

MENDHAM TOWNSHIP MASTER PLAN

Adopted by Mendham Township Planning Board on June 1, 2021

Prepared by: H2M architects + engineers

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The original of this report was signed and sealed in accordance with N.J.S.A. 45:14A-12

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TABLE OF CONTENTS

Land Use Plan	4
Overview/Executive Summary.....	4
Land Use Objectives.....	5
Existing Land Uses.....	6
Resiliency and Environmental Sustainability.....	25
Future Land Use Plan.....	28
Housing Plan	33
Overview/Executive Summary.....	33
Municipal Demographic Conditions.....	34
Future Housing Plan.....	47

LAND USE PLAN (Adopted 6/01/2021)

The Municipal Land Use Law (MLUL) requires a Land Use Plan element, of which it shall provide the rational basis and justification for municipal regulations. As N.J.S.A. 40:55D-62 of the MLUL states, the zoning ordinance or any amendment or revision of the ordinance shall be substantially consistent with the Land Use Plan Element of the Master Plan. Therefore, the recommendations found within this Land Use Element serve as the basis for future Zoning Ordinance amendments and revisions.

As it pertains to Mendham Township, N.J.S.A. 40:55D-28 of the MLUL requires that the Land Use Plan shall:

- (a) take into account and state its relationship to [Chapter II of this plan], and other master plan elements ... and natural conditions, including, but not necessarily limited to, topography, soil conditions, water supply, drainage, flood plain areas, marshes, and woodlands;*
- (b) show the existing and proposed location, extent and intensity of development of land to be used in the future for varying types of residential, commercial, industrial, agricultural, recreational, open space, educational and other public and private purposes or combination of purposes including any provisions for cluster development; and stating the relationship thereof to the existing and any proposed zone plan and zoning ordinance;*
- (d) include a statement of the standards of population density and development intensity recommended for the municipality;*
- (f) include, for any land use element adopted after the effective date of P.L.2017, c.275, a statement of strategy concerning:*
 - i. smart growth which, in part, shall consider potential locations for the installation of electric vehicle charging stations,*
 - ii. storm resiliency with respect to energy supply, flood-prone areas, and environmental infrastructure, and*
 - iii. environmental sustainability; and*
- (g) show the existing and proposed location of public electric vehicle charging infrastructure.*

OVERVIEW / EXECUTIVE SUMMARY

Mendham Township is a low-density residential community with significant sensitive land, rural and historic characteristics and a limited infrastructure base. Its future land use policies should be designed to protect and continue these characteristics, especially regionally important water resources including aquifers and the headwaters of the North Branch of the Raritan River, the Whippany River and Passaic River. Overall future land use planning should be limited to very low-density residential uses consistent with the established rural/historic land use pattern and in balance with a limited infrastructure base and environmentally sensitive land characteristics.

Of particular importance, the findings of a study of Township groundwater resources¹, prepared by the Township's environmental consultants, should form the foundation of the Township's future land use planning. The Land Use Plan in the previous Township Master Plan (adopted 2000, amended 2002) is based on the findings and recommendations of 1994 and 1996 environmental studies. With changes in the target nitrate concentration standard and other methodological and technical advances since that time, the new environmental study more accurately reflects the conditions and needs of Mendham

¹ Nitrate Dilution and Current Planning Capacity Model, Princeton Hydro, LLC & UHL & Associates, Inc., March 2020.

Township today. As a result, changes in minimum lot size requirements are recommended to bring the amount of future development potential to balance with the Study's findings. The aim of the Land Use Plan is to explore opportunities for changes to current zoning regulations that would provide for development at sustainable densities while maintaining the existing community character.

LAND USE OBJECTIVES

Land use planning in Mendham Township should be generally guided by the goals and objectives outlined in Chapter III STATEMENT OF OBJECTIVES, PRINCIPLES, ASSUMPTIONS AND POLICIES UNDERLYING THE MASTER PLAN of the 2002 Master Plan. In addition, following are key objectives that should guide Township public policies and zoning decisions affecting land development.

1. Mendham Township has a limited infrastructure base only suitable for very low density of overall development. Major improvements to that base would be prohibitively expensive, contrary to environmental planning goals and inconsistent with the policies of the New Jersey State Development and Redevelopment Plan. The future densities and intensities of development in Mendham Township should not exceed the capacities of the existing infrastructure to support it.
2. The Township should recognize and continue to address its constitutional responsibility to provide for its fair share of affordable housing for its region based on the limitations of its infrastructure and nitrate study as discussed throughout this document.
3. Over-development adversely affects the quality of groundwater resources. The Township has an obligation to limit the total amount of development to that which can be supported by the Township's groundwater resources to protect the public health of those that depend on those resources. Groundwater quality should not be allowed to degrade below standards established by the United States Environmental Protection Agency and the New Jersey Department of Environmental Protection, as established in the "2020 Nitrate Dilution and Current Planning Capacity Model" report.
4. The Township's land use regulations should be designed to protect the high-quality headwaters of public surface water supplies located within its boundaries and to minimize downstream flooding.
5. The Township's land use policies should promote the preservation of its traditional rural/historic character.

ZONING ORDINANCE AMENDMENTS RELATED TO LAND USE

A list of adopted amendments to the Township's Zoning Ordinance following the adoption of the 2002 Master Plan.

Zoning Ordinance Amendments		
	Ordinance # and Adoption Date	Purpose
1	# 6-2015 Adopted July 28, 2015	Rezoned Pitney Property from R-2 to R
2	# 1-2017 Adopted February 28, 2017	Amendment to the affordable housing regulations
3	# 2-2018 Adopted May 22, 2018	Established the Historic Preservation Committee
4	# 14-2018 Adopted October 9, 2018	Rezoned Pitney Property from R-2 to R

5	# 15-2018 Adopted October 9, 2018	Rezoned 9 Shores Road from R-3 to R-1
6	# 23-2018 Adopted December 10, 2018	Established income limits for affordable housing
7	# 2-2019 Adopted February 26, 2019	Extended the initial 30-year deed restriction on 14 low- and moderate-income units at The Corners to January 1, 2050

EXISTING LAND USE CONDITIONS

Residential

The developed land in Mendham Township is overwhelmingly used as low-density single family residential. According to 2018 American Community Survey (ACS) US Census data, 91.9% of housing units in Mendham Township are single-family detached housing.

While most of the structures in Mendham Township are single-family residential, they are with varying levels of density. Nine of the Township's twelve zoning districts regulate single-family residential development. The highest density zone (R Zone) requires a minimum lot size of 20,000 square feet (approximately half an acre) to the lowest density residential zone (R-10 Zone) which requires a minimum lot size of 10 acres. Most single-family homes are on relatively large lots in excess of one acre and many are on very large lots of three acre or more. According to property tax records, approximately 77.1% of residential lots are at least one (1) acre in size and 44.0% of residential lots are at least three (3) acres. Much of the of the Township to the east is zoned for higher density single-family residential compared to the west, which has much lower density development. The Township has two Combination Residential zoning districts, CR-1 and CR-2, that are zoned for single dwelling residential development in combination with low-income housing. The CR-1 Zone (developed as *Brookrace*) has an average minimum lot area of 40,000 square feet and allows 0.214 dwelling units per acre. The CR-2 Zone allows for slightly greater density allowing for 1.30 dwelling units per acre and is developed as *Drakewick and Mountain View*.

Non-Residential

The only area of primarily nonresidential land use is the small area in Brookside centered on Main street, Cherry Lane and Woodland Road. This area is made up of public uses (mainly municipal) and two commercial lots. This area is regulated by the B zone, which permits commercial uses and well as residential uses at the same density as the R Zone.

The commercial and service needs of Township residents are provided for in Mendham Borough and Morristown (traditional town and regional centers). This regional interrelationship is mutually beneficial and is consistent with the intent of the New Jersey State Development and Redevelopment Plan.

The G Zone is used to regulate the Mendham Golf and Tennis Club. The REB Zone is an overlay district that is used to incentivize the reuse of the Sisters of St. John the Baptist property. The property contains multiple buildings that total approximately 125,000 square feet of floor area. The overlay district allow for low intensity uses such as senior housing, townhomes, religious uses and schools.

Open Space

There exists a large amount of undeveloped land that is either public or quasi-public open space. One of the largest continuous amounts of open space in the Township is Lewis Morris Park, which is owned and maintained by Morris County. The park occupies about 650 acres along the Township's eastern border with Harding Township and Morris Township.

Much of the Township's open space is also a part of the Schiff Preserve, which is owned and maintained by the Schiff Natural Lands Trust Incorporated. The Preserve occupies about 380 acres in the southwestern part of the Township.

Smaller, private areas of open space include the Mendham Golf and Tennis Club, the Brookside Community Club and land owned by the Girl Scouts of Morris County. These forms of open space make up an additional 217 acres in Mendham Township.

Combining all these types of open space including municipally owned open space garners a total area of 3,848 acres of open space, translating into approximately 35.2% of all land are in the Township being classified as open space.

Agriculture

In addition to undeveloped open space, Mendham Township contains several farms, including some preserved farmland. There are one hundred and forty-one (141) farmland properties including active farms and farmland assessed properties, as well as eight (8) properties participating in the State's Farmland Preservation Program². In total, about 1,733 acres, representing about 15.5% of all land in the Township is used as farmland. The majority of the farmland is located to the south western portion of town and just north of Roxiticus Road as well as the south western portion of town along Pleasant Valley Road, Union School House Road and the border of Peapack Gladstone Borough.

Conclusions

Despite Mendham Township having a very low population density (328 people/sq. mile) compared to both County (1,074 people/sq. mile) and State (1,211 people/sq. mile) levels,³ there are relatively few areas of the Township that can be developed with large-scale subdivision plats without zoning changes, due in part to the amount of preserved open space and existing low-density residential development.

² <https://www.nj.gov/agriculture/sadc/farmpreserve/progress/stats/preservedfarmslist.pdf>

³ Based on 2018 American Community Survey 2014-2018 5-Year estimates.

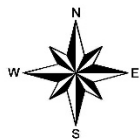
EXISTING LAND USE MAP

- Water
- Wetland
- Forest
- Agriculture
- Cemetery
- Recreational Land
- Residential
- Commercial/Institutional
- Altered Land

0 0.5 1 1.5 2 Miles

Chester Borough

Chester Township



Township of Mendham
Morris County, New Jersey
Existing Land Use Map

September 2020

Sources: NJDEP 2015
Land Use / Land Cover Dataset



Randolph Township

Morris
Twp.

Mendham Borough

Harding Township

Somerset County

Bernardsville Borough

Peapack-Gladstone Borough

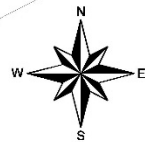
Bernards Township

LAND USE CHANGES 2000 TO 2019

- New Farm
- New Vacant
- Farm to Residential
- Vacant to Residential
- Class 15 to Residential
- New Residential
- No Change
- Pitney Farm (2019)
- Shores Road (2019)

0 0.5 1 1.5 2 Miles

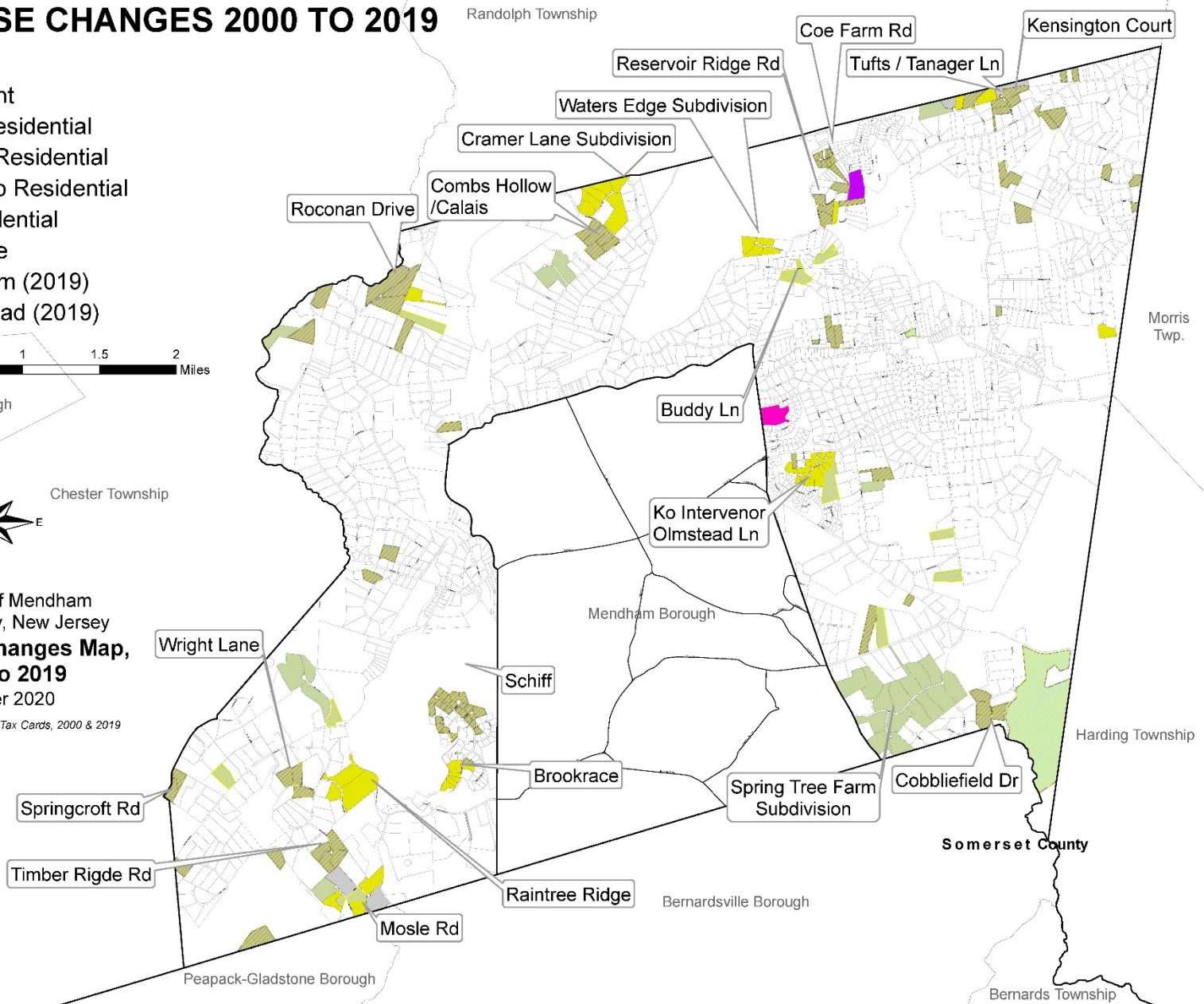
Chester Borough



Chester Township

Township of Mendham
Morris County, New Jersey
**Land Use Changes Map,
2000 to 2019**
October 2020

Sources: NJPropertyFax Tax Cards, 2000 & 2019



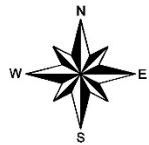
PRESERVED & INSTITUTIONAL LANDS MAP

- Open Space
- Preserved Farmland
- Institutional
- Mendham Golf & Tennis

0 0.5 1 1.5 2 Miles

Chester Borough

Chester Township



Township of Mendham
Morris County, New Jersey
**Preserved & Institutional
Lands Map**
September 2020

Sources: NJPropertyFax
2019 Tax Classifications



Randolph Township

Morris
Twp.

Mendham Borough

Harding Township










Somerset County

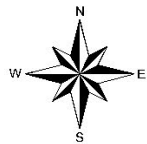
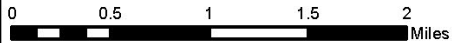
Bernardsville Borough

Peapack-Gladstone Borough

Bernards Township

Zoning Map Based on Parcel Data

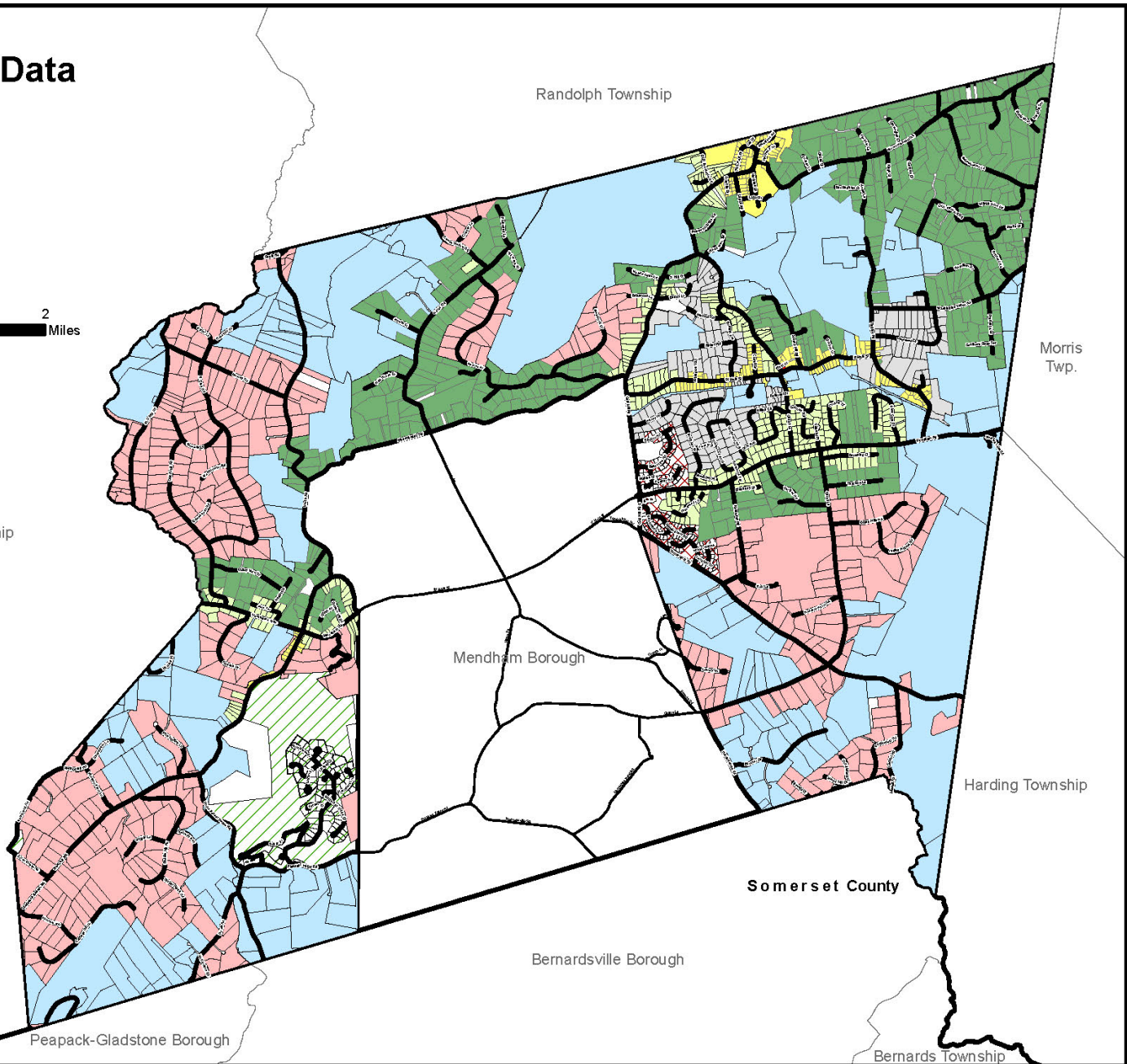
Zoning	
	B
	CR-1
	CR-2
	R
	R-1
	R-10
	R-2
	R-3
	R-5



Township of Mendham
Morris County, New Jersey

September 2020

Sources: NJDOT Roadway,
NJGIN Parcels



EXISTING DEVELOPMENT PATTERNS

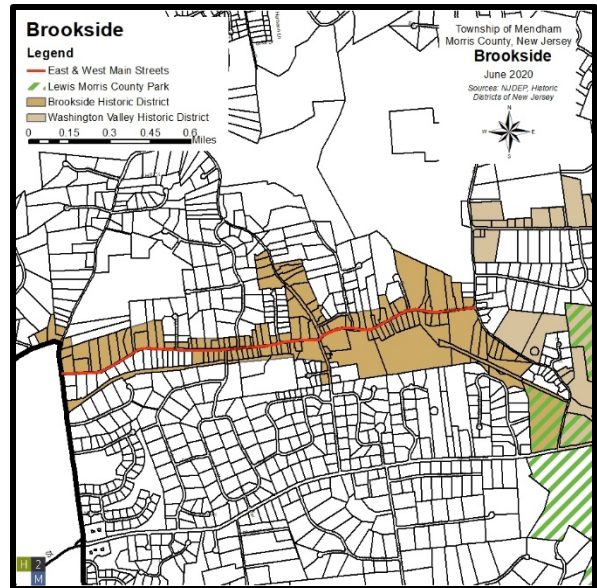
Throughout Mendham Township, there is a well-established land use pattern of residential neighborhoods. The various neighborhoods exhibit distinct characteristics described below.

Brookside

The Brookside area contains municipal community facilities such as the Municipal Building, Post Office, Library, Fire Company, First Aid Squad, Community Club, Church, Elementary School and Police Dept. It is considered the center of municipal interaction in the Township. Despite its institutional land uses, neighborhood character in Brookside is still primarily residential.

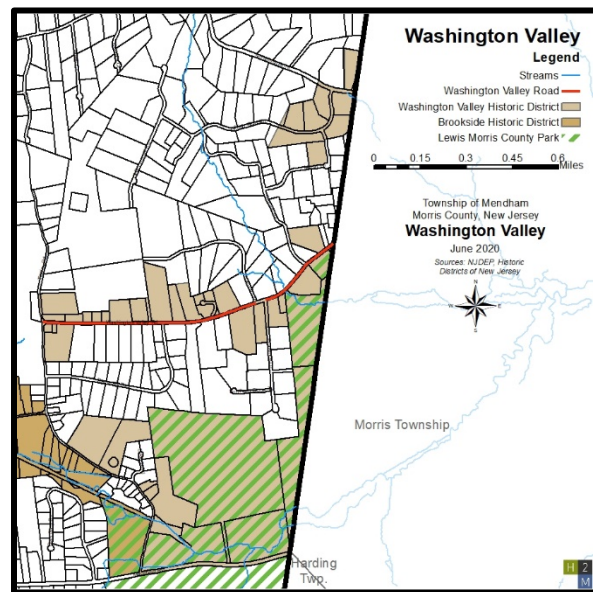
The older portion of Brookside is included within the Brookside National and State Registered Historic District centered on East and West Main Streets. This neighborhood retains a strong sense of a traditional rural village with narrow winding roads and large concentration of historic buildings (the largest in the Township), geographically centered upon the narrow valley of the Whippany River. In accordance with the historic pattern, lot sizes vary widely but most are relatively small with homes of small to moderate size. Also in accordance with historic patterns, setbacks vary widely with many homes located relatively close to the road.

The more recently developed Brookside area contains neighborhoods with a distinct character located to the south and east of historic Brookside. This area was established largely as subdivision developments in the 1950's and 60's. Typical of the era, its character can be characterized by relative uniformity in road design, lot size (relatively small), setbacks, home design and home size (small to moderate). Many homes in this area are single-story "ranch style" in contrast to the two-story "colonial" common to most of the Township. Before subdivision development, this area was largely open farmland; thus trees are still relatively immature.



Washington Valley Area

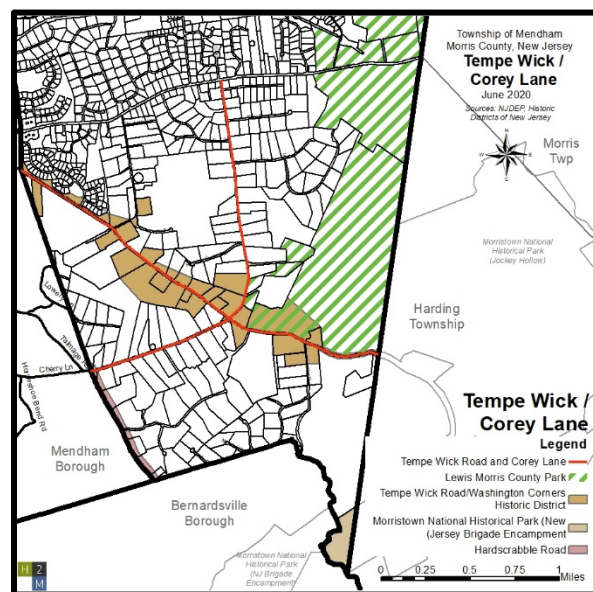
This area is directly to the east of Brookside and lies in a valley where many small streams meander through meadows into the Whippany River. Neighborhood character is exemplified by larger residential lots than the Brookside neighborhood, and is located within the Washington Valley Historic District. A large portion of the National and State Registered Historic District extends into the adjacent part of Morris Township. This neighborhood is centered on the narrow, winding and historic Washington Valley Road and on the historic brick schoolhouse located in Morris Township at the fork of Washington Valley Road and Schoolhouse Lane. This area was originally farmlands with many cow pastures, and still surviving historic farmhouses. Today, the character of this area is heavily influenced by large areas of preserved public open space, such as nearby Lewis Morris Park.



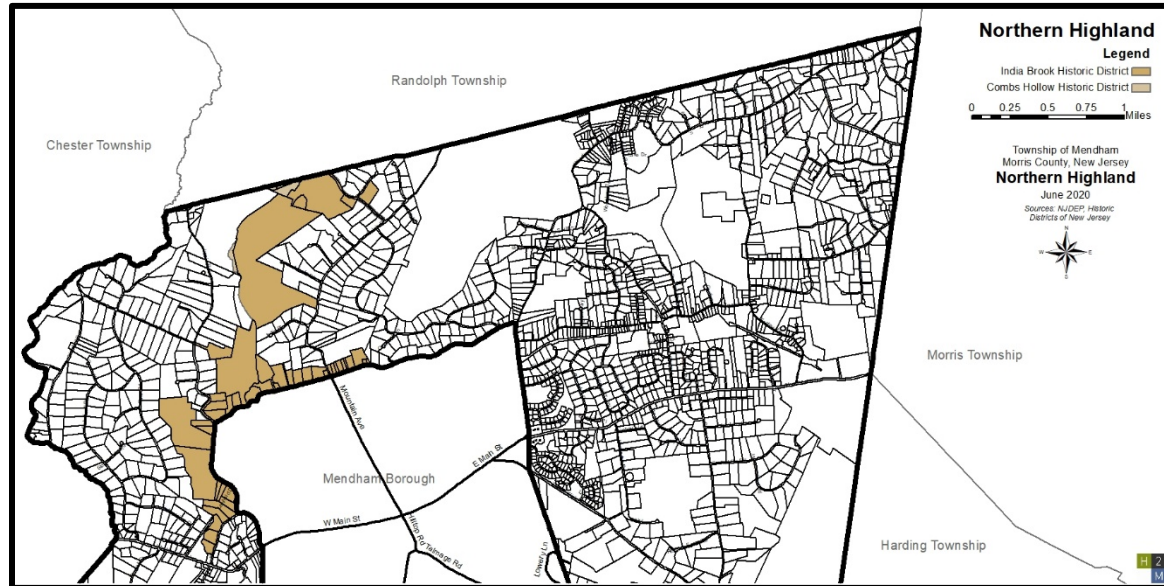
Tempe Wick / Corey Lane Area

Centered on two collector roads - Tempe Wick and Corey Lane - this residential area is heavily influenced by the many historic homes prominent on these two old, narrow, winding, roads. The area is heavily forested with many large old trees and hilly terrain with numerous small streams that are the headwaters of the Passaic River and Great Swamp National Wildlife Refuge. The Tempe Wick Federal and State Registered Historic District, Lewis Morris Park, and the Morristown National Historical Park are all located in this area.

Together, these features heavily influence the area's rural historic character. However, this neighborhood also contains numerous recent subdivision developments of a distinctly modern character on relatively wide and straight tributary roadways. Lot sizes and setbacks of historic homes vary widely in accordance with historic rural patterns, but lots are generally large and front setbacks small. Historic homes are generally small to moderate in size. In the newer subdivisions, homes are generally larger, especially those built in recent years. Lot sizes and setbacks are generally large and more uniform than historic properties. One exception to this is the *Drakewick* neighborhood, which is a planned cluster development just off Tempe Wick Road. Because the neighborhood was comprehensively planned, the homes are larger on lots that are closer together providing for more homes on a smaller amount of land than is characteristic of much of the Tempe Wick/Corey Lane area.



Northern Highland Area



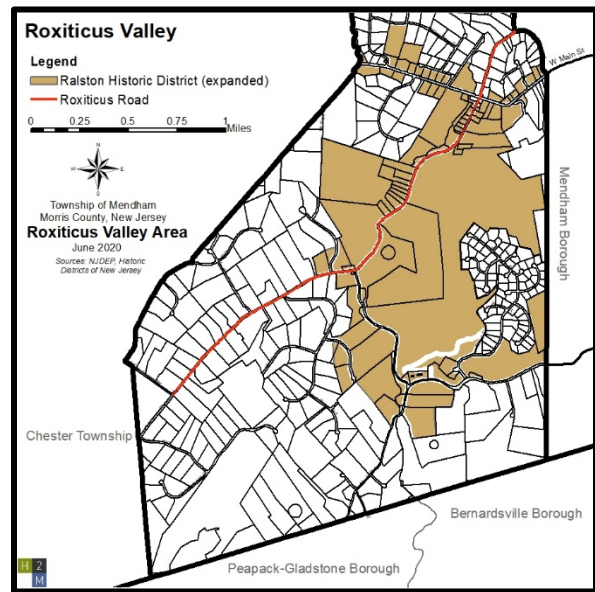
This residential area encompasses the entire northernmost portion of the Township extending from Morris Township in the east to Chester Township in the west. It contains the Combs Hollow and India Brook Township Historic Districts. Although these districts contain many historic homes, the overall character of the area has been heavily influenced by modern subdivision developments, especially those built since the 1970's. More recent subdivisions have occurred since 2000 near to the Randolph border, including Roconan Drive, Combs Hollow/Calais, Cramer Lane, Waters Edge, Reservoir Ridge Road, Coe Farm Road, Tufts/Tanager Lane and Kensington Court. These newer developments can be characterized as containing moderate to large colonial style homes on uniformly sized (albeit large) lots with uniform setbacks.

The area contains a combination of narrow winding historic roads and newer subdivision roads (typically cul-de-sacs) that are relatively wide and straight. The area is hilly and has the highest geographic elevation in the Township. The Northern Highland area is also heavily forested with numerous large public open space areas, vacant tracts of undeveloped private land, and watershed areas. Numerous high-quality forest-covered streams are located in this portion of Mendham Township heavily influence its character.

Roxiticus Valley Area

The Roxiticus Valley residential area encompasses the entire southwestern portion of the Township, much of which is within the Ralston Historic District containing a significant number of historic homes on narrow winding historic roads. The area has a rolling topography with a combination of wooded hills and a significant amount of open farmland.

A predominant feature of the area is the Schiff Reservation which includes approximately 380 acres of preserved open space. The Schiff Reservation is owned by Schiff National Land Trust, an environmentally-focused nonprofit that is dedicated to the preservation of natural areas. As a part of the planning for the area, the organization's development partner included the planned cluster development of *Brookrace*. This development works to balance two public benefits to the community, the addition of affordable housing and the preservation of open space. Despite residential developments in recent decades, the character of the Roxiticus Valley area is still heavily influenced by open areas, both publicly and privately owned.



Cluster Development Neighborhoods

There are three developments, *Drakewick*, *Mountain View* and *Brookrace*, that were comprehensively planned and developed as part of the Township's affordable housing program. As modern "planned clustered developments" they have their own characteristics defining them as distinct neighborhoods. Homes are typically of moderate size and lots are relatively small in comparison to most other neighborhoods. Areas of common open space have been set aside and incorporated into the design of these neighborhoods. In particular, as part of the 85-housing unit *Brookrace* development, a large portion of the development area was set aside as permanently preserved open space. The clustering of housing units in this development shows how open space in the Township can be preserved while also providing for additional housing units of moderate density. The success of cluster development is dependent upon adequate design and maintenance of septic systems for the development. Adequate tertiary fields should be considered during site plan approval process.

ASSUMPTIONS AND PRINCIPLES TO GUIDE FUTURE LAND USE AND ZONE PLANNING IN MENDHAM TOWNSHIP

A summary of the important assumptions and principles that form the foundation for future land use planning in Mendham Township.

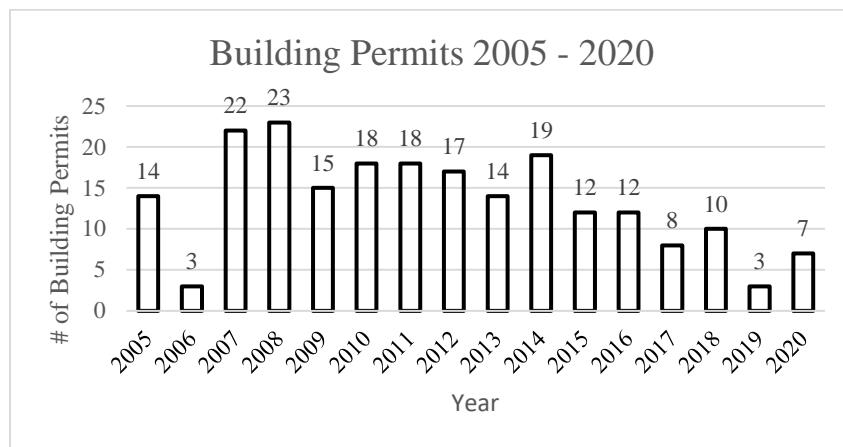
EXISTING LAND USE AND DEVELOPMENT PATTERNS THAT SHOULD AFFECT FUTURE DEVELOPMENT

Neighborhood Preservation

The preservation and perpetuation of existing neighborhood characteristics described above should be one of the primary considerations in the Township's future land use and zone planning policies.

Development Trends

There has been a total of 215 building permits issued in the Township of Mendham since 2005. The highest number of building permits issued in a given year was 2008 with the number of building permits declining since 2014. Approximately 8% of building permits dealt with second story additions while nearly all dealt with additions generally. The graph below represents a slight decline in recent years in the desire to maintain and expand upon the existing housing stock.



Recent Subdivisions

With a desire to live in Mendham Township and its stock of larger lot sizes, there have been recent subdivision applications and approvals, which could be seen as “development pressure” for housing on clear usable land. Most notable subdivisions include Spring Tree Farm, Shores Road, and the Pitney Farm subdivisions.

Despite the large amount of land in Mendham Township that is preserved or considered institutional, there is still ample opportunity for future subdivisions to occur that would increase the number of housing units. H2M performed an analysis of the Developable Lands in the Township, which highlights lots that, given their current size and zoning, would allow for a subdivision and for potential additional lots to be developed. These lots tend to be concentrated in the Northern Highlands and Roxiticus Valley areas of the Township. Lots in the Northern Highlands tend to be much larger than the underlying zoning, particularly in the R-3 Zone, which would allow for many of these lots to be subdivided to produce several new lots. In the Roxiticus Valley areas, the lots tend to be very large and would allow for significant subdivision despite the predominant zoning in the area requiring minimum lot sizes of at least five (5) acres. The concentration of subdividable parcels in these areas of the Township could have a significant impact on future development patterns in these neighborhoods. These potentially subdividable lots do not account for the potential rezoning of the various zoning districts in Mendham Township. A rezoning of any district, either up-zoning or down-zoning, would significantly impact the potential for lot subdivision.

Based on current lot sizes, zoning regulations and existing environmental constraints, an additional 281 residential lots could be created through the subdivision of parcels given their current size and zoning. The majority of the subdividable parcels (109) are currently residential parcels with the remaining being used for either farmland or vacant.⁴ Subdividing farmland for residential would have a significant impact on the development pattern and community character in Mendham Township, especially in the Roxiticus Valley area where community character is so influenced by existing farmland properties. Farmland in the Northern Highlands area of the Township, while generally smaller in size, could also be subdivided into a significant number of residential lots.

Most of the remaining subdividable parcels are current residential parcels that have existing dwelling units on the properties. These parcels are more likely to be in the Brookside neighborhood. While it is unlikely that all of the subdividable parcels in Mendham would actually get developed, it is important for the Township to consider how to plan under this scenario, especially given the infrastructural and environmental constraints that currently exist and the impacts to population, community services, and emergency services that would result from a substantial increase in housing units.

Despite the infrastructural and environmental limitations in Mendham, there are areas of the Township that could accommodate new development through subdivision of existing lots while still maintaining the existing character. The Township should consider rezoning certain areas where new development would be appropriate. If the Township decides to make this regulatory change in certain areas, it should particularly scrutinize the change of going to smaller lot sizes (generally any lot size below 3 acres) in order to maintain high water quality standards as discussed in the **Nitrate Dilution Model** section of this Land Use Plan. Cluster development may also be an option to balance the need to provide lots that require less maintenance while still providing adequate areas for the dilution of nitrate.

Additional issues with new development involve stormwater management. Recent subdivisions, especially those built on steeper slopes, have angled inlets that improve stormwater capture but require extra maintenance. The Township should support lower maintenance infrastructure in future subdivisions. This will help to keep costs for the Township down. The Township recently placed a greater emphasis on Green Infrastructure by passing a stormwater ordinance that complies with new NJDEP Stormwater Management rules. This is discussed in greater detail in the **Storm Resiliency** section.

House Size in Relationship to Property Size

The various neighborhoods in the Township exhibit established patterns of house size in relation to lot size. The Township's existing housing pattern is evolving due to changing housing preferences seen not just in Mendham Township but across the country. Nationwide, the average square feet of newly built homes continues to rise with new homes containing almost 2,500 square feet, which is almost 50% larger than the typical home just a few decades ago. At the same time, the average lot size is shrinking, which results in larger homes being built on smaller lots, taking away green space from lawns.⁵

The trend in Mendham Township is even greater than the nationwide trend. Based on research done by the Planning Board, average home sizes in various neighborhoods in the Township are as follows:

- Hilltop Circle – 2,000 square feet
- Drakewick – 3,000 to 4,000 square feet
- Brookrace – 4,500 to 5,000 square feet

⁴ Land classifications for this analysis is based on 2019 Tax Assessor Records

⁵ From: <https://www.theatlantic.com/business/archive/2016/07/lawns-census-bigger-homes-smaller-lots/489590/>

- Kings Court – 6,000 to 6,500 square feet
- Oak Knoll – 5,000 square feet

These average home sizes can have significant impacts on land use goals. In the Township, there are many new homes that are more than double the size of an average-sized house, on lots only meeting the minimum zoning requirements. These larger houses appear out of proportion with their lots and disrupt the established neighborhood character, substantially reducing the sense of space and openness enjoyed by all. This trend is also resulting in existing homes of small to modest size being expanded upon through additions, as evidenced by the Chart on page 10, showcasing the number of building permits issued since 2005. Since that time, there have been 215 total permits issued that have resulted in some kind of addition that has added to the total floor area of homes in the Township, with about 8% of permits being issued for second story additions.

Additional concerns involve the affordability of homes that are able to target various age groups. Larger homes mean higher home prices and given the predominance of larger homes in the Township, it is difficult for younger families that are just entering their prime earnings years and aging residents considering retirement to afford to live in Mendham Township. As is discussed in greater detail in the **Housing Plan**, the Millennial generation and the Baby Boomer generation make up a significant portion of the nationwide population. If these large age groups are unable to afford the large homes that exist in Mendham Township, it will be difficult for the municipality to attract younger and retain older residents moving forward.

The development trend towards much larger houses on minimum sized lots also has adverse implications on the environmental and public health goals of this Land Use Plan. It substantially increases the amount of clearing and land disturbance on a per capita basis, increasing environmental impacts. Larger homes also increase the concern about the impact on ground water resources because it is likely that they use more water on a per capita basis than small to modest sized homes. Because of the issues created from very large homes cited above, the Township should consider changes to its Zone Plan that will allow for the development of smaller housing units in appropriate locations, such as regulations that encourage the construction of accessory apartments and the clustering of smaller housing units.

CULTURAL PRINCIPLES AND ASSUMPTIONS THAT SHOULD AFFECT FUTURE DEVELOPMENT

Roadscape Preservation

Key to preserving the Township's rural, historic character is to preserve the character of the many public roadways and the highly visible areas immediately next to them, many of which are historic in nature. The traditional beauty of these roadscapes is an attribute of importance not only to Township residents but also significant to the region and state as a whole. There are two important elements to the Township's traditional roadscapes that should be preserved through appropriate development policies:

- Narrow curvilinear roadways.
- Natural and wooded areas especially specimen trees and vegetation bordering roadways. While extensively covered in the Mendham Township Roadscape Report prepared by the Mendham Township Roadscape Committee in 1995, this development policy remains relevant today. Recent subdivisions and tree placement have played an important role in recent applications.

Another key aspect to roadscapes in the Township pertain to recent subdivision applications and developments, that have typically involved wide right of way widths and cul-de-sac sizes. This has had

an impact on the Township's overall community character, which is typified by its narrow, historic roadsides. The Township's ordinance, which requires wider widths than Residential Site Improvement Standards, or RSIS, is the main driver. The current Township ordinance requires a cartway width of 30 feet while the RSIS only requires the cartway for rural roads to be 20 feet wide. The Town's zoning code requiring wider roadway widths is in spite of the Planning Board's desire to have relatively narrow roadsides that help to preserve the Township existing rural character. The Township should consider amending its ordinance to comply with RSIS standards for rural roadways.

Historic Preservation

Characterized as a rural, historic community, the preservation of historically significant districts and sites is a strongly held community planning goal. Taken together, Historic Districts encompass a large portion of the Township. The historic significance of all these districts is based upon the preservation of the historic structures within the districts and of the historic character of the areas surrounding them; the surrounding landscape, vegetation, and the historic roadways upon which they are located. The preservation of the overall historic setting is key to the preservation of the historic significance of these districts. These factors make them especially prone to detrimental impact from new development. Historic preservation is discussed in detail in the Historic Preservation Plan element (adopted 2001, amended 2002).

ENVIRONMENTAL PRINCIPLES AND ASSUMPTIONS THAT SHOULD AFFECT FUTURE DEVELOPMENT

Steeply Sloping Terrain

Steeply sloping topography is found throughout the Township and is especially common in the existing R-3 and R-5 zones. These areas are very often in close relationship to the headwaters of numerous streams located throughout the Township. The close relationship between steep slopes and streams in the Township makes development on steeply sloping areas especially prone to adverse primary and secondary environmental consequences. Development on steep slopes significantly increases runoff and soil erosion, negatively impacting water quality and increasing flooding downstream. The prevalence of steep slopes on the remaining vacant lands should have an important implication on appropriate minimum lot sizes.

Woodland Preservation

Mendham Township has extensive woodlands, especially in the many steeply sloping areas. They are important to minimizing soil erosion and preserving water quality in trout production and trout maintenance streams, especially in steep slope areas. Very low-density development pattern should be maintained to the extent possible to preserve woodland areas that allow rainwater to replenish groundwater aquifers.

Wetlands and Transition Areas

Wetland areas are commonly found throughout the Township but are especially common on the remaining vacant tracts. Although wetlands are regulated by NJDEP, their prevalence in the remaining vacant areas in the Township should have significant influence on future zoning limitations. Future land use densities should be very low.

Surface Water Quality

Numerous streams are located throughout the Township. All are currently classified by NJDEP as FW1 or FW2 (trout production and trout maintenance), the highest quality classifications. This system of

streams is strategically located at the headwaters of three of the major river basins: the Passaic, Whippany and Raritan. They are the sources of potable water for a number of public water systems including the Southeast Morris County Municipal Utilities Authority. A number of streams drain into the Great Swamp National Wildlife Refuge.

Regionally based environmental interest groups have focused attention on the protection of these headwater areas as important to water quality, the quantity of public water supplies, and to reducing flooding in the river basins. For these reasons they should be considered an important and sensitive environmental resource worthy of strict protection measures in the form of restrictions on development. Future residential development in these areas should be of very low densities. Development should not alter stream flow characteristics. In particular, they should not be disturbed or encroached upon and mature vegetation around them should be preserved to buffer them from the effects of development.

As a way to protect surface water quality, the Township should require that when an applicant is required to prepare an Environmental Impact Study (EIS), it includes a write-up about the site and its location near any identified impaired waterways and any additional mitigation efforts it is taking to prevent further deterioration of the water quality.

Groundwater Quality

The protection of groundwater from the impact of development is the most pressing and critical environmental issue facing the Township. It is covered in detail in a separate section below because of its overriding importance and implication on public health and safety.

GROUNDWATER RESOURCE LIMITATIONS THAT SHOULD AFFECT FUTURE DEVELOPMENT

In 2019, Mendham Township hired an environmental consultant to complete Nitrate Dilution Model and Current Planning Capacity Model studies to help inform future land use policies and decisions. The basis for conducted these studies is founded on the recommendation of the Township's 2018 Master Plan Re-examination Report. It recommended the Township undertake a new Land Use Element, but that *“as part of the background study needed for the preparation of an updated Land Use Element, an analysis of the water resources of the community should be undertaken to update the studies completed in 1994 and 1996 that served as the basis for the previous Land Use Plan.”* The previous Land Use Plan (adopted 2000, amended 2002), made recommendations about future development in the Township, based on two studies: the Current Planning Capacity Model (CPCM) and the Nitrate Dilution Model (NDM), completed in 1994 and 1996. With changes in the target nitrate concentration standard and other methodological and technical advances since that time, the new environmental studies more accurately reflect the conditions and needs of Mendham Township today and are discussed below.

Nitrate Dilution Model

The Nitrate Dilution Model (NDM) resulted in two key takeaways relating to future land use policies and decisions for Mendham Township:

First, the NDM was able to model and estimate the Township's optimal land area per household needed to meet nitrate dilution goals. Simply, it estimated the minimum land area required to add enough water back into the ground to dilute specific effluent to the State's target nitrate concentration of NO 2.0 mg/L. The land area needed ranges from approximately 3.7 to 3.9 acres per lot, depending on the zone, which were weighted averages over the area of each zone since there were different soil types across each zone, to meet the State's target nitrate concentration.

Therefore, the Township should be aware that future zone changes or subdivisions proposing the use of septic systems within zones of minimum lot sizes of less than three acres (R, R-1, and R-2 zones) should be avoided, since at least 3.7 to 3.9 acres are required to meet the State's nitrate dilution goals. Future subdivisions or zone changes, including those located in zones with larger minimum lot sizes, should align with the recommendation for a 3.7 to 3.9 acres minimum lot area.

Second, the NDM determined that the sustainable population and number of households that may be supported in the Township, if septic systems were the sole means of household wastewater treatment, would range from a minimum of 5,893.6 people to a maximum of 8,044.7 people and between 1,961.9 and 2,678.0 households. The minimum figures are based on the State's target nitrate concentration of NO 2.0 mg/L and the upper limit of the range takes into account minimum lot size areas, as the 1994 and 1996 reports had done.

For reference, the U.S. Census Bureau estimates Mendham Township's population in 2018 to be 5,792 and estimates the number of households to be 1,952. In addition, the New Jersey Transportation Planning Authority (NJTPA), a federal organization that geographically covers the 13 northern NJ counties, publishes population, household, and employment forecasts every five years for all municipalities within its 13-county jurisdiction. In 2017 it published its forecasts for the year 2045:

Mendham Township Forecasts

Year	Population	Change	Percent	Households	Change	Percent
2010	5,825	425	7.9%	2,107	319	17.8%
2018	5,792	-33	-0.6%	1,983	-124	-5.9%
2045	6,310	518	8.9%	2,204	221	11.1%

NJTPA Plan 2045 Forecasts by County and Municipality, 2015-2045

As the above graphic indicates, the population range from the environmental study is clearly within the population forecast from NJTPA, as the NJTPA does not forecast that Mendham will reach a population of 8,044 by 2045.

Ultimately, under the assumption that septic systems are the sole means of household wastewater treatment, Mendham Township has the ability to accommodate growth. However, the Township should provide for moderate continual growth – smart growth – in Mendham Township, in alignment with other land use policies outlined in this plan. Future zone changes are able to occur, as long as they aim to maintain a minimum of at least 3.7 – 3.9 acres per lot.

As an example, if areas in the R-10 zone could be up-zoned to the R-5 zone that would allow for development to occur on larger but not quite as large lot sizes, resulting in significantly more lots that could be developed on the same area of land. It is ultimately up to the Township where any type of zoning change should occur. Environmental constraints such as riparian zones, steep slopes and other factors will ultimately be the deciding factor about how much development can feasibly occur within Mendham Township. The NDM model does give reassurance that the Township has room for growth albeit with still fairly large lot sizes. H2M utilized the NDM model numbers and factored in these environmental constraints as well as existing lot lines and preserved properties to project the potential number of lots that could sustainably be developed.

Projections Estimates for Sustainable Growth, by Zone						
Zone	Projected New Lots	Sustainable number of Homes in zone, 2.0mg/L threshold	Environmental Constraint Adjustment ⁶	Adjusted Sustainable Additional Number of Homes	H2M current estimate of homes in Zone	Total Projected Lots
B-Zone	0	1	0.0%	0	1	1
CR-1 Zone	0	106	0.0%	0	99	99
CR-2 Zone	0	33	0.0%	0	155	155
R Zone	88	42	35.0%	15	199	214
R-1 Zone	47	121	15.7%	19	342	361
R-2 Zone	20	108	19.4%	21	201	222
R-3 Zone	82	529	23.0%	122	534	656
R-5 Zone	41	677	8.6%	58	432	490
R-10 Zone	3	1021	2.8%	29	114	143
Total:	281	2638	9.4%	264	2077	2341

The above table emphasizes that larger lots and development in larger minimum lot size zones is preferable, based on estimates of homes currently in each zone in Mendham and estimated numbers of homes that can be sustained in each zone as modeled in the NDM. There are currently more homes in smaller-lot zones than can be accommodated by recharge rates, but many fewer homes in larger lot zones. The H2M model, which estimated the number of existing homes in the Township based on 2019 property tax records. The NDM model measured the ground's ability to dilute the nitrate to the New Jersey state standard of 2.0mg/L threshold. The model did not take into account other environmental factors that can affect the ability for property owners to develop homes on subdivided lots based on zoning regulations. H2M included these environmental constraints to adjust the NDM number of sustainable homes to a more realistic number of potential new homes.

The results of this adjustment that factor in these environmental constraints resulted in a potential 264 new homes that could be built in Mendham and still sustainably dilute the nitrate. Based on this adjustment and adding it to the current estimate of homes, the total number of potential lots is 2,341. A large plurality of the potential new lots is concentrated in the R-3 zone. Other large areas of the Township that can sustainably add new homes is the R-5 and R-10 zones.

This projection of new homes does not take into account the potential for more sustainable types of wastewater treatment such as sewers. The results of the NDM can also lead to the conclusion that perhaps there is a need for a shift away from wastewater treatment that is less efficient as they are more likely to contribute negatively to water quality in the long-term. The implementation of more sanitary sewer systems, where feasible, would put less pressure on groundwater quality and be more sustainable in the future.

Current Planning Capacity Model

The Current Planning Capacity Model (CPCM), which evaluates groundwater resources, suggests that Mendham Township has relatively abundant groundwater resources, even under severe drought scenarios. According to the study, in both a normal recharge and drought recharge more water is being

⁶ Environmental Constraint Adjustment is based on the percentage of land area in each zone that can be developed given current zoning and existing environmental constraints.

added into the ground (approximately 3.2 million gallons per day (gpd)) than is being consumed (approximately 0.4 gpd).

Therefore, the Township could theoretically sustain, at a minimum, a nearly threefold increase in groundwater use, equivalent to 9,831 residents and 3,273 estimated dwelling units. However, this figure does not take into consideration ecological sustainability goals and does not consider additional impervious coverage under such an aggressive growth scenario. Increased impervious coverage would no doubt reduce the minimum groundwater recharge and decrease population and dwelling unit estimates.

While Mendham Township has abundant groundwater resources with the capacity for future potential growth, this potential growth is hindered by the Township's ability to accommodate growth to meet nitrate dilution goals.

PUBLIC INFRASTRUCTURE LIMITATIONS THAT SHOULD AFFECT FUTURE DEVELOPMENT

Major improvements to the Township's infrastructure base are not contemplated, consistent with the planning policies for PA-5 areas in the State Development and Redevelopment Plan (SDRP). Nearly all future development is expected to be served by individual wells, onsite septic systems and the existing road system. The limited capacity of this base requires that an overall very low density of development be maintained in the Township.

Drinking Water

One public infrastructure limitation on future development in the Township is Mendham's drinking water supply. As has been noted in multiple studies including the draft version of the 2020 Morris County Hazard Mitigation Plan, the Township's very low-density residential development makes the extension of the public water system impractical and inappropriate in most areas. Where proposed development is in close proximity to existing water lines making water infrastructure extensions feasible, other limiting factors prevent public water hook-ups. For instance, the Randolph Water Department, which partially supplies Mendham Township, has put a moratorium on any extension of the system to Mendham Township properties.

As a result, most residential developments in the Township are serviced by private, on-site wells. The ability of the underground aquifer to supply drinking water for additional development has been a much-studied issue in the Township. A 2020 Current Planning Capacity Model (CPCM) determined that the aquifer could support additional properties serviced by wells, without detrimental environmental impacts and is not a limiting factor for future development.

Sanitary Sewer

As documented more fully in the Circulation and Community Facilities Plan Elements (adopted in 2001 and 2002, respectively), Mendham Township has a limited sanitary sewer infrastructure. Two separate small-scale public sanitary sewer systems made up of small "package plants" serving small, isolated developments. These systems cannot be expanded without great cost, and without contravention of the planning objectives for PA-5 areas in the State Plan.

Roadway Capacity

Township roadways consist of older, narrow and winding roadways that are adequate to serve the low-density development pattern but could easily be overburdened if higher density development was created in the Township. Given that the Township is not serviced by public

transit, any new development would be auto oriented, adding additional vehicles to the Township's roadways. As documented more fully in the Circulation and Community Facilities Plan Elements (adopted in 2001 and 2002, respectively), a number of major roadways including County Route 510 and local collector roads including Roxiticus Road, Tempe Wick Road and Woodland Avenue are nearing the limit of their peak-hour capacity. However, further study is needed to verify these claims in 2020.

REGIONAL RESPONSIBILITIES THAT SHOULD AFFECT FUTURE DEVELOPMENT

Headwaters Protection

The numerous streams found in the Township are the headwaters to the Clyde Potts Reservoir (an important potable water source for the region) and to three important river systems (Raritan, Passaic and Whippany). Together these are important sources of potable water supply for the region. The Passaic River flows directly into the Great Swamp National Wildlife refuge. Maintaining the high water quality of these streams is an important regional responsibility that is vulnerable to degradation by overly intensive development.

Regional Historic Resources

The Morristown National Historical Park (Jockey Hollow) is located along the eastern boundary of the Township. The area adjacent to the Park in Mendham and Harding Townships is also historically significant (Tempe Wick Historic District). The historic character of this district contributes significantly to the historic character of the Park itself. The Township has a regional responsibility to adopt development policies that are consistent with and will promote the preservation of the historic significance of these areas.

Great Swamp

The headwaters of the Passaic River are located within the Township. The Passaic is one of the primary sources of water to the Great Swamp National Wildlife Refuge. The Ten Towns Great Swamp Watershed Management Committee established in 1995 recently disbanded in 2019. The Committee conducted extensive studies, ultimately concluding that development upstream in the headwater areas have a substantial deleterious effect on the Refuge and in response to this fact, the Committee aided the ten municipalities in adopting model ordinances that dealt with issues ranging from wetlands protection, tree removal and sediment control. While many of the goals of the Committee have been accomplished, Mendham Township development policies should continue to protect the quality of water flowing into the Refuge by:

- Minimizing forest clearing in headwater areas.
- Minimizing impervious surfaces.
- Maintaining very low development densities.
- Strictly controlling stormwater runoff.
- Strictly utilizing and enforcing Best Management Practices and Best Available Technologies.

Affordable Housing

Similar to every community in the state, Mendham Township has a constitutional responsibility to provide its fair share of the regions affordable housing need. The Housing Element discusses this responsibility in detail. This responsibility needs to be balance against the practical limitations of development in Mendham Township.

RESILIENCY AND ENVIRONMENTAL SUSTAINABILITY

Storm Resiliency

“Resilience is the ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events.”

Source: National Academies of Science

Infrastructure plays a critical role in storm resiliency and in turn creates numerous benefits for the community. Advances in green infrastructure are improving communities’ ability to prevent flooding and pollution runoff during increasingly frequent wet weather events. The Environmental Protection Agency (EPA) defines green infrastructure as “...the range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspire stormwater and reduce flows to sewer systems or to reduce surface waters”.⁷ Green infrastructure plays a critical part in stormwater management to help reduce stormwater flows and the ability of pollutants and harmful toxins from entering into critical watersheds.

On October 25, 2019, NJDEP adopted new stormwater rules (N.J.A.C. 7:8) to replace the current requirement that major developments incorporate nonstructural stormwater management strategies to the “maximum extent possible” to meet groundwater recharge standards, stormwater runoff quantity standards and stormwater runoff quality standards, with a requirement that green infrastructure be utilized to meet these same standards. The new rules went into effect on March 2, 2021. In essence, the new rules will require a more objective review standard for stormwater management than the more subjective “maximum extent possible” by creating a mathematically based set of standards for projects to comply to with regards to stormwater design. The adopted changes also include changes to the infiltration of captured stormwater. The infiltration through best management practices can now be included in engineering calculations. The Township has adopted a new model ordinance to comply with these new stormwater rules prior to the new rules taking effect on March 2, 2021.

Energy Supply

Strong weather events and stressor events such as heat waves creating brown outs have caused increasing stress on the resiliency of the energy supply throughout New Jersey. Further, there are more recent concerns with vulnerabilities in the energy supply during cases of extreme weather events. Areas of concern in Mendham Township include several publicly owned facilities. According to that the Federal Emergency Management Agency (FEMA), the municipal building lacks a backup power generator and the elementary school does not have an emergency backup power source. Over the next several years, the new police station is expected to have a new generator which will help to reduce the Township’s vulnerability to power outages. The Township should continue to budget for capital improvements to its energy supply to reduce vulnerabilities.

Flood-Prone Areas

In 2017, the Federal Emergency Management Agency (FEMA) prepared the Preliminary Flood Insurance Rate Map (PFIRM) in order to give residents a look at their homes projected risk to flood hazards. The map has not yet been adopted; however it contains the most recent data of all high risk flood areas in the United States. This information allows municipalities to create informed decisions about how to deal with flood zones as well as implement flood plans to protect their community and residents.

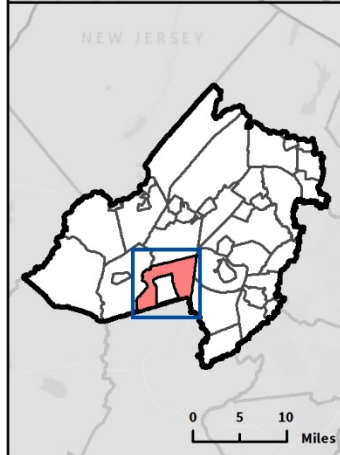
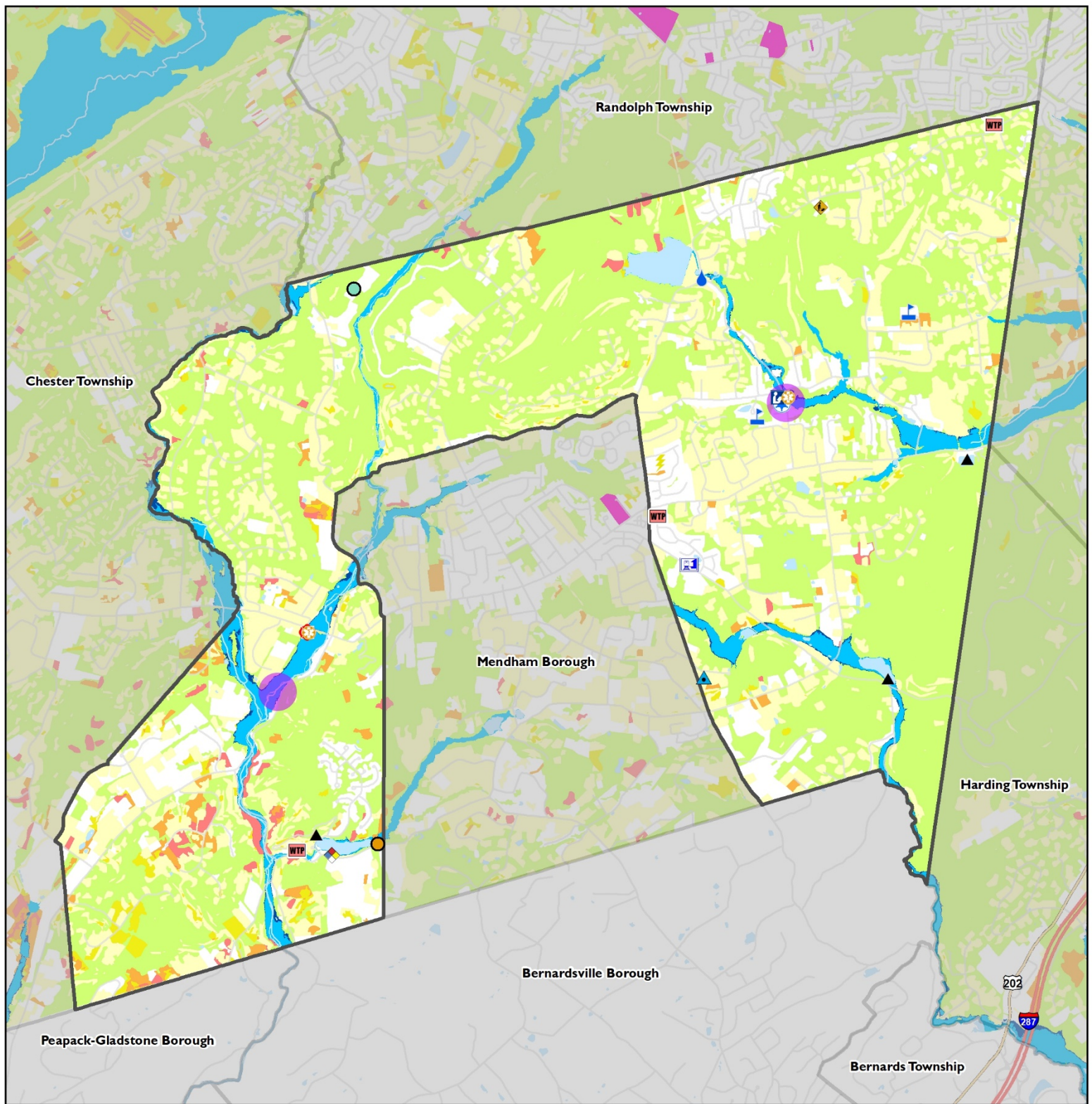
The Legislature of the State of New Jersey in NJSA 40:48-1 et seq., delegates the responsibility of the municipality to adopt ordinances that are designed to promote the health, safety, and welfare of the

⁷ From: <https://www.epa.gov/green-infrastructure/what-green-infrastructure>

community. In relation to flood ordinances, the New Jersey Department of Environmental Protection has created a model ordinance which many municipalities have adopted, “The Flood Damage Prevention Ordinance” that aims to protect citizens and minimize damage caused by flood events. Mendham Township’s current flood ordinance was developed after the NJDEP’s Model “D” Ordinance.

According to the PFIRM, there are generally three areas of flooding concern in the Township. This includes the eastern part of the Township in the Washington Valley neighborhood where there are several homes located along the Whippany River and its tributaries including Walnut Creek and Harmony that lie entirely or partially within the flood plain. These include properties in the Brookside neighborhood and the Northern Highlands neighborhood. Several public and semi-public properties including the Brookside Community Club and the Township’s post office are located directly in the flood plain while the Township’s municipal, police and fire department buildings are located just outside the flood plain. The updated Morris County Hazard Mitigation Plan recommends that the Township relocate the police department building due to repeated flooding of the basement. Additionally, the Passaic River’s floodplain in the southeastern part of the Township possess an issue for the few homes located in the floodplain. However, because much of the area in the flood plain is open space, the number of homes at risk is far fewer compared to those located in the Whippany River’s flood plain to the north. The third area of flooding concern according to the PFIRM is the Northern Branch of the Raritan River and its tributaries, the Burnett Brook and McVickers Brook, located in the southwestern portion of Mendham Township in the Roxiticus neighborhood. Because of the amount of preserved open space and the very low-density development in this part of the Township, there are very few homes that are within this floodplain. Mendham Township’s current zoning code has special provisions and regulations for lots located within a floodplain according to FEMA’s PFIRM. Mendham Township should review the current flood ordinance in relation to the most recent PFIRM data in order to make appropriate revisions.

The Hazard Mitigation Map on the following page is from the Morris County Hazard Mitigation Plan, included here as a point of reference.



Mendham Township

- Rail Line
- Interstate
- U.S. Route
- State Route
- Municipal Boundary
- Urban Flooding Location

Facility Type

- Affordable Housing
- Animal Shelter
- Aviation
- Church/Religious
- Commercial

- Communication
- DPW
- Dam
- EMS
- EOC
- Electric/Power
- Fire
- Gas Station
- Government
- Hazmat
- Hospital/Medical
- Industrial
- Library
- Municipal Utility Authority
- Police
- Potable Water
- School
- Senior Facility/Housing
- Shelter/Warming Center
- Transportation
- Utilities
- Wastewater

- Repetitive Loss
- Severe Repetitive Loss
- Wildfire Risk
- Extreme
- Very High
- High
- Moderate
- Low

- Flood Hazard Area
- 1% Annual Chance Flood: A-Zone
- 0.2% Annual Chance Flood

New Development

- Address
- Parcel

Data Sources:
 NJDOT - 2014
 NJ Geographic
 Information
 Network - 2014
 MCOEM - 2019
 FEMA - 2017, 2019
 NJFFS - 2009

Flood hazard areas as
 depicted on August
 2017 FEMA Digital
 Flood Insurance
 Rate Map (DFIRM)



Environmental Infrastructure

Green Stormwater Infrastructure (GSI) is an adaptable term used to describe an array of products, technologies and practices that use natural systems or engineered systems to enhance overall environmental quality and provide utility services. As a general principle, green stormwater infrastructure techniques use soils and vegetation to infiltrate, evapotranspiration, cleanse, and/or recycle stormwater runoff and help resolve environmental issues related to non-point source pollution, water quality and storage. These technologies can simultaneously help improve air quality, reduce energy demands, mitigate urban heat islands, and sequester carbon while also providing communities with aesthetic and natural resource benefits. Some examples of low-impact techniques of green stormwater infrastructure include rain gardens, swales, porous or permeable pavers, and rooftop gardens.

All subdivisions and site plans subject to Township approval shall include the use of green stormwater infrastructure as required by law and continue to use non-structural best management practices (BMPs) identified in the NJ DEP Stormwater Best Management Practices Manual and Mendham Township should offer applicants design standards and siting and maintenance guidance for green stormwater infrastructure, such as porous pavements and rain gardens to capture building runoff. Due to the number of important watersheds that run through the Township, it is critical to have the stormwater infrastructure in place to prevent the polluting of these waterways from runoff containing toxic and harmful materials.

Parks are also an ideal place to install highly visible demonstration rain gardens and other green infrastructure facilities.

In 2006, the Township passed an ordinance to establish minimum stormwater management requirements and controls for development projects. As a result of this ordinance, some new developments and subdivisions in the Township have street swales instead of traditional gutters. In 2019, the Township updated its Stormwater Pollution Prevention Plan, which included the Township's progress in preventing stormwater runoff through both public education and proper maintenance of existing stormwater infrastructure.

Environmental Sustainability

There is a plethora of other environmental sustainability programs that can be discussed relating to economic development; energy; transportation; natural, cultural and historic resources; and solid waste. If the Township wishes to discuss these items further, the Township should consider drafting a Sustainability Plan in any future Master Plan update.

FUTURE LAND USE PLAN

OVERALL RECOMMENDATIONS CONCERNING FUTURE LAND USE

1. Regulate future development to overall very low densities.
2. Future development should consider the findings of the 2020 NDM & CPCM Report and how it relates to the overall recommendations on the land use plan.
3. Protect environmental resources through the minimization of forest clearing, impervious surfaces and stormwater runoff.

4. Require future development to utilize Best Management Practices and Best Available Technologies.
5. Encourage creative and flexible zoning and development techniques that encourage future development and land conservation techniques that are consistent with the Township's traditional, historic and rural character.

RECOMMENDATIONS FOR ZONE DISTRICTS & FUTURE LAND USE PLANNING

1. Preserve active farmland, which preserves community character and discourage large-scale future development.
2. Conduct an analysis to identify parcels at zone boundaries that could rezoned if in compliance with the intent and content of the land use plan due to lot size and conformity with existing character.
3. Preserve Mendham's traditional/rural character through use of conservation design in subdivisions. In the Mendham Township context, zoning should be designed and/or administered to promote the following planning goals:
 - To promote the preservation of large areas of open space, especially the highly visible areas along public roadways.
 - To promote the preservation of areas of significant community concern such as scenic vistas and historic areas.
 - To improve the design of new development to be more consistent with rural character and to permit the placement of new roads and buildings reflecting the characteristics of the site instead of according to rigid standards.
4. Permit reduced lot and/or setback standards, where necessary and reasonable to permit the preservation of historic structures and rural character.
5. Wherever reasonable and possible, new development should be designed to accommodate the continuation of existing equestrian trails.
6. Encourage development that will not have any negative impact to historic districts and properties.

RECOMMENDATIONS FOR LIMITING HOUSE SIZE IN RELATION TO LOT SIZE

1. Wherever reasonable and possible, encourage the clustering of smaller housing units on smaller lot sizes.
2. Utilize bulk standards such as FAR to discourage overly large homes in comparison to their lot size.
3. Amend zoning regulations regarding accessory units to promote the construction of accessory apartment units to allow older residents to downsize within the Township.

RECOMMENDATIONS FOR THE PROTECTION OF WATER RESOURCES

Located in the State Plan's Planning Area 5 – Environmentally Sensitive (PA-5), the Highlands Planning Area, at the headwaters of the Clyde Potts Reservoir (an important potable water source for the region) and to three important river systems (Raritan, Passaic and Whippany), and home to over 3,659 acres of open space, parkland, and preserved farmland, Mendham Township should consider the protection of groundwater and surface water quality in all future land use planning policies and decisions. In particular, future land use decisions should be in accordance with the findings of the 2020 NDM and CPCM report, of which those findings were summarized previously in this Land Use Plan. The Township should do the following:

1. Minimize forest clearing in headwater areas.
2. Minimize impervious surfaces.
3. Maintain very low development densities.
4. Strictly control stormwater runoff.
5. Strictly utilize and enforce Best Management Practices and Best Available Technologies.

RECOMMENDATIONS FOR SMART GROWTH, STORM RESILIENCY, ENVIRONMENTAL SUSTAINABILITY

1. Budget for capital improvements to Mendham Township's energy supply (i.e. generators) to reduce vulnerabilities.
2. Offer applicants design standards and siting and maintenance guidance for green stormwater infrastructure using non-structural best management practices (BMPs) identified in the NJ DEP Stormwater Best Management Practices Manual, to prevent the polluting of waterways from runoff containing toxic and harmful materials.

RECOMMENDATIONS REGARDING ROADWAYS AND ROADSCAPES

1. Amend the ordinance regarding road widths and cul-de-sac dimensions to comply with Residential Site Improvement Standards, or RSIS, for rural roadways and turning radius for fire trucks.
2. Conduct a study to determine whether roadways are nearing the limit of their peak-hour capacity, which would help determine whether future development would impact local roadways negatively.

LANDS RECOMMENDED TO BE PRESERVED FOR CONSERVATION PURPOSES

To fulfill the requirements of the Municipal Land Use Law for a Land Use Element, the plan must show the location of proposed open space, which is a major part of the Township's overall planning strategy. Depending upon the specific circumstances of the specific property, acquisition may be by fee simple acquisition, easements, or development restrictions. The 2018 Master Plan Re-examination Report

updated the original listing of open space properties for acquisition (originally included as an Appendix to the 2000 Plan). The updated table is provided below.

Lands Recommended to be Preserved for Public Purposes

(Adopted April 1, 2002; revised table located in 2018 Re-exam [Table 5] and shown below)

Property Description	Block	Lots(s)	Size	Public Purpose Statement	Preserved (Y/N)
Adjacent to Schiff Nature Preserve	100, 107	37, 46	326.37	Expansion of the Schiff Nature Preserve	BI00-L37 & BI07-L46 – private ownership (3A Farm)
Mosele Road	103	12	91.47	Open space – conservation, adjacent to Schiff Nature Preserve	BI03-L12 owned by NBF/HHF LLC (3A Farm)
Pleasant Valley Road	103	4,5,6	96.77	Open space – conservation, adjacent to Schiff Nature Preserve	Private ownership (3A Farm and 1 Vacant)
Ironia Road – West Mountainside	109	22, 23	83.45	Potential future school site – passive/active recreation	Private ownership (3A Farm)
Route 510 West – Roxiticus Road	109	34	9.16	Expansion of Ralston Recreation – Natural Area	Private ownership (3A Farm)
Land adjacent to Meadowood Park	113	2, 3	29.11	Expansion of Meadowbrook Park	Private ownership (3A Farm and 2 Residential)
Washington Valley Road	127	150	8.09	Adjacent to Middle School – Future School Site	Private ownership (2 Residential)
Adjacent to India Brook Natural Area	116	49, 67	40.00	Expansion of India Brook Natural Area	Private ownership (3A Farm and 2 Residential)
Land adjacent to Lewis Morris Park	141, 147	43, 21-24,	369.20	Link to Lewis Morris County Park	BI41-L43 private ownership (2 Residential) BI47-L21-24 – Private ownership (3A & 3B Farm)
Mountainside Road	117	42, 49	28.58	Passive recreation – home of Sagurton historic collection	Private ownership (3A Farm and 2 Residential)
Mount Pleasant Road	127	74.01	4.64	Buffer to municipal garage – conservation	Private ownership (1 Vacant)
Stream corridor easements	N/A	N/A	N/A	Recommended for all land adjacent to major water courses - conservation	--

RECOMMENDATIONS CONCERNING GOVERNMENT COMMUNICATION

Technology systems are being implemented in a growing number of municipalities across the United States. Beyond social media, digital interactions between municipalities and residents is already widely practiced, whether it be through recycle route alerts or reminders, alerts about road closures, or online bill pay. Some digital applications, for instance, allow for development application submissions, tracking, and public viewing. Other web applications offer online community engagement initiatives for Township-sponsored projects.

The public health crisis created by the COVID-19 outbreak has forced many municipalities to adopt technology practices to help continue government functions while abiding by social distancing guidelines. As a result of the Governor's State of Emergency, Mendham Township and other NJ municipalities have had to host public meetings virtually using conference-style platforms such as WebEx or Zoom. In order to allow for virtual public meetings, municipalities must create some format to allow public participation of these meetings. The Township should continue to monitor potential changes to the Open Public Meetings Act regarding the use of virtual meetings and continue to implement digital public participation in public meetings if it continues to be deemed lawful. The Township should also consider upgrades to its technology that will result in a more responsive and transparent delivery of essential public services.

HOUSING PLAN (Adopted 06/01/2021)

The Municipal Land Use Law (MLUL) requires a Housing Plan element, of which it shall provide the rational basis and justification for municipal regulations. At N.J.S.A. 40:55D-62 of the MLUL, the zoning ordinance or any amendment or revision of the ordinance shall be substantially consistent with the both the Land Use and Housing Plan Elements of the Master Plan. Therefore, the recommendations found within this Housing Element serve as the basis for future Zoning Ordinance amendments and revisions.

N.J.S.A. 40:55D-28 of the MLUL requires that the Housing Plan shall include but is not limited to *“residential standards and proposals for the construction and improvement of housing.”*

In addition, the Fair Housing Act prescribes at 52:27D-310 that a municipal Housing Element *“shall be designed to achieve the goal of access to affordable housing to meet present and prospective housing needs, with particular attention to low and moderate income housing, and shall contain at least:*

- a. An inventory of the municipality's housing stock by age, condition, purchase or rental value, occupancy characteristics, and type, including the number of units affordable to low and moderate income households and substandard housing capable of being rehabilitated, and in conducting this inventory the municipality shall have access, on a confidential basis for the sole purpose of conducting the inventory, to all necessary property tax assessment records and information in the assessor's office, including but not limited to the property record cards;*
- b. A projection of the municipality's housing stock, including the probable future construction of low and moderate income housing, for the next ten years, taking into account, but not necessarily limited to, construction permits issued, approvals of applications for development and probable residential development of lands;*
- c. An analysis of the municipality's demographic characteristics, including but not necessarily limited to, household size, income level and age;*
- d. An analysis of the existing and probable future employment characteristics of the municipality;*
- e. A determination of the municipality's present and prospective fair share for low and moderate income housing and its capacity to accommodate its present and prospective housing needs, including its fair share for low and moderate income housing; and*
- f. A consideration of the lands that are most appropriate for construction of low and moderate income housing and of the existing structures most appropriate for conversion to, or rehabilitation for, low and moderate income housing, including a consideration of lands of developers who have expressed a commitment to provide low and moderate income housing.”*

OVERVIEW / EXECUTIVE SUMMARY

The previous Township Master Plan (adopted 2000) included a 2005 amendment for a Housing Element and Fair Share Plan (adopted June 15, 2005). Circumstances have changed since 2005 when the last “Fair Share Plan” was prepared. The Township decided that participation in the COAH process and seeking a

declaratory judgement from the courts was unnecessary due to the lack of sanitary sewers and the opportunity for multi-family housing. Public sewers are generally needed for higher density housing which supports set-asides for low- and moderate-income housing. Provided those circumstances do not change a housing plan that addresses a numerical obligation of affordable housing for the Township is not recommended at this time. As a result, the following Housing Plan is considered to be a “traditional” Housing Plan that conforms with the requirements of the MLUL, and does not plan for affordable housing under a Fair Share Plan.

ZONING ORDINANCE AMENDMENTS RELATED TO HOUSING

A list of adopted amendments to the Township’s Zoning Ordinance following the adoption of the 2000 Master Plan:

Zoning Ordinance Amendments		
	Ordinance # and Adoption Date	Purpose
1	# 1-2017 Adopted February 28, 2017	Amendment to the affordable housing regulations
2	# 23-2018 Adopted December 10, 2018	Established income limits for affordable housing
3	# 2-2019 Adopted February 26, 2019	Extended the initial 30-year deed restriction on 14 low- and moderate-income units at The Corners to January 1, 2050

MUNICIPAL DEMOGRAPHIC CONDITIONS

The following discussion of municipal demographic conditions relies on the latest available Census data at the time of this report, and other sources of data, where available. The analysis uses the 2010 Decennial Census data in some cases; where possible, however, newer data from the 5-Year 2018 American Community Survey (2018 ACS), as collected from 2013-2018, was utilized.

Historic & Projected Population

The Township's population according to the 2018 American Community Survey (ACS) 5-year estimates was 5,792, which was down from 5,825 in 2010 representing a 0.57% decline. This marks the first time the Township has seen its population decline over the past sixty years, which has been a time of significant growth in the Township's population. During the same time period, Morris County's population grew slightly from 492,694 in 2010 to 494,228 in 2018 (+0.31%).

Population Growth in Township of Mendham, 1940-2045

Year	Population	Change	Percent
1940	1,079	--	--
1950	1,380	301	27.90%
1960	2,256	876	63.48%
1970	3,697	1,441	63.87%
1980	4,488	791	21.40%
1990	4,537	49	1.09%
2000	5,400	863	19.02%
2010	5,825	425	7.87%
2018	5,792	-33	-0.57%
2045	6,310	518	8.94%

US Census

The North Jersey Transportation Planning Authority (NJTPA) forecasts in its "Plan 2045" that Mendham Township's population will reverse the recent trend and increase in population well into the future. NJTPA forecasts that the Township's population will increase to 6,310 by 2045, representing an 8.9% increase and an additional 19 residents every year over that time span.

Mendham Township Population Forecasts

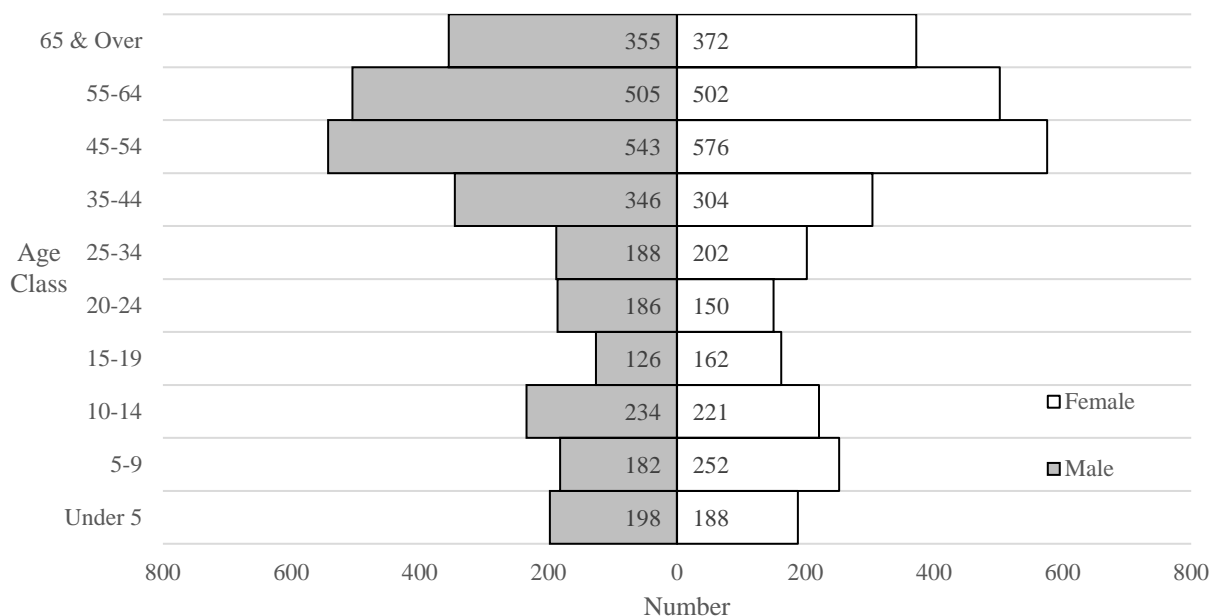
Year	Population	Change	Percent
2000	5,400	--	--
2010	5,825	425	7.9%
2018	5,792	-33	-0.6%
2045	6,310	518	8.9%

NJTPA Plan 2045 Forecasts by County and Municipality, 2015-2045

Age Distribution of Population

Mendham Township's population continues to be older than both the County's and the State's population. The median age of residents was 44.3 years old in 2018 compared to 44.6 years old in 2010. During that same time period, Morris County's median age increased from 41.3 years old in 2010 to 42.6 years old in 2018. The percentage of residents over the age of 55 has also increased during this time period from 26.8% in 2010 to 29.9% in 2018. The Township's Age Pyramid below highlights the breakdown across age groups and shows that Mendham Township lacks residents between the ages of 20 and 34 with much of the population skewing significantly older.

Mendham Township Age Pyramid - 2018



Income and Poverty Status

Mendham Township households are significantly wealthier compared to its Morris County and New Jersey counterparts. According to the 2018 ACS, the median household income for Mendham Township residents is \$182,022, which stands at over \$70,000 higher than the County-wide median household income and more than double the statewide median household income. This is largely due to the proportion of the Township's households that have incomes greater than \$200,000 (46.6%). Households making greater than \$200,000 make up a significantly higher proportion of the Township's households compared to Morris County's households (22.5%) and the state's households (13.0%). Conversely, households making less than \$50,000 constitutes a much lower proportion of Mendham Township households (12.4%) compared to the County (20.7%) and the state (32.7%).

Mendham Township Household Income

	Mendham		Morris County		New Jersey	
	Total	%	Total	%	Total	%
Less than \$10,000	51	2.6%	4,703	2.6%	163,881	5.1%
\$10,000 to \$14,999	17	0.9%	3,437	1.9%	106,041	3.3%
\$15,000 to \$24,999	8	0.4%	7,779	4.3%	237,789	7.4%
\$25,000 to \$34,999	49	2.5%	8,321	4.6%	228,149	7.1%
\$35,000 to \$49,999	117	6.0%	13,205	7.3%	314,909	9.8%
\$50,000 to \$74,999	97	5.0%	22,431	12.4%	478,791	14.9%
\$75,000 to \$99,999	167	8.6%	20,984	11.6%	388,817	12.1%
\$100,000 to \$149,999	247	12.7%	35,817	19.8%	562,338	17.5%
\$150,000 to \$199,999	286	14.7%	23,516	13.0%	311,696	9.7%
\$200,000 or more	905	46.6%	40,702	22.5%	417,737	13.0%

US Census, 2018 ACS, Selected Housing Characteristics

EMPLOYMENT CHARACTERISTICS

A municipality's economy has a significant impact on the housing market and conditions. The following discussion of the municipal employment characteristics relies on Census 2010 data and more current 5-Year 2018 American Community Survey (2014-2018) data where possible, as other sources.

Historic and Projected Employment

Mendham Township experienced below-average unemployment rates when compared to the County and the State during the most recent recession (2007-2010) and has continued to experience strong employment statistics. The Norther Jersey Transportation Authority (NJTPA) projects in its "Plan 2045" that the Township will continue to experience job growth during the next 25 years, albeit at a much slower pace compared to previous years.

Mendham Township Employment Forecasts

Year	Employment	Change	Percent
2010	850		
2015	1,014	164	19.29%
2045	1,072	58	5.72%

NJTPA Plan 2045 Forecasts by County and Municipality, 2015-2045

MUNICIPAL HOUSING STOCK

There are approximately 1,952 households and 2,045 total housing units in Mendham Township, according to the 2018 ACS data. The following section describes the characteristics of the Township's housing stock characteristics.

Household Size

One important trend that the Township should continue to monitor is the average household size, which includes all the people occupying a housing unit. The decline in household size is a trend that is not only affecting the Township but is part of a long-term national decline in the size of households. Mendham Township's average household size has declined from 2.99 in 2010 to 2.97 in 2018, which is consistent to the slight decline in Morris County's average household size from 2.70 to 2.68.

Housing Type

Housing type in Mendham Township is extremely homogenous. Detached, single-family dwelling units represent the overwhelming majority (91.9%) of Mendham Township's housing stock. This is significantly higher than the share of Morris County's housing units that are single-family detached units (66.6%). The second most common housing type are units in structures that have 3 or 4 units (2.5%), which is much closer to the County's share of these types of units (3.3%). There are no housing units that are in a structure that has twenty (20) or more units whereas almost one-tenth (9.1%) of housing units in Morris County are in this type of structure.

Mendham Township Housing Type by Number of Units in Structure

	Mendham		Morris County	
	Total	%	Total	%
1-unit detached	1,820	91.9%	128,173	66.6%
1-unit attached	42	2.1%	15,355	8.0%
2 units	46	2.3%	7,538	3.9%
3 or 4 units	49	2.5%	6,283	3.3%
5 to 9 units	15	0.8%	6,544	3.4%
10 to 19 units	9	0.5%	10,513	5.5%
20 or more units	0	0.0%	17,513	9.1%
Mobile Home	0	0.0%	450	0.2%
Boat, RV, van, etc.	0	0.0%	9	0.0%

US Census, 2018 ACS, Selected Housing Characteristics

Housing Size

Homes in Mendham Township tend to be very large with almost three-quarters (74.4%) of housing units in the Township having four (4) bedrooms or greater. Comparatively, about one-third (37.2%) of housing units in Morris County have four (4) bedrooms or greater. There are very few housing units in Mendham Township that have two bedrooms or less (9.5%), a much smaller share than Morris County (34.2%). According to the US Census Bureau, there are no housing units in Mendham that have no bedroom.

Mendham Township Housing Type by Number of Bedrooms

	Mendham		Morris County	
	Total	%	Total	%
No bedroom	0	0.0%	2,569	1.3%
1 bedroom	70	3.5%	25,520	13.3%
2 bedrooms	118	6.0%	37,681	19.6%
3 bedrooms	318	16.1%	55,051	28.6%
4 bedrooms	977	49.3%	55,158	28.7%
5+ bedrooms	498	25.1%	16,399	8.5%

US Census, 2018 ACS, Selected Housing Characteristics

Occupancy Status

According to the ACS data, Mendham Township has a very low vacancy rate (1.9%), which has decreased since 2012 when the vacancy rate was 3.0%. While the vacancy rate decreased during this time period, the occupancy status for occupied units showed a slight decrease in the percentage of owner-occupied units from 94% in 2012 to 93.1% in 2018. As a result, the percentage of renter-occupied units increased slightly from 6% in 2012 to 6.9% in 2018. However, it is important to note that the ACS data for both 2018 and 2012 are 5-year estimates based on smaller sample sizes with margins of error. The difference between the occupied units over time falls within the margin of error so it is likely that the numbers of occupied units are unchanged. The Township should rely on NJ's Department of Community Affairs data on certificates of occupancy and demolitions (as shown under the Projection of Housing Stock heading) for a more accurate picture of the change of units over time.

Mendham Township Household Occupancy

	2018		2012	
	Total	%	Total	%
Occupied Units	1,943	98.1%	2,024	97%
Owner-occupied	1,809	93.1%	1,896	94%
Renter-occupied	134	6.9%	128	6%
Vacant Units	38	1.9%	63	3%

US Census, 2012 & 2018, DP-1 Profile General Demographic Characteristics

Purchase & Rental Values

Based on the ACS data, there were no renters in Mendham Township that spent less than \$1,000 per month on housing. About two-thirds (64.3%) of all renters spent between \$1,000 and \$1,999 on gross rent, which is almost equal to the County's share (63.0%) of renter spending within this range. Despite this similarity, median gross rent in Mendham Township (\$1,821) was significantly higher than median gross rent for all of Morris County (\$1,476). However, given the percentage of renter-occupied units, renter households make up a small percentage of households in Mendham Township.

Gross Rent of Renter-Occupied Housing Units

	Mendham		Morris County	
	Total	%	Total	%
Less than \$500	0	0.0%	2,279	5.1%
\$500-\$999	0	0.0%	3,527	7.9%
\$1,000-\$1,999	63	64.3%	28,168	63.0%
\$2,000-\$2,999	25	25.5%	8,853	19.8%
\$3,000 or more	10	10.2%	1,905	4.3%
Total	98	100%	44,732	100%
Median Gross Rent	\$1,821		\$1,476	

US Census, 2018 ACS, Selected Housing Characteristics

Given that over ninety percent of occupied units are owner-occupied, it is important to focus on the value of owner-occupied housing units to get a more complete picture of housing in the Township. According to the ACS 5-year estimates for 2018, almost half (48.8%) of owner-occupied units in Mendham Township were valued between \$500,000 and \$999,999 while about one-third of owner-occupied units in Morris County (34.8%) were valued within this range. In addition, over one-third (34.9%) of owner-occupied units are valued at one million dollars or greater, which is substantially higher than the County's percentage (5.9%). These percentages help to show how the median value of owner-occupied units in Mendham Township (\$858,100) was almost double the median home value for all owner-occupied housing units in Morris County (\$448,800). This discrepancy should not be overly surprising because as was stated earlier, housing units in the Township tend to be much larger than units in the County as a whole.

Value of Owner-Occupied Housing Units

	Mendham		Morris County	
	Total	%	Total	%
Less than \$50,000	25	1.4%	1,834	1.4%
\$50,000 to \$99,999	55	3.0%	1,128	0.8%
\$100,000 to \$149,999	18	1.0%	1,566	1.2%
\$150,000 to \$199,999	18	1.0%	3,498	2.6%
\$200,000 to \$299,999	29	1.6%	18,025	13.4%
\$300,000 to \$499,999	149	8.2%	53,813	40.0%
\$500,000 to \$999,999	883	48.8%	46,791	34.8%
\$1,000,000 or more	632	34.9%	7,945	5.9%
Median Value	\$858,100		\$448,800	

US Census, 2018 ACS, Selected Housing Characteristics

Age of Housing Stock

Compared to the State of New Jersey, the housing stock in Mendham Township is much younger. US Census data shows that almost three-quarters (76.3%) of housing units in Mendham Township are less than sixty years old. This is to be expected as much of the population growth in the Township occurred during the period between 1960 and 2000. Over one-third (36.1%) of housing units were built between 1960 and 1979 while about one-quarter (27.7%) were built in 1990 or later. There was a significant slowdown in homebuilding in the past decade that can be partially attributed to the rezoning that occurred as a result of the last Master Plan as well as the sluggish economic conditions and changing housing preferences during the time period.

Age of Housing Stock by Year Structure Built

Year	Structures	Percent
2010 or later	13	0.7%
2000 to 2009	167	8.4%
1990 to 1999	368	18.6%
1980 to 1989	249	12.6%
1970 to 1979	397	20.0%
1960 to 1969	318	16.1%
1950 to 1959	161	8.1%
1940 to 1949	122	6.2%
1939 or earlier	186	9.4%

US Census, 2018 ACS, Selected Housing Characteristics

Condition of Housing Stock

The condition of Mendham Township's housing stock is very good as less than one percent of the Township's housing units lack either complete plumbing, complete kitchen, or telephone services. In fact, only thirteen (13) housing units, or 0.7% of the total housing stock, lack a complete kitchen. The US Census Bureau consider a "complete kitchen" if it has a sink with a faucet, a refrigerator, and a stove or range. These thirteen units without a "complete kitchen" could also be attributed to any households undergoing kitchen renovations at the time. There were no housing units that lack complete plumbing or telephone services.

Condition of Housing Stock

Year	Units	Percent
Lack of complete plumbing	0	0.0%
Lack of complete kitchen	13	0.7%
Lack of telephone services	0	0.0%

US Census, 2018 ACS, Selected Housing Characteristics

Projection of Housing Stock

The tables below represent Mendham Township's projection of housing stock, including the probable future construction of low and moderate income housing for the next ten years. N.J.S.A. 52:27D-310 requires that a housing element contain such a projection, including the probable future construction of low and moderate income housing for the next ten years. This projection takes into account but is not limited to construction permits issued, approvals of applications for development and probable residential development of lands.

The table below shows the Township's historic development trends which contains building permit, certificate of occupancy (CO), and demolition data, sourced from the New Jersey Construction Reporter made available by New Jersey's Department of Community Affairs' Division of Codes and Standards. According to NJDCA, between 2000 and 2019, 147 residential CO's were issued. Accounting for the 51 demolitions, there were 96 units of net new residential development during the 19-year time period. Subtracting the issuance of COs for 33 units in 2009 (a potential outlier), a net residential development of -5 results, which equates to the Township losing a unit of housing every other year during this time period.

**Mendham Township Historic Trend of Residential Development
by Certificate of Occupancy and Demolition Permits**

Year	COs	Demolitions	Net Development	Year	COs	Demolitions	Net Development
2000	43	8	35	2010	1	0	1
2001	22	4	18	2011	1	0	1
2002	13	7	6	2012	1	1	0
2003	14	3	11	2013	0	1	-1
2004	4	6	-2	2014	2	0	2
2005	2	0	2	2015	0	0	0
2006	2	2	0	2016	2	3	-1
2007	1	1	0	2017	0	9	-9
2008	3	1	2	2018	2	1	1
2009	33	1	32	2019	1	3	-2

“New Jersey Construction Reporter”, NJDCA Division of Codes and Standards

It should not come as a major surprise then to see the Township losing households between 2010 and 2015 when a decline of 5.9% occurred. However, the NJTPA Plan 2045 forecasts that the Township will see a slight increase in the number of households to 2,204, representing a 0.4% increase over the 2010 number, or an increase of 97 households.

Mendham Township Household Forecasts

Year	Households	Change	Percent
2000	1,788		
2010	2,107	319	17.8%
2015	1,983	-124	-5.9%
2045	2,204	221	11.1%

NJTPA Plan 2045 Forecasts by County and Municipality, 2015-2045

There are currently pending applications for development that would generate some future residential development.

However, it is unlikely that the Township would experience significant growth in new residential development at the rate experienced in the decade between 2000 and 2010. Rather, residential development is likely to occur in small, piecemeal projects and potentially through the redevelopment of existing properties.

Over the 19-year period between 2000 and 2019, an average of 7.7 units were developed each year. Therefore, the projected development for the Township for the next 10 years is 7.7 units per year.

HOUSING STOCK DEVOTED TO LOW-AND-MODERATE-INCOME HOUSEHOLDS

Background

In accordance with the Fair Housing Act (FHA), New Jersey municipalities must adopt a Housing Element addressing, in part, affordable housing for low- and moderate-income persons and households. The Fair Housing Act of 1985 was the legislative response to the landmark Mount Laurel decisions and provided the basis for the establishment of the Council on Affordable Housing (COAH) to administer municipal compliance with the FHA. COAH adopted rules governing the periodic calculation of fair share obligations (often referred to as a fair share “round”) and the methods by which the obligation may be addressed by communities. Participating in COAH’s administrative process and receiving *substantive certification* of a municipal plan provides a municipality with legal protection from *Mount Laurel* litigation, or “builder’s remedy” lawsuits, during the period of certification, now ten years.

The table below summarizes the timeline of each affordable housing “round” in New Jersey for which COAH monitored and Mendham Township’s participation status:

Round (Release Date)	Period	Summary	Mendham Township Participation
Round 1 (1987) “First Round”	1987-1993		Was not certified
Round 2 (1994) “Second Round”	1993-1999	COAH calculated affordable housing obligation for each NJ municipality	Petitioned: 9/7/97 Certified 8/4/99 Expiration Date: 7/29/08
Round 3 (2004) “Third Round”	Invalidated 2007	COAH introduced “growth share” approach for calculating municipal obligations	Did not participate
Round 3 (2008) “Third Round, Revised Rules”	Invalidated 2010, 2013	COAH revised “growth share methodology	Expired - did not submit plan by 6/8/2010
Round 3 (2014)	Unadopted	COAH calculated affordable housing obligations for each NJ municipality based on Round 1 & 2 methodologies	--
Round 3 (2015)	2015-2025	NJ Supreme Court declared COAH “moribund” and ordered courts to resume oversight of municipal compliance with FHA, ordering municipalities to rely on Prior Round Rules to prepare their plans	--

COAH remained the administrator of municipal housing compliance with the FHA, until March 10, 2015 when the Supreme Court declared COAH “moribund” due to COAH’s failure to adopt appropriate Third Round Rules⁸ and ordered the courts to provide a judicial remedy, providing that municipalities may initiate declaratory judgement actions and seek approval of their plans through the courts. The March 10th Decision by the Supreme Court ordered that affordable housing obligations for municipalities be determined on a court-by-court basis using the methodologies from the First and Second Round rules pursuant to N.J.A.C. 5:91 and N.J.A.C. 5:93.

⁸ “The March 10th Decision” in the Matter of Adoption of N.J.A.C 5:96 and 5:97 by the New Jersey Council on Affordable Housing, 221 N.J. 1 (2015)

Municipal History of Affordable Housing Compliance

First Round (1987-1993)

In 1983, prior to passage of the Fair Housing Act, the Township of Mendham became involved in Mount Laurel litigation. Resolution of the litigation by the Superior Court resulted in a Settlement Agreement and Judgment of Compliance on July 15, 1985 with "repose" for a six-year period ending in 1991. The Judgment was based upon the rezoning of three sites to produce 38 affordable housing units as part of market-rate housing developments (known as "inclusionary housing"). In 1988 the Planning Board adopted a housing plan to comply with the MLUL and incorporate the provisions of the Settlement approved by the Court.

Second Round (1993-1999)

In 1994 the Planning Board adopted a new housing plan intended to address COAH's Second Round fair share requirements. With reductions for the 38 units of housing addressed in the First Round plan, four units remained to be addressed in the Second Round (for a total obligation of 42 units - 41 new units and 1 rehabilitation unit). Prior to submitting the plan to COAH, however, a Mount Laurel lawsuit was filed against the Township.⁹ The Superior Court transferred the case to COAH in June 1997, whereupon the Planning Board adopted a new housing plan to address contested issues and comply with the cumulative First and Second Round ("Prior Round") fair share obligation.

Upon reaching a settlement with the Mount Laurel intervenor (Dr. and Mrs. Ko) in April 1999, the Township's housing plan was certified by COAH on August 4, 1999. As per the settlement, the Township agreed to rezone the R-3 portion of the subject property to R-1, consistent with the adjoining R-1 zoning along the Route 24 portion of the site, permitting the development of 17 additional single-family detached dwellings. Final Subdivision approval of the proposed 18-lot single-family residential development (17 new lots plus one lot of an existing dwelling on the property) was granted by the Mendham Township Planning Board in 2002. Per the settlement, the intervenor agreed to pay \$60,000 (equivalent to a 20% affordable housing set-aside of three units) to fund the costs associated with the transfer of three units in a Regional Contribution Agreement (RCA) with the City of Orange. The Township's housing plan also included one unit of rehabilitation.

An updated plan was adopted as part of the new Mendham Township Master Plan in 2000 reflecting compliance with the cumulative Second Round obligation and the settlement of litigation. Substantive certification of the Second Round plan was set to expire on August 4, 2005, but was extended to expire on July 29, 2008.

Mendham Township Prior Round Compliance Mechanisms (1987-1999)

Development Projects	Affordable Units	Type
Drakewick	14	Family For-Sale
Mountain View	12	Family For-Sale
Brookrace	12	Family For-Sale
City of Orange	3	Regional Contribution Agreement (RCA)
--	1	Rehabilitation

⁹ Stephen S. Ko and Christina Y. Ko vs. Township of Mendham, Docket No. MRS-L-257-97 (PW)

Third Round (1999-2025)

In 2007, the Third Round rules were challenged and subsequently invalidated by the New Jersey Appellate Court. All such Third Round petitions were considered void. COAH's new Third Round rules took effect on June 2, 2008 and were amended on September 22, 2008. However, in 2010, the New Jersey Appellate Court again struck down COAH's Third Round Rules, and invalidated the Growth Share approach, leaving Mendham Township (and every other NJ municipality) questioning how to proceed with obtaining a certified Plan.

In re Adoption of N.J.A.C. 5:96, 221 N.J. 1 (2015), the Supreme Court held that due to COAH's failure to adopt appropriate regulations, the COAH administrative process has been "dissolved" and all exclusionary zoning disputes may be brought in state court.

The municipal affordable housing obligation consists of three (3) components:

1. Present Need / "Rehabilitation Share"
2. Prior Round Need (1987 – 1999)
3. Third Round "Prospective Need" (1999 – 2025)

During the First and Second Rounds, COAH provided municipalities with their municipal affordable housing obligations. At present, no affordable housing obligations consistent with the Supreme Court March 10th decision have been approved, adopted or sanctioned by the State. To fill this "regulatory vacuum," several outside sources have released reports that purport to provide statewide, regional, and municipal affordable housing obligations, all with varying calculations and resulting municipal obligations. In March 2018, Judge Mary Jacobson issued a ruling on an affordable housing case involving several Mercer County municipalities utilizing updated affordable housing obligation numbers from a report issued by Richard Reading. This report has since been utilized in cases involving Morris County municipalities. As a result, the obligation numbers below are based on the Reading Report from July 2018.

Mendham Township Obligations

Component	Obligation of Affordable Units
Rehabilitation	25
Prior Round (1987 – 1999)	41
Third Round (1999 – 2025)	160

"Reading" Report, Issued July 17, 2018

To note, the Third Round obligation above includes the "Gap Period" from 1999 to 2015 in addition to the typical 10-year period from 2016 to 2025.

In accordance with past COAH practices, the Third Round Prospective Need is calculated by State Housing Region, and then allocated to each of New Jersey's 565 municipalities. Mendham Township is located within Housing Region 2 which consists of Essex, Morris, Union, and Warren counties. The July 2018 "Reading Report" calculates Mendham's share to be 160 units.

Affordable housing in New Jersey is housing that is rented or sold and occupied by, or reserved for occupancy by, "low and moderate income" (LMI) households. In accordance with the Fair Housing Act

and COAH regulations, LMI households are those that have a median gross household income limited to the following:

1. Moderate Income – more than 50% but less than 80% of the Region’s median income
2. Low Income – less than 50% of the Region’s median income
3. Very Low Income – less than 30% of the Regions’ median income

The income limits for Mendham are based on the Region 2 median income. Historically, COAH has relied on US Department of Housing and Urban Development (HUD) estimates of “median income” for New Jersey’s housing regions. Therefore, the median household income for household sizes 1 through 7+ in Region 2, as well as the income limits for very low-, low-, and moderate-income households have been determined using COAH’s income limits, which are updated annually.

Consideration of Units Capable of Rehabilitation

The Municipal Land Use Law requires the Township consider existing structures most appropriate for conversion to, or rehabilitation for, low- and moderate-income housing. Such housing may be considered substandard and is capable of being rehabilitated. However, the Township does not have a rehabilitation obligation and as such, units were not considered.

Again, per 2018 ACS data from the U.S. Census, the condition of Mendham Township’s housing stock is very good as less than one percent of the Township’s housing units lack either complete plumbing, complete kitchen, or telephone services.

Consideration of Lands for the Construction of Affordable Housing

The Municipal Land Use Law requires the Township take under consideration the commitments of any developers who have expressed an interest in constructing affordable housing in the Township. Three inclusionary housing sites (*Drakewick, Mountain View, Brookrace*) have already been zoned and constructed to produce affordable housing. No other property owners have expressed an interest in providing affordable housing. There are no additional sites slated for the construction of affordable housing and no land proposed for rezoning for affordable housing.

With limited sanitary sewer and potable water infrastructure in the Township, constructing any housing that is considered to be medium density residential or higher is a challenge both physically and financially. Major capital projects for infrastructure are unlikely to occur over time due to these constraints.

The Township may wish to develop and adopt a mandatory set aside ordinance for affordable housing which requires any new multifamily development of 5 units or more to provide 1 unit of affordable housing for every 5 units of market rate construction.

FUTURE HOUSING PLAN

HOUSING PREFERENCES

The COVID-19 pandemic has created significant uncertainty in the short-term with various prognosticators attempting to predict what a post-pandemic world will look like given the lifestyle changes people have had to make to avoid contracting the virus. One such change is in the increased level of telework, with many workers doing it for the first time and companies reconsidering how often they need workers to be in an actual office. Additionally, bars, restaurants, theaters and many other indoor and clustered venues have been shut down and only tentatively allowed to reopen at significantly reduced capacities. This has caused outdoor public spaces to become increasingly crowded and pose their own health risks to individuals. While these shutdowns and changes primarily affect economic development of cities and regions, they are causing households to reconsider their lifestyles and where they truly want to live.

This is true especially in the greater New York metro area, where New York City was the original epicenter of the COVID-19 outbreak in the United States and experienced some of the worst consequences of the virus. In the weeks and months since the height of the pandemic, City residents, especially wealthy residents with the means of moving, have considered moving out of the City to the surrounding suburbs in the region. Those considering a move to more suburban communities indicate a desire for more space, especially a home office and backyard to help adjust to the new reality of increased telework and the need to maintain social distance.

With greater telework potential, residents may not feel that it is as important to be living as close to their office in New York as they previously thought. Homebuyers may now be attracted to places like Mendham Township despite the lack of direct train connection to the City. Potential new residents are also looking for the safety of avoiding large clusters of individuals who could be spreading the virus. While some of the recent activity in the real estate market can be attributed to the pandemic, there is a large segment of potential movers that were considering a move to the suburbs even prior to the pandemic. This is especially the case for new parents with young children, who are looking at the potential to play outside in a yard, the desire to enroll their children at high performing school districts, and an overall laid back lifestyle when compared to a more urban setting.

These factors are having a significant impact on the real estate market in the northern New Jersey region specifically. The greatest impact is being felt on the luxury housing market, as those looking to move have the financial means to do so. Realtor.com data indicates that luxury listings in May 2020 rose 40% annually in Union County and by 28% annually in neighboring Somerset County (Morris County not mentioned).¹⁰ Given that many homes in Mendham Township fit the high-end buyers' preferences, the Township can expect to see increased housing demand in the Township, through existing homes on the market and potentially new construction homes. It is highly recommended that the Township work to promote and market its historic rural charm, excellent school system and large amounts of open space to prospective buyers to attract new residents.

¹⁰ From <https://www.realtor.com/news/real-estate-news/luxury-housing-market-rebounds-coronavirus/>

AGING-IN-PLACE POLICY

The U.S. Census Bureau projects that by 2035 the number of adults over the age of 65 will outnumber children under the age of 18.¹¹ According to the 2018 5-year estimate data, the over-65 population as a percentage of the Township's total population was 12.6%, which is lower than the percentage in 2012 (16.41%), both of which are lower than the over-65 population in New Jersey (increased from 13.5% in 2012 to 15.5% in 2018). Despite Mendham Township being an exception to the general trend, the Township in the coming years will need to adopt policies or land use changes that will allow a greater number of seniors to be able to continue living in the Township if they choose. One of the main reasons that Mendham Township doesn't completely follow the national trend is that residents, once they retire, have challenges affording to stay in their home.

The aging demographics in the nation will create a challenge for the Township in maintaining its population. Between the high housing prices and the cost of maintaining the large detached single-family homes, seniors may be more likely to move out of the Township to downsize to more affordable options elsewhere. The municipality needs to begin to adopt policies and land use changes that will allow a greater number of seniors to be able to "age-in-place" rather than being priced out of the Township entirely.

Over the last fifty years or so, seniors who were unable to maintain older homes or able to live independently have moved to long-term care facilities. Facility-based long-term care services include board and care homes (also called group homes), assisted living facilities, nursing homes, and continuing care retirement communities. The current COVID-19 pandemic has tragically shown the vulnerabilities that these types of facilities have on the elderly population. As of writing, deaths of residents and workers at nursing homes have accounted for over 40% of the deaths related to the virus in the State. Staggeringly, one out of every thirteen residents that were in nursing homes at the start of the pandemic have passed away in facilities such as the Veterans Memorial Home in Paramus and a Sussex County rehabilitation center, making tragic headlines.¹² COVID-19 outbreaks in congregate settings has caused occupancy at assisted living facilities and independent living centers to decline by more than 2.5% in both the second and third quarters of 2020 while the number of occupied beds at skilled-nursing properties has dropped by just over 12% since the start of the year.¹³ While the pandemic has been an historically unique event and assisted long-term care facilities will continue to operate to serve elderly residents in need, it is necessary that municipalities such as Mendham Township can make policy changes that allow elderly residents to live within the community while still being able to receive care.

One such aging-in-place policy is the accessory dwelling units, or granny flats, which can allow elderly parents or grandparents to live in a multigenerational household with their children and/or grandchildren. These types of housing units are located on a single-family lot, and can be built or converted from garages, barns, or pool houses to living spaces. Home builders have seen a noticeable uptick in interest in homes that provide separate units and prefabricated accessory cottages for aging relatives since the start of the pandemic. Given that most housing units in Mendham Township are both large and built on large lots, there is ample opportunity for the Township to amend its land use regulations to further regulate and support these types of housing. This will help to anticipate the possible trend towards multi-generational living and less use of long-term care facilities, while still granting access to supervision and care as close living relatives monitor the health of their loved ones.

¹¹ From: <https://www.census.gov/library/visualizations/2018/comm/historic-first.html>

¹² From <https://www.nj.com/coronavirus/2020/05/5300-dead-and-counting-an-investigation-of-state-failures-as-crisis-rampaged-through-nj-nursing-homes.html>

¹³ From: <https://www.wsj.com/articles/multigenerational-living-covid-11605196694>

Approximately 82.9% of households in Mendham Township are family households. The Township can utilize its land use policies to promote multi-generational living as a way to maintain the predominantly family-oriented community. Quality of life for all involved can be improved as the elderly will feel less isolated from their relatives and parents may receive additional help with raising children.

ACCESSORY APARTMENTS

For Mendham Township, accessory apartments can promote “aging-in-place” policies and attract a younger resident population. With Mendham Township’s existing development pattern of large, single-family homes on large lots, seniors and those families and individuals just starting out are both out-priced and out-sized by Mendham Township’s existing housing stock. This existing development pattern is having significant impacts on the Township’s population:

- According to the 2018 5-year estimate data, the over-65 population as a percentage of the Township’s total population was 12.6%, which is lower than the percentage in 2012 (16.41%), both of which are lower than the over-65 population in New Jersey (increased from 13.5% in 2012 to 15.5% in 2018). It is clear from anecdotal evidence that most older residents of a certain age leave the Township to find smaller, more affordable housing units in surrounding communities.
- 2018 Census Data indicates a significant lack of residents in the 25-34 age cohort and to a somewhat smaller degree, a lack of residents in the 35-44 age cohort. Because of the traditional development pattern in the Township, young families either cannot afford to move to Mendham Township or cannot find a home size that fits their needs.

The lack of diverse housing types for these two large age groups is likely the main driver for the Township’s recent population losses.

While the Mendham Township Land Use Ordinance currently regulates market accessory apartments and inclusionary accessory apartments in all residential zones, the regulations could be improved. Currently:

- Market accessory apartments are permitted to be occupied by domestic workers or a family of no more than three, where one individual is a relative of the property owner by blood or by marriage. The ordinance requires that the property owner receive an accessory apartment permit from the zoning officer that has to be renewed annually.
- The inclusionary accessory apartments allow the property owner to rent the apartment to low- and moderate-income individuals as a way for the Township to meet its fair share housing obligations.
- Market or inclusionary accessory apartments may be either a separate structure or incorporated into the principal dwelling. In addition to the above regulations, the accessory apartment must follow several regulations regarding bulk standards.

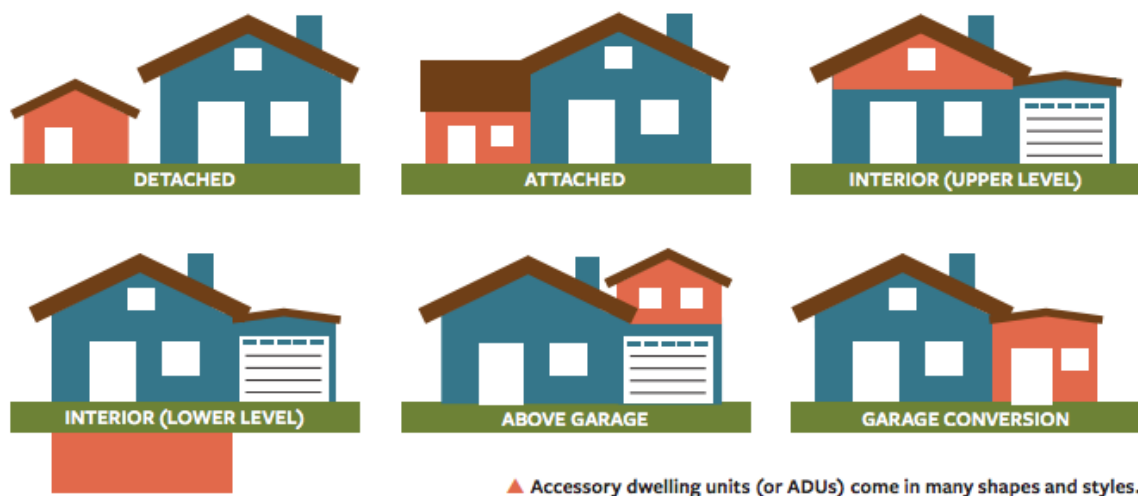
The Mendham Township 2018 Reexamination Report recommended that the current accessory apartment ordinance be amended to regulate accessory apartments as a conditional use when the following standards are met:

- The accessory apartment has to be clearly subordinate to the principal dwelling and shall be on the same lot as the principal dwelling
- The accessory apartment may be in a separate structure or be incorporated in the principal structure. The apartment and principal building shall conform to all of the bulk and setback

standards of the zone in which it is located. If the apartment is in an accessory structure, it shall conform to the zone requirements for a principal structure.

- The site shall be able to accommodate all of the off-street parking as required by the New Jersey Residential Site Improvement Standards (RSIS) per the number of total bedrooms as required for a single-family dwelling.
- Other reasonable standards that will minimize their impact on neighboring properties.

Accessory Dwelling Units come in varying forms, as shown in the below graphic from the AARP's 2019 *Guide to Accessory Dwelling Units*. As is evident from the graphic, accessory apartments can be regulated so as to not disrupt the character of existing residential development, while at the same time, The Township could write reasonable regulations permitting accessory apartments without impacting neighboring properties.



Source: AARP, 2019, ABCs of ADUs

By amending the accessory apartment regulations, the Township will be able to increase its housing diversity and provide a great variety of housing options to current and future residents. In doing so, the Township could attract both younger families looking to move to the Township and older residents looking to downsize but stay in the community. For instance, a single-family home with an accessory dwelling unit may be more attractive to the younger age cohort, since it could allow them to earn rental income that could go towards paying off their mortgage on the home. It is also an appealing housing type for those older residents that already live in the Township. In the 2018 AARP Home and Community Preference Survey, people aged 50-plus who would consider creating an Accessory dwelling unit said they would do so in order to:

- Provide a home for a loved one in need of care (84%)
- Provide housing for relatives and friends (83%)

Residents in this 50-plus age group currently make up a significant proportion of the Township's residents. It is likely that they either have a parent or an older relative who they would like to care for.

The current Covid-19 pandemic has shined an unfortunate light on the vulnerabilities that long-term care facilities like assisted living and nursing homes pose to its residents. An accessory apartment would allow the elderly to live with family, instead of in a long-term care facility, giving both the primary resident and their relative(s) privacy. By allowing accessory apartments for elderly relatives, the Township will help to strengthen the family-oriented community that residents enjoy while fostering a multigenerational community that has a diversity of age groups.

However, the environmental impacts of accessory dwelling units should also be considered. As additional bedrooms are added to accessory dwelling units, septic systems may need to be upgraded in size, resulting in a higher concentration of nitrates. Given the current constraints regarding the dilution of nitrates in the Township, Mendham should base its regulations of accessory dwelling units on these constraints. This is particularly the case for lots in zones that require minimum lot sizes of less than three acres (the R2, R1 and R zones). Careful review of accessory units in these zones should occur. The issue of nitrate dilution is less of a concern in the other zones of the Township as these districts require larger lots. Based on the findings of the nitrate study, lots of over three acres are much more likely to be able to dilute the nitrates from waste water enough to maintain the water quality. The Township should base its regulations of accessory dwelling units based on the known environmental constraints while still allowing for the construction of accessory apartments as their inclusion in the Township's housing stock would bring the abovementioned benefits.