regard to household size, it is noted that the average household size in Union Beach Borough at the time of the 2010 US Census was 2.91 persons, which is greater than the average household size of 2.66 persons in Monmouth County. A potential explanation for this is the higher median age in the county. Aging populations tend to live in smaller households due to a lower number of children present. The US Census



Bureau defines a household as one or more persons, whether related or not, living together in a dwelling unit.

With regard to the number of households in Union Beach Borough, it is noted that there were a total of 2,143 in 2010. This is the same number of households that existed in 2000. The number of households in a particular area is synonymous with the number of occupied housing units. Thus, in 2010, there were 2,143 occupied housing units in Union Beach Borough. In 2010, there were also 126 vacant housing units in the Borough, which results in a total of 2,269 housing units in Union Beach Borough at the time of the 2010 US Census. By comparison, there were 2,229 housing units in 2000, including 2,143 occupied housing units and 86 vacant housing units. Thus, the number of housing units increased by 40 units, the number of occupied housing units remained steady, and the number of vacant units increased by 40 units in the period from 2000 to 2010.

With regard to the number of housing units that have been developed in the period since the time of the 2010 US Census, it is noted that the New Jersey Construction Reporter indicates that a total of 51 certificates of occupancy and 284 demolition permits have been issued from April 1, 2010 through December 2014. This results in a net loss of 233 residential housing units. When subtracted to the number of housing units reported by the 2010 US Census, it is estimated that there were 2,036 housing units in December 2014. The loss of units may, at least partially, be attributed to Hurricane Sandy.

### **Stormwater Management Plan**

The borough originally adopted its stormwater management plan in 2005, and subsequently amended it in 2007. The purpose of the 2007 amendment was to address comments made by the Stormwater Technical Advisory Committee of the Monmouth County Planning Board during its review of the plan as originally adopted in 2005. The goals of the amended stormwater management plan are:

- Reduce flood damage, including to life and property;
- Minimize, to the extent practical, any increase in stormwater runoff from any new development or redevelopment;
- Reduce soil erosion from any development, redevelopment or construction project;
- Seek to assure the adequacy of existing and proposed culverts and bridges, and other in-stream structures;
- Maintain groundwater recharge;
- Prevent, to the greatest extent feasible, an increase in non-point pollution;
- Maintain the integrity of stream channels for their biological function, as well as for drainage;

- Minimize pollutants in stormwater runoff from new and existing development to restore, enhance, and maintain the chemical, physical, and biological integrity of the waters of the state, to protect public health, to safeguard fish and aquatic life and scenic ecological values, and to enhance the domestic, municipal, recreational, and other uses of water;
- Protect public safety through the proper design and operation of stormwater basins and best management practices;
- Increase public awareness of stormwater management through public education;
- Improve stormwater management along the bay front, roads and intersections through effective infrastructure, maintenance and replacement;
- To achieve the stormwater quality standards established by the New Jersey Department of Environmental Protection;
- Preserve and upgrade existing utility infrastructures, including water, stormwater management and wastewater treatment;
- Encourage regularly scheduled infrastructure maintenance consistent with long-range plans to avoid system failure;
- Maintain facilities that are in current use and renovate or reuse obsolete facilities for other uses; and,
- To encourage sensitive design in the conservation and re-use of the buildings and their environment and to mitigate the effects of adjoining developments.

Implementation of the amended stormwater management plan will promote recovery from Hurricane Sandy, and increased resiliency to future storms.

### Zoning Board of Adjustment Annual Reports

The Zoning Board of Adjustment releases an annual report that summarizes its actions in the calendar year. Summaries of the board’s actions in 2010, 2011, 2012, 2013, and 2014 can be found in the Table 3. Please note that there were no applications in 2013.

**Table 3: Zoning Board of Adjustment Annual Report Data**

| Year | Total Applications | Ap-proved | Denied | With-drawn | Total Variance Requests | Most Frequent Variance           |
|------|--------------------|-----------|--------|------------|-------------------------|----------------------------------|
| 2010 | 6                  | 7         | 0      | 0          | 7                       | Construct Single Family Dwelling |
| 2011 | 6                  | 7         | 1      | 0          | 8                       | Not Available                    |
| 2012 | 8                  | 8         | 0      | 0          | 8                       | Site Plan Review                 |
| 2013 | 0                  | 0         | 0      | 0          | 0                       | Not Applicable                   |
| 2014 | 4                  | 2         | 0      | 1          | 4                       | Not Available                    |

Source: Union Beach Borough Zoning Board of Adjustment Annual Reports

## Changes at the County Level

Since the adoption of the 2005 Master Plan, there have been several changes at county level, including the adoption of the Bayshore Regional Strategic Plan and the preparation of: an updated multi-jurisdictional all hazard mitigation plan; an updated water quality management plan; and studies on the seasonal population in the county's Shore Region and summer coastal evacuation routes.

In addition to the above, it is important to note that Monmouth County is in the process of updating its comprehensive master plan. As of January 2015, however, the updated plan was incomplete. It is important that the borough continue to monitor the county's progress in updating its comprehensive master plan.

### Multi-Jurisdictional All Hazard Mitigation Plan

The Multi-Jurisdictional All Hazard Mitigation Plan was originally prepared in 2009 and is in the process of being updated to comply with requirements of the Federal Emergency Management Authority. The October 2014 draft update identifies natural hazards that could affect the county, evaluates associated risks, and identifies strategies to mitigate them. It is intended to fulfill the county's obligations under the federal Disaster Mitigation Act of 2000, the fulfillment of which results in eligibility to apply for federal aid for technical assistance and post-disaster hazard mitigation project funding.

The October 2014 draft plan update of the Multi-Jurisdictional All Hazard Mitigation Plan indicates that Union Beach may be vulnerable to: extreme temperatures; extreme winds; hurricanes and tropical storms; lightning; nor'easters; tornados; winter storms; coastal erosion; drought; floods; storm surge; wave action; earthquakes; and, wildfires. To mitigate the risks associated with these natural hazard types, the draft plan update identifies the following local actions:

- Implementing the Army Corps of Engineers Shore Protection and Flood Control Project for Union Beach;
- Elevating homes above the advisory base flood elevation;
- Raising roadways to decrease the occurrence and severity of flooding;
- Relocating the main building of the Department of Public Works;
- Relocating the Harris Garden Fire Company Building;
- Installing flood warning signage;
- Removing debris and sediment accumulation from terrestrial waterways;
- Maintaining existing shore protection features;
- Constructing a stone revetment wall along the Raritan Bay Waterfront;
- Cleaning and maintaining existing storm drains and inlets; and,

- Upgrading the borough’s existing emergency warning system.

### **Bayshore Regional Strategic Plan**

The Bayshore Regional Strategic Plan was adopted in 2006. It emphasizes the importance of pursuing common objectives and working together to resolve regional planning issues (e.g., struggling downtown businesses, challenges posed to the region’s historic maritime character by physical and market forces, waterfront areas and open space access is compromised by new development, lack of resources, etc.). It contains a number of action-oriented, regional visions relating to economic development, waterfront and open space, transportation, and housing. The following visions are relevant to Union Beach:

- **Economic Development Visions**
  - Downtown areas are revitalized for economic development and job growth, to serve local needs—in keeping with the historic maritime setting—and as places that attract tourists.
  - Route 36 is a road with an attractive streetscape that unifies the Bayshore Region and provides an upgraded mix of land uses compatible with the lower density and environmental sensitivity of the region.
  - The unique maritime heritage of the areas is preserved. The region’s cultural, arts, historic, waterfront and natural resources are “selling points” that attract visitors to the region and spur economic development.
- **Waterfront and Open Space Visions**
  - The natural beauty of the waterfront is enhanced and made more accessible.
  - The unique maritime heritage of the area is preserved.
  - The few remaining large tracts of upland natural areas are preserved and enhances for open space and flood protection where appropriate and feasible to preserve open space, protect the natural environment, or provide flood protection.
- **Transportation Visions**
  - Traffic flow is improved along Route 36 on summer weekends and at the Route 35/Route 36/Garden State Parkway hub.
  - The region takes advantage of and expands its excellent transit access, including train, bus, and ferry service, with strategically placed multimodal facilities (e.g., parks and rides) and mixed-use development.
  - Route 36 is a transportation corridor that provides for safe and efficient vehicular, transit, and pedestrian circulation without diverting regional traffic to local streets.

- Route 36 and Henry Hudson Trail are better integrated into the region to improve awareness and access to Bayshore communities, thereby contributing to economic development through tourism.
- Housing Visions
  - New housing and upgrades to existing housing are in keeping with community character and scale of the area.
  - A mix of housing types and affordability is maintained.

In addition to outlining the aforementioned regional strategies, the Bayshore Regional Strategic Plan envisions that Union Beach's natural areas will be preserved, recreational opportunities will be enhanced, and land uses along Route 36 will be upgraded. The plan also identified Conaskonk Point as a location where the borough should facilitate a public/private initiative to provide public access.

#### **Water Quality Management Plan**

In August 2011, the Monmouth County Planning Board held a public hearing on an updated, countywide Wastewater Management Plan in conjunction with the New Jersey Department of Environmental Protection. The updated plan conforms to current rules and regulations. The updated plan was adopted in April 2013.

For the most part, the revised Wastewater Management Plan does not impact properties in Union Beach. The areas of the borough that are not identified as within the sewer services area are located within stream corridors that cannot be developed due to topography or state regulations. Therefore, the changes to the Wastewater Management Plan are not expected to affect development in Union Beach Borough.

#### **Summer Coastal Evacuation Routes Study**

The Monmouth County Coastal Evacuation Routes Study was prepared in 2008 to evaluate how the current coastal evacuation route system could be improved and possibly expanded to help move people out from the flood zones. The report was created for use by the county and municipalities to plan and program operations and system improvements that will make evacuation from flood areas safer and more efficient. Through stakeholder group meetings, issues with evacuation were identified in Union Beach. These issues include the facts that: the Jug Handle at Route 36 and Union Avenue is susceptible to flooding; Florence Avenue (County Route 39) floods; and, that delays are often experienced along Route 36's westbound approaches at busy intersections including at Florence Avenue (County Route 39).

### **Summer Coastal Population Study**

The Monmouth County Planning Department undertook a study in 2008 to estimate the seasonal population increases of the county's Shore Region during the summer months. The purpose of this study was to support emergency and non-emergency transportation planning, and the Monmouth County Coastal Evacuation Routes Study, in particular. The Shore Region includes the county's Coastal and Bayshore Planning Regions, as well as portions of the county's Central Region. It was found that the average summer daytime population increases about 73 percent over the Shore Region's year-round population.

### **Changes at the State Level**

As indicated in the following subsections, there have been considerable changes at the state level since the adoption of the 2005 Master Plan.

#### **State Development and Redevelopment Plan/State Strategic Plan**

The Office of Planning Advocacy, which is located within the Department of State, now staffs the State Planning Commission. The Office of Planning Advocacy has released a draft State Strategic Plan to supersede the current State Development and Redevelopment Plan. Public Hearings were held in February, March, and September of 2012. The draft State Strategic Plan is based upon a criteria-based system rather than a geographic planning area. The draft State Strategic Plan has not been adopted by the State Planning Commission at this time and was put on hold following Hurricane Sandy. Union Beach Borough should continue to monitor the progress of the new plan and its implication for future planning in the borough.

The 2001 State Development and Redevelopment Plan remains current.

#### **Affordable Housing (COAH)**

COAH originally adopted affordable housing rules for the third round period in 2004. However, an Appellate Division decision in 2007 stayed COAH from reviewing any plans as part of a petition for substantive certification, and resulted in a remand of the 2004 rules back to COAH to revise them consistent with the Appellate Division decision. COAH subsequently adopted revised third round rules in 2008.

In 2010, the Appellate Division invalidated COAH's 2008 third round rules, and the "growth share" methodology upon which they were based. In 2013, the New Jersey Supreme Court upheld and modified the Appellate Division's 2010 decision that invalidated COAH's third round rules. As a result, COAH was then charged with the task of adopting new affordable housing rules.

COAH has since failed twice to adopt new affordable housing rules for the third round period. Due to COAH's failure to adopt such rules, the New Jersey Supreme Court concluded on March 10, 2015 that there no longer exists a legitimate basis to block access to the courts, which was the original intent of the COAH process. The New Jersey Supreme Court's March 10 decision notes that: "parties concerned about municipal compliance with constitutional affordable housing obligations are [now] entitled to such access, and municipalities that believe they are constitutionally compliant[,] or that are ready and willing to demonstrate ... compliance [with such obligations,] should be able to secure declarations that their housing plans and implementing ordinances are presumptively valid in the event they ... must defend [themselves] against exclusionary zoning litigation."

In its March 10 decision, the New Jersey Supreme Court established a transitional process to not immediately allow exclusionary zoning actions to proceed in court. The decision notes that: "[d]uring the first thirty days following [June 8, 2015] ..., the only actions that will be entertained by the courts will be declaratory judgment actions filed by any [municipality] ... that either (1) had achieved substantive certification from COAH under prior iterations of Third Round Rules before they were invalidated, or (2) had "participating" status before COAH. Assuming [that] any such [municipality] ... waits and does not file a declaratory judgment action during [the] ... thirty-day period, an action may thereafter be brought by a party against [the municipality] ..., provided the action's sole focus is on whether the [municipality's] ... housing plan meets its Mount Laurel obligations (a constitutional compliance challenge). The court's evaluation of a [municipality's] ... plan that had received substantive certification, or that will be submitted to the court as proof of constitutional compliance, may result in the [municipality's] ... receipt of the judicial equivalent of substantive certification and accompanying protection as provided under the [Fair Housing Act] ...."

Union Beach does not fall into criteria 1 or 2 outlined in the transitional process described above. As a result, the Borough was not eligible to file a declaratory judgment action prior to July 8, 2015. Moving forward, the Borough should review and evaluate its affordable housing obligation and the extent to which it has already addressed this obligation to determine the appropriate course of action for the Borough, including preparing an update to its current Housing Plan Element.

### **Complete Streets**

In late 2009, the New Jersey Department of Transportation (NJDOT) adopted a Complete Streets Policy. A “complete street” is defined by the NJDOT as a “means to provide safe access for all users by designing and operating a comprehensive, integrated, connected multi-modal network of transportation options.” The intent of the policy is to provide streets to meet the needs of all types of users and all modes of circulation, including walking, biking, cars, trucks, and buses.

As of October 2014, seven counties and 111 municipalities have adopted complete streets policies. Union Beach Borough has not adopted a complete streets policy.

### **Coastal Area Review Act (CAFRA)**

CAFRA regulations apply to development projects near coastal waters. Generally, the closer the project is to the water, the more likely it will be regulated. The entirety of Union Beach Borough is in the CAFRA zone.

CAFRA divides the CAFRA zone into subzones where development is regulated by varying degrees. CAFRA regulates almost all development activities involved in residential, commercial, or industrial development, including construction, relocation and enlargement of buildings, excavation, grading, shore protection structures, and site preparation.



### **Coastal Permit Program Rules and Coastal Zone Management Rules**

The New Jersey Department of Environmental Protection is proposing to consolidate the Coastal Permit Program Rules and the Coastal Zone Management rules into one chapter and to make other changes intended to further encourage appropriate redevelopment of more resilient coastal communities. The proposal reflects the Department’s knowledge and experience concerning coastal development issues accumulated over decades as well as specific lessons learned from the impact of and rebuilding from Superstorm Sandy and other weather events. These rules are not yet in



affect, however the last day for comment on these proposed rule changes was August 1, 2014.

### **Time of Decision**

On May 5, 2010, Governor Christie signed P.L. 2010 c.9 into law, effectively nullifying the “time of decision” rule, which had previously allowed municipalities the ability to alter zoning requirements even after an application for development had been filed but before a formal decision on the application had been rendered. P.L. 2010 c.9 provides that the development regulations applicable to a property at the time an application for development is filed will govern the review of the application and any decision made pertaining to it. P.L. 2010 c.9 was effective on May 5, 2011.

### **Solar and Wind Facilities as Permitted Uses in Industrial Zones**

The Municipal Land Use Law was amended in 2008 to provide that solar and wind facilities on parcels of 20 acres or more shall be deemed as permitted uses in industrial zone districts. In addition, the definition of “inherently beneficial use” in the Municipal Land Use Law now includes a wind, solar, or photovoltaic energy facility or structure.



### **Stormwater Management**

In 2004, the New Jersey Department of Environmental Protection (NJDEP) adopted municipal stormwater regulations that required preparation and adoption of a stormwater management plan and ordinance by the borough to address the need for promoting groundwater recharge and controlling the impacts of stormwater runoff from development.

As has been previously noted, Union Beach Borough initially adopted a municipal stormwater management plan in 2005, and last revised it in 2007.

### **Green Buildings and Environmental Sustainability Element**

Many New Jersey municipalities have endorsed efforts to reduce their carbon footprint, decrease greenhouse gas emissions, encourage the use of renewable energy sources, conserve energy, and minimize the use of natural resources. Federal and state programs have been established to assist municipalities to address these goals. In the private sector, the US Green Building Council, a private organization, has established the Leadership for Energy and Environmental Design (LEED) certification programs to

encourage and standardize the certification of buildings, which are energy efficient and incorporate sustainable environmental design concepts.

Recognizing the importance of green building and sustainability, the Legislature amended the Municipal Land Use Law (MLUL) in 2008 to add the “Green Building and Environmental Sustainability Plan Element” to the list of optional elements of municipal master plans. The scope of the new element is as follows: “A green buildings and environmental sustainability plan element, which shall provide for, encourage and promote the efficient use of natural resources and the installation and usage of renewable energy systems, consider the impact of buildings on the local, regional, and global environment; allow ecosystems to function naturally; conserve and reuse water; treat storm water on site; and optimize climatic conditions through site orientation and design.”

### **Redevelopment Case Law**

There have been a number of recent court decisions concerning the use of the criteria for determining an area “in need of redevelopment” pursuant to the Local Redevelopment and Housing Law. The most significant of these decisions is the New Jersey Supreme Court’s decision in *Gallenthin vs. Paulsboro*, which reevaluated and set guidelines for the use of the statutory criteria for determining an area in need of redevelopment. The New Jersey Legislature also held hearings in 2010 on legislation to update the New Jersey Redevelopment and Housing Law. In 2013, the legislation (Assembly Bill 3615) became law, and is intended to protect property owners by limiting the redevelopment powers of municipalities under the Local Redevelopment and Housing Law. This amendment raises the standard for a blight finding to one in which the property must be unproductive.

### **Changes at the Federal Level**

As indicated in the following subsections, there have been changes at the federal level since the adoption of the 2005 Master Plan.

#### **Flood Insurance Mapping**

Revised flood insurance mapping was made available for public review by FEMA on January 31, 2014. The revised mapping is in the process of being finalized, and is expected to become the official (i.e., regulatory) mapping of the National Flood Insurance Program at some point in the future. The revised mapping increases the flood zone and base flood elevations for some coastal areas of the borough.

### **Army Corp of Engineers Shore Protection Plan**

The Army Corp of Engineers Shore Protection Plan proposes implementing a storm damage reduction project consisting of a combination of levees and floodwalls, tide gates, pump stations, and a dune and beach berm with terminal groins, as well as constructing wetlands. Prior to Hurricane Sandy, preconstruction, engineering and design was underway. Due to the extent of the damage that resulted from Hurricane Sandy in Union Beach, a limited reevaluation report was required in order to document damages sustained and changes in conditions. Construction is expected to begin in 2016 and last to 2020.

## **Specific Changes Recommended for the Master Plan and Development Regulations**

Given the extent to which there have been significant changes in assumptions, policies and objectives at the local, county, and state levels, the 2015 Master Plan Reexamination Report recommends a number of changes to the borough's municipal master plan and development regulations. These are outlined in the following subsections.

Please note that in addition to the recommended changes that are outlined in the following subsections, it is recommended that Union Beach Borough: prepare a Green Building and Sustainability Element as a new element of the master plan; prepare a Circulation Plan Element that addresses all modes of transportation, including bicycle and pedestrian connections, as a new element of the master plan (n.b., to aid the borough in the preparation of such an element, language on bicycle and pedestrian connections has been prepared and is provided in Appendix E); and, develop a conservation plan element that promotes the identification and acquisition of flood-prone properties for flood hazard mitigation. The borough should also prepare a debris management plan that allocates debris removal sites, outlines collection strategies, and describes debris reduction methods.

### **Changes to the Master Plan**

The following subsections outline recommended changes to the municipal master plan.

#### **Master Plan Objectives**

To promote sustainability and resiliency and the implementation of the Strategic Recovery Planning Report and the Monmouth County Multi-Jurisdictional All Hazard Mitigation Plan, it is recommended that the borough incorporate the following additional objectives into the master plan.

- Install a town-wide Supervisory Control and Data Acquisition (SCADA) system;

- Provide generators that can supply energy to the entire Municipal Building, the Department of Public Works complex, the Construction Department, and Memorial School;
- Relocate the Department of Public Works facility out of a major flood prone area and plan for the appropriate reuse of the current site;
- Contract a construction company to perform sand and debris removal after natural disasters;
- Finish demolishing the approximate 98 “hazard” homes that remain standing and vacant;
- Amend flood zone lines in flood maps to more accurately depict which properties are truly at risk;
- Prepare a Capital Improvement Plan that will focus on municipal capital investments on public facilities, fleets, and equipment to build community resiliency in plants and equipment;
- Develop a GIS database and user interface to catalog all borough-owned infrastructure including roadways and stormwater and sanitary sewer collection systems;
- Encourage all new development to employ storm- resistant infrastructure and building strategies;
- Update the borough’s tax map and codify its ordinance;
- Increase and update street signage and signage on empty lots; and
- Continue to increase the borough’s participation in FEMA’s Community Rating System (CRS).
- Work with the Army Corps of Engineers to implement the Army Corps of Engineers Shore Protection and Flood Control Project for Union Beach.
- Work with Monmouth County and the State of New Jersey to raise roadways to decrease the occurrence and severity of flooding.
- Consider the potential for relocating the Harris Garden Fire Company Building;
- Install flood warning signage.
- Remove debris and sediment accumulation from terrestrial waterways.
- Maintain existing shore protection features.
- Clean and maintain existing storm drains and inlets.
- Consider the potential for upgrades to existing emergency warning systems.

The objectives listed above can be added under a new rubric called “Sustainability and Resiliency”.

In addition to the above, it is noted that any amendment should restate all other master plan objectives so as to promote clarity and centrality of information. Where there have been changes to the objectives since 2005, they should be updated. Such changes have been noted in the section entitled "The Extent to Which Major Problems and Objectives in 2005 have Been Reduced or Increased" and are duplicated in the following list (n.b., the list includes only those objectives where changes since 2005 have been noted).

- Residential

- Preserve and protect the existing residential character of the borough. Require that infill development be compatible with the neighborhood and conform to the setbacks of existing buildings on the block. *This objective remains valid. In addition, infill development should conform to the published flood elevations of the Federal Emergency Management Agency.*
- Ensure that public and quasi-public land use remains compatible with the needs and character of adjacent neighborhoods. *This objective remains valid. In addition, public and quasi-public development should conform to the published flood elevations of the Federal Emergency Management Agency and include other flood protection measures.*
- Encourage the maintenance and preservation of residential properties. *This objective remains valid. In addition, the enhancement of residential properties with the latest in flood protection mechanisms and other techniques to promote resiliency should also be encouraged.*
- Identify sources of funds for rehabilitation of residential dwellings and provide assistance to property owners in procuring funds. *This objective remains valid. Sources of funds to restore and elevate dwellings above the advisory base flood elevation should also be identified.*



- Commercial

- Strive to enhance and retain existing businesses and promote new business development along commercially zoned areas of Route 36, Union Avenue, Florence Avenue, and Front Street. *While this objective remains valid for Route 36 and Union Avenue, commercial zoning has been deleted from Florence Avenue and Front Street as a result of recommendations made in the land use element of the 2005 Master Plan.*

- Strictly enforce sign regulations. *This objective remains valid. In particular, regulations for temporary signage should be strictly enforced. There has been a problem with temporary signage not being removed in a timely manner; this should be abated.*
- Encourage revitalization of commercial properties that need rehabilitation or improvement. *This objective remains valid. Enhanced flood protection should also be encouraged.*
- Housing
  - Encourage residential rehabilitation to improve substandard units and preserve neighborhood stability. *This objective remains valid. Enhanced flood protection measures should also be encouraged.*
- Community Identity
  - Develop and effectively communicate a strong and appealing identify for the borough. *This objective remains valid. The borough needs signage to identify assets (e.g., beach, parks, Henry Hudson Trail, fishing beach, etc.). In addition, a high-quality appearance should be maintained by enforcing local regulations (e.g., signage regulations).*
  - Encourage higher quality architectural and landscape design through the use of design standards. *This objective remains valid, and is important for both residential and non-residential development.*



### Land Use Element

The land use element should be updated to remove recommendations for changes that have been completed since it was originally adopted in 2005. Such recommendations have been noted in the section entitled “The Extent to Which Major Problems and Objectives in 2005 have Been Reduced or Increased” and are duplicated in the following list (n.b., the list includes only those recommendations that have been completed since 2005).

- Rezone the O-R zone adjacent to Bayview Avenue to R-8. *This has been completed.*
- Remove multi-family dwellings as a conditionally permitted use in the R-8 district. *This has been completed.*
- Create a new Townhouse district in accordance with the Land Use Plan Element. *This has been completed.*
- Eliminate the B-3 district on Front Street in accordance with the Land Use Plan. *This has been completed.*

- Create a Public (P) district along the Raritan Bay Waterfront. *This has been completed.*
- Rezone areas of the B-1 district to align with the rear lot line of properties. Furthermore redraw the B-1 zone district line, one parcel to the south in accordance with the Future Land Use Plan. *The district has been aligned with the rear lot line of properties.*
- Create a new land use vision for the Corporate Campus (CC) district in accordance with recommendations from the Smart Growth Grant. *This has been completed.*
- Permit family daycare homes in all districts. *This has been completed.*
- Revise the ordinance to limit the number of consecutive attached townhouses. Create specific regulations for townhouses which:
  - Maximize views to the waterfront from the public realm;
  - Are constructed at a height that is compatible with surrounding properties; and,
  - Are architecturally compatible with surrounding properties. *This has been completed; and,*
  - Create an ordinance to grandfather existing single-family residential units in every zoning district. *This has been completed.*

In addition to the above, the land use element should be updated to promote the use and development of green infrastructure and building techniques throughout the borough. The land use element should also be updated to include updated existing and future land use mapping to reflect current conditions.

Finally, it is noted that the land use element should be updated to provide current mapping of public facilities and other critical infrastructure within the borough, as well as updated mapping of wetlands and the 100-year flood hazard area.

### **Circulation Plan Element**

The master plan should be amended to include a brief circulation plan element that promotes resiliency through the development of bicycle and pedestrian connections.

### **Changes to Development Regulations**

In an effort to promote resiliency in Union Beach Borough, it is recommended that the borough update its zoning policies to promote sustainable development and resilience to future storms through the use of green infrastructure and building techniques throughout the borough. It is also recommended that the borough consider the following revisions to its development regulations:

- Provide design guidelines for ground level enclosures on elevated structures;
- Increase the minimum lot size in the B-1 district according to use;

- Revise the B-2 district on Route 36 to better reflect existing land use conditions;
- Increase lot sizes and setbacks in the B-2 district to encourage lot consolidation to encourage modern day commercial uses that require larger lot sizes; and,
- Consider adding a floor area ratio (FAR) requirement to control the intensity of both residential and commercial properties.

### **Land Use Plan**

The following changes in the zoning map and zoning ordinance are recommended:

1. Allow apartments over ground level retail sales and service uses in the B-1 zone along Union Avenue.
2. Extend the commercial zone along Union Avenue from the northern end of the current B-1 zone to the TH-2 zone boundary. This recommendation is in accordance with the Route 36 Commercial Corridor Plan adopted by the Planning Board in May 2015.
3. Allow waterfront commercial uses on Front Street between Florence Avenue and Pine Street.
4. Rezone the M-2 zone in the northwest portion of the Borough to Parks and Open Space.
5. Recognize the redevelopment of a portion of the M-1 zone currently used by the DPW for future multifamily residential senior housing.
6. Identify the Brook Avenue redevelopment area in the TH-2 zone.
7. Provide for a future site for the Borough DPW facility based on available tracts in the Corporate Campus zone district.

Additional proposed amendments to the Zoning Ordinance based on consultation with the Zoning Officer are:

1. Fences. A minimum separation between a solid fence and a dwelling on an adjoining lot should be required.
2. Application review fees for Zoning Permits – The fee schedule should be updated and more realistic relative to the municipal effort and expense.
3. Number of principal and accessory structures on each residential lot. The ordinance should be better defined.
4. Air conditioning units of residential structures. Due to the relative narrow residential lots in the Borough and the fact that the Air conditioning AC units are now elevated to meet flood hazard requirements, the Air conditioning AC units should be encouraged to be located to the rear of the structure to minimize the potential impact



5. Anchoring of accessory structures. Structures over 100 square feet should be anchored for flood hazard purposes.
6. Stabilization of disturbed areas prior to the issuance of the CO Certificate of Occupancy.

## **Recommendations Concerning Redevelopment Plans**

The borough has not yet adopted any redevelopment plans. However, the borough is currently preparing a redevelopment plan for the Brook Avenue neighborhood and the Department of Public Works facility in the M-1 zone district in conjunction with a Phase 2, Post-Sandy Planning Assistance Grant. After adoption, the redevelopment plans should be codified into the borough zoning ordinance.

# Master Plan Amendment

---

## Introduction

The purpose of this master plan amendment is to incorporate the recommendations and changes that have been outlined in the 2015 Master Plan Reexamination Report into the borough's master plan, or to establish the basis for future actions through the definition of new goals and objectives. This master plan amendment: includes an updated, comprehensive list of master plan objectives; and, makes extensive amendments to the Land Use Element.

## Master Plan Objectives

The borough master plan is amended to include the following list of master plan objectives. This list updates the borough's general objectives, and adds objectives to promote sustainability and resiliency. This list amends and replaces the existing master plan objectives.

- Residential
  - Preserve and protect the existing residential character of the borough. Require that infill development: be compatible with the neighborhood and conform to the setbacks of existing buildings on the block; and, conform to the published flood elevations of the Federal Emergency Management Agency.
  - In developed areas, limit new development and infill development that increases the intensity of neighborhood land and property use.
  - Ensure that public and quasi-public development: remains compatible with the needs and character of adjacent neighborhoods; and, conforms to the published flood elevations of the Federal Emergency Management Agency and includes other flood protection measures.
  - Limit developments that would generate a high volume of traffic on local streets.
  - Encourage the maintenance and preservation of residential properties, and the enhancement of residential properties with the latest in flood protection mechanisms and other techniques to promote resiliency.
  - Identify sources of funds for: the rehabilitation of residential dwellings; and, the restoration and elevation of dwellings above the advisory base flood elevation. Provide assistance to property owners in procuring such funds.
  - Promote preservation and restoration of housing that has historical significance when feasible.

- Commercial
  - Continue the improvement of commercial properties in the borough.
  - Strive to enhance and retain existing businesses and promote new business development along commercially zoned areas of Route 36 and Union Avenue.
  - Provide for adequate parking to serve established residential and commercial areas. Incorporate adequate parking into new developments.
  - Encourage shared parking when appropriate to meet parking demands while limiting the amount of impervious surfaces.
  - Require buffering around commercial properties to soften the visual and functional impact of their design and use.
  - Strictly enforce sign regulations, including, but not limited to, regulations for temporary signage.
  - Encourage enhanced flood protection and revitalization of commercial properties that need rehabilitation or improvement.
  - Encourage upgrading of commercial properties and their surroundings.
  - Encourage the development of small-scale commercial and office uses, and encourage the design of buildings with a residential scale in the Office-Residential District.
  - Create attractive gateways at the principal entrances to the borough through upgraded land uses, streetscape improvements and signage.
- Circulation
  - Increase bicycle/pedestrian safety and circulation at key intersections by utilizing traffic calming measures and providing bike lanes that connect with the Henry Hudson Trail and community facilities throughout the borough.
  - Ensure a well-maintained and safe circulation system.
  - Coordinate maintenance and improvement actions with neighboring communities and Monmouth County.
  - Monitor areas with high traffic accident rates and develop improvement programs.
  - Discourage developments that do not meet minimum frontage requirements on public or private roads.
  - Encourage circulation patterns that are compatible with land use goals and public safety.
  - Improve the appearance of intermediate and major thoroughfares, such as Route 36, Union Avenue, and Florence Avenue.

- Encourage landscaping along intermediate and major thoroughfares to buffer residential and non-residential land uses from the noise and pollution of vehicle traffic.
- Cooperate with New Jersey Department of Transportation and adjacent communities to improve the appearance of entranceways into the borough from Route 36.
- Economic Development and Redevelopment
  - Encourage the development of a diversified economic base that generates employment growth, provides increased tax ratable, increases income levels, and promotes the reuse of underutilized properties.
  - Focus economic activity in the borough's economic centers including the International Flavor and Fragrance Company, JCP&L properties and existing non-residential areas. Recognize the unique character of each area and promote development that will strengthen and reinforce market niches.
  - Capitalize on the borough's competitive advantages for economic development purposes including its location in the New Jersey/ New York City region, extensive transportation and quality of life.
- Housing
  - Preserve established residential character wherever possible by preventing the intrusion of incompatible commercial and industrial uses into residential neighborhoods and promoting the rehabilitation of substandard units.
  - Provide a balance of housing options to meet the needs of all residents including low- and moderate-income housing and market rate housing.
  - Encourage enhanced flood protection measures and rehabilitation to improve substandard units and preserve neighborhood stability.
  - Encourage the development of housing that is affordable to younger couples and families seeking to remain in, or move to, the borough.
  - Promote the development of senior citizen housing that enables older residents to "age in place" including independent living, assisted living, and congregate care housing.
  - Enforce the property maintenance code to improve the aesthetic and image of the borough.
- Community Facilities and Utility Infrastructure
  - Provide adequate sewer and water services to meet the demands of proposed economic development and a growing population in a manner that will limit sprawl and promote concentrated development.

- Improve stormwater management facilities along the bay front, roads, and intersections through effective infrastructure, maintenance, and replacement.
- To achieve the stormwater quality standards established by the NJ Department of Environmental Protection.
- Preserve and upgrade the existing utility infrastructure including water, stormwater management, and wastewater treatment. Continue rehabilitation programs while pursuing selected replacement and expansion projects in order to accommodate growth and revitalization.
- Encourage regularly scheduled infrastructure maintenance consistent with long-range plans to avoid system failures.
- Study and periodically review future service needs and implementation methods.
- Continue trash reduction, reuse, and recycling efforts in cooperation with appropriate county, regional, and state agencies.
- Maximize the use of existing and planned facilities consistent with the efficient use of public funds.
- Maintain facilities that are in current use and renovate or reuse obsolete facilities for other uses.
- Cooperate with surrounding communities, county, and state organizations to make the best use of available public facilities.
- Open Space and Recreation
  - Provide adequate park, open space, and recreational facilities for all borough residents.
  - Cooperate with public and quasi-public institutions to utilize and maintain recreation facilities and their undeveloped land for open space or recreation.
  - Consider the preparation of a recreation and open space plan element.
- Community Identity
  - Develop and effectively communicate a strong and appealing identify for the borough.
  - Provide signage to identify community assets (e.g., beach, parks, Henry Hudson Trail, fishing beach, etc.).
  - Maintain a high-quality appearance by enforcing local regulations (e.g., signage regulations).
  - Create attractive, memorable “gateways” into the borough.
  - Develop and implement streetscape projects for major public thoroughfares.
  - Preserve and protect historic and major natural features in the borough.

- Enhance and maintain the appearance of community facilities and borough owned properties.
- Encourage higher quality architectural and landscape design through the use of design standards in both residential and non-residential areas of the borough.
- Encourage neighborhoods to improve their aesthetic appeal and identity.
- Culture
  - To encourage sensitive design in the conversion and re-use of the building and their environment and to mitigate the effect of adjoining developments.
  - Expand recreational and cultural facilities and services.
- Sustainability and Resiliency
  - Install a town-wide Supervisory Control and Data Acquisition (SCADA) system.
  - Provide generators that can supply energy to the entire Municipal Building, the Department of Public Works complex, the Construction Department, and Memorial School.
  - Relocate the Department of Public Works site out of a major flood prone area and plan for the appropriate reuse of the current site.
  - Contract a construction company to perform sand and debris removal after natural disasters.
  - Finish demolishing the approximate 98 “hazard” homes that remain standing and vacant.
  - Amend flood zone lines in flood maps to more accurately depict which properties are truly at risk.
  - Prepare a Capital Improvement Plan that will focus on municipal capital investments on public facilities, fleets, and equipment to build community resiliency in plants and equipment.
  - Develop a GIS database and user interface to catalog all borough-owned infrastructure including roadways and stormwater and sanitary sewer collection systems.
  - Encourage all new development to employ storm- resistant infrastructure and building strategies.
  - Update the borough’s tax map and codify its ordinance.
  - Increase and update street signage and signage on empty lots.
  - Continue to increase the borough’s participation in FEMA’s Community Rating System (CRS).
  - Work with the Army Corps of Engineers to implement the Army Corps of Engineers Shore Protection and Flood Control Project for Union Beach.

- Work with Monmouth County and the State of New Jersey to raise roadways to decrease the occurrence and severity of flooding.
- Consider the potential for relocating the Harris Garden Fire Company Building;
- Install flood warning signage.
- Remove debris and sediment accumulation from terrestrial waterways.
- Maintain existing shore protection features.
- Clean and maintain existing storm drains and inlets.
- Consider the potential for upgrades to existing emergency warning systems.

## **Land Use Plan Element**

The land use plan identifies the Master Plan recommendations with respect to future land use locations and intensity of use. The land use plan element is updated to provide current: the existing and future land use mapping that is provided in appendices A and B of this document; updated wetlands and 100-year floodplain mapping that is provided in Appendix C; and, the mapping of public facilities and other critical infrastructure that is provided in Appendix D.

### **Changes to the Land Use Plan:**

Hurricane Sandy exposed the vulnerability of coastal communities to the damage that can be caused by strong winds, storm surge, and flooding. Extreme weather on the scale of Hurricane Sandy has established a new understanding in the approach towards coastal development. The design of the built environment, including private structures and public infrastructure must be able to withstand coastal storms, flooding and other weather events. With a local understanding of the potential extent that damage from flooding and storms can cause, it is critical for future development to incorporate principles of resilient design.

On July 18, 2013, Union Beach approved resolution 2013-106, declaring the entire Borough as an “Area In Need of Rehabilitation.” This designation, made on the basis of the average age of the area’s housing stock, gave Union Beach the authority to utilize all aspects of redevelopment, with the exception of eminent domain land acquisition and long-term property tax abatements. As part of this designation, the Borough is preparing redevelopment plans for two sites in accordance with the requirements of the Local Redevelopment and Housing Law (LRHL).

After Hurricane Sandy, many New Jersey residents encountered flooding in areas that had once been considered “safe.” Despite the challenges inherent to coastal development, such as Union Beach, well-designed redevelopment offers an opportunity

for the Borough to serve as a model for the rest of the region of how to effectively, safely, and successfully rebuild in similar locations.

The following revisions to the Borough Land Use Plan are recommended:

1. Multifamily Senior Redevelopment in the M-1 Zone

The borough's Department of Public Works (DPW) and municipal garage facility is presently located on the western side of Union Beach, near the intersection of Florence Avenue and Broadway in an area zoned M-1 (Light Industrial). The 6.6 acre site is located in a major flood prone area of Union Beach (Block 103; Lots 3, 3.01, & 4), which was demonstrated when Hurricane Sandy struck the area and caused severe structural damage to the DPW buildings and equipment. Given the role of the DPW to providing emergency response and recovery services for the Borough, it is critical that this site is protected from storm damage.

As part of the post-Sandy recovery, Union Beach highlighted the need to relocate the DPW facility to a more resilient and less flood-prone site in the Borough's Strategic Recovery Planning Report. This action will permit municipal personnel to effectively address the impacts from future storm events and support recovery efforts in Union Beach. Site selection will depend upon tract size, configuration, and location, especially as it applies to existing FEMA flood hazard areas and other environmental constraints, relationship to surrounding uses, access, and ability to serve all parts of the Borough in an efficient manner.

The proposed relocation of the DPW facility would open the existing site for redevelopment. Acknowledging that the environmental constraints should limit development of other critical facilities, the Planning Board proposes to redevelop the former industrial site into a residential community, raised above the flood hazard elevation. The Master Plan recommends the creation of a 3-4 story, age-restricted affordable multifamily residential development that would support approximately 60 to 70 residents. The close proximity of the site to the Henry Hudson Trail would provide residents with an important recreational amenity, as well as an opportunity to reduce traffic demands. It is important to note that this project is contingent upon the Borough's ability to locate and develop a new site for DPW use.

At this time, a new site for the DPW facility has not been determined. However,



a site in the Corporate Campus (CC) zone district is under review.

## 2. Brook Avenue Residential Redevelopment (TH-2 Zone)

The bayfront residential neighborhoods are valuable assets to Union Beach, with unobstructed views of New York City and proximity to a public boat launch on the Flat Creek and the municipal beach. This area of the borough experienced some of the worst damage from Hurricane Sandy's storm surge, flooding and winds. Houses along the waterfront side of Brook Avenue were destroyed or swept far from their foundations, leaving driveways and building footprints as the sole indicators of the residential community that once existed.

Prior to Hurricane Sandy, the US Army Corps of Engineers proposed a plan for shore protection and flood control that would include a protective berm for the waterfront along the Brook Avenue neighborhood. Presently, the portion of the site located in the coastal VE flood zone and AE flood zone, however a berm would reduce this threat.

The planning board proposes the preparation of a redevelopment plan for a nearly 10 acre tract of land that includes 12 parcels of varying size in the TH-2 (Townhome) zone and several vacated street right of ways. This plan would allow the Borough to coordinate development of the site with property owners and developers to ensure that subsequent use of the site will be more resilient to future storm events, while also creating public amenities that benefit the larger community. The planning board proposes to increase the housing density of the site through the development of up to 120 housing units that would include a mix of townhomes and multifamily units. Any housing will need to incorporate innovative design, from raising dwelling units above the flood elevation, utilizing native vegetation to limit sand and soil erosion, to installing green infrastructure and low-impact development in order to reduce the amount of stormwater that contributes to localized flooding.

Given the circumstances that led to this project, and how Hurricane Sandy's impact to Union Beach extended well beyond the Brook Avenue redevelopment site, it is important for this project to serve as a testament to the resiliency of Union Beach in the face of extreme weather. Rather than creating a waterfront community that is insulated from the rest of Union Beach, efforts will be made to

integrate this project into the broader community. This will be accomplished through development of the walkway along the proposed berm, providing a valuable amenity to the Union Beach community, and through the design of the residential units in order to maximize waterfront views from public right-of-ways and avoid overtaking the neighboring residences.

### 3. Commercial Corridor Resiliency Plan

Route 36 and Union Avenue serve as the main commercial corridors for Union Beach, however the existing layout and design of these corridors leaves much for improvement. As a divided highway, Route 36 is designed primarily for automobile use, but adjacent land development patterns have also created a demand by pedestrian traffic, as evident by the dirt pathways found along the highway. Existing development along Route 36 includes restaurants, businesses and a few single-family dwellings. During periods of heavy traffic, motorists opt for alternatives, effectively turning neighboring local roads into minor arterials. Issues with drainage have caused flooding in sections of the road. Union Avenue, on the other hand is geared more toward a local downtown district. Sidewalks exist on both sides of the street, and on-street parking is available. The narrow design of the street serves to reduce traffic speeds, however, this lack of available parking has been noted to be a concern by the community. The corridor is characterized primarily by residential uses, with a small mix of commercial buildings, including restaurants and other businesses, not all of which are presently occupied.

One of the near-term recommendations that resulted from the Borough's Strategic Recovery Planning process in the wake of Hurricane Sandy was a desire to redevelop the Route 36 corridor. Parts of Route 36 were flooded during the storm and several nearby buildings had to be demolished. The proposal would focus on economic development by attracting new businesses and improving non-residential design standards. These recommendations echo earlier plans, which stressed the importance of business retention and new business development along Route 36, as well as Union Avenue. At present however, the underlying regulatory framework that is currently in place to govern future development design would continue to limit many aspects of what would be considered desirable toward improving community character and welcoming new residents and businesses.

In response, the borough has prepared a Commercial Corridor Resiliency Plan for the areas around Route 36 and Union Avenue to highlight opportunities for improvement. The plan, which was adopted on May 27, 2015, examines the corridor as a whole to see how reduced flood risk, safe travel, flexible zoning and community beautification can catalyze economic and community revitalization. The proposed land use changes that would meet these goals include changes to the existing use standards in the underlying zoning districts.

#### 4. Union Avenue Transition Commercial Zone

Based on discussion of the commercial development of Union Avenue during the consideration of the planning concepts of the commercial corridors resiliency plan, the Planning Board recommends the extension of the commercial zone along Union Avenue from the northern limit of the B-1 zone just north of Park Avenue to Prospect Avenue. Union Avenue is a gateway and conduit to the waterfront, and a major asset of the borough. The intent of this proposed zone is to transition along the corridor from a more intense B-1 zone with mixed uses in the center of the borough to neighborhood-oriented uses before reaching the waterfront. Parking will be a sensitive issue for this zone due the adjoining single-family residential uses.

The permitted uses in the Union Avenue transition commercial district should consist of neighborhood retail and services and office uses that require limited parking. Required off-street parking requirements should be strictly enforced. Shared parking should be encouraged. The permitted lot size should be consistent with the B-1 zone. The permitted maximum height should be 35 feet.

Currently this area is zoned R-8. Please note that prior to the 2005 Master Plan reexamination report this portion of the Union Avenue corridor was zoned as Office Residential (OR).

#### 5. Conservation

The northwestern portion of the borough consists of environmentally encumbered (viz., wetlands) vacant lands and, therefore, have restrictions on future development potential. This area is also designated as a velocity (VE) zone

on the FEMA flood hazard mapping. As shown in Appendix B, this section of the borough is fairly large relative to the entire borough. The current zoning designation is M-2 Industrial.

Due to the environmental limitations for future development potential of these lands, the borough zoning designation should more accurately reflect the possible future land use. The Planning Board has designated this area as Conservation. Future zoning regulations for this area should be prepared with the intent that the future land use which is open lands use of this area should reflect the actual potential uses consistent with the area's environmental restrictions.

#### 6. Waterfront Commercial

Prior to the 2005 Master Plan Reexamination Report, one block of Front Street, opposite the borough park and between Beach and Pine streets, was zoned Resort Commercial (B-3). It was intended to allow resort/tourist commercial uses and maximize one of the unique resources of the Borough, specifically the panoramic view of the New York City skyline, the 2005 Reexamination Report recommended that the zone district be eliminated in order to remove the potential for commercial and, possibly, industrial development backing on to Second Street. The recommendation was implemented and the area was rezoned to R-8 Residential.

The Planning Board now recommends that limited resort/tourist uses be permitted on the lots fronting on Front Street opposite the borough park and located between Beach and Florence streets. Permitted uses would be limited to retail trade and service establishments that are oriented to the waterfront and tourist trade, as well as restaurants and cafes. The bulk standards for this proposed zone district should be consistent with the B-1 zone. The land use district should include the former restaurant property on the waterfront side of Front Street, opposite the proposed district.

The location of the proposed waterfront commercial zone is shown in Appendix B.

In addition, the Land Use Element is also amended to update the list of specific recommendations for changes to the land development ordinance that was originally included in the 2005 Land Use Element. The updated list is provided below:

- Redraw the B-1 zone district line, one parcel to the south in accordance with the Future Land Use Plan.
- Increase the minimum lot size in the B-1 district based upon use.
- Revise the B-2 district on Route 36 to better reflect existing land use conditions.
- Increase lot sizes and setbacks in the B-2 district to encourage lot consolidation to encourage modern day commercial uses that require larger lot sizes.
- A complete overhaul to the borough's sign ordinance should be undertaken. Areas of emphasis include appropriate commercial signage along Union Avenue and Highway 36.
- The zoning ordinance should be amended to indicate densities in all residential zoning districts.
- Update the fee schedule for application and review fees consistent with neighboring communities.
- Create a new ordinance and user-friendly manual that clearly articulates guidelines for raising housing out of the floodplain. Such an ordinance should provide a purpose statement and indicate when a variance is required.
- The maintenance of residential and commercial property in a few areas of the borough is substandard. The Borough should determine if the issue is due to the need for new policies and implementation strategies or if enforcement should be increased. It is important to upgrade property maintenance and uphold the image of the borough.

In addition to the above, the land use element is amended to include the following new section on building resiliency through development regulations.

### **Building Resiliency through Development Regulations**

Given the experience of Hurricane Sandy and the potential for future storms, there is a compelling need to build resiliency in Union Beach Borough. The Land Use Plan Element, therefore, recommends that the borough's development regulations be designed to build resiliency throughout the municipality. This should be done through the promotion of green building and infrastructure techniques.

Provided below is a new section of the Land Use Plan Element, which overviews green building and infrastructure techniques and is meant to inform the future development of municipal development regulations. It is important to note that while this new

section is located in the Land Use Plan Element, it is also highly relevant to the borough's Stormwater Management Plan.

### **Green Building and Infrastructure Techniques**

Green building and infrastructure techniques are an important tool for promoting resiliency in Union Beach Borough. They use permeable surfaces (e.g., porous concrete, gravel, mulch, etc.), landscape formations (e.g., channels, depressions), plant material, or other technologies to reduce stormwater runoff by promoting natural infiltration. Their use can promote resiliency by mitigating flooding (i.e., reducing the risk and impacts of flooding) and helping the borough to quickly recover from storms. In addition, they provide numerous co-benefits, not the least of which are: reducing long-term maintenance and operation costs of stormwater infrastructure; and, capturing runoff pollution (e.g., particulate matter, heavy metals) and preventing their entry into sensitive terrestrial and coastal waterways.

The Land Use Plan Element recommends the incorporation of green building and infrastructure techniques in the borough's development regulations. Recommended green building and infrastructure techniques are described in the following subsections.

#### *Downspout Disconnection*

Downspout disconnection refers to the rerouting of rooftop drainage pipes to specialized containment devices (e.g., rain barrels, cisterns) and permeable areas, instead of traditional stormwater drainage systems. This allows stormwater runoff from building roofs not only to infiltrate soil, but also to be collected for later use (e.g., watering lawns and gardens), which reduces demand on public water supplies.



#### *Rain Gardens*

Rain gardens are shallow, vegetated basins that absorb stormwater runoff from impervious surfaces (e.g., rooftops, sidewalks, and streets). Runoff is channeled into rain gardens, and is then used by plants, infiltrated into the ground, and evaporated. They may be installed in a variety of locations, and can be an attractive element of site design. In addition, it is important to note that rain gardens



can be installed in a variety of locations. Indeed, they may be installed in any properly graded unpaved space, and in parking lots and paved areas through the construction of specialized planter boxes that collect and absorb runoff.

#### *Bioswales*

Bioswales are open, linear channels with vegetation, mulching, or xeriscaping that slow stormwater runoff and attenuate flooding potential while conveying stormwater runoff away from critical infrastructure. While they convey stormwater runoff away from critical infrastructure, their permeable surface permits the natural infiltration of stormwater. They are often used as an alternative to, or enhancement of, traditional stormwater drainage systems.



#### *Permeable Pavements*

Permeable pavements help to reduce stormwater runoff, which helps to improve the quality of terrestrial waters and mitigate flooding. With traditional (i.e., impervious) pavement, stormwater runs into drains and inlets, which places a burden on such infrastructure, and may result in the discharge of pollutants (e.g., sediment, oil residue, etc.) into terrestrial waters. Permeable pavements, however, infiltrate, treat, or store rainwater where it falls. Key examples of permeable pavements include pervious concrete, porous asphalt, and permeable interlocking pavers.



#### *Green Roofs*

Green roofs are roofs that are covered with substrate and vegetation that enable the infiltration of rainwater. This not only minimizes stormwater runoff, but leads to reduced building operating costs and energy consumption by providing improved insulation of the roof surface, and absorbing less heat on the roof surface (i.e., increasing the roof surface albedo over traditional



roof surfaces). Flat and low-pitched roofs are most suited to green roof development and retrofitting therewith.

#### *Tree Cover*

Increased tree cover in developed areas is an important example of green infrastructure. Trees reduce and slow stormwater by intercepting precipitation in their leaves and branches. In addition, their root systems help to aerate soil, which facilitates natural infiltration of stormwater and reduces runoff. Trees also purify the air, and can help to cool developed areas by providing shade, and through evaporative cooling and increased latent heat flux (i.e., the dissipation of sensible heat). Tree cover can be expanded within public parks and open spaces, along roadways, and on private lots.



#### *Living Shorelines*

Living shorelines are an approach to shoreline stabilization that uses wetland plants, submerged aquatic plants, oyster reefs, coir fiber logs, sand fill, and stone to provide shoreline protection and maintain important habitat areas. They offer numerous benefits over hardened structures (e.g., bulkheads and concrete walls), including protection of the riparian and intertidal environments, improvement of water quality via filtration of upland runoff; and, creation of habitat for aquatic and terrestrial species.

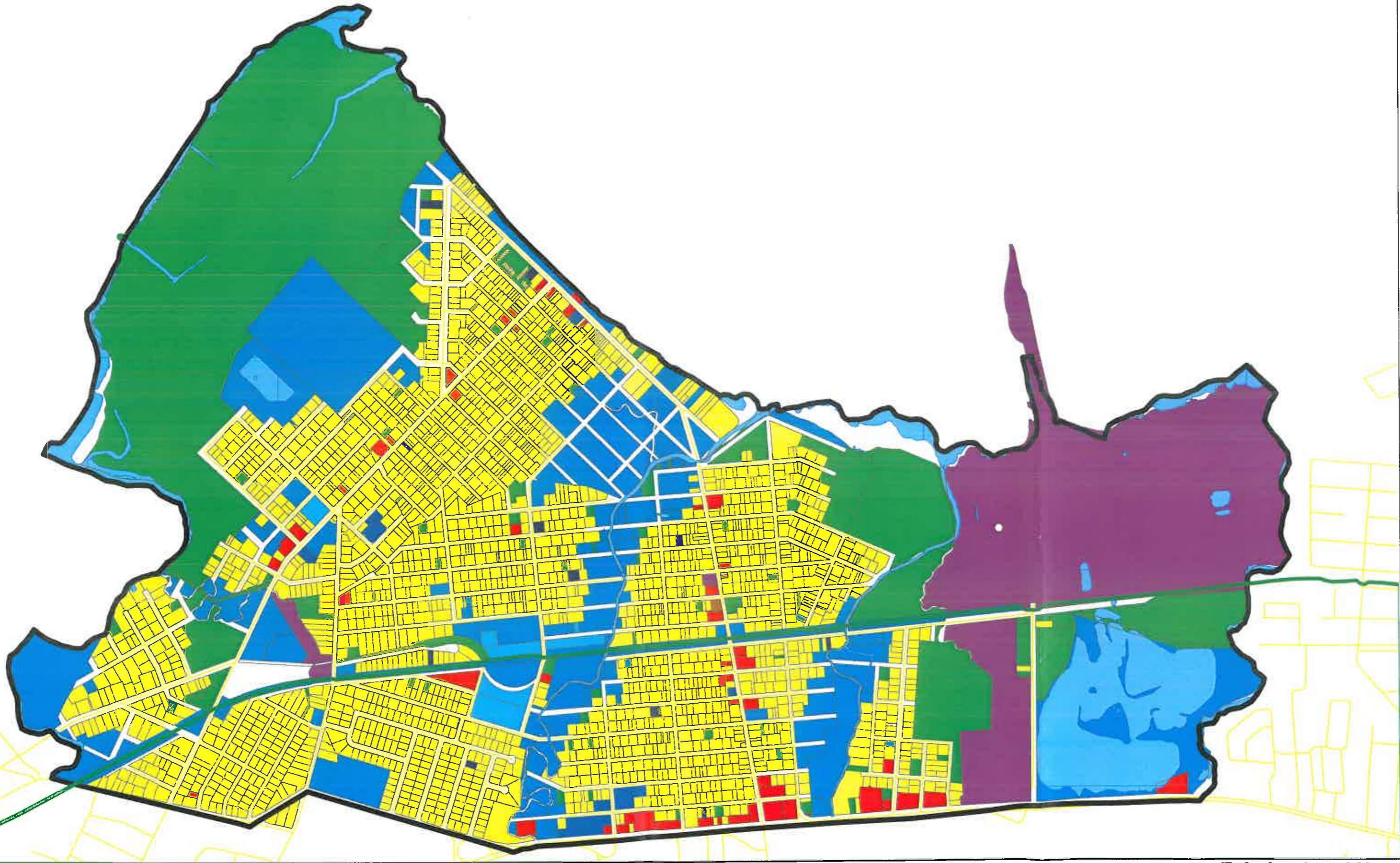


#### *Open Space Preservation*

Preservation of open space areas within and adjacent to developed areas can help to mitigate the water quality and flooding impacts of stormwater. Indeed, natural open space areas promote increased groundwater recharge, lower stormwater runoff, and reduced levels of nutrients and sediment in terrestrial waters. They also help to cool developed areas through evaporative cooling and increased latent heat flux. The use of building coverage and impervious surface limits, and tree-save requirements are key ways to promote open space preservation through development regulation.



## **Appendix A: Existing Land Uses**



11 Tindall Road  
 Middletown, NJ 07748-2792  
 Phone: 732-671-6400  
 Fax: 732-671-7365

0 0.0350.07 0.14 0.21 0.28 Miles

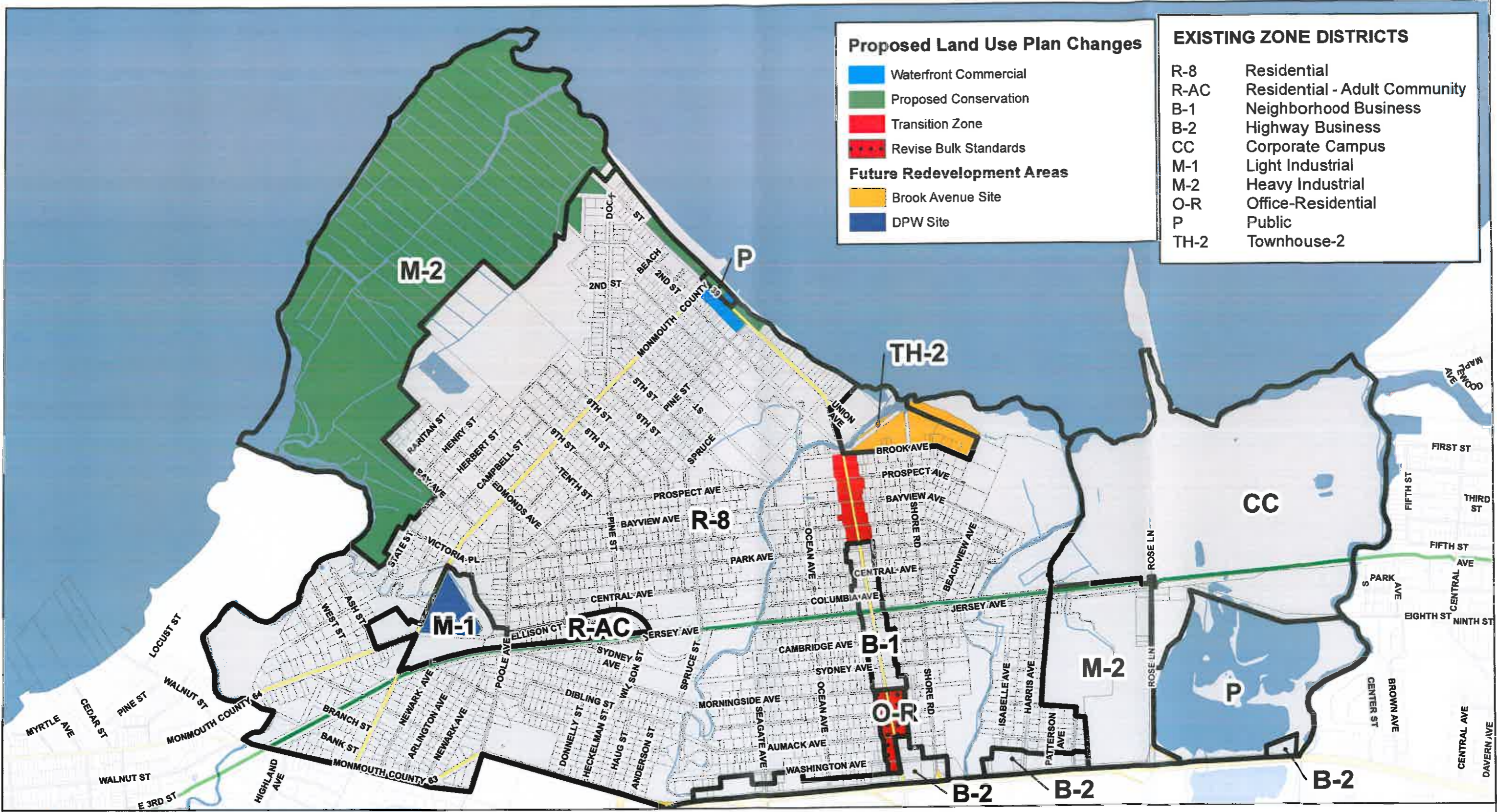
Prepared by: CLB, August 28, 2014  
 Source: NJDEP; NJDOT; NJGIN  
 H:\UBCH\02751\GIS\Projects\Existing Land Uses.mxd

- Legend**
- |                      |                        |                                |                    |                    |
|----------------------|------------------------|--------------------------------|--------------------|--------------------|
| Residential Property | Industrial             | Church and Charitable Property | Water Bodies       | Henry Hudson Trail |
| Apartments           | Public School Property | Other Exempt                   | Municipal Boundary | Roads              |
| Commercial           | Public Property        | Vacant Land                    | Parcels            |                    |

**Existing Land Uses**  
**Borough of Union Beach**  
**Monmouth County, New Jersey**

NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.

**Appendix B: Proposed Land Use Plan**



**Proposed Land Use Plan Changes**

- Waterfront Commercial
- Proposed Conservation
- Transition Zone
- Revise Bulk Standards

**Future Redevelopment Areas**

- Brook Avenue Site
- DPW Site

**EXISTING ZONE DISTRICTS**

|      |                               |
|------|-------------------------------|
| R-8  | Residential                   |
| R-AC | Residential - Adult Community |
| B-1  | Neighborhood Business         |
| B-2  | Highway Business              |
| CC   | Corporate Campus              |
| M-1  | Light Industrial              |
| M-2  | Heavy Industrial              |
| O-R  | Office-Residential            |
| P    | Public                        |
| TH-2 | Townhouse-2                   |

**T&M Associates**  
 11 Tindall Road  
 Middletown, NJ 07748-2792  
 Phone: 732-671-6400  
 Fax: 732-671-7365  
 Prepared by: CLB, September 3, 2014  
 Revised by: JAC, June 1, 2015  
 Source: NJGIN, Monmouth County, Borough of Union Beach  
 H:\UBCH\02751\GIS\Projects\Proposed Land Use Plan 06012015.mxd

**Zone District Boundary**

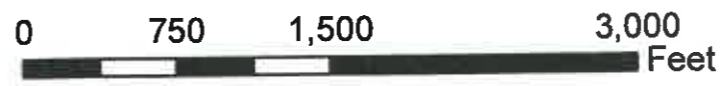
**Parcel Boundary**

**Henry Hudson Trail**

**Body of Water**

**Roadways**

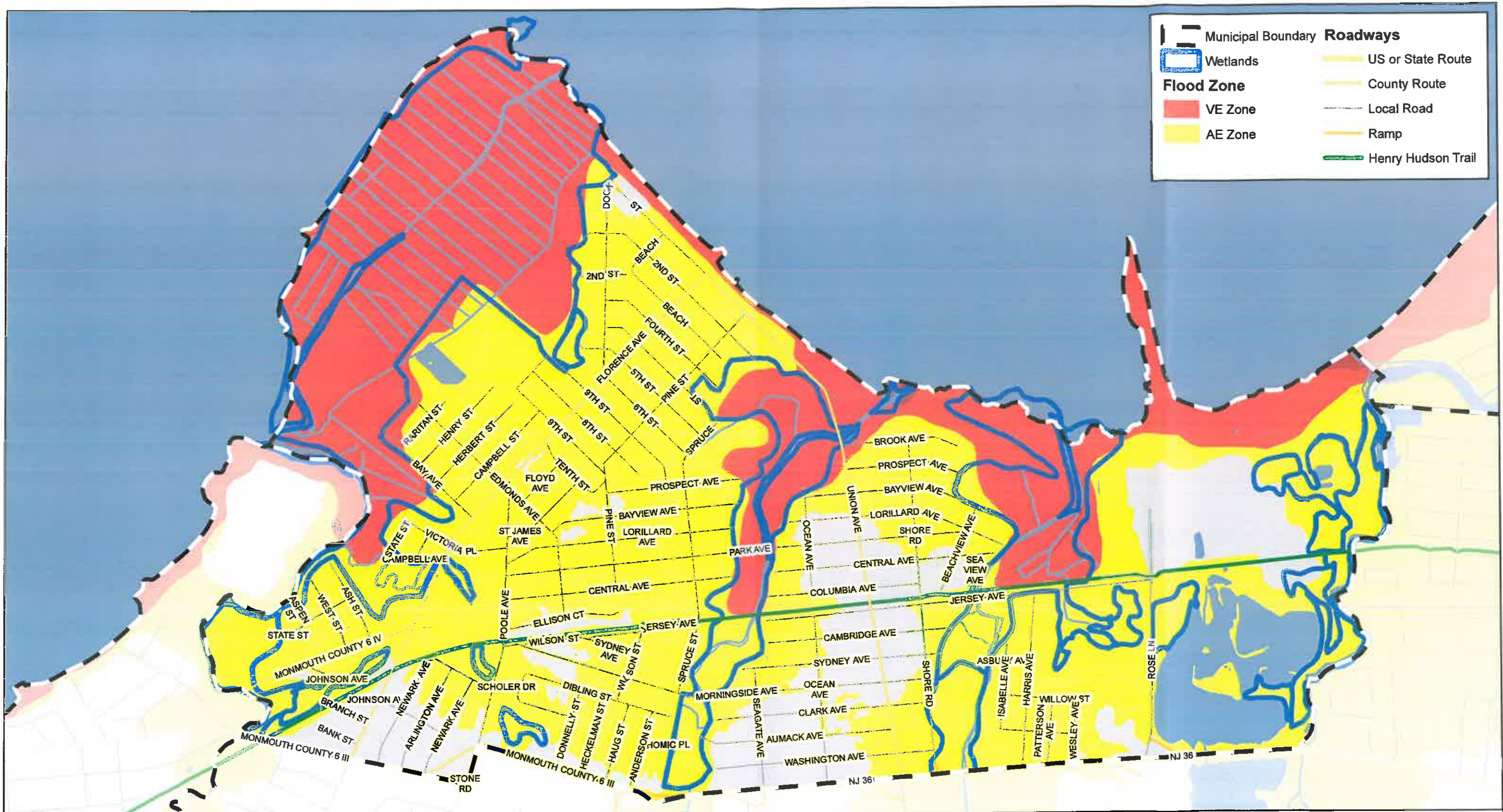
- US or State Route
- County Route
- Local Road
- Ramp



**Proposed Land Use Plan  
 Borough of Union Beach  
 Monmouth County, New Jersey**

NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.

## **Appendix C: Wetlands and Floodplain Hazard Areas**



T&M Associates  
 11 Tindall Road  
 Middletown, NJ 07748-2792  
 Phone: 732-671-6400  
 Fax: 732-671-7365

Prepared by: CLB, September 3, 2014; Revised by: JAC, June 1, 2015  
 Source: FEMA (Preliminary FIRMs dated 01/31/2015),  
 NJDOT, NJDEP, NJGIN, Monmouth County, Borough of Union Beach  
 H:\UBCH02751\GIS\Projects\Wetlands & Flood Hazard Areas 06012015.mxd



**Wetlands & Flood Hazard Areas  
 Borough of Union Beach  
 Monmouth County, New Jersey**

NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.

## **Appendix D: Critical Facilities**



**Legend**

- Fire Station
- First Aid Station
- Borough Hall Police Station
- Construction Office
- Public Works Site
- Union Beach Memorial School
- Bus Shelters
- Flood Zone
- 0.2% Annual Chance
- AE
- VE
- X
- Municipal Boundary
- Water Bodies
- Parcels
- Base Flood Elevations
- Henry Hudson Trail
- Roads

11 Hindall Road  
 Middletown, NJ 07748-2792  
 Phone: 732-671-6400  
 Fax: 732-671-7365

0 0.05 0.1 0.2 0.3 0.4 Miles

Prepared by: CLB, August 28, 2014  
 Source: NJDEP, NJDOT, NJGIN  
 H:\UBCH\02751GIS\Projects\Critical\_Facilities.mxd

**Critical Facilities  
 Borough of Union Beach  
 Monmouth County, NJ**

NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.



**Appendix E: Bicycle and Pedestrian Linkages for Potential  
Inclusion in a New Traffic Circulation Plan**

## **Bicycle and Pedestrian Linkages**

Bicycle and pedestrian linkages are encouraged and should be provided to the maximum extent possible in all areas of the borough, and particularly between community facilities, commercial and residential areas, and other key destinations. Providing such connections will not only help to make the borough more sustainable by promoting non-motorized transportation, but also greatly improve the quality of life for its residents. While sidewalks are an important pedestrian facility and should be expanded to the maximum extent possible, the focus of this amendment is on dedicated and shared bicycle lanes and multipurpose trails.

To maximize the provision of bicycle and pedestrian linkages, this Traffic Circulation Plan does not specify the exact locations where they should be provided, but, rather, establishes a vision, discusses key principles of the design and maintenance of bicycle and pedestrian facilities, and outlines important goals and objectives for their provision.

### **Vision for Bicycle and Pedestrian Linkages**

The Traffic Circulation Plan's vision is to develop and expand the borough's network of bicycle and pedestrian linkages and secure the recreation and transportation benefits of bicycling and walking for borough residents. The Traffic Circulation Plan envisions a network of bicycle and pedestrian linkages that connects residential districts with: open space and recreation areas; schools; commercial areas; and, other key destinations in Union Beach Borough and neighboring municipalities.

The Traffic Circulation Plan also envisions that linkages will be provided in the form of: on-road bicycle lanes; lanes shared between bicycles and vehicles, where appropriate; and, protected multipurpose trails. In all variations, bicyclists and pedestrians will be able to travel in a safe and efficient manner throughout the network, which will boost bicycling and walking for recreation, and increase their use as a means of transport.

### **Facility Design and Maintenance**

When planning bicycle and pedestrian linkages, it is important to pay attention to the needs and expectations of users; the facility's visual appeal and design; and its upkeep. The following section provides an overview of basic concepts to guide the planning and development of bicycle and pedestrian facilities within Union Beach Borough.

### High Quality Experience

As a starting point, it is important to consider the elements that lead to a high quality experience. Examples of such elements include: visual appeal; pleasantness and convenience of location; presence of interconnections, residential areas, and community facilities; sufficient length; accessibility for users with limited mobility; and, the availability of special features, such as educational opportunities, benches, shelters, and similar amenities. When planning bicycle and pedestrian facilities, it is important to maximize the availability of these elements in order to provide a high quality experience.

### User

It is also important to consider the needs and physical ability of the user. For example, the elderly and disabled will typically have different levels of ability than the remainder of the population. By giving consideration to the needs and physical ability of all users, use and success of the network will be maximized. Accommodating a broad cross section of users of all ages and abilities will help to maximize the use and success of the network.

### Connectivity

Connectivity refers to the linkages a network provides from a given point to another. When planning bicycle and pedestrian facilities, it is important to consider possible connections between neighborhoods, business districts, parks, and community facilities. By providing such connections, bicycle and pedestrian facilities can provide a viable route to a destination.

### Facility Type

Facility type will affect its design. The basic types of bicycle and pedestrian facilities are: on-road bicycle lanes; shared lanes; and, multipurpose trails.

- **Dedicated, On-Road Bicycle Lanes:** On-road bicycle lanes provide dedicated space for cyclists where motorists are not allowed to park, stand or drive. They are designated with striping, signage and pavement markings, and make the movements of motorists and cyclists more predictable, thereby increasing safety. They are generally unidirectional, and travel in the same direction as the adjacent vehicle travel lanes. They are located on the right side of the roadway (i.e., along the curb), and, when on-street parking is available, are generally situated between vehicle travel and parking lanes. According to guidelines of the American Association of State Highway and Transportation Officials, the minimum recommended width of an on-road bicycle lane is four feet. However, six feet is the

preferred width recommended by this Traffic Circulation Plan. The additional width provides a greater degree of separation between bicycles and motor vehicles. Standards of the American Association of State Highway and Transportation Officials indicate that striping to separate on-road bicycle lanes from vehicle travel lanes should be six inches in width. Striping to separate on-road bicycle lanes from parking lanes should be four inches.

- **Shared Lanes:** Bicycle facilities may be provided in lanes shared between bicycles and motor vehicles. Shared lanes may be suitable on roadways with low traffic volumes or wide roadway shoulders, and are generally a low-cost solution because they can be provided without the requirement for physical changes to the roadway. Indeed, shared lanes only require bikeway network signage; they can, however, be supplemented with pavement markings. The width of a shared lane should, ideally, be 15 feet to allow for enough clearance between bicycles and large vehicles.
- **Multipurpose Trails:** Multipurpose trails facilitate connections within the community. They provide for safe, non-motorized passage between residential and commercial areas, parks and open space areas, and other community features. A width of eight to ten feet is appropriate for multipurpose trails. In certain high-traffic areas, however, a tread width of ten to twelve feet may be appropriate. In all cases, the width should be wide enough to accommodate bidirectional passage. Multipurpose trails may be provided in roadway rights-of-way, but, when they are provided in such areas, are physically separated from motor vehicle traffic by open space or some other type of physical barrier (e.g., guard rail, curbing, etc.).

### Signage

Signage serves a number of important functions. Most importantly, it helps a user to identify his or her location and conveys information about facility characteristics. As such, proper signage is an important part of bicycle and pedestrian facility design.

Signage at trailheads should include: the name of the facility; a large-format map; length; permitted activities; and, information on connections. Signage should contain a minimal amount of text by making extensive use of icons and pictograms. Locational markers placed at regular intervals along the route should supplement this information. Additionally, interpretative signage should be provided where significant natural or cultural features are present. All signage should be made of durable materials that resist fading, water damage, and vandalism.

With regard to traffic signage, it is noted that the Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD) provides standards for all traffic control devices nationwide, including signs for bicycle facilities. All traffic control

devices nationwide must conform to its standards. It is, therefore, the recommendation of the Traffic Circulation Plan that the current MUTCD be consulted when planning traffic control signage.

### **Amenities**

When planning bicycle and pedestrian facilities, it is important to provide appropriate amenities. The appropriateness of a particular amenity will be determined by the function, type, and anticipated users of the facility.

Amenities have a significant impact on a user's overall experience, and may include: bicycle racks; bicycle repair stations and air pumps; benches; picnic areas; drinking fountains; animal-proof refuse containers; observation areas; and shelters, among others.

### **Maintenance**

The proper maintenance and upkeep of Union Beach's bicycle and pedestrian facilities will ensure the public's continued use, safety, and enjoyment. As such, maintenance is an integral part of the bicycle and pedestrian facility planning process.

The maintenance required for a specific facility will be determined by type, surface, and amenities. Consequently, it is the recommendation of this Traffic Circulation Plan that a maintenance plan be written for the bicycle and pedestrian network in Union Beach Borough.

A facility's future maintenance needs must also be considered during the design process. For instance, off-road facilities should be designed to be accessible to maintenance vehicles. Additionally, benches and other amenities should be designed to be low maintenance. By giving forethought to maintenance in the design process, a facility's future maintenance requirements can be simplified.

### **Goals for Bicycle and Pedestrian Linkages**

The borough's goals for bicycle and pedestrian linkages are as follows:

- Provide bicycle and pedestrian linkages between major destinations within the borough, and to neighboring municipalities.
- Establish a permanent advisory committee for bicycle and pedestrian facilities.
- Provide identification and guide signs for bicyclists and pedestrians.
- Provide safe and adequate bicycle parking options at key destinations, and in all public parks.
- Work with Monmouth County and the State of New Jersey, as appropriate, to provide signage that alerts motorists of the presence of bicyclists along roadways.

- Provide only bicycle-safe sewer grates in all areas of the borough.
- Provide adequate lighting to ensure safety for bicyclists and pedestrians.
- Ensure that all bicycle projects comply with recognized design standards, such as the *Guide for the Development of Bicycling Facilities* prepared by the American Association of State Highway and Transportation Officials.
- Investigate potential funding mechanisms for bicycle and pedestrian facilities, including grants and open space trust funds.
- Coordinate bicycle planning with Monmouth County and the State of New Jersey.
- Develop a borough-wide bicycle and pedestrian facility map that is displayed at parks, parking lots, and other major destinations.
- Provide traffic calming at key locations to improve bicycle and pedestrian safety and encourage use of facilities.