

Millstone Township Land Use Element

November 2, 2026

ADOPTED BY PLANNING BOARD: November 12, 2026

Prepared by MJ Planning LLP

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The original of this report was appropriately signed and sealed in accordance with N.J.S.A. 45:14A.

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INTRODUCTION

The following document constitutes the Land Use Element of Millstone Township's Master Plan. The Land Use Element is a required component of the municipal master plan under the New Jersy Municipal Land Use Law (MLUL), functioning as a core element intended to "guide the use of lands within the municipality in a manner which protects public health and safety and promotes the general welfare." Land Use Elements inventory the natural and built environment of a community and provide a vision and outline for the type, location, and intensity of future land uses, which become the basis for municipal zoning.

A master plan is a planning document providing a comprehensive framework that drives the physical, economic, and social development of a community. The master plan is directed by the MLUL (N.J.S.A. 40:55D-28) and organized into chapters called "elements." At a minimum, the MLUL requires a master plan to include 1) "[a] statement of objectives, principals, assumptions, policies, and standards upon which the constituent proposals for the physical, economic and social development of the municipality are based;" and 2) a land use element. A housing element must also be adopted for a municipality to adopt a zoning ordinance. Additional elements, such as circulation, utility, community facilities, conservation, etc. may be added but are not required.

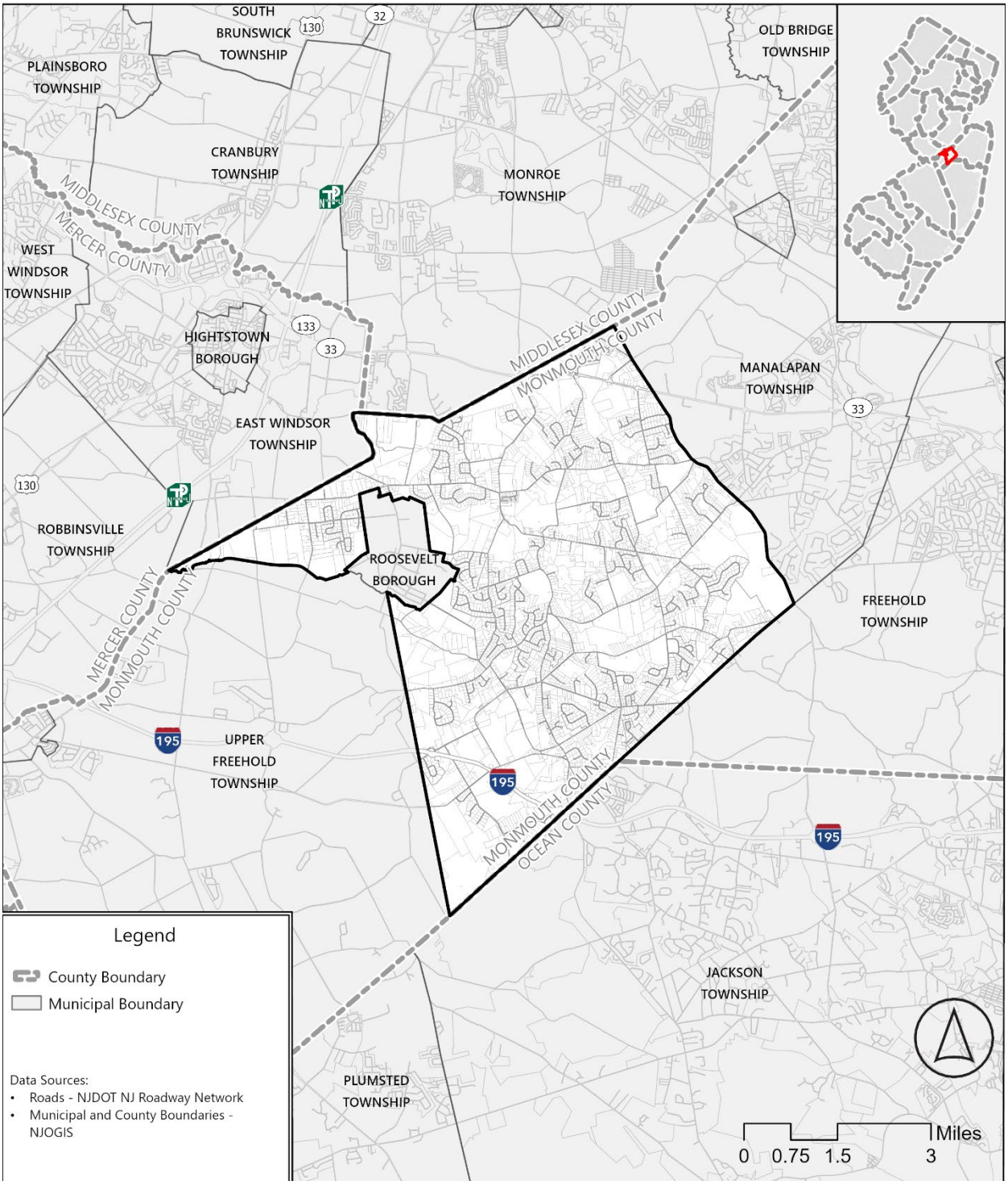
The requirements of land use elements have evolved over time with the current scope requiring a discussion and analysis of a variety of topics, including strategies related to smart growth, storm resiliency, environmental sustainability, electric vehicle infrastructure, and climate change-related hazards. The other elements of a master plan work closely with the Land Use Element, providing in-depth reviews of specific topics (e.g. circulation, open space, etc.) but the Land Use Element is the basis for future land use and development ordinance changes.

THE TOWNSHIP OF MILLSTONE

Millstone Township was formed from land occupied by the Lenni Lenape prior to contact with Europeans. The river, known to the Lenape as the Mattawong, was renamed the Millstone River by Europeans and gave its name to the Township. The Township was formed as an administrative governmental entity by an act of legislation on February 28, 1844. The Township included villages such as Carrs Tavern, Holmeson, Smithburg, Sweetman, Bergen Mills, Bairdsville, Stone Tavern, Clarksburg, and Perrineville, some of which continue to lend their names to roads and neighborhoods within the Township today. The Township was part of the American Revolutionary War history that is prevalent throughout Monmouth County. Signal Beacon #21 was a post for the Continental Army and the Rising Sun Tavern was an outpost used by General George Washington during the war.

Today, Millstone is located in western Monmouth County at the confluence of four other counties, with Jackson County in Ocean Township to the southeast, Monroe Township in Middlesex County to the north, and East Windsor Township to the northwest. The Township also borders the Borough of Roosevelt, Manalapan Township, Freehold Township, and Upper Freehold Township, all within Monmouth County.

The Township is just over 37 square miles in area, nearly all of which is land, and the most recent America Community Survey population estimate is 10,385 residents making Millstone the second least densely populated municipality in Monmouth County.



Map 1 - Regional Location

PAST PLANNING EFFORTS

Millstone Township prepared its first Master Plan in 1971. Subsequent comprehensive Master Plans were adopted in 1995 and 2002. Since the 2002 Plan was adopted, there have been a number of updates and amended elements prepared. In 2017 a comprehensive update to the 2002 Master Plan was prepared to address the rapid growth the Township experienced in the preceding decade and a half. The 2017 Master Plan Update included:

- Goals and Objectives
- Land Use Element
- Housing Element (not including the proposed mechanism to meet the Township's obligations pursuant to the Mt. Laurel doctrine)
- Circulation Element
- Community Facilities Element
- Historic Preservation Element
- Open Space, Recreation, and Conservation Element
- Economic Development Element
- Utilities Element
- Recycling Element

Additional planning documents include:

- 2004 Crosswicks Creek – Doctors Creek Watershed Greenway Plan
- 2006 Natural Resource Inventory
- 2007 Recreation, Parks, and Open Space Plan
- 2008 Farmland Preservation Plan
- 2008 Housing Element and Fair Share Plan
- 2020 Amendment to Community Facilities
- 2020 Farmland Preservation Plan
- 2020 Housing Element and Fair Share Plan
- 2023 Amendment to Housing Element and Fair Share Plan
- 2025 Housing Element and Fair Share Plan
- 2026 Amendment to Housing Element and Fair Share Plan

MASTER PLAN PRINCIPLES

Millstone Township's Master Plan Elements are based upon the following seven guiding principles:

1. Millstone Township has a long and rich history as an agricultural community. The community-wide, purposeful commitment to maintaining agriculture as an active industry and way of life makes it a unique place in New Jersey and Monmouth County, both of which are seeing ever-more farmland lost to development pressure. The goals, objectives, and recommended action items in the Master Plan prioritize farmland preservation and the maintenance of the rural character and quality of life of Millstone Township.

2. Open space and conservation areas are essential to maintaining a healthy environment, controlling suburban sprawl, and preserving the rural character of Millstone Township and its natural and cultural resources. A Township network of permanently preserved open spaces and conservation lands is needed to provide public recreation, to maintain biodiversity, to protect water quality, to control flooding, and to conserve the community's significant scenic, cultural, and natural features.

3. As a rural environmentally sensitive place, the Township supports the State Plan's policies related to Planning Area 4-B communities, which are targeted for land preservation and development that is limited to centers. The Township supports its regional role by taking local actions that are committed to the protection of its farmland and natural and cultural resources. Areas with steep slopes, stream corridors, wetlands, floodplains, forests, agriculture, and areas valuable as scenic, historical, cultural, or recreational resources will be preserved.

4. The Township is uniquely located and serves as the origin for one-quarter of New Jersey's twenty major watershed areas. The Township recognizes the regional importance of Millstone Township as the convergence zone for central New Jersey watersheds and supports actions that protect its exceptional high-quality water resources.

5. The Township will plan for the full array of agricultural, residential, commercial, office, light industrial, recreational, and public and quasi-public land uses in such a manner as to achieve beneficial development that respects the rural character of Millstone. Private lands, community facilities, active recreation, economic development, and all other built infrastructure are developed so as to fit into sensitive environmental areas with as low of an impact on natural features as possible.

6. The Township will make decisions regarding the provision of infrastructure that seek to limit its impact on environmentally sensitive features and agricultural areas and to prevent inefficient and expensive sprawl development.

7. Given Millstone's historic agrarian and small-scale development context as well as its significant environmental constraints, the Township will maintain a scale, intensity, and pattern of development that supports the rural and small-town environment. Development will be limited to appropriate locations and will be contextually designed to be compatible with the community. Special attention shall be given to site design that protects sensitive environmental features as well as open space.

GOALS AND OBJECTIVES

The goals and objectives for the Land Use Element are outlined below. The 2017 Master Plan put forth several goals and objectives related to land use, expanding on those that were identified in the Township's 2003 Master Plan. The 2026 Reexamination Report, found in Part I of this document, determined that the majority of the goals and objectives remain valid and proposed updates along with additional goals and objectives for the Township's Land Use Element. The Reexamination Report recognized that while many of the land use objectives remain relevant, they should be amended to reflect firmer and more direct policy commitments for Millstone's future land use.

LAND USE GOAL STATEMENT: The Township implements land use policies that maintain Millstone's rural, agricultural, and low-density community character, directing context-sensitive development to appropriate locations in appropriate development patterns that do not undermine the community's established composition.

Land Use Objectives:

a. Maintain appropriate rural population densities and development patterns that support the well-being of residents and neighborhoods, protect environmental resources, and prevent development patterns that place undue hardship and pressure on municipal services and infrastructure.

b. Protect and preserve the Township's open space, agricultural land, historic sites and districts, resources, and other valuable natural resources to prevent suburban sprawl, fragmentation of open lands, and degradation of the environment through improper and incompatible land uses and development patterns.

c. Require compliance with site design regulations and performance standards that minimize land disturbance, reduce environmental impacts, and incorporate measures for stormwater management, habitat protection, and resource conservation.

d. Prioritize cluster development options and other flexible development controls in appropriate locations that incentivize the preservation of larger contiguous tracts of open space while ensuring appropriately scaled residential development.

e. Prioritize public investments in acquisition, preservation, maintenance, and stewardship of open space, parkland, and farmlands in order to permanently protect the Township's rural landscape and agricultural heritage.

f. Protect water quality and resources by limiting impervious coverage and requiring adequate buffers along streams, waterways, wetlands, groundwater recharge areas, and other environmentally sensitive features.

g. Maintain and protect the Township's distinctive visual and rural character by requiring new development to be compatible with established community patterns, including architecture, building scale, landscaping, materials, and site layout.

h. Encourage Township actions that will guide the appropriate use and management of lands within Millstone Township in a manner which will promote the public health, safety, morals and general welfare.

i. Provide sufficient space in appropriate locations within the Township for agricultural, residential, business, office, light industrial uses, public and quasi-public uses, and open space in a manner which will provide for balanced Township growth and development and meet public needs.

j. Encourage the appropriate and efficient expenditure of public funds by the coordination of public development with land use policies.

k. Encourage the coordination of the various public and private procedures and activities shaping land development with a view of lessening the cost of such development and of increasing the efficient use of land.

l. Protect Millstone's existing farmland and strengthen the economic vitality and long-term continuity of its farmers and agricultural uses.

m. Recognize the State's farmland preservation and agriculture support initiatives, including the State's On-Farm Direct Marketing Agricultural Management Plan (AMP) process under New Jersey's Right to Farm Act, and support Monmouth County's jurisdiction over that process. Encourage local farmers to utilize the AMP process and work with the Monmouth County Agriculture Development Board.

n. Maintain Millstone's large-lot residential zoning standards to reinforce the Township's rural development patterns

o. Minimize light pollution, glare, and light trespass while maintaining public safety and functional outdoor lighting. Promote a dark-sky environment that protects public health, conserves energy, preserves ecological systems, and supports the character and livability of Millstone through coordinated land use, zoning, and capital investment strategies.

p. Reduce adverse noise impacts for development projects through early intervention and integration of sensitive site design and operations. Non-residential developments shall incorporate a variety of measures to reduce noise pollution. Such measures may include but are not limited to, acoustically lined ventilation systems, rooftop noise screens, strategic placement of mechanical rooms, intake and exhaust silencers, interior wall treatments, and acoustically rated enclosures.

q. Ensure uses within the Township's commercial and industrial districts are of an appropriate scale and intensity to not negatively impact the Township's environmental resources and features or the existing community character.

r. Given Millstone's lack of public infrastructure and the Township's location within the State Plan's PA4B Rural Environmentally Sensitive Planning Area, the Township should strive to meet any future constitutionally required affordable housing obligation through 100% affordable development. In an effort to ensure land is available for such developments, the Township should consider appropriate property acquisitions over the next 10 years in preparation for the Fifth Round, which will begin in July 2035.

EXISTING ZONING

INCENTIVE ZONING

Millstone's Chapter 35 "Land Use and Development Regulations" provide specific standards intended to encourage the preservation of large tracts of land while allowing for development of residential homes. The ordinance does this through four different options: Woodsy Lane development, Variable Density, Cluster Development, and Lot Size Averaging.

Woodsy Lane	Lot Size Averaging	Variable Density	Farmland/Open Space Cluster
Accommodate homes into wooded areas	Varying lot sizes to better protect natural resources and farmland	Smaller lots in exchange for preserving open space	Concentrating housing and preserving farmland and open space.

"Woodsy Lane" Development

The "Woodsy Lane" development option provides for lot size averaging in wooded areas and is available to property owners in the R-170, R-130, and the R-80 Zones. The standards are slightly different in each of the three zones, but generally, the incentive zoning allows for a major subdivision application with reduced improvement requirements. All "Woodsy Lane" developments may reduce pavement widths to 26 feet, do not require curbing, and may provide drainage in swales. There is no requirement for land preservation or common open space, but there is a requirement that a certain percentage of the homes be constructed in wooded areas of the tract. Land previously approved pursuant to Woodsy Lane development shall not be permitted to be subdivided if such subdivision would result in any of the bulk requirements being violated.

Variable Density Development

Variable density development is permitted in the R-170 and R-130 Zones to allow smaller development lots in exchange for preserving open space. The intent is to provide flexibility in residential development while providing a method for preserving land. While the specific standards and qualifications are different in each zone, this incentive zoning method allows for subdivisions with lots meeting less stringent minimal requirements but shall preserve at least 30% of the overall tract.

Cluster Development

Farmland/open space conservation clusters are a permitted zoning option in the RU-P and RU-C Zones. The purpose is to provide a creative option for single-family residential development while simultaneously preserving and safeguarding agricultural lands, open space, habitats, and environmentally sensitive areas. Development tracts shall be at least 80 acres in area, which may consist of a single parcel that meets the minimum area requirement or may consist of a tract comprising multiple parcels all of which are greater than 10 acres in area and at least two of which are greater than 30 acres in area. The cluster zoning allows subdivided residential parcels measuring at least two acres in the RU-P and at least 1 1/3 acres in the RU-C and at least 70% of the overall tract in the RU-P and 75% of the overall tract in the RU-C shall be set aside as preserved farmland and open space.

Lot Size Averaging

Lot size averaging is permitted in the RU-P and RU-C Zones to provide varying lot sizes to better protect natural resources and farmland. Minimum lot areas may be reduced as long as the average is at least the minimum

required in the zone and that more lots are not created than would otherwise be permitted as a conventional subdivision. In the RU-P Zone, the minimum lot size may be 3 acres where the average lot size across the subdivision shall be 10 acres where in the RU-C, the minimum permissible lot size shall be 3 acres where the average lot size shall be 6 acres. Each lot involved in a lot size averaging plan shall be permanently deed restricted to prevent further subdivision.

EXISTING ZONE DISTRICTS

Zoning districts refer to designated areas within a municipality where specific use and bulk regulations are dictated. Each district regulates the types of land uses that are permitted, where and how development can occur, and account for the overall character of existing neighborhoods. The Township of Millstone is divided into 14 zoning districts; most provide a stated purpose of the zone and establish use and bulk standards.

R-170 Rural Environmental Zone

The R-170 Rural Environmental Zone was established in 1996, based on recommendations from the 1995 Master Plan. The geographic area of the R-170 Zone was derived from environmental areas delineated on the Township's Natural Resource Inventory maps prepared between 1990 and 1993.

The purpose of the R-170 Zone is to protect sensitive features consistent with the New Jersey State Development and Redevelopment Plan including significant areas which include one or more of the following sensitive environmental features: freshwater wetlands, steep slopes (15% or greater), one-hundred-year floodplains, shallow depth to water table, headwaters of streams, mature wooded areas, and areas with highly erodible soils based upon the U.S. Department of Agriculture Soils Mapping, NJDEP Freshwater Wetlands Maps, U.S.G.S. Topographic Mapping, and the Millstone Township Natural Resources Inventory.

The R-170 zoning district is intended to be a low-density residential zone, allowing single-family dwellings and agricultural-related uses on minimum 4-acre lots. Development options to encourage the protection of environmental features include provisions for "Woodsy Lane" and "Variable Density" developments.

Permitted uses include detached single-family dwellings, farms and farm buildings, non-farm horse stables, and family day care homes.

RU-P Rural Preservation Zone

Established in 2003, the RU-P Rural Preservation Zone is intended to maintain the rural character of the Township; to promote the preservation of the open space and farmland areas of Millstone Township; and to minimize the impact of new development on natural resources and rural features of the community. Within the zone are large areas of farmland, prime agricultural soils, and open space.

A further purpose of the zone is to promote the vision and policies of the State Development and Redevelopment Plan for the State's rural environmentally sensitive planning area in western Monmouth County as well as to support the implementation of the Monmouth County Farmland Preservation Plan and Program for the Farmland Preservation Areas of Millstone. The RU-P zone protects the environment by supporting the preservation of environmentally sensitive features such as freshwater wetlands, steep slopes, stream corridors, forests, and wildlife habitat areas including the Assunpink Wildlife Management Area.

The RU-P zone is the lowest density area in Millstone requiring minimum lot sizes of 10 acres. The zone permits lot size averaging and residential clusters to provide alternative design techniques that may allow subdivisions to better protect environmental features, farmland, and open space.

Permitted uses include detached single-family dwellings, farms and farm buildings, non-farm horse stables, family day care homes, public playgrounds, conservation areas, and parks and open space, and Township public purpose uses including firehouses and rescue squad buildings.

RU-C Rural Conservation Zone

The RU-C Rural Conservation Zone, also established in 2003, has a near identical purpose to the RU-P zone except that it permits development on slightly smaller, 6-acre lots. The zone also allows lot size averaging and residential cluster development.

Permitted uses include single-family dwellings, farms and farm buildings, non-farm horse stables, family day care homes, public playgrounds, conservation areas, and parks and open space, and Township public purpose uses.

R-130 Rural Residential Zone

The R-130 Rural Residential Zone was established in 1996 and is intended to permit low density residential, general agricultural, nurseries, and horse farms. The original intent of the zone was to include properties that had previously been developed with residential uses in a rural residential development form. Due to the soils present in the R-130 area, farmers in the new R-130 zone were encouraged to participate in farmland preservation efforts, although the 1995 Master Plan notes that the area of contiguous farmland in the zone at that time was diminishing.

The R-130 zoning district is currently intended to protect the same sensitive environmental features identified for protection in the R-170 zoning district. Options for "Woodsy Lane" and "Variable Density" development are provided within the zone. Development is permitted on 3-acre lots.

The zone district permits similar uses to the previous districts: detached single-family residential uses, farms and farm buildings, non-farm horse stables, and family daycare homes, and adds public and quasi-public outdoor park and recreational facilities owned and/or controlled by a governmental entity including tennis courts, ball fields and other field sports provided such facilities contain a minimum of 15 acres and have a minimum frontage of 400 feet on an arterial road as defined in the Millstone Township Master Plan.

R-80 Rural Residential Zone

The R-80 Rural residential zone is intended to provide for moderate density, rural residential development of single-family detached dwelling units on individual lots with on-site septic disposal systems and individual wells in developed portions of the Township and infill areas within existing R-80 development areas. Lot size averaging is permitted under certain conditions within the R-80 within wooded areas.

Permitted uses include detached single-family residential uses, farms and farm buildings, non-farm horse stables, and family daycare homes on minimum 2-acre lots.

R-20 Residential Zone

The R-20 Residential Zone was established in 1996 and is limited to one location consisting of 38 dwelling units on approximately 40 acres. The district is located at Perrineville and Baird Roads. The purpose of the zone is to reflect the existing development on 20,000 to 30,000-square-foot lots with no room or anticipation for expansion. In accordance with historic aerials, this neighborhood was developed in the 1970s. Given potential issues with individual on-site septic systems and domestic wells on sites this small, the R-20 zone should not

be expanded here or elsewhere within the Township. Additionally, no new permitted uses should be added to this zone.

Permitted uses in this zone include detached single-family residential uses, post offices, family daycare centers, and farm buildings and farm storage.

NC Neighborhood Commercial Zone

The NC Neighborhood Commercial Zone is intended to provide for small-scale retail and service uses on minimum 40,000-square-foot lots. The permitted uses in this zone provide a mix of uses including detached residential dwellings, retail trade establishments selling goods and service trade establishments each limited to 4,000 square feet per use, and child care centers. The 4,000-square-foot cap on retail and service uses is intended to promote and focus on small, locally oriented businesses, rather than large-scale commercial establishments.

While municipally sponsored affordable housing development is permitted in all zoning districts within Millstone, the NC Zone provides specific bulk standards for such development.

The NC Zone is located in four areas of the Township: the historic Clarksburg area along County Route 571 representing approximately 98 acres; the historic Perrineville area on Sweetmans Lane encompassing approximately 64 acres; the corner of Millstone Road and Trenton Lakewood Road comprising approximately 24 acres; and two lots on Perrineville Road (Rt 571) on the municipal border with East Windsor Township measuring approximately 16 acres.

HC Highway Commercial Zone

The HC Highway Commercial Zone is intended to provide service and retail commercial uses along County Routes 526, 571 and 537, New Jersey Route 33 and Burnt Tavern Road on lots 3 acres in area or more. The zone permits the same retail and service establishments as the NC Zone without the square footage limitation, and adds theaters, bowling alleys, and similar forms of indoor commercial recreation, ice and roller skating rinks, indoor and outdoor tennis courts and swim clubs, health spas, quasi-public buildings for group assemblies, farms and agriculture, and child care centers.

The HC Zone also provides specific standards for municipally sponsored affordable housing development within the zone.

Given its location along major thoroughfares within the Township, the HC zone promotes more regionally based commercial uses in addition to the NC's locally based businesses.

HC-1 Highway Commercial

The HC-1 Zone, established in 2003, is similar to the HC Zone, but is intended to permit services and retail commercial uses along County Route 537 while recognizing the existence of fast food restaurants (not permitted in the HC Zone), convenience shopping and the potential for other uses to serve the needs of the tourist trade generated by Great Adventure and other travelers exiting I-195.

The establishment of this zone was a direct result of the 2002 Master Plan which recognized that existing fast food restaurants had emerged at this location to serve the tourists associated with Great Adventure. Since the Township did not want (and still does not want) fast food uses beyond this location, the 2002 Master Plan recommended limiting them to this geographic area within a special zone. To address this issue, restaurants,

including category one, category two, drive thrus, and taverns, are permitted as conditional uses within the zone.

Regulations of the zone seek to protect neighboring residents from potential detrimental impacts by requiring a 300-foot minimum separation between any building within the HC-1 Zone and a residential or rural preservation zone line.

BP Business Park Zone

The BP Business Park Zone was established in 1996 based on recommendations from the 1995 Master Plan to rezone the previous LI Light Industrial Zone. The BP Zone is designed to provide for limited industrial uses within a rural business park setting. The Business Park zones are located near regional arterial roadways (Route 33 and Interstate 195). Due to environmental restrictions from the requirement for on-site septic and individual wells, all industrial, warehouse, and other permitted uses must adhere to the environmental performance standards established by the New Jersey Department of Environmental Protection, the Monmouth County Health Department, and the Millstone Township Land Use and Development Regulations.

Permitted uses on 130,000-square-foot-lots include storage warehouse and distribution centers, excluding trailer storage yards; scientific and research laboratories; fabrication, manufacturing, processing or assembly of goods and materials; manufacture, compounding, processing, packaging and treatment of food, ice, plastics, and toilet supplies; finishing or assembly or articles made from previously prepared or refined material; quasi-public buildings for group assemblies; farms and agriculture; corporate offices and business centers for professional use; banks and other similar financial institutions; child care centers; and wind, solar, or photovoltaic energy facilities on at least 20 acres.

This zone is designed to support low-intensity light industrial uses that are suitable for on-site septic systems and generate less traffic than larger commercial sites.

There are three Business Park Zones within the Township: one extending off Prodelin Way adjacent to Monroe Township consisting of a number of parcels along Rike Drive; one at the corner of Trenton Lakewood Road and Red Valley Road, containing several lots on Wren Haven Drive; and the third is along Burnt Tavern Road.

The 2002 Master Plan called for the expansion of the BP Zone over the HC Zone located at the intersection of County Routes 527 and 537. The 2017 Master Plan reiterates that recommendation, although it is unclear if that is a continued recommendation or simply identifying the previous initiative. Either way, this rezoning has not occurred. Given the location of existing commercial development, the presence of environmental constraints, and the fact that the Township now owns some of these parcels, it is not recommended that these lots in the HC be rezoned to the BP.

PCD Planned Commercial Development

The PCD Planned Commercial Development Zone was established in 2003 and is intended to promote the use of larger tracts for unified, well planned and designed commercial development. The PCD is intended to better control highway access, maintain the free flow of traffic along Route 33, and discourage the fragmentation of the highway frontage into a highway strip of uncoordinated development on small lots.

Permitted uses in the zone include “planned commercial development” consisting of business and professional offices; banks and financial institutions; corporate offices; scientific and research laboratories; category one and category two restaurants; commercial recreation including theaters, skating rinks, bowling alleys, tennis and racquetball facilities; health spas; retail and service as permitted in the HC Zone which shall

not exceed 25% of the gross floor area of any building; child care centers; and storage warehouse and distribution centers, excluding trailer storage yards. Additional permitted uses include farms and agricultural uses.

Because the intent of this zone is utilizing larger tracts for a unified development, 800 feet of frontage is required as well as a master development plan. The lots within a planned commercial development can be subdivided down to 2.5-acre sites. An example of this is the recent development that has taken place along Farrington Boulevard and Debaun Road on the westbound side of Rt 33.

Development that is not part of a planned commercial development, including farms and agricultural use, shall be a minimum of 20 acres in size.

RC Recreation Camp Zone

The RC Recreation Camp Zone was established in 1996 and permits buildings and recreational areas in association with day camps and other private or nonprofit facilities on minimum 10-acre properties.

There are three sites within this zone district: Black Bear Lake Camp on Stagecoach Road and Red Valley Road; Frogbridge Day Camp on Yellow House Meeting Road; and a site along County Route 537 (Monmouth Road) that was previously used as a YMCA Camp. The YMCA camp was added to the RC Zone as a result of a recommendation in the 2002 Master Plan. The camp has since closed and it appears likely that Monmouth County intends to acquire the property.

R-MF Multi-Family Zone District

The R-MF Multi-Family Zone was established in 2020 as a result of the Township's Court-approved settlement agreement to settle it's Third Round Mt. Laurel obligation to provide affordable housing opportunities to the region's residents.

FHSC FLOOD HAZARD AND STREAM CORRIDOR OVERLAY ZONE

The Zoning Map also identifies the FHSC Flood Hazard and Stream Corridor Overlay Zone, which was established in 2003 and applies to all tracts of land that fall in whole or in part within a stream corridor or stream corridor buffer or the Flood Hazard Overlay District and review of any disturbance to the stream corridor or stream corridor buffer area shall be reviewed as part of any application to a Board. The stream corridor buffer area is defined as an area extending a minimum of 75 feet and an average distance of 100 feet from the 100-year flood line. If there is no 100-year flood line delineated, the distance shall be measured outward from the bank of the stream channel, lake, or pond. This buffer area acts as a filter and barrier against erosion, overland flows of sediments and pollutants, and stream ecosystem disruption, and provides wildlife habitat.

The FHSC Overlay Zone is not a traditional zoning designation with bulk standards, but is intended to improve the management, care, and conservation of water resources; protect significant ecological components of stream corridors such as floodplains, woodlands, steep slopes and wild life and plant life habitats within stream corridors; prevent flood damage; complement existing State, regional, County and municipal stream corridor and flood hazard protection and management regulations and initiatives; coordinate the regulation of development within stream corridors; reduce the amount of nutrients, sediment, organic matter pesticides, and other harmful substances that reach watercourses, and subsurface and surface water bodies; regulate the land use, siting and engineering of development in stream corridors; conserve natural, scenic, and recreation areas within and adjacent to streams and water bodies; support the water resource policies of the

New Jersey State Development and Redevelopment Plan; and advance the purposes of the New Jersey Municipal Land Use Law

Permitted activities within the FHSC Overlay include wildlife sanctuaries, game farms, bike trails, fishing areas, and other recreational or wildlife pathways. With the exception of these related activities, the areas within the FHSC Overlay shall remain in their natural state with no clearing or cutting of trees and bush, altering watercourses, regrading, or construction.

PUBLIC LAND DESIGNATIONS

The Township's Zoning Map additionally identifies public property, split into two categories: State or County Open Space, containing all land owned by Monmouth County or the State of New Jersey; and Township Public Lands, containing all Township parks, preserved open space, community facilities, and public property as well as homeowner association open space. As discussed in the existing land use section of this Plan, approximately one-quarter of the Township's land is publicly owned. The Zoning Map also notes the location of preserved farmland and streams. These are identifications on the zoning map are for informational purposes and are not regulatory – the standards of the zones in which the public lands are located regulate them.

EXISTING BULK REQUIREMENTS

Table 1 provides the bulk requirements for the Township's zoning districts. It is noted that the R-MF Zone is not included in the table below as it has site-specific standards that were approved pursuant to the Township's Declaratory Judgment Action associated with its Third Round Affordable Housing compliance. For information on that zone, please see its standards in Section 35-5 of the Municipal Code. The FHSC Overlay Zone does not have assigned bulk standards.

TABLE 1: BULK STANDARDS

	R-170 [2]	RU-P [1]	RU-C [1]	R-130 [2]	R-80 [2]	R-20	NC [3]	HC [3]	HC-1	BP [4]	RC	PCD [4]	PCD [4,5]
Min. Lot Area	170,000 sf / 4 acres [6]	10 acres	6 acres	130,000 sf / 3 acres [6]	80,000 sf / 2 acres [6]	20,000 sf	40,000 st	3 acres	3 acres	130,000 sf	10 acres	2.5 acres 15 acres max/5 acres avg	20 acres
Min. Lot Width/Frontage (Feet)	250	250	250	250	200	125	150	250	250	250	250	300	800
Min. Lot Depth (Feet)	-	-	-	-	-	-	200	450	450	-	-	300	450
Min. Front Yard Setback (Feet)	75	75	75	75	50	50	75	100	100	100	100	100 / 60	100
Min. Side Yard (Feet)	40	40	40	40	30	20	30	40	40	50	50	40	50
Min. Combined Side Yard (Feet)	100	100	100	100	60	40	60	100	100	125	125	100	125
Min. Rear Yard (Feet)	75	75	75	75	50	25	50	75	75	100	50	50	100
Min. Accessory Building Side/ Rear (Feet)	20 / 25	20 / 25	20 / 25	20 / 25	15 / 20	10 / 10	10 / 10	20 / 75	20 / 75	40 / 75	50 / 50	-	50 / 75
Min. Bldg Height	40 ft / 3 stories	40 ft / 3 stories	40 ft / 3 stories	40 ft / 3 stories	35 ft / 2 stories	35 ft / 2 stories	35 ft / 2 stories	30 ft / 2 stories	30 ft / 2 stories	30 ft / 2 stories	30 ft / 1 story	35 ft / 2 stories	30 ft / 2 stories
Max. Lot Coverage (%)	20	10	20	20	20	35	70	50	50	50	10	55	50
Max. Bldg Coverage (%)	10	8	10	10	10	15	30	25	15	30	5	20	15
Max. Building FAR	-	-	-	-	-	-	-	-	0.15	-	-	-	0.15
Max. FAR for Warehouse	-	-	-	-	-	-	-	-	-	0.25	-	0.25	-
Max. FAR for Other Use	-	-	-	-	-	-	-	-	-	0.2	-	0.2	-

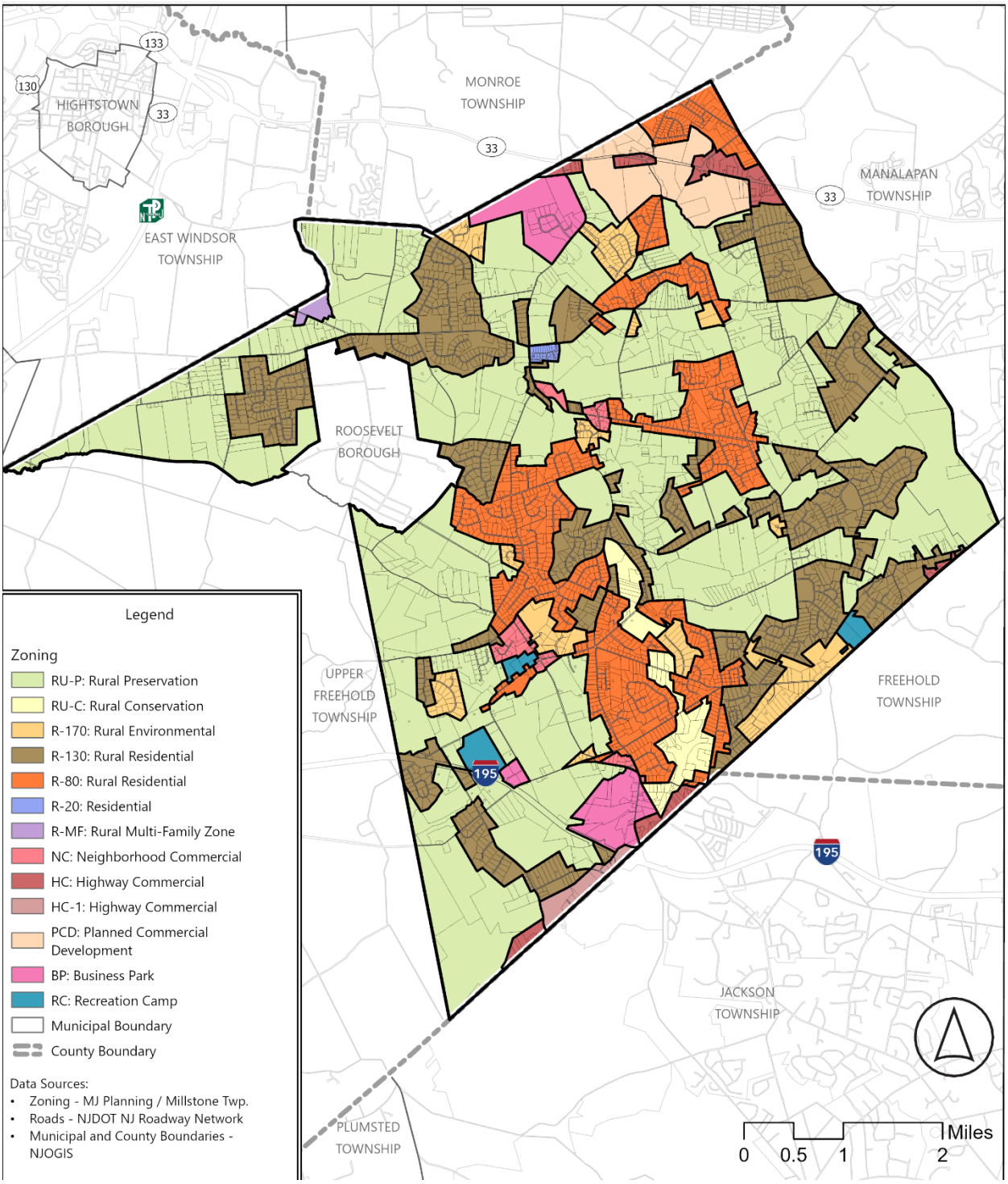
[1] There are exceptions to these standards associated with lot size averaging and cluster development. See the specific zoning requirements of the zone found in Section 35-5.

[2] There are exceptions to these standards associated with "Woodsy Lane" development, variable density, and municipally sponsored affordable housing development. See the specific zoning requirements of the zone found in Section 35-5.

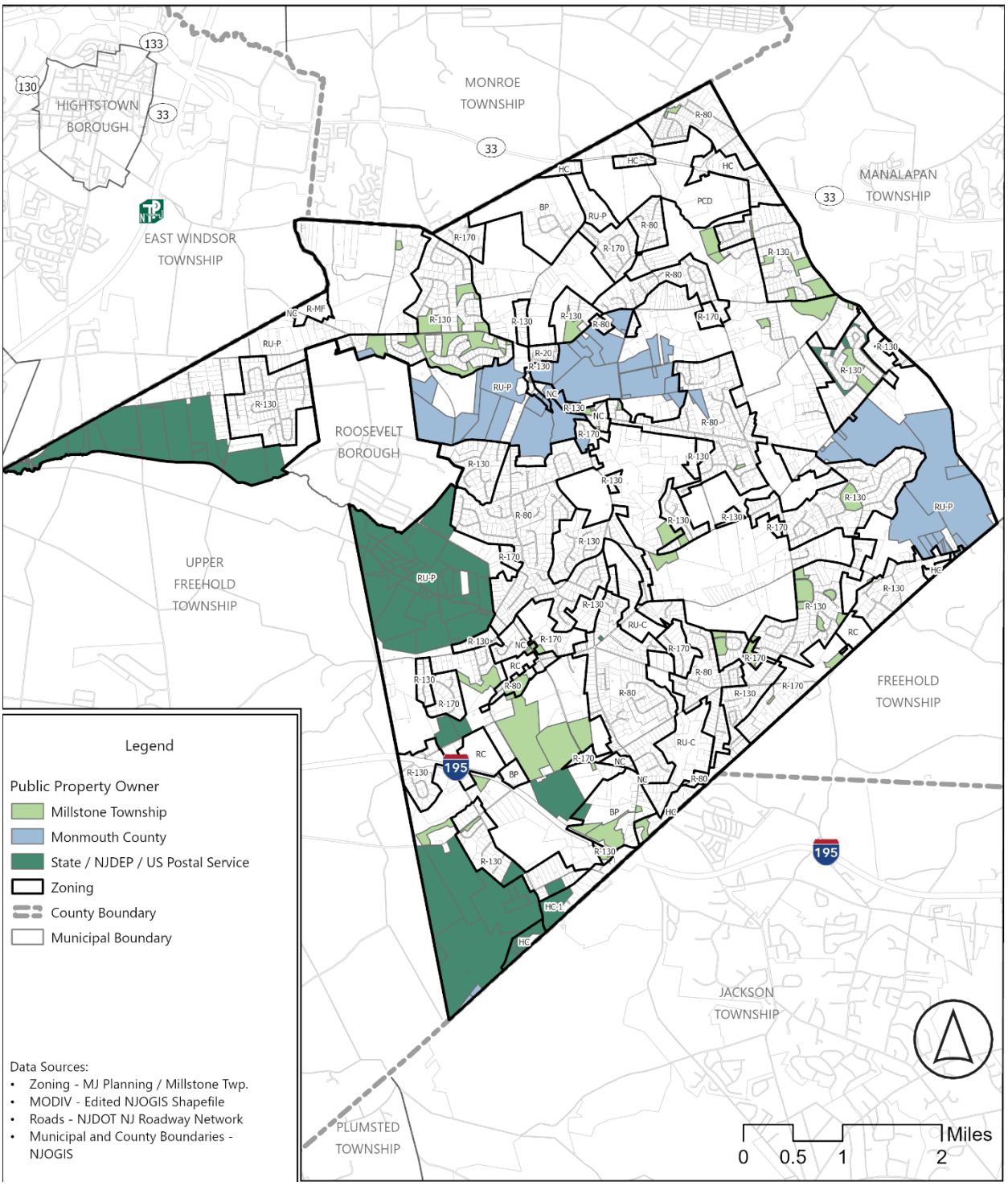
[3] There are exceptions to these standards associated with municipally sponsored affordable housing development. See the specific zoning requirements of the zone found in Section 35-5.

[4] Critical environmental areas are netted out several bulk calculations including lot coverage, building coverage, and FAR. See the specific zoning requirements of the zone found in Section 35-5.

[5] These PCD standards are applicable to development not associated with a "planned" development.



Map 2 - Existing Zoning



Map 3 - Zoning with Public Property

EXISTING LAND USES

LAND USE/LAND COVER (LULC)

Understanding the existing land uses of the Township can inform recommendations for the Township's future zoning and development. Land Use changes over time and is tracked by the NJ DEP's Land Use / Land Cover (LULC) datasets. LULC does not follow parcel lines or municipal boundaries. Instead, it is derived from aerial imagery and developed in reference to watershed units (Hydrological Unit Code Catalog Unit, also known as HUC8 or a watershed). Developed under this framework, the LULC dataset contains greater information about how land use changes impact the natural environment. The LULC categories and their associated definitions are as follows:

Urban: Urban land represents the presence of buildings, structure, and manmade impervious surfaces. Millstone's urban land accounts for 29.79% of the Township's land and contains athletic fields, cemeteries, commercial, industrial, major roadways, residential land (predominantly "rural single family"), stormwater basins, transportation/communication/utilities, and upland rights-of-way.

Agriculture: Agricultural land use is primarily for production of food and fiber. Millstone's agricultural land accounts for 20.14% of the Township's land and consists of cropland and pastureland, orchards/vineyards/nurseries/horticultural areas, and "other agriculture."

Barren Land: Barren land contains sandy, rocky, or disturbed areas with no vegetation that is not otherwise developed as well as land that is under construction. Millstone's barren land accounts for 0.83% of Millstone's land and contains lands involved in extractive mining and transitional areas.

Forest: Forest areas account for tree cover of at least 10%. Millstone's forest areas account for 26.66% of Millstone's land and contain a number of categories, including coniferous brush/shrubland and forest, deciduous brush/shrubland and forest, mixed deciduous/coniferous, mixed forest, old fields, and plantation.

Wetlands: Wetland areas are lands that are wet for at least a portion of the year and are characterized by aquatic or hydrophytic vegetation. Millstone's wetlands account for 20.97% of Millstone's land and contain a number of features, including agriculture wetlands, deciduous shrub/shrub wetlands, deciduous wooded wetland, herbaceous wetlands, managed wetlands, and mixed shrub/shrub wetlands both coniferous and deciduous.

Water: Water areas are lands that are wet for at least a portion of the year and are characterized by aquatic or hydrophytic vegetation. Millstone's water areas account for 1.63% of Millstone's land and contain artificial lakes, bridges over water, natural lakes, and streams and canals.

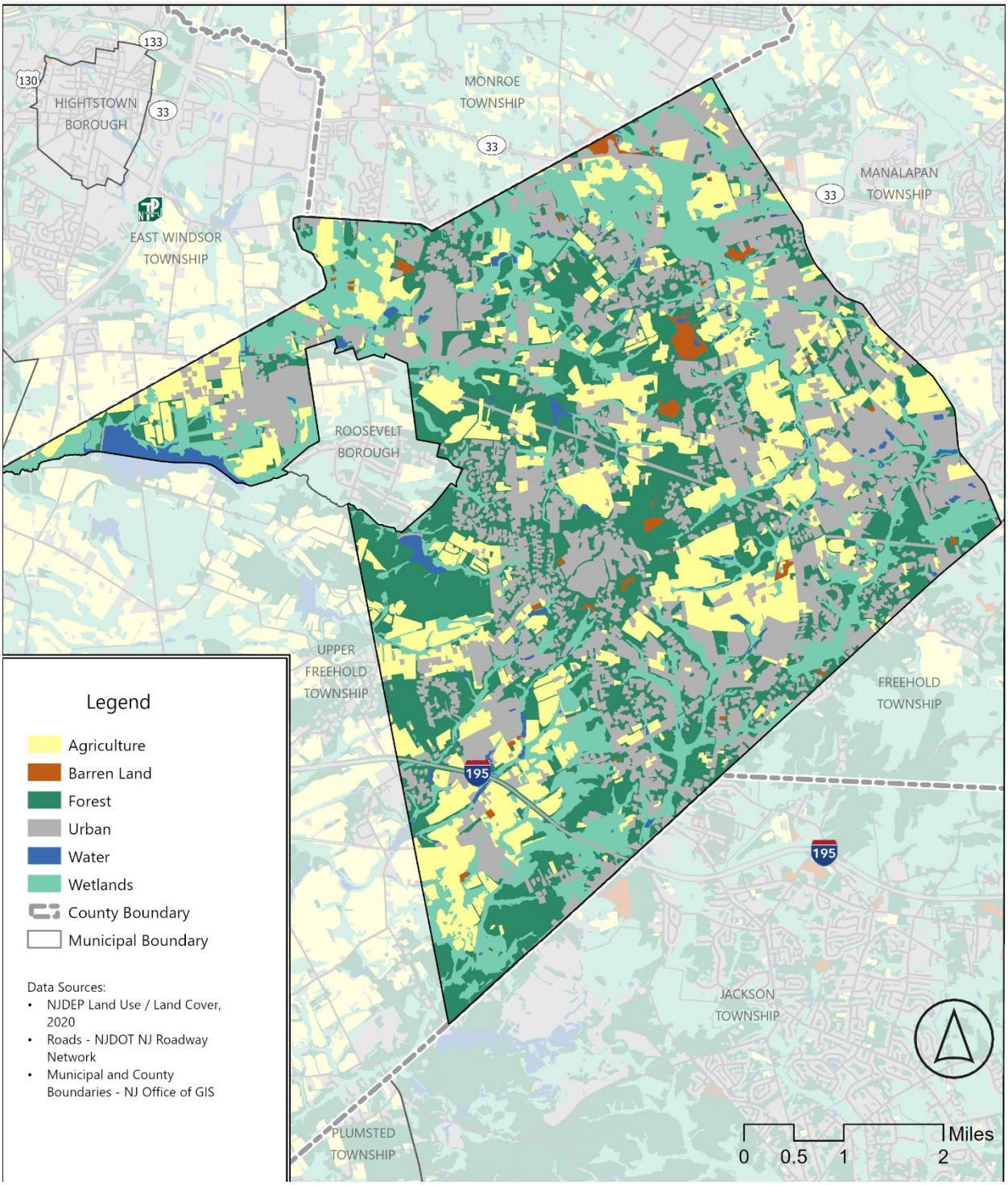
The following table shows the changes in Millstone's Land Use / Land Cover. The 2012 data was the most recent data referred to during the 2017 Master Plan, and the 2020 data is the most recent data available as of the writing of this Plan.

TABLE 2 - CHANGES IN LAND USE / LAND COVER, MILLSTONE TOWNSHIP

Type	2002 Acreage	2007 Acreage	2012 Acreage	2020 Acreage	Change from 2002 to 2020
Urban	5,865.78	5,865.78	6,866.10	7,088.90	**20.85%**
Agriculture	5,624.84	5,624.84	4,986.50	4,793.22	**-14.78%**
Barren Land	357.53	357.53	242.40	196.48	**-45.05%**
Forest	6,419.81	6,419.81	6,301.10	6,344.46	**-1.17%**
Wetlands	5,189.97	5,189.97	5,042.20	4,990.03	**-3.85%**
Water	342.28	342.28	362.10	387.14	**13.10%**

While agricultural land has decreased over recent decades, the most significant decreases occurred in the years leading up to 2021 when there was significant residential development occurring. Between 2000 and 2009, 685 new housing units were built in Millstone while only 33 new housing units were built between 2000 and 2019 (see Table 3 of the 2026 Master Plan Reexamination Report). Also of note, several large commercial developments have been realized along the Route 33 corridor in recent years, taking over land that was previously agricultural or forest.

The increase in land covered by water can be attributed predominately to stormwater management infrastructure as well as expanded ponds and streambeds.



Map 4 - Land Cover 2020

LAND USE (MOD IV)

While the LULC does not follow parcel lines or municipal boundaries, New Jersey's property tax assessment and record system provides data known as "MOD IV" that identifies the use of each parcel within a community. The MOD IV data breaks land down into property classes that categorize land by its use. The following table provides the land use for Millstone.

TABLE 3 - 2026 LAND USE (MOD IV), MILLSTONE TOWNSHIP

Property Class	Land Use	Acreage	% of Area
1	Vacant	1,234.8	5.4%
2	Residential (1-4 Units)	7,829	34.3%
3A	Farm (Regular)	175.1	0.8%
3B	Farm (Qualified)	7,059.6	31.0%
4A	Commercial	494.4	2.2%
4B	Industrial	226.1	1.0%
15A	Public School	118.1	0.5%
15C	Public	5,494.3	24.1%
15D	Church and Charitable	32.1	0.1%
15E	Cemetery	33.9	0.1%
15F	Other Exempt	108.8	0.5%

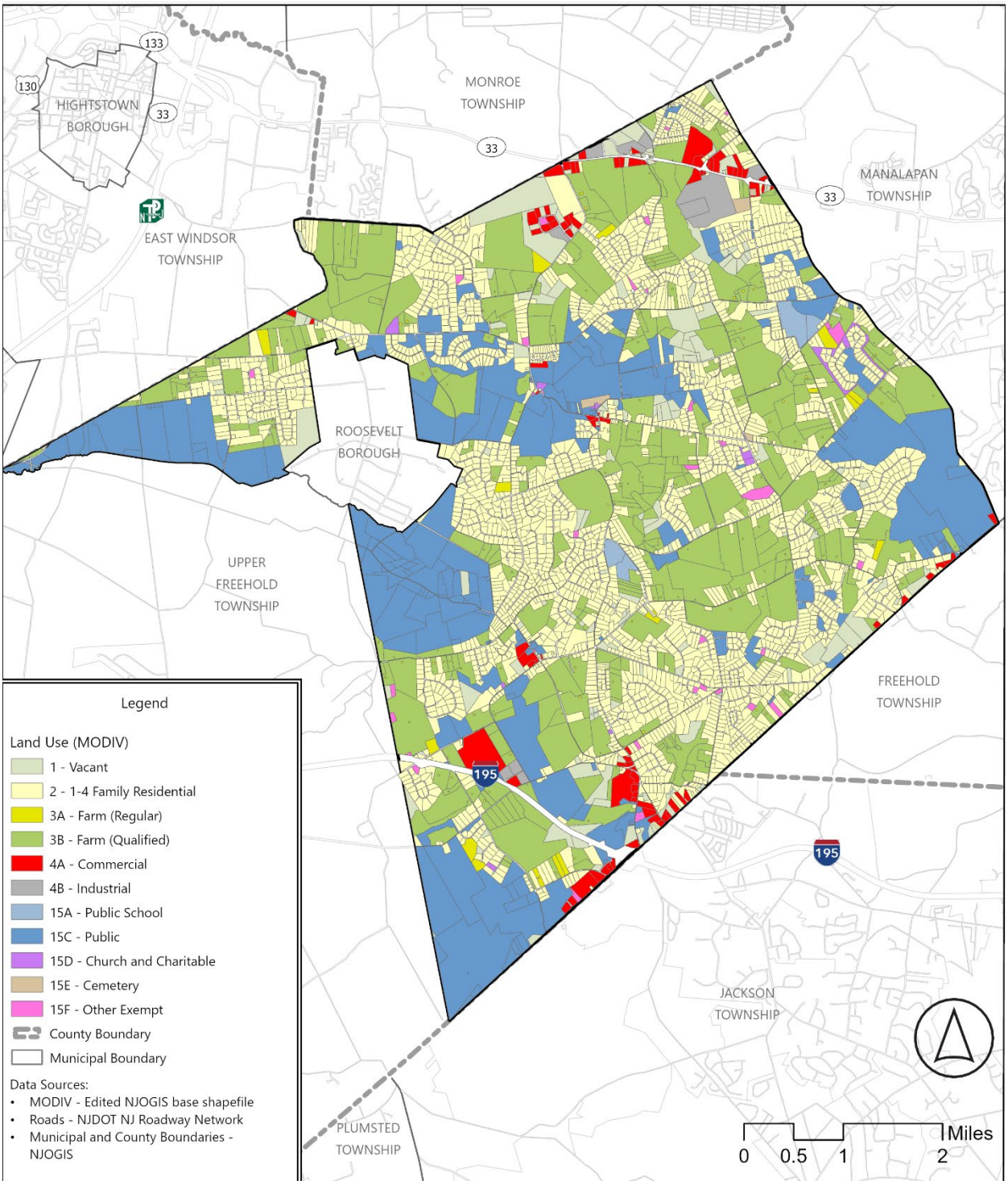
The majority of Millstone's properties comprise qualified farmland, publicly owned land, and vacant property. Approximately 24% of Millstone's land is publicly owned, which includes municipal, county, state and federal property and is largely preserved open space and parkland. Since the 2017 Master Plan over 200 additional acres of land have been preserved, included a 122-acre addition to Millstone Park. In Millstone, nearly half of public land is under the ownership of the State and the NJDEP. An additional 35% is owned by Monmouth County, which includes the County owned parks within the Township, which are discussed further in the Parks, Trails & Recreation Facilities section.

Class 3A property includes agricultural land not qualified under the Farmland Assessment Act, plus farmhouses and related improvements. Class 3B property includes land actively devoted to agricultural or horticultural use that qualifies under the Farmland Assessment Act. Many farm properties that include residential dwellings have their assessments split into a small 3A area that encompasses the home site and a larger 3B area that encompasses the area used for agricultural purposes.

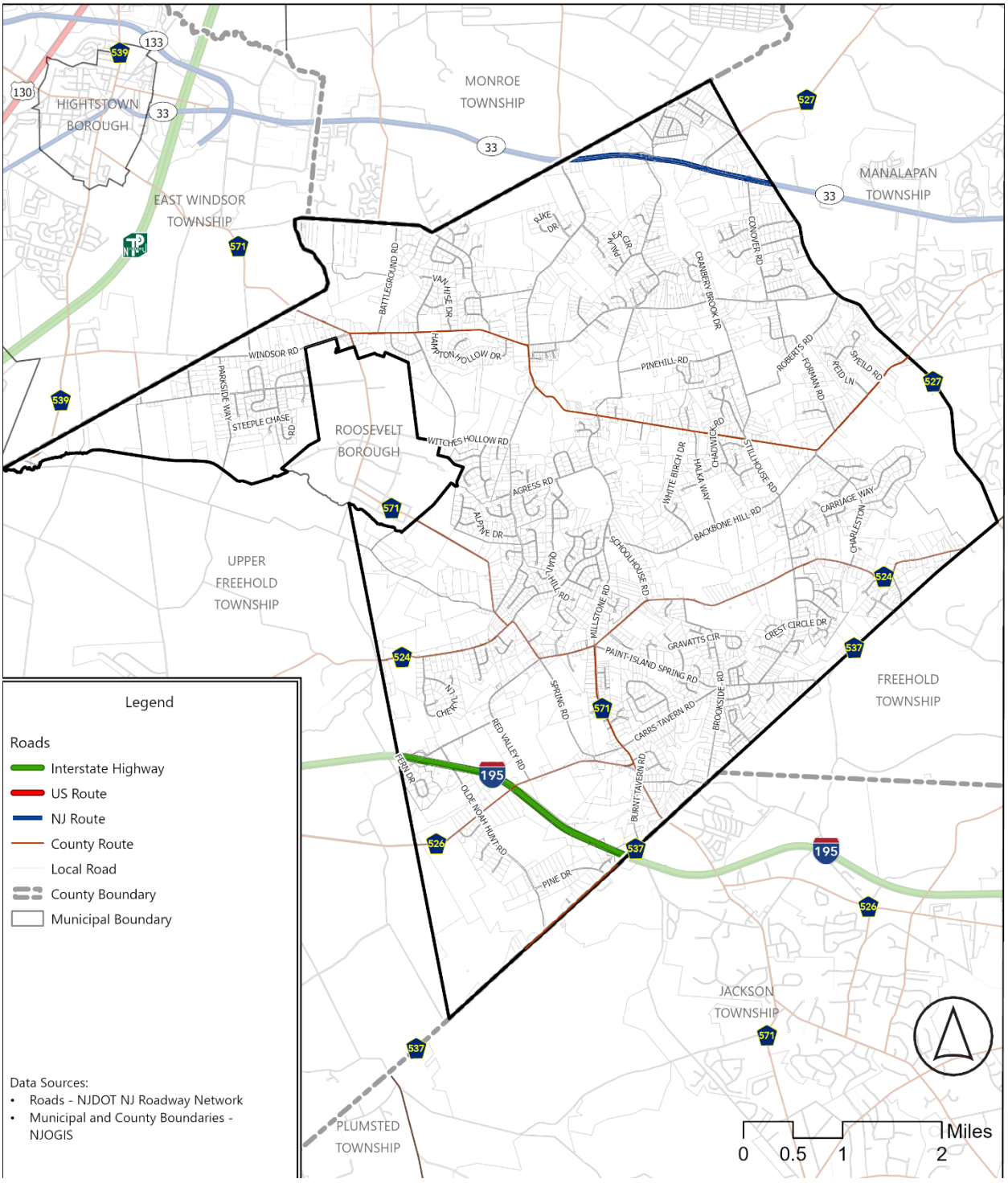
TRANSPORTATION

Several county roads travel through Millstone, including County Routes 1, 524, 526, 527, and 571. State highways include Route 33, which runs east to west through the north of the Township, and Interstate 195, which traverses east to west along the southern portion of Millstone. County Route 537 forms the southern boundary of the Township and is bisected by Interstate 195.

Millstone does not have any local public transit services or train stations. Monmouth County Division of Transportation offers the Ride in Monmouth Program, an on-demand, curb-to-curb transportation service for eligible residents. Additionally, several nonprofit transportation providers offer transportation services to qualifying Monmouth County residents.



Map 5 - Land Use (MODIV)



Map 6 - Transportation Routes

ENVIRONMENTAL CHARACTERISTICS

While the Natural Resource Inventory consists of a substantial and in-depth review of the Township's major environmental characteristics, the below highlights some of the major categories, including flood hazard area, wetlands, and the Delaware and Raritan Canal Review Zone.

FLOOD HAZARD AREA

According to the NJDEP,

> *"The Flood Hazard Area is the land, and the space above that land, which lies below the flood hazard area design flood elevation. The flood hazard area design flood elevation is a flood equal to the 100-year flood plus an additional amount of water in fluvial areas to account for possible future increases in flows due to development or other factors. This additional amount of water also provides a factor of safety in cases when the 100-year flood is exceeded."*

Pursuant to N.J.A.C. 7:13-2.3, a flood hazard area and a riparian zone exist along every regulated water that has a drainage area of 50 acres or more. In 2023, the NJDEP adopted its Inland Flood Protection Rule, establishing a new Design Flood Elevation standard. The new standard is 3 feet above the elevation of the 1% Chance Annual Flood for New Jersey.

Approximately 5.3 percent of Millstone is located within the 1% Chance Annual Flood area as mapped by FEMA on the Flood Insurance Rate Maps, and an additional 6.2 percent of the Township falls within the NJ Inland Design Flood Elevation area as estimated by mapping work done by Rutgers University. A total of about 11.5 percent of the Township is potentially impacted by the state regulated flood hazard area.

WETLANDS

Wetlands are defined by the NJDEP in the Freshwater Wetlands Protection Act as "are a that is inundated or saturated by surface water mor groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation."[1]

Wetlands have numerous important environmental functions including protecting and preserving drinking water supplies, providing natural flood and stormwater storage, preventing soil erosion as a buffer between uplands and water courses, serving as habitat and breeding areas for fish and wildlife including migrating birds, and contributing to the state's recreational resources. The state began regulating freshwater wetlands in 1987 in response to development pressure and a recognized need to create stringent limitations on the disturbance of wetlands and surrounding areas to maintain their important natural functions.

The NJDEP Land Use / Land Cover data set derived from processed aerial imagery provides a general sense of wetland location and extent throughout the state. Map 8 shows the location of streams, waterbodies, and wetlands in Millstone and its surrounding areas. Field verification is necessary to define the extent of a particular wetland when evaluating development and/or preservation opportunities on a given piece of property. Field verifications are reviewed by the NJDEP through an application for a Letter of Interpretation (LOI) that defines the location of the wetland and the resource value. NJDEP regulations classify wetlands into three groups: exceptional resource value, intermediate resource value, and ordinary resource value.

[1] N.J.S.A. 13:9B-3

Wetlands with exceptional resource values are those that:

1. Discharge into FW-1 or FW-2 trout production waters or their tributaries;
2. Is a present habitat for threatened or endangered species; or
3. Is a documented habitat for threatened or endangered species, and which remains suitable for breeding, resting, or feeding by these species during the normal period these species would use the habitat.

Exceptional resource value wetlands have a required transition area of 150 feet, which is regulated and can potentially be modified through a transition area waiver.

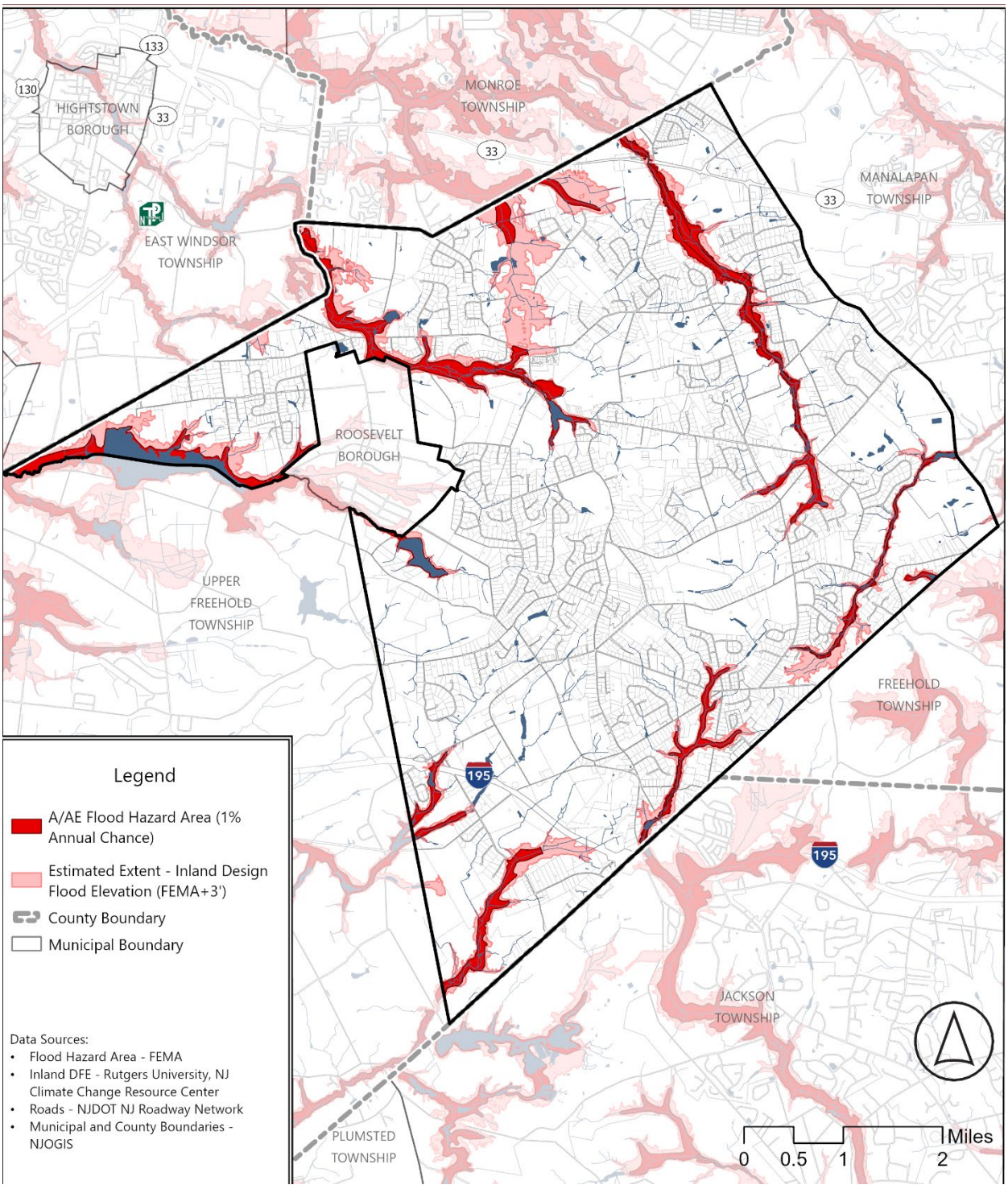
Wetlands of ordinary resource value are those that are not exceptional resource value wetlands and are:

1. An isolated wetland that:
    a. Is smaller than 5,000 square feet; and
    b. Has the uses listed below covering more than 50 percent of the area within 50 feet of the wetland boundary. In calculating the area covered by a use, the Department will only consider a use that was legally existing in that location prior to July 1, 1988, or was permitted [in accordance with applicable regulations] since that date:
        i. Lawns;
        ii. Maintained landscaping;
        iii. Impervious surfaces;
        iv. Active railroad rights-of-way; and
        v. Gravelled or stoned parking/storage areas and roads;
2. A drainage ditch;
3. A swale; or
4. A detention facility created by humans in an area that was upland at the time the facility was created regardless of the wetland resource classification of the wetland under this chapter, or the classification of the body of water, as FW-1 or FW-2 trout production, to which it discharges.

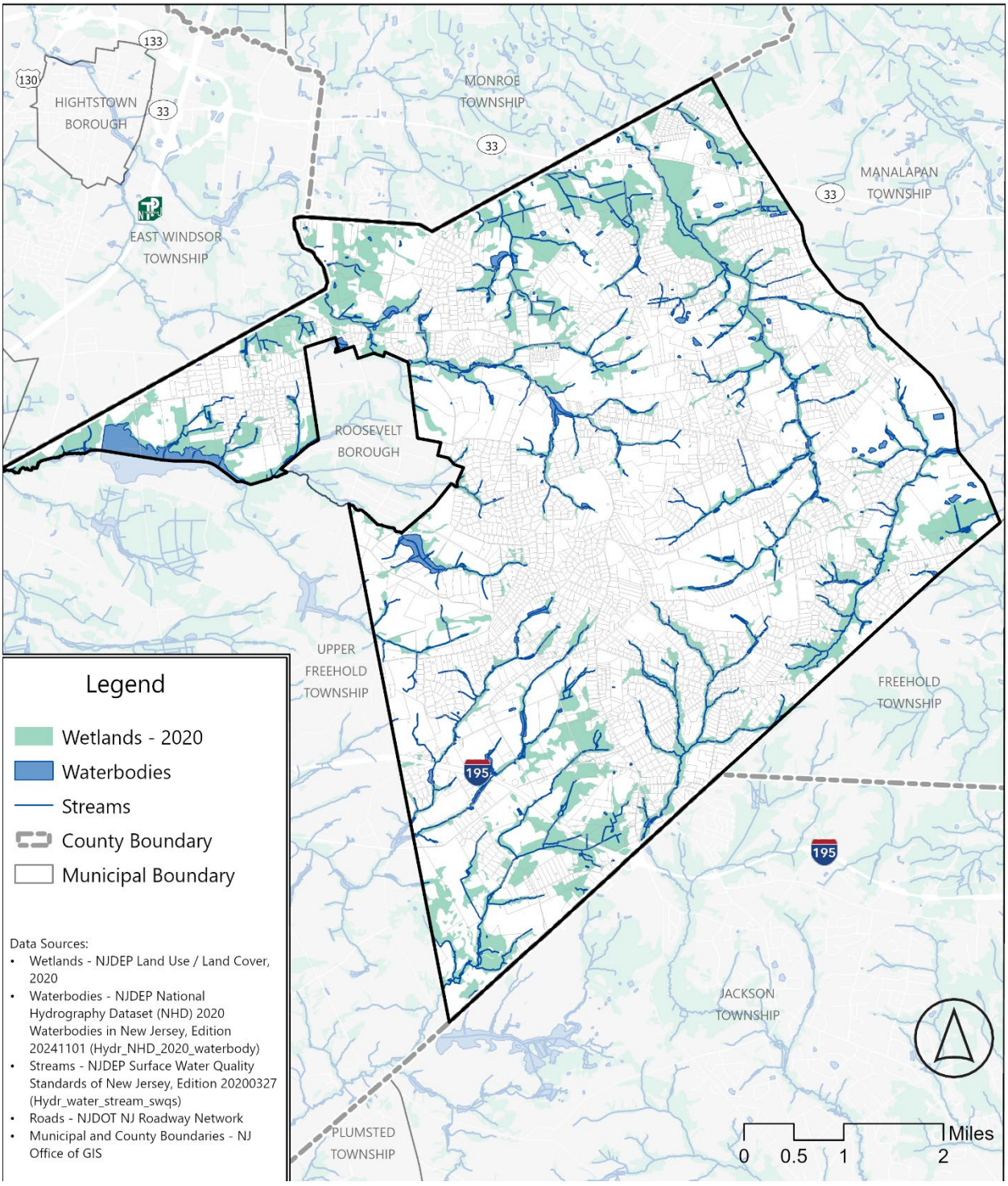
Ordinary resource wetlands do not have a required transition area.

Freshwater wetlands of intermediate resource value are those that are neither defined as exceptional nor ordinary. Intermediate resource value wetlands have a required 50-foot-wide transition area.[2]

[2] N.J.A.C. 7:7A-3.2



Map 7 - Flood Hazard Area



Map 8 - Wetlands and Surface Water

DELAWARE AND RARITAN CANAL[3]

The "Delaware and Raritan Canal State Park Law of 1974" established the Delaware and Raritan Canal Commission and directs the Commission to preserve and protect the D&R Canal as a historic and natural resource and water supply system for much of central New Jersey. The rules established for regulating the Canal area in the New Jersey Administrative Code give the Commission jurisdiction over development review projects located within a defined "Review Zone". The Commission's review focuses on the impact on:

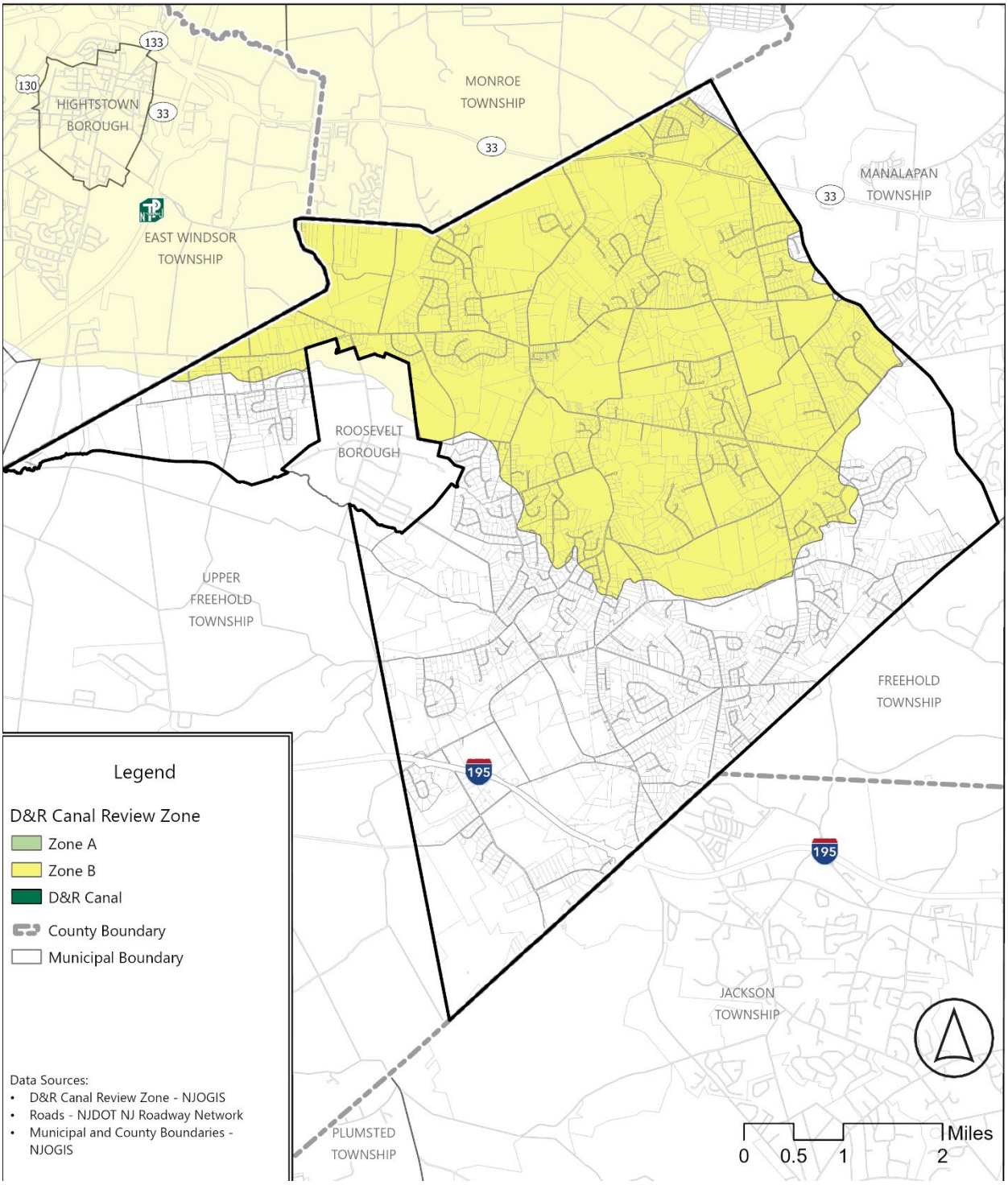
1. Stormwater drainage and water quality;
2. Stream corridors;
3. Visual, historic and natural quality; and
4. Traffic.

The Review Zone, shown on Map 9, is divided into two subzones:

- Zone "A" is the area within 1,000 feet on either side of the center line of the canal, except in the Municipality of Princeton, where the west bank of Carnegie Lake shall be the boundary of Zone A, and where the Raritan River is within 1,000 feet, its furthest bank being the boundary.
- Zone "B" is based upon sub-watersheds located in central New Jersey that impact the Delaware and Raritan Canal, which extends into the northern and central portions of Millstone.

Major development applications located within the Delaware and Raritan Canal Review Zone must seek approval from the Commission in addition to local Planning or Zoning Board approval and other regional approvals.

[3] https://www.nj.gov/dep/drcc/regulatory-program/overview/



Map 9 - Delaware & Raritan Canal Review Zone

STATE DEVELOPMENT AND REDEVELOPMENT PLAN

New Jersey's new State Development and Redevelopment Plan (SDRP) was adopted on December 17, 2025, the first formal update since the original plan was adopted in 2001. The SDRP places Millstone Township lands predominantly within the Rural Environmentally Sensitive Planning Area (PA4B) with a small portion of land located within the Parks and Natural Area. The PA4B is a sub-area of PA4, the Rural Planning Area. The original State Plan determined that there are some lands within PA4 that have one or more environmentally sensitive features that trigger the need for a sub-area. Lands within the PA4B contain valuable ecosystems or wildlife habitats, and the lands support agriculture and related economic efforts that promote a diversity within New Jersey. Within this Planning Area, development is intended to be directed toward designated Centers, none of which are located in Millstone. Designated Centers are the State Plan's preferred locations and mechanisms for accommodating growth. The State Plan identifies Centers as a more efficient mechanism for growth over traditional sprawl patterns.

The State Plan's intent for the Rural Environmentally Sensitive Planning Area is to:

- Maintain the Environs as large contiguous areas of farmland, open space, and forested areas.
- Enhance habitats and sensitive lands.
- Accommodate growth in Centers, excluding flood prone areas.
- Reverse auto-oriented patterns of development.
- Promote a viable agricultural or forestry industry.
- Revitalize cities, towns, and other traditional settlements.
- Protect, enhance, and support local agricultural economies.
- Confine programmed sewers and public water services to Centers, except where public health is at stake.
- Recognize those areas which also have one or more environmental resources.

The following criteria are intended as a general guide for delineating the Rural Planning Area (PA4) and the Rural/Environmental Sensitive Planning Area (PA4B) in support of this State Plan's policy objectives. Flexibility in the application of these criteria is appropriate and necessary in order to reflect local conditions and ensure effective implementation.

- Population density of less than 1,000 people per square mile.
- Area greater than one (1) square mile.
- Land currently in agricultural or natural resource production or having a strong potential for production including:
    - Soils of local importance as determined by the County Agriculture Development Board (CADB); or
    - Prime and unique soils as determined by the United States Department of Agriculture (USDA) Natural Resources Conservation Service; or
    - Soils of statewide importance as determined by the New Jersey Department of Agriculture (NJDA) State Soil Conservation Committee.
- Undeveloped wooded areas, vacant lands, large contiguous tracts of agricultural lands, and other areas outside Centers predominantly served by rural two-lane roads and individual wells and septic systems.
- Programmed sewer and public water services are confined to Centers.

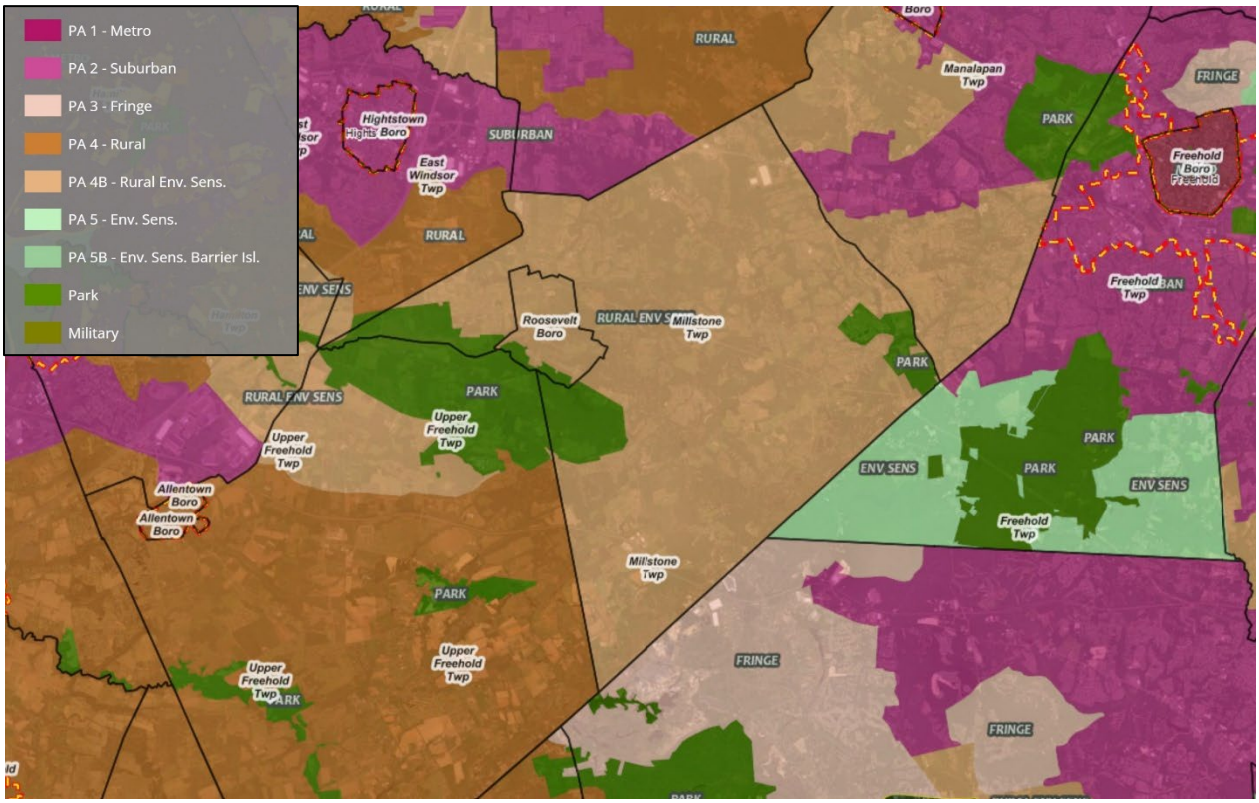


Figure 1 - State Plan Planning Areas
Source: NJ Office of Planning Advocacy; Date: August 2024

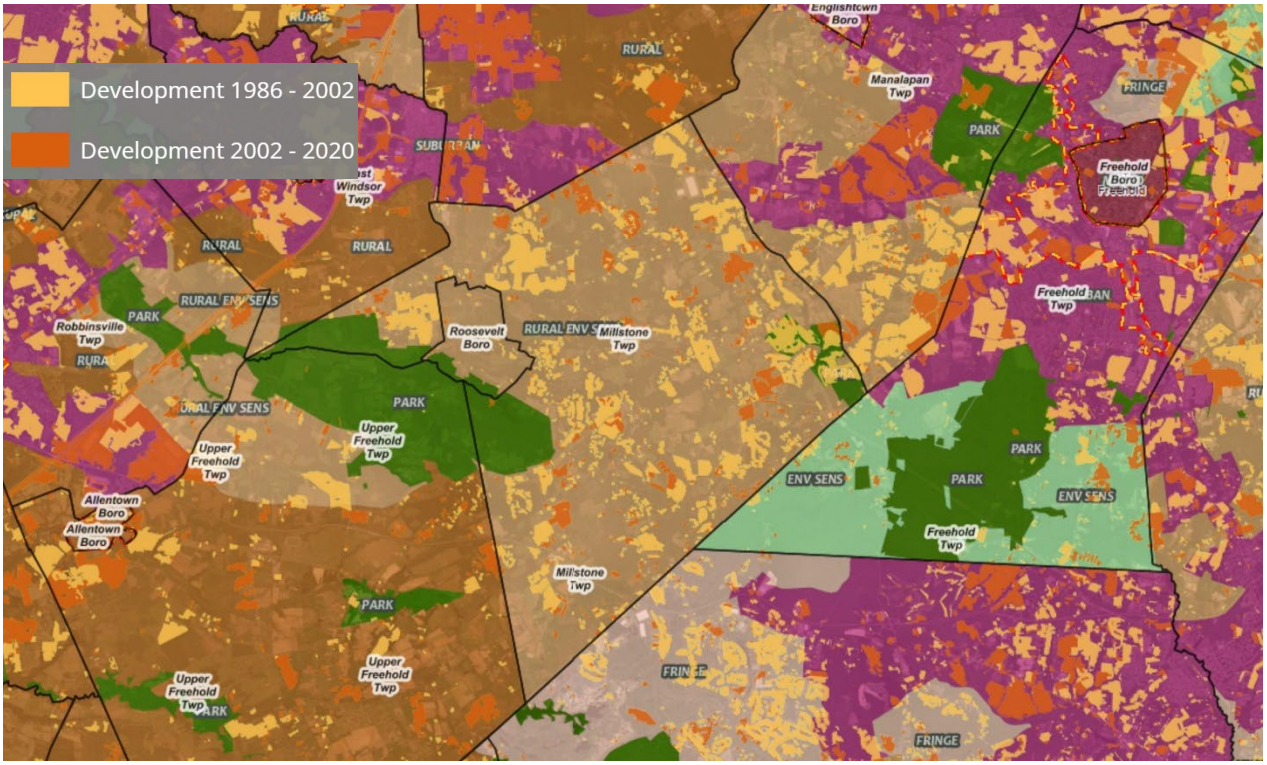


Figure 2 - State Plan Policy Map, Development Growth
Source: NJ Office of Planning Advocacy; Date: August 2024

CLIMATE CHANGE-RELATED HAZARD VULNERABILITY ASSESSMENT

On February 4, 2021, Governor Murphy signed into law an amendment to the Municipal Land Use Law (N.J.S.A. 40:55D-28) requiring all Land Use Plan Elements to include a Climate Change-Related Hazard Vulnerability Assessment. The Assessment shall rely on the most recent natural hazard projections and best available science provided by the NJDEP.

The Assessment is required to include:

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

VULNERABLE POPULATIONS

When planning for hazards and emergency events, it's especially important to consider portions of the population which may require special assistance or accommodation. The Center for Disease Control (CDC) has compiled a Social Vulnerability Index (SVI) that indicates the relative social vulnerability of a municipality, county, etc. The CDC defines social vulnerability as "the degree to which a community exhibits certain social conditions that may affect that community's ability to prevent human suffering and financial loss" when a disaster or hazardous event occurs.

To analyze the SVI of each municipality, the CDC uses US Census Tract data to establish the following categories: socioeconomic status, household composition & disability, minority & language, and housing & transportation. The SVI is an important aspect of this Climate Change Vulnerability Assessment, as it can be used to estimate the supplies needed for the various populations, identify where shelters are needed, and plans for evacuation considering the elderly or those for whom English is not their first language or spoken well.

TABLE 4 - VULNERABLE POPULATIONS, MILLSTONE TOWNSHIP 2024

Household Composition and Disability		
Population Variable	**Population Within Variable**	**% of total Population**
Aged 65 or Over	1,713	16.5%
Under 18	2,010	19.4%
Civilian with a Disability	1,041	10.0%
Household Variable	**Households Within Variable**	**% of total Households**
Single-Parent Households	126	3.8%
Minority Status and Language		
Population Variable	**Population Within Variable**	**% of total Population**
Minority	3,113	30.0%
Black or African American	244	2.3%
American Indian of Alaskan Native	0	0.0%
Asian	830	8.0%
Native Hawaiian or other Pacific Islander	0	0.0%
Other	435	4.2%
Two or More Races	341	3.3%
Hispanic or Latino	1,263	12.2%
Speak English Less than "Very Well"	440	4.2%
Socioeconomic Status		
Population Variable	**Population Within Variable**	**% of total Population**
Below Poverty Level	421	4.1%
Unemployed (Ages 16+)	131	1.3%
No High School Diploma (Ages 25+)	309	3.0%
Housing and Transportation		
Population Variable	**Population Within Variable**	**% of total Population**
Group Quarters (2020)	69	0.7%
Household Variable	**Households Within Variable**	**% of total Households**
Total Occupied Housing Units	3,352	---
Multi-Unit Structures	13	0.4%
Mobile Homes	0	0.0%
Crowding (Occupants per Room)	---	---
1.00 or Less Occupants per Room	3,283	97.9%
1.01 to 1.5 Occupants per Room	15	0.4%
1.51 or More Occupants per Room	54	1.6%
No Vehicle	169	5.0%

Source: 2024 ACS 5-Year Estimates, Tables S0101, S1810, B08201, B25011, B25115, B06007, S1701, DP04, DP05; 2020 Decennial Census, Table P5

ANALYSIS OF CURRENT AND FUTURE THREATS

The Office of the New Jersey State Climatologist at Rutgers University has tracked statewide temperature records since 1895. The data has shown a statistically significant statewide average increase in temperature over time. Increase in overall temperatures, with the potential of extreme temperatures, pose a direct threat to Millstone.

Additionally, as part of the 2026 Monmouth County Hazard Mitigation Plan (2026 County HMP) update, the Township was asked to rank hazards as high, medium, or low based on the profile and risk assessments of each hazard as they apply to the community. The Township assigned a high ranking to nor'easters and wildfire and medium ranking to extreme temperatures, extreme wind, hurricanes/tropical storms, tornado, winter storm, dam failure, and flood.

Increased Temperatures

New Jersey is expected to experience continued increases in temperature as global greenhouse gas concentrations rise. Increased temperatures degrade air quality by increasing pollutants, creating conditions conducive to wildfires, and extending the pollen allergy season. Continued increases in temperature will also intensify heat waves, and increase risks to public health, infrastructure, and ecosystems.

Analysis by Rutgers University reported that under an intermediate emission scenario the average annual temperatures in New Jersey are projected to increase 3.7 to 6.2°F by the end of the 21st century relative to the 1991–2020 average. Data from the Office of the New Jersey State Climatologist indicates that the region in which Millstone is located is warming faster than both the global and regional averages. Seasonally, winter shows the greatest temperature increase, with an average increase of 5.4°F.

Extreme Temperatures

In addition to increasing temperatures, the Township is also vulnerable to extreme temperatures, which include both heat and cold extremes. Heat and cold events can have direct impacts on human health and businesses, with secondary effects on infrastructure. The populations most affected by extreme weather tend to be those older than 65 years old, and those under the age of 5. The 2024 five-year American Community Survey estimates that 16.5% of the Township's population is 65 and older and 4.4 % is under the age of 5.

The Office of the New Jersey State Climatologist publishes Monthly Climate Tables for each county based on recorded and modeled climate data from the National Centers for Environmental Information. The Climate Tables include monthly averages for temperature, precipitation, and heating and cooling degree days. Data is provided for the period of record (1895-2026) and for the 30-Year Normal (1991-2020).

The annual average temperature in Monmouth County for the period of record is 52.5°F, while the 30-Year Normal is slightly higher at 54.3°F. Recent annual average temperatures (2022-2025) have been slightly above the 30-Year Normal, with the highest recorded average in 2024 of 56.6°F. The average annual temperature increase reflects the rise in global temperatures due to global climate change. Seasonally, average temperatures vary significantly, with a 30-Year Normal peak in July at 76.1°F and the low in January at 32.9°F. The annual average maximum 30-Year Normal temperature is 64.1°F with the peak in July (84.4°F). Annual average minimum temperature is 44.5°F with the lowest monthly average minimum temperature occurring in January (24.2°F).[4]

[4] State of the Climate: New Jersey 2025. Rutgers, The State University of New Jersey, New Brunswick, NJ

Severe Winter Weather

In addition to extreme cold temperatures, Millstone is at risk of severe winter weather. Heavy snowfall in non-mountainous areas is considered to be four inches or more in a 12-hour period, or six inches or more in a 24-hour period. The 2024 State Hazard Mitigation Plan classifies the following as primary hazards of severe winter weather: winter storm/winter weather, blizzards, and ice storms.[5]

The 2026 County Hazard Mitigation Plan identifies blizzards as the most dangerous winter storms, as they combine low temperatures, heavy snowfall, and high wind speeds. Further, FEMA's National Risk Indices rank Monmouth County with a "very high" risk of winter weather hazards and "relatively high" for risks of ice storms.[6]

Winter storms can impact powerlines, trees, and communication towers, causing power outages, property damage and pose a threat to human safety. These storms particularly pose a threat to the Township's vulnerable population, including the very young and the elderly, as discussed previously.

Wildfires

According to the New Jersey Forest Fire Service, approximately 63 percent of the Township has a "moderate burn probability" illustrated in categories 4 and 5 in Figure 3. Wildfire probability is dictated by a variety of factors that include local weather conditions, drought, presence of fuel, and human activity like camping, debris burning, and construction. Historically the Township and County have not experienced many severe wildfire events; however, a combination of warming temperatures, increasing frequency of drought conditions, and strong winds can create conditions that are ripe for wildfires in the wildland-urban interface (WUI). The WUI is the zone where human development and structures meet and intermingle with undeveloped areas of wildland and vegetative fuels. As an example of potential risk in the region, the 2025 Jones Road Fire engulfed over 15,000 acres and burned for nearly a week in western Ocean County about thirty miles south of Millstone, forcing resident evacuations and causing structure damage.

[5] Michael Baker International and Tetra Tech. (April 2024). "Section 4.11 Severe Winter Weather". 2024 New Jersey State All Hazard Mitigation Plan. https://nj.gov/njoem/mitigation/2024-mitigation-plan.shtml.
[6] https://www.fema.gov/emergency-managers/practitioners/resilience-analysis-and-planning-tool

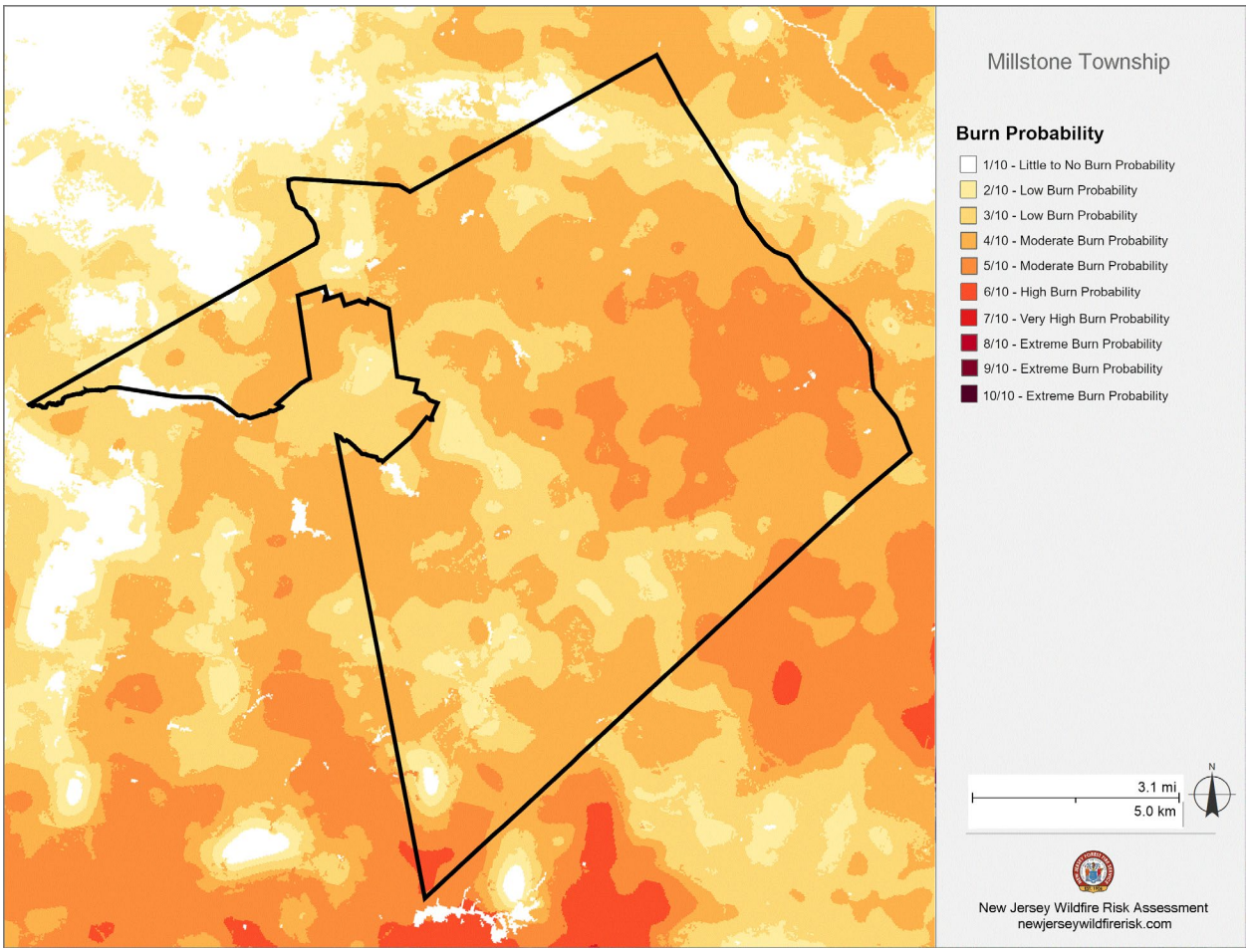


Figure 3 - Wildfire Risk Assessment

Drought

The 2026 County HMP defines a "drought" as a prolonged period of less than normal precipitation such that the lack of water causes a serious hydrologic imbalance. Common effects of drought include crop failure, water supply shortages, and fish and wildlife mortality. High temperatures, high winds, and low humidity can worsen drought conditions and also make areas more susceptible to wildfire. Human water demand and actions may hasten or mitigate drought-related impacts on local communities. According to the National Centers for Environmental Information, there have been 44 recorded instances of drought conditions that have affected Monmouth County between 1997 and April 2019.

During a drought, reduced precipitation amounts can lead to a reduction in groundwater levels and problems such as reduced pumping capacity or wells going dry. Millstone does not have any public water supply and is reliant on wells. Shallow wells are more susceptible to drought impacts than deep wells. According to the County HMP there are 977 private wells in Millstone.

Agricultural Impact

The impacts of droughts are primarily experienced in water shortages resulting in crop losses on agricultural lands. Drought direct impacts include reduced crop yield, increased fire hazard, and reduced water levels. Drought may indirectly result in reduced income for farmers and agribusiness, and increased prices for food

and timber. Damaged or dead crops are also vulnerable to insect infestation, plant disease, and wildland fires which can spread easily during periods of drought.[7]

According to the 2026 County HMP, there are 6,279 acres of agricultural land within Millstone, totaling 26.3% of the Township's total land area. The expected annual loss for agriculture, or the long-term, average dollar value of damage due to drought, derived from FEMA's NRI, is $14,630.46.

Besides droughts, other types of severe weather can impact agricultural production. A late freeze overnight from April 20 to April 21, 2026 caused widespread destruction of wine grapes in New Jersey. Several of the state's wineries lost all their grapes while most were impacted with losses ranging from 20 to 80 percent of the crop. Extreme weather events and temperature swings can be exacerbated by climate change and unseasonable weather events like those observed in spring 2026 can have a profound damaging effect on agricultural production.

Shifting growing seasons may impact the types of crops that are best suited to the area. The Township and region's farmers will have to continue to monitor and adapt through changes to best management practices when climatic changes impact crop viability and growing seasons.

Floods

Flooding is caused by the accumulation of water within a water body which results in the overflow of excess water onto adjacent lands, usually floodplains. The 100-year floodplain is the area with a 1% annual chance of flooding, and the 500-year floodplain is the area with a 0.2% annual chance of flooding. The 100-year and 500-year floodplains can help illustrate the portion of the County's population estimated to be at risk. Approximately 5.3% of the Township's total land area is in the 100-year floodplain, and 1% is in the 500-year floodplain.

The National Flood Insurance Program (NFIP) provides federally backed flood insurance in communities that agree to adopt and enforce flood-plain management ordinances to reduce future flood damage.[8] The 2026 County HMP shows that Millstone had eight (8) National Flood Insurance Program policies as of 2024, with six (6) total losses recorded. Within Millstone there are no reoccurring or severe loss properties.

Hurricanes and Tropical Storms

Hurricanes and tropical storms are classified as cyclones and defined as any closed circulation developing around a low-pressure center in which the winds rotate counterclockwise in the Northern Hemisphere and with a diameter averaging 10 to 30 miles across. When maximum sustained winds reach or exceed 39 miles per hour, the system is designated a tropical storm, given a name, and is closely monitored by the National Hurricane Center. When sustained winds reach or exceed 74 miles per hour the storm is deemed a hurricane.

The primary damaging forces associated with these storms are high-level sustained winds, heavy precipitation and tornadoes. Storms can lead to power outages, property damage, and gas station closures. Access to critical infrastructure and major evacuation routes may be impeded. Senior citizens and younger vulnerable populations are most impacted in the wake of these disruptions, as they are most likely to require evacuation assistance or medical attention.

[7] Baker International and Tetra Tech. (April 2024). "Section 4.4 Drought". 2024 New Jersey State All Hazard Mitigation Plan. https://nj.gov/njoem/mitigation/2024-mitigation-plan.shtml.
[8] FEMA. 2020. "National Flood Insurance Terminology Index". https://www.fema.gov/flood-insurance/terminology-index

According to the National Oceanic and Atmospheric Administration, five tropical storm tracks traversed directly through Monmouth County since 1850, and three have occurred since 2010. The intensity and frequency of precipitation events have increased and are expected to continue increasing due to climate change.

According to the NJDEP's 2025 New Jersey Scientific Report on Climate Change, annual precipitation in New Jersey is expected to increase by an average of 6% to 7% by 2100, and the amount of precipitation that occurs during a rainfall event that has a 1% chance of occurring in a particular location is expected to increase across the state. From 1958 to 2021, extreme precipitation events have increased in amounts by 60%, which is greater than anywhere else in the United States. As temperatures increase so will the energy in a storm system, increasing the chance for more intense tropical storms, including those reaching Category 3, 4, and 5.[9]

Nor'easters

Nor'easters function similarly to hurricanes and tropical storms; the main differences are that nor'easters form further North, are fueled by cold rather than warm air, and have slow-moving patterns. Nor'easters commonly occur and are strongest in the winter months and often result in flooding, storm surges, heavy rain or snow, and high winds. Their impacts can be more severe and wider spread than hurricanes and tornadoes due to their much larger diameter and longer duration within a region.

Between 1991 and 2024, a total of 23 nor'easter-related disasters were declared in Monmouth County, 14 of which have occurred since 2010. These storms have repeatedly resulted in damage to structures and natural resources.[10]

According to the 2026 County HMP, the frequency and intensity of nor'easters is expected to increase due to climate change, and Monmouth County will likely experience drastic changes in storm character, intensity, and frequency. The impacts of these storms are widespread and include utility failure, lack of access to critical infrastructure, building and property damage, the need for short-term or long-term shelter, and in some cases environmental contamination due to flooding. Because nor'easters are strongest in the winter, in the event of extended service failure, they also pose medical risks associated with extreme cold. These impacts are most dangerous for the elderly and other vulnerable populations.

Greenhouse Gas Emissions

Greenhouse gases (GHGs) are gases that absorb infrared radiation, trapping heat in the atmosphere and warming the planet. Carbon dioxide is the largest source of greenhouse gas emitted through human activity, followed by methane, nitrous oxide, and fluorinated gases. Carbon dioxide is emitted through the burning of fossil fuels (coal, oil, and natural gas), solid waste, as well as biological materials.

Total net greenhouse gas emissions in New Jersey for 2022 were 97.6 million metric tons carbon dioxide equivalent (MMT CO2e). New Jersey is responsible for 1.7% of national emissions and 0.3% of worldwide emissions.[11] The transportation sector represented 39% of the State's 2022 total net emissions. Greenhouse gas emissions from the transportation sector come from burning fossil fuels for cars, trucks, ships, trains, and

[9] New Jersey. Department of Environmental Protection. 2025 New Jersey Scientific Report on Climate Change. https://dep.nj.gov/wp-content/uploads/climatechange/nj-scientific-report-2025.pdf
[10] Michael Baker International and Tetra Tech. (April 2024). "Section 4.9 Hurricane, Nor'easter, & Tropical Storm". 2024 New Jersey State All Hazard Mitigation Plan. https://nj.gov/njoem/mitigation/2024-mitigation-plan.shtml.
[11] New Jersey. Department of Environmental Protection. (April 2025). New Jersey Greenhouse Gas Inventory 2025 Mid-Cycle Update Report. https://dep.nj.gov/wp-content/uploads/ghg/ghg-inventory-mcu-2025-1.pdf

planes. While over 90% of fuel is petroleum based (primarily gasoline and diesel), electric vehicles have significantly increased their share of the vehicle market over recent years.

As of the end of June 2026, there were 272,258 electric vehicles registered in New Jersey. This number includes Battery Electric Vehicles and Plug-in Hybrid Electric Vehicles. Monmouth County is included among the counties in the State with the highest numbers of electric vehicles registered, totaling 23,775 vehicles and about a 4.5% EV share. Within Millstone, 253 electric vehicles are registered, about 5.5% of the vehicle share.[12]

The commercial and residential sectors represented 26% of the New Jersey's 2022 total net emissions. Emissions associated with combustion of fuels in the industrial sector totaled 8.6 MMT CO2e in 2022, and emissions from electricity generation, including generating stations, solid waste resource recovery facilities, and electricity imported from out of state, were estimated to total 18.1 MMT CO2e in 2022.[13]

Power Outages

Power failures in New Jersey are usually localized and are usually the result of a natural hazard event, although they can also occur due to human error. Power outages can last from hours to up to several weeks and have a wide range of direct and indirect effects. One of the more significant impacts of power outages is the resultant harm on vulnerable populations, caused by factors such as a lack of heat and cooling, or the inability to use critical out-of-hospital medical systems such as ventilation machines. Other secondary effects of power outages can include: loss of perishable food due to appliance failure; house fires from shorted circuits; loss of communication for first responders; sump pump and well pump failure; and, in extreme cases, chemical spills at handling plants or the looting of goods.

According to 2024 American Community Survey, approximately 2% of occupied housing units in Millstone rely on electricity for heating and are therefore especially vulnerable to the harms associated with power outages. The 88.7% of housing units that rely on gas utility may experience disruptions with water heaters, stoves, or fireplaces that are not fully gas-powered.

With the projected increases in severe weather and storms, it is expected that the frequency and probability of power failure occurrences in New Jersey will increase with climate change.

PLANNING FOR STORMWATER AND FLOODING

NJDEP Stormwater Management Rules

Over the last few years, the New Jersey Department of Environmental Protection (NJDEP) has released three amendments to the Stormwater Management Rules, N.J.A.C. 7:8, to promote statewide resiliency to such stormwater and flooding issues.

The Green Infrastructure Rule, effective March 2021, amended the rules to require the use of green infrastructure (GI) in any major development as a means of meeting groundwater recharge standards and stormwater runoff quantity standards.

Further, the Inland Flood Protection Rule, effective July 2023, further amended the rules by:

[12] https://atlaspolicy.com/evaluatenj/
[13] New Jersey. Department of Environmental Protection. (April 2025). New Jersey Greenhouse Gas Inventory 2025 Mid-Cycle Update Report. https://dep.nj.gov/wp-content/uploads/ghg/ghg-inventory-mcu-2025-1.pdf

- Increasing FEMA-established non-tidal flood elevations as follows: flood elevations mapped by NJDEP saw an increase of 2 feet; FEMA's 100-year flood elevations saw an increase of 3 feet; and Flood Hazard Area (FHA) elevations determined by approximate methods saw an increase of 1 foot.
- Requiring that developers use projected precipitation volumes for flood elevation calculations, which are typically greater than current volumes. With these new flood elevations in place, there is potential for properties which were previously not within a floodplain to now be within a floodplain and, therefore, subject to the NJDEP permitting requirements.
- Refining the existing stormwater rules by requiring that (1) developers account for higher intensity rainfall when designing stormwater management facilities for any new proposed land development project, and (2) infiltration areas must be calculated using the new higher intensity rainfall.

The NJDEP adopted further amendments to N.J.A.C. 7:8 on January 20, 2026, known as the "REAL" rules: Resilient Environments and Landscapes rules. The REAL rules overhaul the State's coastal regulations, which are not relevant to Millstone.

According to Millstone's 2026 Stormwater Pollution Prevention Plan the Township's Stormwater Control Ordinance #24-10 is more stringent than the NJDEP model Stormwater Control Ordinance.

NJDEP Flood Hazard Area Control Act (FHCA)

On March 25, 2013 the NJDEP adopted emergency amendments to the FHACA rules. This amendment was a response to the impact of Hurricane Sandy and was designed to reduce the impact of future flooding on development. The amended rules required the use of the highest available State or Federal flood elevation data to determine a site's flood elevation and required that any substantially flood-damaged buildings be elevated, amongst other regulations.

The Township adopted Ordinance No. 22-10 on June 1, 2022 which repealed and replaced Chapter 26 "Flood Damage Prevention" of the Township code.

The purpose of the ordinance is to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific flood hazard areas through the establishment of comprehensive regulations for management of flood hazard areas, designed to:

- Protect human life and health.
- Prevent unnecessary disruption of commerce, access, and public service during times of flooding.
- Manage the alteration of natural floodplains, stream channels and shorelines.
- Manage filling, grading, dredging and other development which may increase flood damage or erosion potential.
- Prevent or regulate the construction of flood barriers which will divert floodwater or increase flood hazards.
- Contribute to improved construction techniques in the floodplain.
- Minimize damage to public and private facilities and utilities.
- Help maintain a stable tax base by providing for the sound use and development of flood hazard areas.
- Minimize the need for rescue and relief efforts associated with flooding.
- Ensure that property owners, occupants, and potential owners are aware of property located in flood hazard areas.

- Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events.
- Meet the requirements of the National Flood Insurance Program for community participation set forth in Title 44 Code of Federal Regulations, Section 59.22.

BUILD-OUT ANALYSIS

Millstone is a rural and heavily environmentally constrained municipality. The Township does not have public sewer or water infrastructure, so future development potential is limited. The CCRHVA requires a build-out analysis and identification of future hazards that may impact development. The following methodology was utilized to complete this portion of the analysis:

1. Identify vacant (Class 1) parcels and qualified farmland (Class 3B) that may potentially be developable or sub-dividable using tax assessment records.
2. Remove parcels whose development rights have been removed through farmland preservation.
3. Identify areas constrained by wetlands, riparian zones, flood hazard areas, and slopes greater than 15 percent.
4. Identify unconstrained lot area.
5. Determine number of residential lots that could be subdivided from the unconstrainted lot area based on the minimum lot area requirements in each residential zone and determine the square footage of non-residential buildings that could be constructed based on the unconstrained lot areas and permitted building coverage in the non-residential zones.
6. Reduce the overall development potential by a factor of 25 percent to account for the infrastructure limitations and other likely environmental constraints to development beyond those identified as part of this screening process.

Residential Build-Out

A total of 331 parcels were analyzed based on property classes 1 and 3B in the Township's residential zones. Of those, only 26 were completely free of some type of environmental constraint. The potential build-out as determined through the process outlined above is 234 new residential units distributed across the 331 parcels and within areas in the R-80, R-130, R-170, and RU-P Zones.

New residential development is unlikely to happen in areas that are currently environmentally constrained because regulations and the Township subdivision approval process will preclude any significant disturbance to permit development. The analysis used the modeled design flood elevation that includes the NJDEP required 3 feet above the FEMA mapped elevations, so there is a climate change related factor built into the analysis.

Non-Residential Build-Out

A total of 69 parcels were analyzed based on property classes 1 and 3B in the Township's commercial zones. Of those, only 7 are completely free of environmental constraints. Six of the seven unconstrained parcels are in the HC and PCD zones near Route 33. At assumed full build-out based on the permitted building coverage, about 1,900,000 square feet across the 69 parcels of new non-residential development is possible. This includes development that has been approved but not yet constructed. A significant amount of the developable land is found in the BP Zone along Burnt Tavern Road and in the PCD Zone along Route 33.

As with residential development, new non-residential development is unlikely to happen in areas that are environmentally constrained and subject to flooding, which is the most likely hazard to increase with climate change.

Conclusion

The hazards outlined herein, which apply to existing developments throughout the Township, may be applicable to new development, but new residential and non-residential development are unlikely to be subject to any extraordinary climate change related hazard. With the current higher development standards in place, and the Township's commitment to preservation and environmental protection, future development is likely to be held to a higher standard than existing development with minimal new development in hazard prone areas.

STRATEGIES AND DESIGN STANDARDS TO REDUCE RISKS

The following is a summary of mitigation strategies the Township identified as "ongoing" from the previous County HMP:

- Improve stormwater management through larger piping and maintenance of drains and basins.
    - The Township improves their stormwater system every year with their yearly roadway program.
- Remove dead and hazardous trees along Township's Right of Ways.
    - Jersey Central Power & Light trims and removes trees as needed but there is no formal program.
    - The Township has a Hazardous Trees Assessment Plan that they can use as a guide for the removal of hazardous trees.

New mitigation strategies introduced in the 2026 HMP include:

- Mitigate flooding behind Township fire house
- Improve security at parks and historic buildings
- Improve security by purchasing and installing generators and parks and historic buildings
- Acquire, elevate, or relocate buildings and infrastructure in flood prone areas, with a focus on Repetitive Loss and Severe Repetitive Loss properties
- Repair, remove, or rehabilitate the Assunpink #18 Dam

Additionally, the Township code, § 35-11-12 "Floodplain Regulations", provides further guidance. The stated purpose of this section is:

- To implement the land use rules and regulations promulgated by the New Jersey Department of Environmental promulgated for floodways and the flood fringe portion of a flood hazard area;
- To discourage construction and regrading in flood hazard areas;
- To prevent encroachments flood hazard areas which would obstruct or constrict the area through which water must pass; and
- To prevent pollution of watercourses during low or high water periods by preventing the placing or storing of unsanitary or dangerous substances in the flood hazard areas.

Other climate change mitigation and adaptation strategies the Township may evaluate and consider include:

- Inform the public on the importance of wildfire prevention and protection and potentially implement ordinance standards for property design and maintenance.
- Support local agricultural activity in conjunction with the Monmouth County Agriculture Development Board to mitigate climate change impacts and adapt to changing climatic realities.

POLICY STATEMENT ON CONSISTENCY, COORDINATION, AND INTEGRATION WITH OTHER PLANS

As outlined above, The Township recently participated in the County's 2026 Hazard Mitigation Plan. It is the Township's intention to continue to prepare for future hazards in a manner consistent with the 2026 HMP. The Township will continue to coordinate with Monmouth County and its neighbors on emergency management. This Land Use Element is intended to be consistent with the County 2026 HMP as well as Millstone's regulatory plans relating to emergency management and disaster mitigation.

The recommendations in the Land Use Element are provided through the lens of climate resilience, mitigation, and adaptation. Intensive and inappropriate development are discouraged in areas with current and potential future hazards.

Future planning for community facilities, open space and recreation, and farmland preservation will include components that account for climate change impacts and mitigation and adaptation strategies. The Township's operational and preservation goals will continue to focus on protecting sensitive environmental resources, supporting working farms and the agricultural industry, and enhancing opportunities for passive and active recreation.

DEVELOPMENT PATTERNS AND TRENDS

RESIDENTIAL

Development in Millstone Township was previously dominated by residential construction, predominantly through single-family residential subdivisions. The Township saw significant increases in population through new residential construction, with the population increasing by over 300% from 1970 to 2010. Since 2010, however, residential development has stagnated, with fewer new housing units being built compared to previous decades, accompanied by a dip in population according to the 2020 Census.

TABLE 5 - MILLSTONE TOWNSHIP HISTORIC POPULATION CHANGES

Year	Population	Change	
		Number	Percent
1930	1,428	-	-
1940	1,466	38	2.7%
1950	2,100	634	43.2%
1960	2,550	450	21.4%
1970	2,535	-15	-0.6%
1980	3,926	1,391	54.9%
1990	5,069	1,143	29.1%
2000	8,970	3,901	77.0%
2010	10,566	1,596	17.8%
2020	10,375	-198	-1.8%
2024	10,385	10	0.1%

As discussed in the 2026 Reexamination Report, between 2017 and 2024, 125 residential units were authorized by building permits and 19 demolition permits were authorized, for a net gain of 106 residential units, representing approximately 3% of Millstone's total number of households. These units were predominantly single-family development with one multifamily 100% affordable housing development comprised of 66 units.

During the public outreach process, there was a clear desire to maintain Millstone's large-lot, single-family residential character. The Township's residential development has slowed over the last decade, with the exception of several municipally sponsored 100% affordable developments pursued as components of the Millstone's Third Round Court-approved settlement agreement.

There is currently no state requirement for municipalities to permit accessory dwelling units (AUDs), but there have been multiple versions of such bills moving through the State legislature. This master planning process evaluated Millstone's potential to permit ADUs in residential zones. Given the Township's reliance on septic and well water coupled with the broader environmental restrictions and the public's preference for large-lot, single-family zoning, it is not currently recommended that the Township allow for ADUs. It is noted that Millstone Township permits farm labor housing units on any commercial farm property or on any eligible farm assessed property with a minimum lot area of 10 acres.

ZONING BOARD OF ADJUSTMENT REPORTS

The Municipal Land Use Law (MLUL) includes a mechanism requiring zoning boards of adjustment to compile annual reports outlining trends and making recommendations for potential zoning ordinance revisions to the

municipal body and planning board. Reports for the years 2014 through 2024 were provided and reviewed as part of this Land Use Element.

The below provides a summary of variances granted for the years 2017 through 2024. A total of 95 variances across 64 applications were granted by the Board of Adjustment. The 'd' variances that were approved include drive-thru windows, a self-storage facility, residential in a commercial zone, conditional use approval for a McDonalds, accessory buildings where none were permitted, propane filling station, conditional use approval for Silvi Concrete, electric signage, an adult day care, signage for Great Adventure, a contractor office, and a pickleball court.

TABLE 6 - VARIANCES GRANTED BY THE MILLSTONE TOWNSHIP BOARD OF ADJUSTMENT, 2017 -2024

	R-170	RU-P	RU-C	R-130	R-80	R-20	NC	HC	HC-1	BP	PCD	RC	R-MF	TOTAL
Lot Width	0	1	0	0	0	0	1	0	0	0	0	0	0	**2**
Usable Area /Undersized Lot Area	0	3	0	0	7	0	0	0	0	0	0	0	0	**0**
Ext. Of Time	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
Setback (Front/ Side/ Rear)	0	3	0	5	9	0	6	1	4	3	0	0	0	**31**
Accessory Structure Exceeds 900 Sf	0	1	0	2	4	0	0	0	0	0	0	0	0	**7**
Height Or Location of Fence	0	0	0	0	5	0	3	0	0	0	0	0	0	**8**
Lot Coverage	0	1	0	0	2	0	1	0	1	0	0	0	0	**5**
'D' Variances	0	0	0	0	2	0	1	5	4	4	1	0	0	**17**
Steep Slopes	0	1	0	1	1	0	0	0	0	1	0	0	0	**4**
Signage	0	0	0	0	1	0	0	2	2	0	0	0	0	**5**
Building Height	0	0	0	0	0	0	0	1	0	0	0	0	0	**1**
Distance Between Principal & Accessory Buildings	0	1	0	1	2	0	0	0	0	0	0	0	0	**4**
Total	**0**	**11**	**0**	**9**	**34**	**0**	**12**	**9**	**11**	**8**	**1**	**0**	**0**	**95**

Throughout the years, the Zoning Board made several recommendations for updates to the Township's zoning ordinance. Many of these have been implemented, including allowing accessory structures on commercial properties (adopted via Ordinance 20-12), adding electric vehicle charging stations as permitted uses (this was accomplished through the State), and define "tavern" vs "restaurant" uses (adopted via Ordinance 25-13).

NON-RESIDENTIAL AS REPORTED BY THE DCA

From 2014 through 2025, building permits were issued for 2,574,646 square feet of non-residential construction. The Department of Community Affairs provides data for non-residential development broken down into three categories: Office, Retail, and "Other." Of the over 2.5 million square feet, 162,138 were for office development, 25,319 square feet were for retail, and the remaining 2,387,219 square feet were attributed to the "Other" category that is further broken down into various classes and subcategories. The majority of the "Other" development was for storage, which accounted for 2,149,127 square feet. Much of the storage development can be attributed to the warehouse development approved along the Route 33 corridor, including the 1.2 million square feet of warehouses locally known as "Showplace Farms," that was constructed between 2021 and 2022.

TABLE 7 – PERMITS ISSUED FOR NON-RESIDENTIAL CONSTRUCTION BY SQUARE FEET MILLSTONE TOWNSHIP, 2014 TO 2025

Year	Office	Retail	Other[1]	Total
2014	20,262	0	68,886	89,148
2015	23,525	0	22,683	46,208
2016	9,254	0	51,795	61,049
2017	500	0	37,682	38,182
2018	54,507	0	43,697	98,204
2019	13,779	0	31,168	44,947
2020	4,780	25,319	18,179	48,278
2021	13,193	0	1,849,276	1,862,469
2022	22,338	0	54,116	76,454
2023	0	0	209,737	209,737
2024	0	0	0	0
2025	N/A	N/A	N/A	N/A
Total	**162,138**	**25,319**	**2,387,219**	**2,574,676**

[1] See Table 8 below for breakdown of this category

TABLE 8 - PERMITS ISSUED FOR "OTHER" NON-RESIDENTIAL CONSTRUCTION BY SQUARE FEET MILLSTONE TOWNSHIP, 2014 TO 2025

Year	A-3[1]	Multifamily/ Dormitories[2]	Storage[3]	Signs, Fences, Utility, Misc.	Total
2014	0	40,736	0	28,150	**68,886**
2015	0	0	0	22,683	**22,683**
2016	5,000	0	15,200	31,595	**51,795**
2017	2,560	0	0	35,122	**37,682**
2018	0	5,060	20,870	17,767	**43,697**
2019	0	0	14,570	16,598	**31,168**
2020	0	0	5,880	12,299	**18,179**
2021	0	0	1,838,312	10,964	**1,849,276**
2022	0	0	49,805	4,311	**54,116**
2023	0	0	204,490	5,247	**209,737**
2024	0	0	0	0	**0**
2025	N/A	N/A	N/A	N/A	**0**
Total	**7,560**	**45,796**	**2,149,127**	**184,736**	**2,387,219**

Tables8 and 9 Source: State of New Jersey Department of Community Affairs Building Permits: Yearly Data

[1]A-3 includes churches, libraries, amusement arcades, community halls, gymnasiums, indoor swimming pools, art galleries, and museums.

[2]This Land Use Element notes that while the DCA places multifamily within their "non-residential" category, the remainder of this Plan addresses it as a residential use. For the purpose of analysis, the DCA data has been included in the non-residential section of this Plan.

[3]Warehouse development is found within this category.

WAREHOUSE TRENDS

National and Regional

Since the 2017 Master Plan was prepared, there has been a significant shift in the development trends of warehouse uses both in New Jersey and across the country. One appropriate way to track this development trend is to review employment statistics for those in the warehousing industry. Country-wide employment in the warehousing sector tripled between 1990 and 2019, with a steep incline beginning around 2013 after a brief slump surrounding the 2008 recession.[14] From 2014 to 2023, New Jersey's labor force employed in either the wholesale trade or transportation and warehousing sectors[15] of the economy doubled, going from 5% of the labor force in 2014 to over 10% in 2023.[16]

An increased demand for warehouse construction coincides with the expansion of e-commerce and international trade over the last several decades. The COVID-19 pandemic accelerated this trend as many people turned to online shopping for necessities, while more businesses adopted e-commerce options in order

[14]https://www.bls.gov/opub/ted/2019/employment-in-warehousing-and-storage-nearly-triples-since-january-1990.htm https://planning.org/foresight/trend/9310320/

[15] Wholesale Trade NAICS 42 and transportation and warehousing NAICS 48-49 are the two sectors of the economy primarily involved in the storage and distribution of goods. During that same time period, however, Millstone residents employed in those sectors of the economy did not change, representing 3.5% and 3.6%, respectively, of Millstone's labor force.

[16] Census.gov, 2014 and 2023 ACS 5-Year Estimates "Selected Economic Characteristics"; 2014 and 2023 County Business Patterns (https://www.census.gov/programs-surveys/cbp/data/tables.2018.html)

to remain operational during lockdowns. There was initially some expectation that this shift might be temporary as there was a brief reversal in 2022 when consumers became more comfortable returning to in-person shopping. That dip, however, was short-lived, and the continued increase in demand for online shopping suggests that e-commerce is a permanent staple of our economy.[17] Online shopping by its nature will rely on a greater number of facilities to store and ship products.

Millstone Township

While Millstone has historically been a predominant farming and agricultural community, the Township does have a history of permitting commercial and light industrial development along its Route 33 corridor. The 1957 Zoning Ordinance and Zoning Map identify the "Commercial and Limited Industrial Zone" extending the full length of the Route 33 corridor within Millstone's borders. Uses such as lumber yards, offices, commercial establishments, and warehousing and the processing of goods and materials were permitted. Review of historic aerials going back to 1957 reveal that this corridor remained predominantly agricultural and forested lands until the 1970s and 1980s when small pockets of commercial development began appearing, mostly on the far west and eastern ends of the corridor.

The Route 33 corridor within Millstone has seen a significant number of warehouse applications to the Planning Board and Zoning Board in recent years. The PCD Zone, which extends across most of the Route 33 corridor and allows for storage warehouse and distribution centers, was adopted in 2003, but development pursuant to this zone has only recently been realized. Since 2019, 1.9 million square feet of warehouse space has been approved across six sites and seven buildings. Of those seven buildings, four have been constructed, representing 1.45 million square feet.[18]

Other pockets of warehouse development have occurred within the Red Valley Business Park, located at the corner of Red Valley Road and Trenton Lakewood Road. Since 2018, three smaller warehouse structures totaling a combined 179,750 square feet have been constructed there. These three structures join a fourth building of approximately 45,400 square feet that was constructed in the mid-1980s. These buildings are considerably smaller than the ones seen on Route 33, with no building exceeding 80,000 square feet.

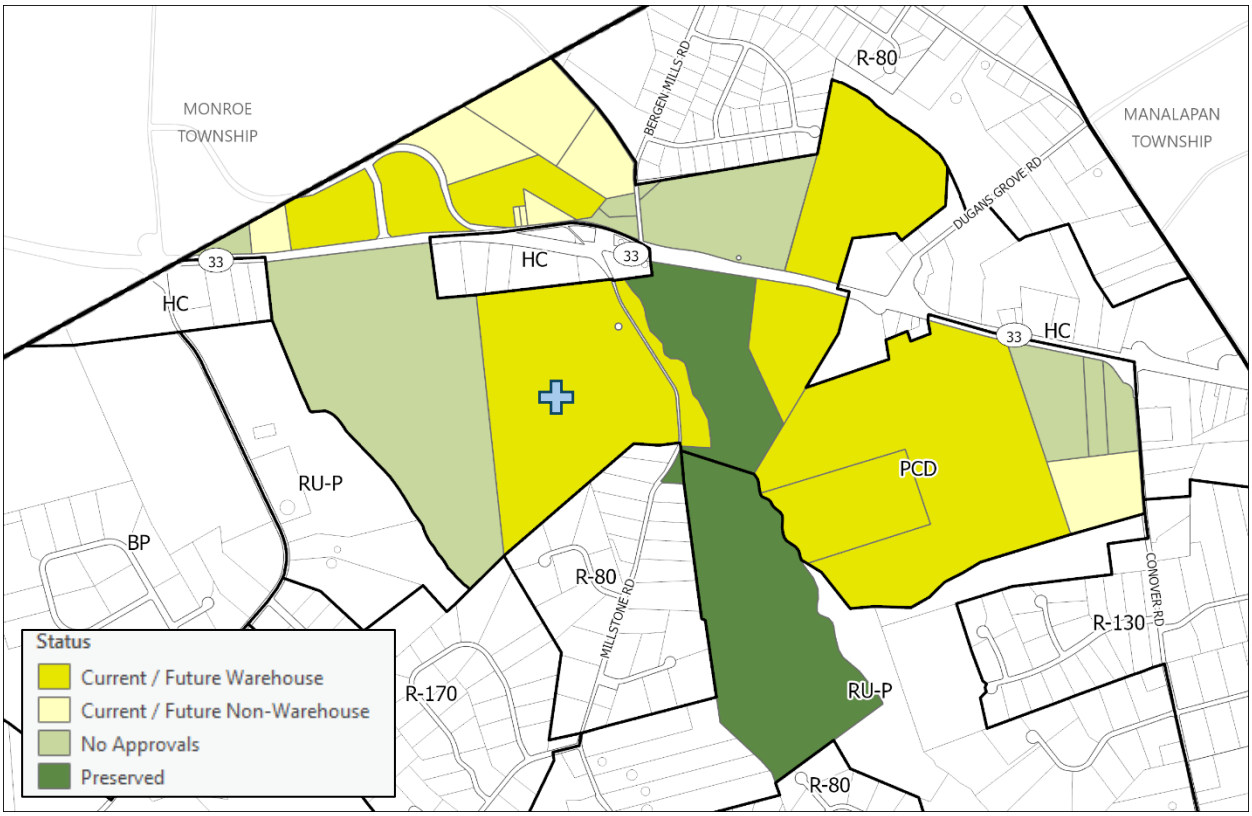
While not within the 1957 Commercial and Limited Industrial Zone, the existing warehouse located at 200 Rike Drive in the currently named Moto Business & Industrial Park off Prodelin Way, was developed in the late 1950s / early 1960s and continues to be in use today. The remainder of the Moto Business & Industrial Park began development in the early 2000s, after the implementation of the BP Business Park Zone, and contains a number of small, light industrial/warehouse buildings and flex space along Rike Drive. The first buildings were constructed in 2006/2007 with additional buildings and renovations occurring over the next two decades. With the exception of the older warehouse at 200 Rike Drive, the new construction consists of smaller buildings ranging from approximately 9,000 square feet to 21,000 square feet.

An outlier in the Township's warehouse development is found at 37 Burnt Tavern Road. This development, while not yet constructed, was approved for a 148,553-square-foot warehouse within the BP Zone. The BP Zone extends along the majority of Burnt Tavern Road, but the approved warehouse at 37 Burnt Tavern Road will be the largest development along this corridor once completed.

[17] "Pandemic Restrictions Initially Boost eCommerce Sales," International Trade Administration (https://www.trade.gov/post-pandemic-ecommerce)

[18] It is noted that approximately 1.2 million square feet of warehouse that has been developed is located at a property locally known as "Showplace Farms." This developed was the result of a settlement agreement during the Township's Third Round of affordable housing negotiations.

The following map shows the PCD Zone, located entirely along the Route 33 corridor, and highlights the status of each parcel.



Map 10 - PCD Zone Development Status

As can be seen in the above map, there are a number of parcels that have already been approved and/or constructed with warehouse buildings/uses. Several properties, however, remain available for a future development to take advantage of the warehouse use option. It is noted that the property identified with the blue "+" symbol is currently in front of the Millstone Board of Adjustment seeing height and FAR 'd' variances for two warehouse buildings. The fate of this parcel is not known as the Board has yet to vote on the application.

Challenges and Solutions

The PCD Zone currently allows for two different types of development: a "planned commercial" development and all other types of development. The planned commercial option allows for the subdivision of larger parcels to create an internal roadway network with individual lots, similar to an industrial business park. Development proposed *not* using the planned commercial option requires a minimum lot area of 20 acres, incentivizing large-scale commercial development. Even the planned commercial option allows parcels of up to 15 acres as long as the average lot size of the subdivision is 5 acres. These requirements, while more appropriate than 20 acres, still incentivize larger development.



Figure 4 - Constructed Warehouse at 1 Debaun Road (Source: Loopnet)



Figure 5 - Constructed Warehouse at 505 Highway 33 (Source: Loopnet)

The warehouse buildings approved in the PCD Zone range in size from 100,000 square feet to 1,000,000 square feet per building. The public outreach process confirmed in no uncertain terms, that the community is not pleased with the scale of development that has occurred within certain parts of Millstone, specifically on Route 33. Development here has left significant concerns regarding the environmental impacts and the potential conflicts with the intent of the State Plan's objectives for the Rural Environmentally Sensitive Planning Area PA4B. Additional concerns include traffic and noise associated with the scale of development. The original intent of the PCD Zone no longer supports Millstone's shared community vision or its land use goals and objectives.

The public outreach process confirmed that commercial development within Millstone should be smaller in scale and be oriented to the local community. The BP Zone has accomplished this in its two business parks and states specifically in its purpose that the zone was designed to take into account the strict requirements for on-site septic and individual wells. It does not appear as though the original drafters of the zone anticipated development such as the nearly 150,000-square-foot warehouse approved at 37 Burnt Tavern Road.

The majority of development within the Township's BP Zone, specifically within the Moto Business & Industrial Park and Red Valley Business Park (and not including 37 Burnt Tavern Road) provides for small-scale light industrial development more appropriate for Millstone's rural character than large-scale warehouses. The type of buildings seen in the two business parks provides suitable space for locally oriented businesses and trades people. As discussed further in the recommendations section of this Plan, light industrial flex spaces in industrial park settings are a more suitable use for both the BP and PCD Zones.

The Township should consider prohibiting large warehouse development in the PCD and BP Zones. Given Millstone's significant environmental constraints and resources, the Township should evaluate alternative regulations that support light industrial and commercial development, generate tax ratables, and minimize the impact on the environment and surrounding community character. Alternatives may include smaller-scale (e.g. 20,000 square feet or less) light industrial and flex spaces similar to those that inhabit the two industrial parks of the BP Zone.

Smaller light industrial and flex spaces support a local workforce, often attracting smaller businesses that have limited storage needs and lower inventory turnover. They provide a cost-effective approach for businesses, allowing for reduced overhead costs and easier building management. From the municipality's perspective,

they will not generate the extensive truck traffic experienced at the larger traditional warehouse spaces, thereby creating less wear and tear and traffic on municipal roadways.

DATA CENTERS

Conventional data centers designed to process web searches and cloud storage programs (e.g. Google Drive) have been developed for years and are often tucked away within larger office parks or industrial parks, not always clearly visible to the broader public. The recent boom in artificial intelligence (AI) technology, however, has triggered an influx of development proposals across the entire country, including New Jersey, for large-scale data centers focused on supporting the various AI tools that have become available in recent years (e.g. Open AI's ChatGPT). While conventional data centers do require a sizable amount of energy to operate, the AI-focused data centers involve significantly more energy, infrastructure, and land to meet the growing demand for AI services. Conventional data centers are typically 10-25 megawatts (MW) in size, and an AI data center may be 100 MW or more, which can consume as much electricity as 100,000 households.[19]

The following chart identifies the project energy consumption of data centers by region (United States, China, Europe, followed by the rest of the world). The US is expected to be the highest consumer of data center electricity by 2030 with a projected 130% increase in consumption compared to 2024 levels.

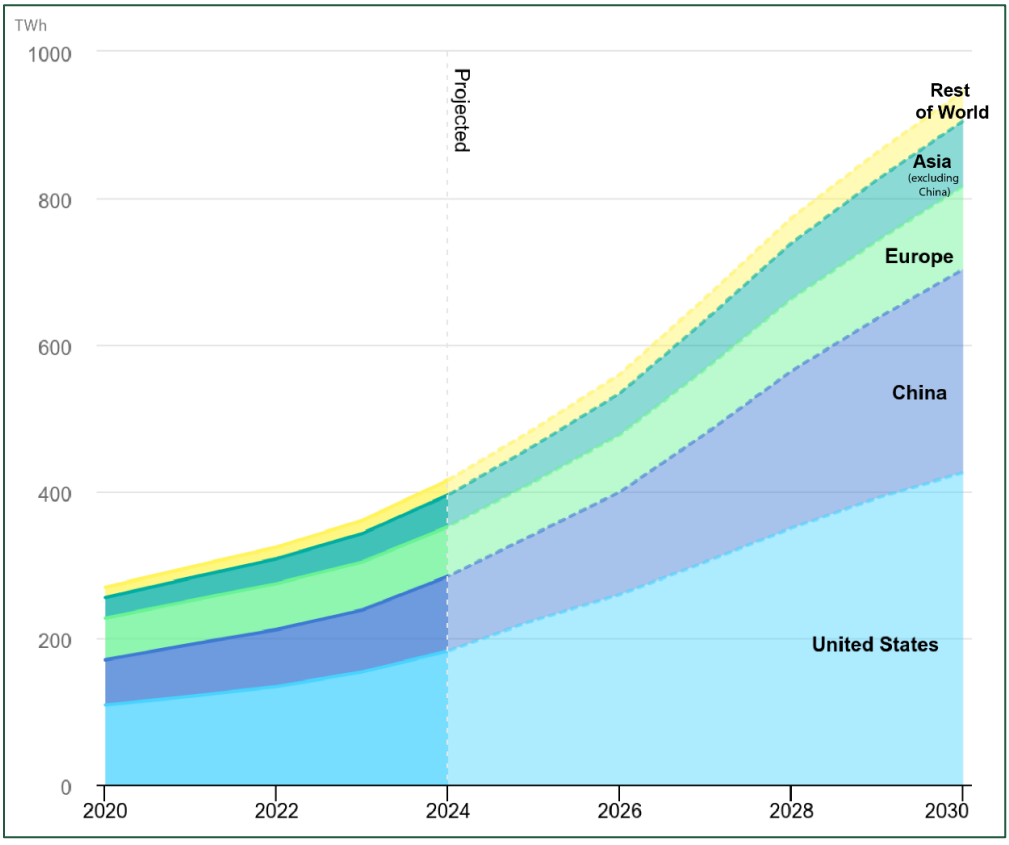


Figure 6: Data Center Electricity Consumption by Region, 2020-2030[20]

[19] International Energy Agency (IEA) (2025), Energy and AI, IEA, Paris https://www.iea.org/reports/energy-and-ai, License: CC BY 4.0

[20] International Energy Agency (IEA) (2025), Data center electricity consumption by region, Base Case, 2020-2030, IEA, Paris https://www.iea.org/data-and-statistics/charts/data-centre-electricity-consumption-by-region-base-case-2020-2030, License: CC BY 4.0

As of the writing of this Plan, there has not been specific interest in data center development in Millstone by prospective developers. However, the Township and its residents have concerns regarding a future potential for such a proposal. Data centers require a significant amount of land and infrastructure to operate successfully. Millstone Township does not have public sewer or water and contains valuable environmental resources that support not only the Township but also the regions as six watersheds begin in Millstone. These factors create an inappropriate environment for data centers, and they should not be permitted within the Township's borders.

During the development of this Land Use Element, the Township Committee determined it was appropriate to move forward with an ordinance prohibiting data centers. Ordinance 26-15 was adopted on September 16, 2026 defining and prohibiting data centers within Millstone. While the ordinance was adopted prior to the adoption of this Master Plan, it remains in conformance with this Land Use Element's updated and new goals and objectives.

SMART GROWTH

The term "smart growth" refers to the practice of preserving land, enhancing health and equity, and promoting balanced and sustainable land use that limits sprawl and accommodates a growing world population. Smart growth practices tend to emphasize and support development around condensed, mixed-use centers. The Municipal Land Use Law requires that the Land Use Element include smart growth strategies. These strategies in part shall "consider potential locations for the installation of electric vehicle charging stations; storm resiliency with respect to energy supply, flood-prone areas, and environmental infrastructure; and environmental sustainability."

Smart growth is acknowledged in the 2025 New Jersey State Development and Redevelopment Plan (SDRP) as a tool of planning for the future in such a way that preserves the state's resources and its residents' quality of life. The SDRP divides the state into Planning Areas (PAs), which establishes the foundation for the management of development and redevelopment throughout the state. The SDRP places Millstone almost entirely within the PA 4B Rural Environmentally Sensitive Planning Area with a small portion of land located within the Parks and Natural Area. Planning Area 4B is intended to maintain the environs as large contiguous areas of farmland, open space, and forested areas as well as enhance habitats and sensitive lands. The protection and support of local agricultural communities also remain a top priority.

Given Millstone's location in PA 4B, and the presence of significant environmental constraints in conjunction with its lack of sewer or water, the Township has limited development capacity. The SDRP balances development with preservation through a focus on infill and transit-oriented development as well as growth around Centers, of which there are none in Millstone. Therefore, the Township's central smart growth strategy is to prioritize the use of land that is already developed or was previously developed and provide for commercial uses within its existing commercial districts, especially the Route 33 corridor, that support local and regional needs.

LAND USE PLAN RECOMMENDATIONS

This Land Use Element provides for the following policy considerations, land use recommendations, and recommended zoning changes.

A. NEW AND ELIMINATED PERMITTED USES

Issue to Address: The scale of commercial development occurring in some of Millstone's commercial districts, specifically the PCD Zone and some areas of the BP Zone, are out of context in Millstone and do not support Millstone's current community vision and its land use goals and objectives. The presence of environmentally sensitive constraints within Millstone and lack of public infrastructure should be considered when determining appropriate development for the Township's commercial districts.

Proposed Solution: The zones should permit uses suitable in scale and utilization for Millstone's community context, eliminating uses whose development is out of character with Millstone. New uses should be defined and permitted to attract smart economic investment and cater to local businesses and patrons. Modernization of permitted uses will ensure development is consistent with Millstone's goals and objectives and allow for easier implementation and less confusion.

Recommendation 1: Eliminate "storage warehouse and distribution centers" as a permitted use in the BP and PCD Zones.

Recommendation 2: Amend the permitted uses within both the PCD and BP Zones to specifically permit "light industrial flex space." Development similar to flex space is already established in the BP Zone and offers appropriately sized commercial ratables for both the BP the PCD Zones. Flex space, also known as "small bay industrial," provides small business owners affordable opportunities to combine the functionality of a warehouse with office amenities. These types of spaces often attract contractors, plumbers, electricians, light manufacturers, artisans, etc. who have needs to store equipment and vehicles as well as conduct their administrative operations but do not necessarily need, or can afford, space in larger warehouses or office parks.

(a) Permitted uses within a flex space should be those specific uses allowed in the zone, focused on uses such as light manufacturing, research and development, and contractor trades.

(b) The Township should develop a definition for "light industrial flex space," that allows for a building with multiple tenant spaces, which can be altered with interior modifications of demolishing, building, or relocating non-structural walls. It is common for each tenant space to consist of one or more types of spaces, including office, storage, fabrication, and similar functions designed to support individual tenants.

(c) Standards should support the creation of industrial and business park settings with internal roadways, smaller subdivided lots, and a cap for building footprints of 20,000 square feet.

(d) Parking standards should be reviewed to determine what is most appropriate.

(e) Standards that restrict tractor trailers from accessing the site but permit box trucks would be appropriate.

(f) Architectural standards should be considered as the Township may want to establish a requirement that flex space to reinforce the rural aesthetic and architecture of the Township. Updates to required materials, roof configuration (i.e. support pitched roofs), façade

configurations, etc. would be appropriate. See Recommendation 'J' of this Plan for further discussion.

Examples of appropriately scaled and designed flex space buildings:






Recommendation 3: Allow "self-storage facilities" as a permitted use within the PCD and BP Zones. Review if making self-storage facilities a conditional use in the HC Zone is appropriate. Self-storage facilities typically generate little traffic and omit no noise or odor. They produce tax revenues and require minimal or reduced municipal services. Self-storage facilities also lend themselves well to adaptive reuse of existing commercial buildings and can provide an appropriately scaled economic opportunity for Millstone.

(a) The Township should develop a definition of "self-storage facility" and associated parking requirements.

Recommendation 4: Permit "co-working office space" in the BP, PCD, and HC Zones where office uses are already permitted. Co-working offices are a modern evolution of the traditional office space that fills the needs for individuals who predominately work remotely. Co-working spaces provide convenience for their users and are a cost-efficient option for smaller businesses as the cost for equipment, utilities, custodial, and reception services are shared among all users. As the landscape

of work and offices spaces continues to shift, the co-working space provides a valuable opportunity to entice smart ratables consistent with existing permitted uses.

(a) A definition for co-working office space should be developed that allows for a type of office space comprised of a shared working environment for workers who work remotely and are employed by different companies but may come and rent dedicated work space within the facility.

Recommendation 5: Consider whether "commercial recreation" should be a permitted or conditional use within the BP Zone. This use is permitted within the PCD Zone and would be appropriate for the buildings types in the BP Zone. Commercial recreation, more commonly referred to as "indoor recreation," would include such sub-uses as pickleball courts and indoor climbing facilities that offer broad recreational and leisure activities to the public. Any ordinance should separate this use from an "indoor sporting facility" that would be designed for organized athletic activities such as competitions and organized spectator events. An indoor sporting facility is not appropriate for Millstone and was disfavored during the public outreach process.

(a) Potential requirements or conditions could include restrictions and prohibitions on events, specific parking requirements, height restrictions, etc.

B. OTHER CHANGES TO PERMITTED USES

Issue to Address: The NC and HC/HC-1 Zones currently provide specific examples of what constitutes a permitted sales or service use. While the list of permitted **retail establishments** notes that the list is **not exhaustive**, the permitted **service establishments** as well as other commercial uses i**s limited** to the list provided. The style in which the zone lists every possible use is indicative of a pervious era of land use planning, which is restrictive and not designed to evolve with time. It also makes the uses hard to interpret when an applicant comes in with a proposed use that does not fit neatly into one of the categories.

Proposed Solution: Modernize the permitted uses in these zones to ensure clarity and consistency.

Recommendation 1: Update the permitted uses in the NC and HC/HC-1 Zones to review the existing uses and amend as appropriate. The Township should ensure there is a definition associated with every use. As an example, "auto parts" is listed as a permitted service trade in all three zones, but there is no further explanation as to what that use entails. "Dance school" and "martial arts school" are listed as permitted service trade establishments, but it's not clear if this would also include a yoga or Pilates studio.

C. UPDATES TO DEFINITIONS

Issue to Address: There are a number of inconsistencies or lack of direction within Chapter 35 Article 2 "Definitions" making it confusing for both applicants and Township staff and its professionals when determining permitted uses.

Proposed Solution: Update Article 2 "Definitions" to eliminate inconsistencies and add new or amended definitions as appropriate.

Recommendation 1: The entirety of Article 2 should be reviewed and updated. Specific recommendations include but are not limited to:

(a) All uses permitted within Millstone should have an accompanying definition.

(b) Any use that is explicitly prohibited should have an accompanying definition.

(c) Any new uses that are added as either a permitted or prohibited use should have an accompanying definition.

(d) The definition for "dwelling" should be updated to include provisions for what constitutes a second dwelling. Two dwellings on a single lot are not permitted within Millstone; however, a definition would be beneficial for the Zoning Officer and Boards to determine what constitutes the second unit. Note this recommendation is not relevant to the work force housing associated with farmland.

(e) Definitions for "office" or "professional office" or similar should be added. There are several zone where "offices" or "professional offices" or similar are permitted but no definitions exist to provide guidance to the Zoning Officer or Board.

(f) A definition for "health spa" should be added. This is a permitted use in the PCD, HC, and HC-1 Zones but no definition exists. This has been a point of discussion and confusion when applications have come before the reviewing Boards.

    i. It may be appropriate to update this use to "health and fitness" as that may be more consistent with the original intent of the "health spa" use but updated to accommodate modern needs.

(g) A definition for "fitness center" or a similar use should be added. Fitness centers are permitted in multiple commercial zones, but the definition of fitness has evolved as have the accessory uses associated with it. The ordinance should be clear what is intended for this use.

(h) The definition for "concept plan" should be updated to remove any references to fees. Fee discussion is not appropriate for a definition and will be addressed in Chapter 5 Fees of the Municipal Code.

(i) A definition for "Administrative Site Plan Review" should be included to clarify the process and conditions that trigger such a review.

D. UPDATE BUFFER REQUIREMENTS

Issue to Address: The BP, PCD, and HC-1 have requirements for buffer areas between commercial and residential zones. However, the requirements are inconsistent and confusing. Some zones identify where the buffer area is to be measured from (e.g. building to property line, pavement to property line, etc.) while others do not. Additionally, some of the standards address landscaping within the buffers while others don not address planting requirements. It is also noted that the NC and HC Zones do not have buffer requirements. While these zones consist of smaller lots and permit less intense development, it would be appropriate to include buffer standards here as well. All of this leads to confusion for the Zoning Officer, applicants, and Planning and Zoning Board members who are attempting to interpret and implement the correct standards.

Proposed Solution: Update all buffer requirements to eliminate confusion and ensure applicants understand what their responsibilities are prior to appearing before the Board.

Recommendation 1: Consider moving the buffer requirements to a single section of the ordinance so Township officials, professionals, and applicants can easily locate the standards. Section 35-4-13 "Planted Buffer Between Commercial and Residential Uses" should be reviewed to determine whether

it should be eliminated or updated/combined with other section regarding buffer areas. An applicant should not need to look in multiple locations to determine their buffer area requirements.

Recommendation 2: The buffer requirements for all zones should require landscaping be provided within the buffer area to act as a visual screen. Berming where appropriate should be encouraged. The landscaping requirements within the buffer areas should defer to Section 35-11-14 "Landscaping Standards," and specifically Section 35-11-14.7 "Buffers," which should also be reviewed and updated as needed to ensure property landscaping is being required for the various buffer areas.

Recommendation 3: The minimum buffer area should be measured from the closest commercial improvement (i.e. the building, a driveway, a parking space, curb, outdoor storage of material, etc.) to a residential or rural preservation zone line *or* to any property containing a residential use. The standards should address the condition where a residential zone or use is located across the street from the subject property. Enhanced screening along the front property line of the commercial property may be appropriate in this instance.

Recommendation 4: In the NC and HC Zones, buffer requirements should be added that require commercial improvements be setback a minimum of 40 feet from a residential or rural preservation zone *or* from any property containing a residential use. The buffer area should either be planted with landscaping to act as a visual screen, or a 6-foot-tall opaque fence may be installed along the shared property lines. The determination of whether landscaping or fencing is the most appropriate treatment shall be at the discretion of the reviewing Board, who shall take into account the specific facts of the application and subject property.

E. UPDATES TO STEEP SLOPES AND CONSERVATION EASEMENT REQUIREMENTS

Issue to Address: In accordance with Section 35-11-13 "Easements and Wildlife Corridors," conservation easements are required to be placed on "any land for development applications for new single-family dwellings, residential additions, accessory structures, all agricultural, commercial, office, industrial, residential subdivisions and site plans where conservation values relating to scenic vistas, floodplains, wetlands and associated buffers, open space, historical areas, soil types, steep slopes, tree preservation, protection of watercourses, protection of endangered or threatened species habitat, protection of animal life and elimination of excessive noise are deemed to require special protection…" While the intent of this requirement is consistent with Millstone's goals and objectives, the implementation is confusing. The section requires easements on quantities that are not easily defined, such as "scenic vistas." The phrase "conservation value" is not specific in what the property owners are required to conserve. It is also unclear at what point the conservation easement must be filed.

This section also does not clearly establish when and how a conservation easement is required, including whether the standard applies to all development applications or only to those involving one or more of the features that trigger a conservation easement. For example, if a pool is proposed on a piece of property that has wetlands not within a conservation easement, but the pool itself is not within wetlands or the buffer area, is the resident required to file a conservation easement at that time?

Issue to Address: Section 35-11-24 "Steep Slope Buffer Requirements" defines steep slopes as "a slope area in excess of five vertical feet in height and 15% or greater." Pursuant to Section 35-9-5.2, development, including principal and accessory structures, lawns, and other site disturbances, shall not be permitted within steep slope areas. Section 35-11-24 also requires a 50-foot slope buffer area

at the top and bottom of a steep slope area. This section is unclear, however, what, if anything, may occur within the 50-foot buffer area. Given the prevalence of steep slopes within Millstone, there are certain residential properties whose entire yard area is within this buffer area, placing a potential hardship on residents.

The purpose of a steep slope buffer area is to provide further protection of the steep slope area by ensuring significant development does encroach on steep slopes. The buffer areas will include land that is also sloped, but at less than 15%. The buffer area does not necessarily need to exclude every improvement from occurring there. If that was the Township's desire, then the definition of steep slopes would include slopes less than 15%. That is not the Township's intent, though.

Proposed Solution: Clarify the language so that the requirements of the easements and steep slope buffer areas are clear, including the point at which an easement is to be filed and how to measure the buffer areas.

Recommendation 1: The Township should work closely with its municipal attorney to determine the most appropriate and legal way of implementing conservation easements. Section 35-11-13 should be updated in its entirely to clarify the environmental features that are to be placed in easements and identify the process for proceeding. It is recommended that undefined areas, such as "scenic vistas," be removed from the list, but be addressed in another way through a generalized "recommended preservation"

Recommendation 2: The buffer requirements for steep slopes (and/or other environmental features if needed) should be reviewed and revised to determine what, if anything, is permitted within a buffer area. A revised ordinance should:

(a) Clarify buffer area depth and purpose.

(b) Define the types of activity, disturbance, and other limitations within the buffer area.

(c) Clarify when the conservation easement requirement is triggered and whether that encompasses all or some of the buffer area.

(d) The ordinance language should be clear at what point no improvements are permitted at all.

(e) A review of required setbacks requirements is also appropriate.

F. ZONING BOUNDARY DESIGNATIONS

Issue to Address: Ordinance Section 35-5-4 addresses zoning boundary designations within Millstone. There are several components of this section that are either outdated or confusing. Specifically, section 35-5-4.2 notes that if a zone boundary is not more than 50 feet from a lot line, then the lot line is to be the zone boundary line, which is confusing and difficult to implement. Additionally, section 35-5-4.5 provides guidance for how to address lots that are split between two or more zoning designations, but the standards are dated and inconsistent. As an example, this subsection refers to "conditional use permits" for split-zoned lots, which is an antiquated process not permitted in the Municipal Land Use Law. There is also limited guidance on how to address such lots. Generally, zoning that splits a lot into multiple zones is an inadequate way of implementing zoning.

Proposed Solution: Section 35-5-4 should ensure accuracy with current laws, be clear as to how zone boundary is defined, and better address how split zoning is managed.

Recommendation 1: Review the entire section to eliminate outdated references to processes such as "conditional use permits" and other inconsistencies. Other edits should include but not limited to eliminating or clarifying the requirement that states, "Where a zone boundary is fixed by dimension on the Zoning Map approximately following and is not more than 50 feet from a lot line, such lot line shall be construed to be the zone boundary."

Recommendation 2: Update the split-zone lot requirements. An appropriate way to address split-zoned lots is that the structures and uses within each zone should conform to the requirements of the zone (e.g. setbacks, height, etc.), but the land situated in the other zone may be used to calculate overall minimum requirements such as coverage, lot size, lot frontage/width, and lot depth.

Recommendation 3: Review all split-zoned lots within the Township and consider whether a rezoning is appropriate to place the entire lot within one zone. This decision will have to be on a lot-by-lot consideration based on the conditions of each lot. This analysis was not part of the scope of this Land Use Element, but it is a general recommendation to eliminate split-zone lot conditions wherever practical. Split-zoned lots are cumbersome and difficult to implement and can be a burden on homeowners. Reducing or eliminating the split-zone conditions is beneficial to the Township and its residents.

G. REQUIRE A COMMUNITY IMPACT STATEMENT

Issue to Address: Often applicants appear before the Planning or Zoning Board of Adjustment and are not equipped to answer the Board's question regarding the broader community impact of the proposed development.

Proposed Solution: Applicant should be required to submit such information prior to the Board hearing.

Recommendation 1: The Township should amend the application requirements for major subdivisions or site plans to provide a Community Impact Statement (CIS). CISs typically require an analysis of the proposed development and its potential impact on the broader community.

(a) All applications for major development, however, should submit a CIS that provides for potential impacts to the neighbors and community. Example topics include, but not limited to, lighting, noise, construction impacts, water and nitrate dilution impacts, and agriculture impacts.

(b) In addition to the above listed topics, use variance applications should also be required to provide a CIS that includes fiscal and municipal service impacts including, but not limited to, population impact, school impact, emergency service impact, financial impact, and roads and traffic impact.

H. UPDATE THE TOWNSHIP'S LIGHTING REQUIREMENTS

Issue to Address: There are three sections in Chapter 35 that address lighting: Ordinance Section 35-4-11.6 addresses general lighting requirements under performance standards; Section 35-7-3.4 address lighting requirements within parking lots; and Section 35-11-19 addresses general street lighting as a design and performance standard. Unfortunately, between the three sections, there is limited guidance and requirements for lighting standards that work to protect the Township from light pollution and ensure appropriate light intensities and temperatures. With the increase in

nonresidential development experienced over the last decade, residents are concerned with the lighting impacts and nuisances from such development.

Proposed Solution: Exterior lighting standards should ensure light pollution is kept to a minimum, excessive or unnecessary light fixtures should be eliminated, and sound planning principles are implemented to ensure Millstone's community character is maintained.

Recommendation 1: Either Section 35-4-11.6 should be updated or a new section should be developed to provide further guidance and requirements for exterior lighting proposed as part of site plan or subdivision applications. Such ordinance should support the use of dark-sky compliant light fixtures, incorporate Artificial Light at Night ("ALAN") planning principles, and provide for lighting requirements that support the five lighting principles for responsible outside lighting: useful, targets, low level, controlled, and warm-colored.

(a) The lighting ordinance should create a dark skies policy and require light fixtures be shielded to prevent glare and sky glow.

(b) The ordinance should establish a range of appropriate color temperatures for LED light fixtures. Color temperature is measured in degrees Kelvin (K) on a scale of 1,000 to 10,000. Lower temperatures are "warmer," more yellow in color, while higher temperatures are "cooler," blue-white colors. For residential areas, temperatures around 3,000K are appropriate, while commercial corridors are better served by temperatures between 3,500K and 5,000K.

(c) The revised lighting standards should review the current foot-candle minimums, maximums, and averages for different types of development to determine where updates are necessary.

(d) As mentioned in recommendation 'G,' lighting impacts should be included in a CIS submission as part of a major subdivision or site plan application.



Source: Any-Lamp.com

I. UPDATE THE TOWNSHIP'S NOISE REQUIREMENTS

Issue to Address: The Township's Municipal Code does include noise regulations under Chapter 3 "Police Powers," including Table 1 "Maximum Permissible A-Weighted Sound Levels" and Table 2 "Maximum Permissible Octave Band Sound Levels. Chapter 35 also provides noise requirements that include decibel standards based on the frequency band level per second and type of operation or character of noise. There remain concerns by Board members and residents about noise requirements for larger nonresidential applications.

Proposed Solution: The Township's noise regulations should ensure noise is addressed early in a development proposal rather than after a project has been constructed. Standards should provide protection for residents both during construction and once the development is operational.

Recommendation 1: Chapter 35 should be updated to include specific provisions at the time of site plan to reduce noise during construction and once construction is complete.

(a) Applicants should be required to provide a narrative at the time of site plan application to identify how the applicant will minimize noise emission from on-site activities, equipment, and operations through design and operational controls. Such noise-reducing design features and operational conditions should be considered by the reviewing Board. Should a tenant not be identified yet, applicants should provide information regarding how the site and building will be designed to ensure minimal noise pollution.

(b) As mentioned in recommendation 'G,' noise impacts should be included in a CIS submission as part of a major subdivision or site plan application.

J. ARCHITECTURAL GUIDELINES AND DESIGN STANDARDS FOR NON-RESIDENTIAL BUILDINGS

Issue to Address: Ordinance Section 35-4-16 provides design guidelines for non-residential construction within Millstone. The Township has witnessed commercial construction that does not compliment the desired aesthetic of Millstone. Concerns were raised by the public regarding the appearance of several commercial developments in town. Additionally, some of the standards are dated and inconsistent.

Proposed Solution: The Township's design standards should provide for context-appropriate design requirements that ensure non-residential development within Millstone is being developed in a manner consistent with Millstone's rural suburban aesthetic.

Recommendation 1: Section 35-4-16 should be reviewed and updated to provide clarity and revise sections that are no longer consistent with the Township's goals and objectives. Updates to materials, roof configuration, façade configurations, etc. may be appropriate in order to maintain the rural architecture of the Township.

Recommendation 2: An update to this section should pay special attention to development along the Route 33 corridor, which is one of the most visible sections of Millstone to the broader region.

Recommendation 3: New design standards should be developed for light industrial flex space and the other newly proposed uses that will enable context-sensitive development and create an aesthetic in keeping with a light industrial rural feel. Example materials to consider include, but are not limited to, metal siding, glass overhead doors, pitched metal roofs, fiber cement exterior siding (to look like wood), and real wood siding. Colors should allow for natural tones but be expanded to permit dark colors as appropriate.

Issue to Address: There are various references to Article 4 throughout the zoning section (Article 5) that are contradictory. The R-80, NC, HC, HC-1, BP, and PCD Zones have standards that require all uses *other than residential and agricultural uses* to conform with the requirements of Article 4. However, Article 4 is entitled "Regulations Applicable to All Zoning Districts." There are standards in Article 4 that are applicable to residential and agricultural uses.

Recommendation 4: These sections within Article 5 should be revised to refer to the non-residential design standards of Article 4 Section 16, which appears to be the intent of the requirements.

K. HOME OCCUPATION STANDARDS

Issue to Address: Home offices/occupations are permitted accessory uses in the Township's residential zones. As the nature of working from home has evolved in recent years, the ordinance standards have not been updated or modernized to meet the needs of the Township or the practitioners. The current ordinance does not provide for specific permitted uses for home occupations, leading to issues with some attempting to circumnavigate the rules to allow a use that is not permitted (or is specifically prohibited) elsewhere in Millstone. There is also lack of direction for impacts to wastewater, process for reviewing an application, and number of home occupations permitted.

Proposed Solution: The home occupation standards should be modernized to reflect current needs of at-home workers as well as to meet the Township's goals and objectives for its residential areas.

Recommendation 1: Section 35-4-10, which governs home occupations in Millstone, should be revised to include the following additional standards:

(a) No home occupation shall involve the use, handling or production of any kind of hazardous materials as defined by the New Jersey Department of Environmental Protection (NJDEP), the U. S. Environmental Protection Agency (EPA), and the Township of Millstone Code at §21-3.2.

(b) No home occupation shall produce wastewater or utilize substances that cause an adverse impact on private or public water supply wells, individual subsurface sewage disposal systems (septic systems), or disposal fields (leach fields).

(c) The home occupation use must be a commercial activity that is expressly permitted within at least one zoning district within the Township. The absence of an express prohibition of a use does not imply that the use is permitted.

(d) The Zoning Officer shall review all applications to ensure strict compliance with the performance standards set forth in Township Code §35-4-11 and within this section to ensure the use does not cause a nuisance and preserves the residential character of the zone.

(e) No home occupation shall be established, altered or expanded without first obtaining a Zoning Permit and registering for a business license. The continued operation of any home occupation is contingent upon the annual renewal of said business license in accordance with the requirements of Township Code §4-1 and continued compliance with all applicable zoning performance standards as set forth in Township Code §35-4-11 and within this section.

(f) In the event that more than one home occupation is conducted on the premises, all of the limitations of this section shall apply as if only one such home occupation is being conducted thereon.

L. UPDATE THE HISTORIC PRESERVATION ORDINANCE

Issue to Address: The Historic Preservation Ordinance (Section 35-14) has not been updated in many years, nor has the survey of local historic landmarks.

Recommendation 1: Article 14 "Historic Preservation Commission" should be reviewed and updated as needed to provide for clean ups, establishing a list of local historic sites, and include the criteria for designation of local historic sites.

Recommendation 2: Prepare an updated survey of local historic landmarks to be identified within Article 14. As changes have been made over the years, the list has been split apart, and the inventory no longer exists in a single place. It is noted that there is a list in the 2017 Master Plan of local landmarks, which may be a good list to use as a base and expand upon/clean up.

M. UPDATES TO INCENTIVE ZONING STANDARDS

Issue to Address: The four incentive zoning provisions ("Woodsy Lane," Variable Density, Cluster Development, and Lot Size Averaging) have been effective at preserving open space and farmland within Millstone. However, there are some inconsistencies with their provisions and potential room for updates. For example, "Woodsy Lane" is described in two different sections of Article 4, Variable Density is described once, and Cluster Development/Lot Size Averaging are not addressed at all in Article 4.

Proposed Solution: Ensure consistency across Chapter 35 for how each incentive zoning mechanism is managed. The standards should be easily accessible and understandable to property owners looking to take advantage of these zoning provisions. Ensure the standards continue to align with the Township's shared community vision and goals and objectives.

Recommendation 1: Add definitions for "Woodsy Lane," "Variable Density," and "Lot Size Averaging." It is noted that there is already a definition for "Residential Cluster." This definition should be reviewed and expanded upon, as necessary.

Recommendation 2: There are general "Woodsy Lane" regulations in Sections 35-4-4.8 (under Lot and Yard Requirements) and 35-4-8.6 (under Nonconforming Uses, Buildings or Lots). Likewise, there is a general description of Variable Density in Section 35-4-8.7 but not in 35-4-4. Cluster Development and Lot Size Averaging do not have general descriptions anywhere except where the specific standards are found in Article 5 Zoning District Regulations. Article 4 Section 4 "Lot and Yard Requirements" should be amended to include general descriptions of each incentive zoning mechanism. Other sections in conflict or contradiction should be eliminated.

Recommendation 3: Within the R-170 zoning requirements, there is an internal reference to the "Woodsy Lane" requirements, referring to section 35-5-6.7, which does not exist. The reference should be updated to 35-5-6.6.

Recommendation 4: The Township should conduct a general review of each of the four incentive zoning mechanisms to determine where specific updates to the requirements are needed. For example, it may be appropriate to amend the cluster zoning provisions, which are permitted in the RU-P and the RU-C Zones, to increase the minimum permitted residential lot sizes, which are currently 2 acres and 1 1/3 acre, respectively, to a larger lot size. Three or 4 acres may be appropriate, depending on the other provisions of the mechanism.

N. GENERAL UPDATES RECOMMENDED FOR CHAPTER 35

Issue to Address: There are multiple sections within Chapter 35 that need to be updated and modernized to correct inconsistencies, ensure coherence throughout the chapter, or establish new standards that are currently missing from the ordinance.

Recommendation 1: Review the Township's sign ordinance (Article 15) in its entirety to provide updates where needed, including resolving any inconsistencies and confusing standards. As an example, the sign requirements for the BP Zone (section 35-15-2.5) refer to permitted signs in the HC Zone, which refer to permitted signs in residential zones. However, the BP Zone then provides its own set of signs and standards, making it confusing with standards apply. The section additional refers to "Chart A herein" which may refer to Chart A in a different section, but it is unclear.

(a) A full review of Article 15 should consider these inconsistencies and cross references. Because cross references can be confusing and are often not updated when a section is amended, it is recommended that each section within Article 15 contains the applicable standards, rather than referring to a different section.

Recommendation 2: The Township's "Tree Removal" ordinance, found at 35-11-25, should be reviewed and updated to resolve inconsistencies and confusing standards.

Recommendation 3: The current ordinance does not specifically address flagpoles, making their installations technically not permitted.

(a) Provisions should be added to allow flagpoles in the front and rear yards at a height of 16 feet. In rear yards, flagpoles should be required to meet setbacks for accessory structures.

(b) In front yards, flagpoles should be permitted to be setback at half of the front yard setback for principal structures.

Recommendation 4: The fence requirements, found at Section 35-4-9.12, should be updated to take into account fences installed on the secondary frontage of a corner lot. It is common for ordinances to apply specific setback and height standards for corner lot fences as it is a unique condition where the traditional fence standards may not be appropriate.

Recommendation 5: The Township previously considered establishing standards to permit outdoor dining, but such regulations were never adopted. There are eating and drinking establishments within Millstone that have maintained their COVID-era outdoor dining, but the Township still lacks regulations. It is therefore recommended the Township move forward with specific regulations to permit outdoor dining in certain locations within Millstone. Such regulations should consider:

(a) Bulk standards, such as setbacks, height limits, coverage, etc.

(b) Enclosures such as trellises, tent structures, etc.

(c) Hours of operation

(d) Attached vs detached structures/uses

(e) Where cooking and drinks may be prepared

(f) Music

(g) Capacity in relation to septic requirements

Recommendation 6: Adopt an Electric Vehicle (EV) charging ordinance consistent with state standards. Include consideration as to where on a site EV infrastructure is appropriate and ensure all applications are review by emergency personnel.

Recommendation 7: Each of Millstone's zoning districts contains a purpose regarding the zone's intent and desired development patterns. Each of these purposes statements should be updated and

expanded upon to provide clear and firm language that is consistent with and support's the Township's development goals and objectives.

O. UPDATES TO THE SITE PLAN/SUBDIVISION APPLICATION PROCESS

Issue to Address: There are several components of the application process that are unclear or confusing to either applicants or Township administrative staff. For example, there is lack of direction for administrative site plan reviews as well as amended site plan requirements.

Recommendation 1: The use of use / exemptions from site plan section of the ordinance (35-9-1A.b.5) should be updated as follows (the **bolded and underlined** text indicates proposed additions and ~~strikethroughs~~ indicate deletions):

(a) "The change of use and/or expansion of an existing principal building and/or accessory building or structure, subject to the **Administrative Site Plan** review and approval of the Township Zoning Officer and Township Engineer, in consultation with the Township Land Use Planner if needed, and provided that all of the following requirements are met.

(b) That an escrow account ~~of $2,000 is~~ established by the applicant with Millstone Township to pay for the time expended by the Township Engineer and the Township Land Use Planner, and that an application fee ~~of $250~~ also is provided **in accordance with the fee schedule (Subsection 35-3-9.4)**.

Recommendation 2: A definition for "Administrative Site Plan Review" should be included to clarify the process and conditions that trigger such a review.

Recommendation 3: The Township should consider if it's appropriate to add either a section or new definition to clarify what type of application qualifies as an amended site plan vs a new site plan.

Recommendation 4: Require a Community Impact Statement (CIS) for each application for site plan or major subdivision. See Recommendation 'G' of this Plan for further discussion.

P. OTHER RELEVANT CODE UPDATES

Issue to Address: There are sections of Millstone's Municipal Code that are not within Chapter 35 but have relevance to zone standards and are in need of updates.

Recommendation 1: Chapter 27 "Farming" should be reviewed and updated accordingly. This is the Township's "right-to-farm" ordinance, which has not been updated since 1999.

(a) There is an updated model ordinance from the State that can be reviewed and utilized by the Township to ensure all "right-to-farm" regulations are up to date with current standards. An updated ordinance will ensure both farmers and residents are being allowed opportunities and protections.

(b) Through this process, the Township should review if there are additional provisions that are relevant to zoning that should be brought into Chapter 35.

Recommendation 2: Chapter 3 Section 4 "Brush, hedges, and Other Plants" should be reviewed and updated as needed to address sidewalk maintenance, guidance for removing trees and limbs extending over the public right-of-way, and address general maintenance of trees and shrubs. The responsibility of such maintenance has been a source for confusion for both residents and Township officials. Updating this section will help to clarify the requirements and responsibilities and can be made part of broader landscape plans for a property.

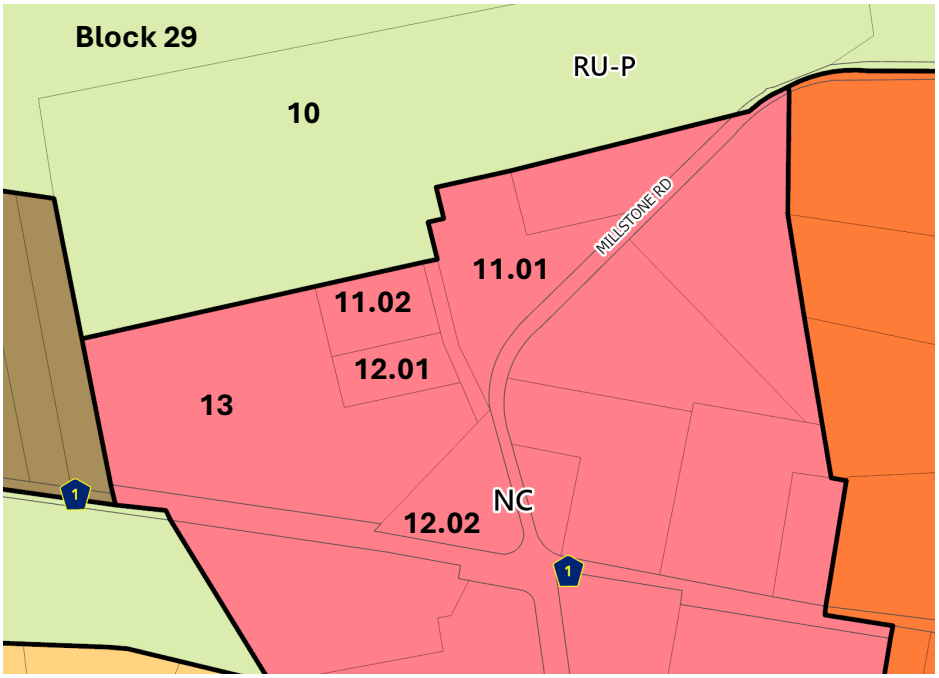
Q. PROPOSED ZONING MAP CHANGES

Recommendation 1: It is recommended that the residential development located along Hartshorne Drive and Francis Court be rezoned to the R-80 as that is the zoning the original subdivision was approved under and the lots' sizes and use are consistent with R-80. Specifically:

(a) Block 35 Lots 13.01, 13.02, and 13.04 through 13.13 should be rezoned from NC to R-80
   i. These lots are all developed with single-family homes and so are not likely to take advantage of the NC zoning, nor would NC use be appropriate in a cul-de-sac neighborhood of all single-family development.

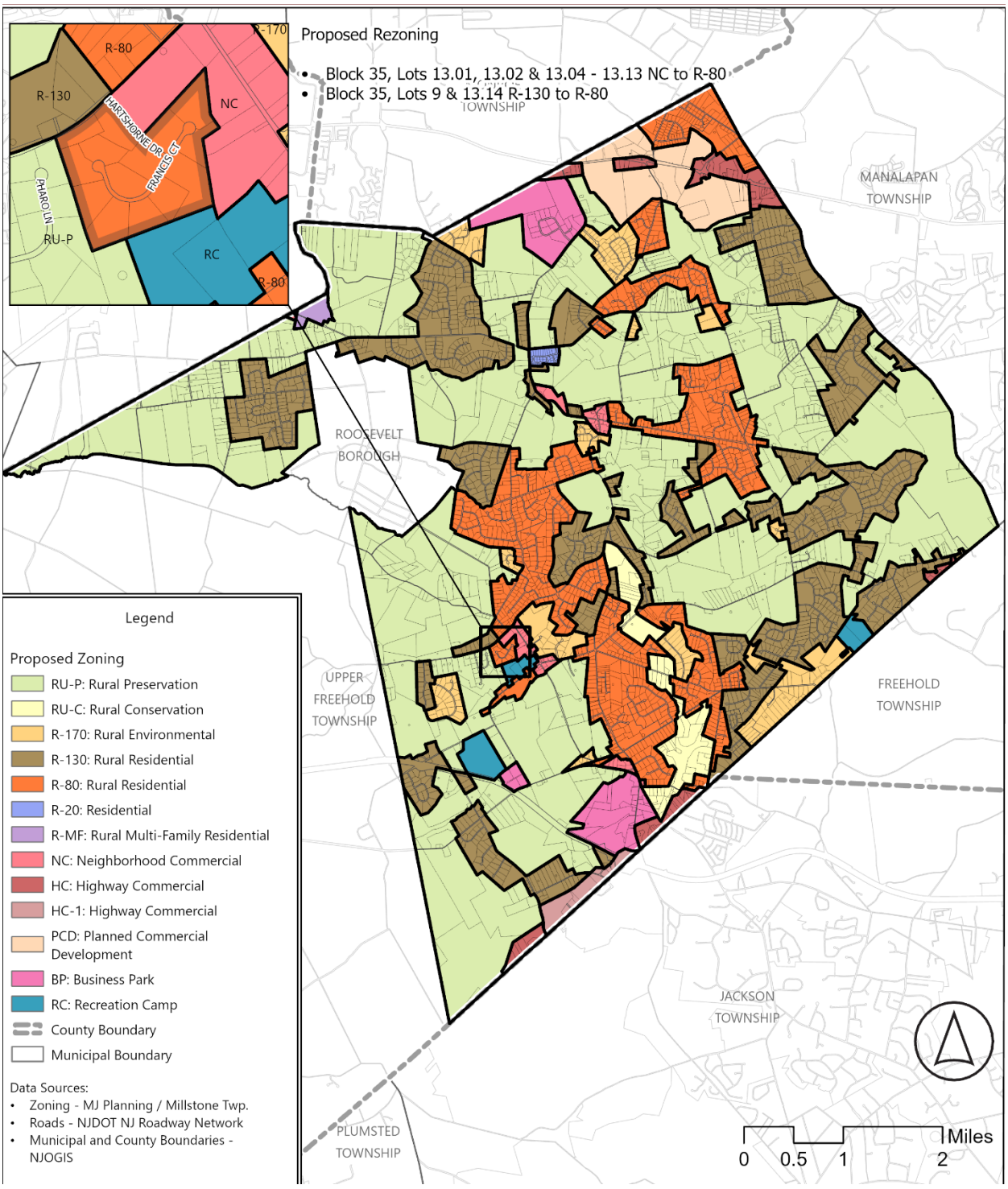
(b) Block 35 Lots 9 and 13.14 should be rezoned from the R-130 to the R-80
   i. These two lots are within the R-130 but are separated from any other lots within an R-130 Zone. They are significantly undersized for the R-130 Zone, which require 130,000 sf (+/- 2.98 acres) where Lot 9 is 1.6 acres and Lot 13.14 is 1.9 acres. The R-80 Zone requires a minimum lot size of 80,000 square feet (+/- 1.8 acres), which is notably more consistent with the existing sizes of Lots 9 and 13.14.

Recommendation 2: The lots surrounding the Township's municipal court building and the First Presbyterian Church on Millstone Road have been a point of confusion given that there are different documents (e.g. a subdivision resolution) that refer to the different zone designations for these sites. While there is not a specific zone change recommended, this Reexamination Report notes that for clarity purposes, the current zoning map represents the correct zoning. The lots identified as Block 29 Lots 11.01, 11.02, 12.01, 12.02, 13, the "staff" portion of Lot 10 as well as the cemetery on Lot 10 are all within the NC Neighborhood Commercial Zone. This can be seen on the Zoning Map on page XX of this Report. There are other questions associated with the tax data and these properties that are beyond the scope of a Reexamination Report. The Township should continue to investigate those issues and work toward rectifying the problems.



Map 11 - Zoning for Block 29

Recommendation 3: The current Zoning Map overlays Township-owned parcels, County/State-owned parcels, as well as streams, preserved farmland, and the flood hazard zone over the underlying zoning designations. This creates a map that is confusing and difficult to interpret. It is recommended these features be placed on a separate map to eliminate the confusion. This second map should ensure all data is updated as the current Zoning Map does not reflect the current breadth of publicly owned properties. Map 3 of this Plan included under the "Existing Zoning" section provides for a map with the public land and zoning. It is recommended this be the basis for the new map that will also include preserved farmland and the streams and flood hazard area.



Map 12 - Proposed Zoning Map