

# **Highlands Initial Assessment Report**

*Borough of Mendham  
Morris County, New Jersey*

**PRELIMINARY  
DRAFT**

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*Prepared for the Borough of Mendham*

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## **Introduction**

Mendham Borough is located in the southern portion of Morris County on the Somerset County line with Bernardsville, with 100% of its land within the Highlands Planning Area. The Borough is a tight-knit community of six (6) square miles that consists of a historic main street, a few farms, and is largely residential in character. Mendham prepared and adopted, in 2006, a series of Master Plan Elements. They include a Vision Statement for the Borough, Land Use Plan, Population and Housing Analysis, Circulation Study with Maps, Community Facilities Plan, Historic Preservation Plan, Open Space Plan, Conservation Plan and Environmental Resources Inventory, and Public Utilities Plan.

The purpose of this Initial Assessment is to identify areas of consistency as well as areas that will require full development of regulatory and planning documents. A review of the Highlands Regional Master Plan (RMP) goals and policies compared to the Borough's planning documents identified inconsistencies between the planning documents. In general, the Borough's planning documents support appropriate growth based on natural carrying capacity and the desire to maintain the rural agricultural character of the Borough. The major issues in achieving plan conformance relate to time constraints, financial resources and technical assistance. The goals and objectives outlined in the RMP will require the development, or amendments to, existing Borough regulations, for which Mendham will require financial and technical assistance (See [Table 1](#)). Examples of the type and extent of documentation required for Highlands Conformance include:

- Land Use Capability Analysis
- Limiting Factor Analysis
- Build Out analysis
- Water Use Conservation and Management Plan
- Ground Water Recharge and Mitigation Plan
- Wellhead Protection Plan
- Wastewater Management Plan
- Septic System Management Plan
- Stormwater Management Plan
- Any applicable resource protection regulations
  - Open water and riparian areas
  - Ground water recharge
  - Wellhead protection (amended)
  - Stormwater
  - Steep Slopes
  - Forest Areas
  - Open Space monitoring
  - Critical habitat
  - Lake Management
  - Low impact development
  - Historic and cultural protection

The Highlands has begun the process of outlining the steps necessary to receive basic plan conformance by the December 8, 2009 deadline. While these steps will not achieve full plan conformance, they will ensure municipalities will meet their required deadline and be consistent with the major Goals of the

Highlands RMP. The Highlands Council has released a series of seven (7) modules, all of which are being prepared by the Council for municipal adoption. These include:

1. Current Municipal Conditions and Build-Out Analysis Module
2. Land Use and Resource Capacity Analysis Module
3. Housing Element & Fair Share Plan Module
4. Highlands Environmental Resource Inventory Module
5. Highlands Master Plan Element Module
6. Highlands Regulations Module
7. Municipal Self Assessment, Implementation Plan & Petition Module

The Council's goal is to prepare each module, release each one to the municipalities, complete a municipal level review and revisions process and then have each municipality adopt each module. At this time only Module 1 has been released and is currently in the process of review. If correctly implemented, the Council's ability to write and distribute each module will take the financial and time constraint burden off of the participating Towns. However, until each module is reviewed, it will not be clear the type and extent of revisions necessary for local adoption. The Council is providing an initial \$50,000 grant to complete this year's seven modules with the ability to offer up to \$100,000 per municipality if deemed necessary.

## **Mendham Borough Existing Planning Program**

Mendham prepared and adopted a series of Master Plan Elements in 2006, as stated above. The following section is a review of each document, followed by a brief analysis of consistency with the Highlands RMP.

### **2006 Vision Statement for the Borough**

The Borough's Vision Statement conveys the overall message that the Borough is rooted strongly in its history, but is willing and able to move forward with the changing times. Key aspects of the vision include a broad spectrum of housing; protection, restoration, renovation, and maintenance of the character of the community into the future; protection of open space and natural features; support entities that contribute to the character of the Village; host and support new business to enable residents to live and work within the community; promote volunteerism and new initiatives for community involvement; and support retail services that are in line with the demographics of community residents.

### **2006 Land Use Plan**

The 2006 Land Use Plan generally depicts the proposed location, extent and intensity of development of land to be used in the future for varying types of residential, commercial and industrial purposes. In particular, the Plan recognizes that new development and redevelopment options should be centered on existing villages and developed areas, leaving outlining areas available for open space preservation and agricultural uses. Development in the rural areas should be low density and low impact.

The Borough's 2006 Land Use Plan outlines the variety of land uses that define the diverse character of the community. The Historic Business Area is located generally at the intersection of Main Street and Hilltop/Mountain Ave and extending from Orchard Street to New Street. This area is located within the Existing Community Zone in the RMP.

The Limited Business Area is located to the north and south of the intersection of Cold Hill Road and East Main Street. It is generally bounded on the south by the properties on the north side of Tempe Wick Road, on the north by East Main Street, and on the east by Cold Hill Road. Four (4) properties to the north of East Main Street on the west side of Cold Hill Road are also included within the Limited Business Area. Most of the land in the Limited Business Area is occupied by the Jockey Hollow Professional Park. This area is located within the Existing Community – Environmentally Constrained Zone of the RMP.

The East Business Area adjoins the Limited Business Area to the north and west. The major commercial land uses within the East Business Area are the Mendham Village Shopping Center, Mendham Ford, and the Moro automotive service complex. This area is located within the Existing Community Zone of the RMP.

Residential development areas in the Borough include 5-acre, 3-acre, 1-acre, & ½-acre residential district and a ¼-acre residential area. A Village Center Cluster Option is also a designated residential district where three properties were listed as potential sites to implement option. The Village Center Boundary encompasses all of the residential areas, except for the 5-acre zone and the northwestern corner of the town, which falls within the Protection Zone of the RMP.

All 1-acre, ½-acre and ¼-acre residential areas are located within the Existing Community Zone of the RMP, with only a few instances of these areas falling within the Existing Community-Environmentally Constrained Zone or Protection Zone. These locations include a ridge located alongside a condo development in the ¼-acre zone in the northeast section of the town, a vacant property located on Cosma Place, a residential lot on East Main St., and public and residential properties just north of Main Street along the westerly border of the Borough.

The 3-acre residential area in the western portion of town, south of W. Main Street is partially in the Protection Zone. Extending south from there the Protection Zone continues and encompasses a majority of farmland and the riparian area of the McVickers Brook. The remaining areas south of Main Street include agricultural and residential areas that fall within Existing Community, Conservation Zone, Conservation Zone – Environmentally Constrained, and Protection Zone. A Golf Course in the southwestern corner of the Borough is designated as Existing Community with areas of Existing Community – Environmentally Constrained in small portions of the site.

The Land Use Plan also identified the need to promote agricultural and other new businesses in the Borough. See [Appendix A](#) for full Land Use Plan Goals.

### **2006 Population and Housing Analysis**

The Borough's adopted 2005 Housing Element and Fair Share Plan, which has been submitted to the Council on Affordable Housing for certification, documents the 10-year historical trend of residential growth, offset by demolitions, in single-family homes. Between 1995 and 2004, the Borough's Construction Official issued 64 certificates of occupancy for new single-family residences, an average of nearly 13 new homes per year. Demolitions totaled 17 over the 10-year time span. It is noted, however,

that nine (9) of the demolitions, or more than half, occurred in 2003 and 2004. This possibly suggests an increased trend toward "teardowns" where older homes are razed and replaced by larger, new homes.

The Borough of Mendham has participated in the Council of Affordable Housing (COAH) process of substantive certification of its Fair Share Housing Plan since the program's inception in 1986. The Borough's original substantive certification for the Round I period of 1987-1993 was granted on May 20, 1987. In its petition for third Round substantive certification, the Borough has documented that it has a remaining prior round obligation (1987-1999) of zero units. Its growth share forecast for nonresidential and residential growth between 2004 and 2014 is for 12 units of affordable housing.

In the Borough's compliance plan, there are 31 surplus credits for past housing activity and therefore, the Borough does not foresee the need to rezone sites beyond the Village Cluster to generate affordable housing. Therefore, its Round III fair share obligation of 12 units is fully off-set by credits and reductions as presented in detail in the Housing Element and Fair Share Plan which was adopted by the Planning Board on November 14, 2005 as part of the Master Plan.

### **2006 Circulation Study**

The 2006 Circulation Study discusses the Circulation Plan Element update that was completed in 2005. The update of the Circulation element included field investigation, an inventory of existing roadway system and key intersections, observations of peak hour and off-peak hour activity, observation of peak school drop-off activity. It also included public safety meetings, collection traffic counts along Main Street and Tempe Wick Road, Review of accident history data as collected by the Borough Police Department, Evaluation of conceptual intersection/roadway improvements to improve flow along the Corridor and to improve safety. Finally, the plan update makes recommendations based on consultation with Morris County Engineering and the data collected regarding pedestrian traffic counts and connections.

Specific Circulation Plan recommendations for roadway improvements are identified, as follows:

- Provide a southbound left-turn lane on Hilltop Road for movements into Hilltop School.
- Provide a striped right-turn lane for movements into the high school property (as long as possible).
- Provide a left-turn lane on the school driveway for movements into the parking lot onsite. The provision of a left-turn would allow through-moving vehicles to continue traveling southbound into the school property without creating a bottleneck on the school driveway.
- Provide a left-turn lane on westbound Main Street for movements into the high school.
- Main Street and Dean Road - There is a heavy right-turn volume from Main Street onto Dean Road. Therefore, a right-turn lane should be provided on Main Street for movements onto Dean Road. The provision of a right-turn at this location will allow right-turning vehicles to move out of the westbound through lane in advance of the intersection, thereby providing more capacity for through-moving vehicles.
- Main Street and Tempe Wick Road - The Tempe Wick Road intersection with Main Street has a higher accident rate than other intersections in the Borough. The skewed intersection configuration, the high left-turn volume from Tempe Wick Road onto Main Street, and the high volumes along the Main Street Corridor are the likely contributing factors to the accident pattern.

- Consider realignment of Tempe Wick Road to intersect Main Street east of the current intersection, opposite the Kings Shopping Center. This concept requires property acquisition and would necessitate signalization to control the new four-leg intersection.
- Main Street and Cold Hill Road - If left-turn movements from Tempe Wick Road are prohibited and reoriented to this intersection, the northbound Cold Hill Road approach to Main Street will require widening. Widening will be required to provide two (2) left-turn lanes, as well as a combination through/right-turn lane. Right-of-way acquisition will be needed to effectuate this improvement. Because Main Street is under County jurisdiction and half of Cold Hill Road is within Mendham Township, any improvements to this location must be coordinated with the County and the Township.

### **2006 Community Facilities Plan**

The 2006 Community Facilities Plan provides an evaluation of the public service and facility needs of Mendham Borough to include: educational facilities, cultural facilities, libraries, fire houses, police stations, and other municipal facilities including their relation to the surrounding areas. The purpose of this plan is in general:

- To inventory existing Borough community facilities and assess their adequacy or inadequacy
- To make recommendations for future improvement to Borough community facilities

#### **Recommendations:**

- Municipal Offices - Phoenix House and Bowers Building - Parking in municipalities such as Mendham Borough is often an issue in commercial or downtown districts. While the parking lot is adequate to serve the Phoenix House, it leaves little room for expansion. Plans for expanding the Bowers Building lot will improve this situation.
- Fire Department Building - This building is currently used by both the Fire Department and the First Aid Squad. First Aid Squad – An expanded facility for the squad is necessary to provide the additional training to meet state reporting demands, for instructor training, and to house required equipment. A possible solution to the size problem of the existing building would be to re-locate the First Aid Squad to a building of its own that is centrally located in the Borough.
- Police Station - Additional parking is necessary, and a storage shed will be required for the storage of patrol bikes and other
- DPW Main Garage - The building is too small for its current uses and the layout is poor. Specifically, additional room is needed for employee amenities, such as an appropriate locker room, break room, and bathroom facilities. A dedicated area for repairs of medium to small equipment is also needed. A small meeting room and expanded office space would also improve the efficiency and effectiveness of the Department.
- Library - For a variety of reasons, the Borough of Mendham and Mendham Township are in the process of considering and moving toward a joint library. A piece of land has been donated (contingent upon a number of other steps taking place), the individual library boards have agreed to merge, and both towns have made inroads toward an agreement on a joint library. In order for a joint library to be realized, however, a number of state approvals must be obtained and a substantial amount of capital must be raised.

- Borough Owned Schools - While the existing facilities are adequate to accommodate the current enrollment, the School Board believes that Hilltop and Mountain View Schools lack the space for classroom expansion, enrichment, and additional special services.
- West Morris Mendham High School – Owing to roadway, water, and sewer issues, the Planning Board does not believe that Mendham Borough can accommodate any further expansion of the student population or facilities at WMMHS.

### **2006 Historic Preservation Plan**

In March 1984 the Mendham Historic District was nominated to and accepted by the National Register of Historic Places. This Register officially lists those historic and cultural resources of the Nation worthy of preservation. In late 1999 the Borough Planning Board drafted an ordinance designed to establish a Historic Preservation Commission. This ordinance was drafted in concert with efforts to establish a Historic District Zone and regulations, which preserve individual historic landmarks and sites identified in the Historic Preservation Element of the Borough Master Plan.

The regulations of the current ordinance apply to all permit applications and to all applications for development, including subdivisions, site plans, and variances, involving properties situated in the Historic District or involving individual Historic Landmarks or Historic Sites. Included in this purview are:

- Subdivisions of land within the Historic District
- The demolition of a historic landmark or of any other improvement within the District
- Relocation of any historic landmark or of any other improvement within the District
- Change in the exterior appearance of any existing landmark or of any improvement within the Historic District by addition, alteration, or replacement
- Any new construction of a principal or accessory structure

### **2006 Open Space Plan**

The Open Space Plan was prepared by the Open Space Committee and adopted by the Planning Board on February 10, 2003.

### **2006 Conservation Plan and Environmental Resources Inventory**

The Conservation Plan Element was prepared and adopted in 2006, and discusses the major issues which are significant to the protection of environmental resources in the Borough. These issues include Development Pressures, Impact on Surface Water, Impact on Groundwater Resources, Stormwater Management, State Development and Redevelopment Plan, Preservation of Environmental Character, and Regional Responsibilities.

Goals and Objectives include Air quality, Stream corridors, Large forested areas, Wetlands, Floodplains, Surface water – quantity and quality, Groundwater – quantity and quality.

The Environmental Resources Inventory discusses the unique environmental characteristics of the Borough including Soils/Geology, Topography, Steep Slopes, Surface Water, Pond, Streams and Watersheds, Water Quality, Flood Prone Areas, Vegetation, and Wildlife.

**Topography** - Much of the Borough is characterized by steep slopes, which in many cases adjoin streams, transition areas, wetlands, and/or flood prone areas. Inappropriate development of steep slope areas can result in soil instability, erosion, sedimentation, increased stormwater runoff, and flooding. Since many of the steep slope areas adjoin surface water and wetlands, protection of these slopes is important to protect the high quality of Mendham Borough's streams. Regrading and/or stripping of native or existing vegetation on steep slopes is limited by standards in the Borough's Land Use Ordinances.

**Surface Water** - Mendham Borough lies in the headwaters of three (3) major river systems: the Whippany River, North Branch of the Raritan River, and the Passaic River. All the rivers and streams in the Borough are classified by the NJDEP as Category One streams and suitable for Trout Production or Trout Maintenance. There is a 300 foot buffer for major development associated with each of the mapped Category One waterways. These mapped streams and buffers are shown in the Mendham Borough Environmental Inventory. Conservation easements on all streams are required of new subdivisions to protect water quality.

**Wildlife and Vegetation** - The preservation of open space and the protection of stream and forest corridors will assure the maintenance of strong, diverse wildlife communities within the Borough. Land Use Ordinances in Mendham Borough should provide for protection of trees against unnecessary destruction, removal, injury and disease, both in new subdivisions and on residential lots.

**Threatened and Endangered Species** - The Landscape Project Map (version 2) for Mendham Borough is shown on the following page. The following species have documented habitat within the Borough:

- Bobcat
- Red Shouldered Hawk
- Wood Turtle
- Cooper's Hawk
- Great Blue Heron

The bobcat and red-shouldered hawk are listed as State Endangered species. Wood turtle and Cooper's hawk are both listed as State Threatened species. The great blue heron is listed as a State Special Concern species. The critical environmental areas associated with these species are primarily located in the largely undeveloped forested areas in the southern and western portions of the Borough.

### **2006 Public Utilities Plan**

The 2006 Public Utilities Plan includes infrastructure components that directly impact the health and general welfare of residents and businesses in the community. These components include Water Supply, Wastewater Treatment, Stormwater Management, Electric Utilities, and Wireless Telecommunications.

The construction of these facilities anywhere along the Main Street Corridor has a negative impact on the scenic and historic nature of the Borough. Any proposals for the siting of additional wireless telecommunications facilities must demonstrate any gaps in Borough coverage. They should consider the following items that are critical to the preservation of the character of the Borough:

- Proven need for specific siting of proposed equipment/facilities.

- Any new antennae and/or towers must be designed with stealth characteristics to minimize the visual impact of the facilities.
- The wireless facilities should be designed to provide coverage within the Borough. The installation of wireless telecommunications facilities inside the Borough to provide service outside of the Borough creates a negative visual impact on the Borough and can potentially negatively impact property values without providing a benefit to the Borough or its residents.
- Wireless telecommunications antennae on existing structures or towers shall be located, designed, and screened to blend with the existing natural or built surroundings so as to minimize visual impacts. This can be accomplished through the use of color and camouflaging, architectural treatment, landscaping, and other available means. All of these need to be compatible with neighboring residences and the character of the community.
- Any potential sites for cellular facilities along the Main Street Corridor or in the Historic District should be set back a sufficient distance to minimize any visual impact.
- As technology advances and any wireless or wired structures become obsolete, the utilities should be required to remove the equipment.

## **Comparison of Highlands RMP and Mendham Borough Planning Program**

The following sections reflect the overall goals of the Highlands Regional Master Plan and how they relate to the existing planning program in Mendham Borough. Each goal highlights any major issues the Borough sees in terms of Plan Conformance or implementation.

### **Natural Resources**

The natural resources analysis in the Highlands RMP is extensive and covers a wide variety of environmental constraints and ecological systems. The RMP highlighted:

- Forest Resources
- Open Waters and Riparian Areas
- Steep Slopes
- Critical Habitat
- Land Preservation and Stewardship
- Carbonate Rock (Karst) Topography
- Lake Management

RMP policies to address these fundamental resources acknowledge the ecological system of land and water resources vital to the overall health of the Highlands Region. While the goals and policies outlined in the RMP for natural resources are divided into the discrete pieces as identified above, the sum of all the parts results in a blanket of protection for overall environmental health.

Mendham recognizes the importance of protecting critical natural resources and has reinforced this through the inclusion of goals and objectives in the Master Plan as well as ordinance regulation protecting vital resources.

### **Forest Resources**

As seen on the [Forest Resource Areas Map](#), Mendham Borough is characterized by a predominance of forested land cover, approximately 1,049 acres or 27% of the community.

#### Highlands RMP

- Protect and enhance current forest areas and align forest regulations throughout the Region.
- Objective 1A2b requires the implementation of regulations to limit the permissible uses within the Forest Resource Area, maintenance of pre-existing uses, and the restoration of impaired forest lands.
- Policy 1A2c prohibits deforestation of lands within the Forest Resource Area except where authorized by the Highlands Act or for agricultural purposes where approved. This objective would result in providing very little development potential outside of exempted activities.
- Prepare and adopt ordinances which conform to the Highlands standards; inventory forested areas; and implement resource management programs.

#### Mendham Borough Provisions

- In Section 215-12.1 of the land use ordinance, woodlands are included in the definition of a farm, which states “An area of land made up of a single or multiple joining or non-joining parcels which is organized as a management unit actively devoted to the production of agricultural or horticultural products worth \$2,500 or more annually in accordance with N.J.S.A. 4:1C-1 et seq., including, but not limited to... *woodland*... which occupies a minimum of the lesser of five acres or five times the minimum lot size of the zone in which the property is located... as provided in the Farmland Assessment Act of 1965, N.J.S.A. 54:4-23.3, 54:4-23.4, 54:4-23.5 and 54:4-23.11
- Section 202 Tree Conservation and Protection states that tree conservation helps secure safety from flood, promotes a desirable visual environment, promotes conservation of valuable natural resources and prevent degradation of the environment... the chapter further intends to preserve the maximum possible number of trees in the course of development of a site, to protect older specimen trees and to encourage careful site design and grading to promote the preservation of existing trees.
- Section 202-6 of the Tree Conservation and Protection section of the ordinance states requirements for tree removal, and in turn, tree replacement. The ordinance requires an application for tree removal permit to be accompanied by a diagram of the lot specifically showing the size, location and species of all trees and specimen trees within the disturbed area; a transition area 10 feet from the perimeter thereof; and any significant tree canopy delineated at the drip line.
- The 2006 Conservation Plan lists the following objectives for the Borough to consider in protecting forested areas.
  - Provide for protection of trees against unnecessary destruction, removal, injury and disease, both in new subdivisions and on residential lots.
  - The natural and wooded areas bordering roadways should be preserved through conservation easements.
  - Provide standards for landscaping suitable to promote the scenic appeal of roads as well as an approved plant list.
  - Consider using native species on Borough owned property and should consider an ordinance requiring the use of native species in new subdivisions.

Other issues the Borough will encounter during Plan Conformance are technical and financial in nature. The Borough will look to the Highlands Council for technical support in preparing any inventories and maps of the forested areas, as well as assistance in the preparation of any regulatory measures the Council will seek for Plan Conformance. In addition, funds will be needed for assistance in preparing and adopting any required regulatory measures.

### Open Waters and Riparian Areas

Mendham Borough lies in the headwaters of three (3) major river systems: the Whippany River, North Branch of the Raritan River, and the Passaic River, as seen on the [Riparian Areas Map](#). All the rivers and streams in the Borough are classified by the NJDEP as Category One streams and suitable for Trout Production or Trout Maintenance.

### Highlands RMP

- Protect, restore, and enhance water resource areas.
- Section 2 of the RMP goals and objectives seeks to develop regulatory measures for the protection of riparian areas and areas surrounding open waters.
- Mandatory 300' buffer of all Highlands Open Waters prohibiting development in the Preservation Area and allowing modification to Planning Area buffers for C2 streams in accordance with an approved Stream Corridor Protection/Restoration Plan.
- Potential development in the riparian areas in the Protection or Conservation Zones is restricted to existing disturbed areas, or areas already improved.
- New development or the expansion of development in riparian areas will require a waiver by the Highlands Council.
- All riparian areas in the Highlands are subject to the Stormwater Management Rules, Flood Hazard Area Rules, and Freshwater Wetlands Rules.
- Inventory and monitor riparian areas.

### Mendham Borough Policies

- Section 179-4C Soil Erosion and Sediment Control lists the items to be included in a SESC Plan. They include trapping sediment in runoff; keeping any erosion from encroaching on watercourses; any fill placed next to a watercourse should be appropriately contained. The ordinance does not give a definition for Stream corridor.
- Conservation easements on all streams are required of new subdivisions to protect water quality. (2006 Conservation Plan)
- The 2006 Conservation Plan also lists the following objectives for the Borough to consider in protecting riparian areas.
  - Protection should also be extended to existing unprotected stream corridors through voluntary conservation easements from property owners.
  - Develop a program to encourage the maintenance and planting of native vegetative cover as well as bank stabilization to provide a natural filter for buffering streams. A riparian buffer zone protection strategy will produce important improvement in stream quality. Residents should be educated in environmentally friendly lawn maintenance practices.
  - Continue to limit point and non-point source pollutant loading into headwater streams. Recent wastewater treatment plant enhancements to address phosphorous and total dissolved solids should limit point loads to McVickers Brook. Stormwater improvements implemented under the Borough's stormwater pollution prevention plan will reduce non-

- point discharges. However, increasing land development will continue to increase both point and non-point pollution into our streams.
- Consider stricter limits of septic disposal field setbacks and on distances between septic disposal fields and wells. In addition, the Borough should consider increasing minimum setback distances between a septic fields and waterways.

The Borough will need technical assistance from the Highlands to ensure that data sets are provided and updated by the Council and that the mapping provided is in the context that the Highlands seeks. In addition, there are Riparian areas that encompass existing residential developments. The Borough will seek guidance from the Council on how any proposed regulatory measures will impact local residents in these areas.

### Steep Slopes

Mendham Borough consists of a land area of approximately 3,850 acres located in the southern portion of the Highlands physiographic province of New Jersey. Much of the Borough is characterized by steep slopes, which in many cases adjoin streams, transition areas, wetlands, and/or flood prone areas, seen in the [Steep Slope Protection Areas](#).

### Highlands RMP

- Development on severely constrained or moderately constrained slopes is prohibited in both the Preservation and Planning Areas as outlined in the Highlands Act.
- Inventory slopes within and on the edge of riparian areas.
- Create regulatory measures to target protection of specific slope classifications.

### Mendham Borough Policies

- Inappropriate development of steep slope areas can result in soil instability, erosion, sedimentation, increased stormwater runoff, and flooding. Since many of the steep slope areas adjoin surface water and wetlands, protection of these slopes is important to protect the high quality of Mendham Borough's streams. Regrading and/or stripping of native or existing vegetation on steep slopes is limited by standards in the Borough's Land Use Ordinances. Erosion on steep slopes is especially prevalent where excessive tree removal has taken place. Ordinances restricting construction and tree removal on steep slopes should be considered to protect the Borough's sensitive environment,
- Section 215-12.4 Steep Slope Regulations states that a map shall graphically represent, in a clear manner, the areas of slope less than 15% (unlimited disturbance allowed), from 15% to 24.99% (1,250 sq ft or 20% disturbance, whichever is greater), from 25% to 29.99% (750 sq ft of disturbance), and those areas at 30% or greater slope (500 sq ft of disturbance). Only areas with an elevation change of 10 feet or more shall be subject to these regulations.

The Borough will look to the Highlands Council for technical assistance and guidance in the preparation of a revised steep slope ordinance.

### Critical Habitat

Critical habitat is abundant in Mendham as seen on the [Critical Wildlife Habitat Map](#).

### Highlands RMP

- Protection and enhance habitat areas and regulatory measures to protect such resources.
- Specifically, human encroachment into critical habitat areas are prohibited and shall not be further expanded.
- Inventory and map critical area for the protection of habitat
- Prepare a “Habitat Conservation and Management Plan”

#### Mendham Borough Policies

- Section 195-32 lists drainage and conservation easements as areas that protect critical habitat and prohibits activity that would disturb these areas. Habitat is mentioned throughout the design standards section of the ordinance, but not in the context of critical wildlife habitat.
- Critical habitat protection language primarily falls within the Open Space, Surface Water, and the Wildlife sections of the 2006 Conservation Plan and the NRI.

The Borough will require technical and financial assistance to achieve the policies outlined in the RMP regarding critical habitat. In order to meet these requirements, the Borough will need technical and financial assistance to prepare the items needed for conformance.

#### Land Preservation and Stewardship

In November 1998 the citizens of the Borough overwhelmingly approved the Open Space Trust Fund Referendum. With this vote, citizens expressed the recognition that recent development had removed large amounts of private open space in the Borough as well as the fact that ever increasing development pressure threatens to take away what remains. Sprawling farms, rolling hills, woodlands, open green areas, and pristine stream corridors represent the many varieties of open space which exist in the Borough. These open space properties, balanced with existing land uses, combine to give the Borough a rich, rural character, not only reflecting the locale's history but also adding to the quality of life enjoyed by its residents (as seen in the [Preserved Lands Map](#)).

#### Highlands RMP

- Goals for land preservation and stewardship support the preservation of open space to further protection of critical resources. The RMP cites that one of the most influential factors on preserving and maintaining open space is through land owner support and initiatives.
- One source of funding could come from a dedicated source of revenue for land preservation through a surcharge on public water supply system rates.

#### Mendham Borough Policies

- The 2006 Conservation Plan lists the following objectives for the Borough to consider:
  - The preservation of open space and the protection of stream and forest corridors to assure the maintenance of strong, diverse wildlife communities within the Borough.
  - Utilize open space conservation planning to preserve the character of Mendham Borough, preserve open space, and protect critical environmental areas.
  - Promote the protection of biological diversity through the maintenance of large contiguous tracts and corridors of forest.
- The ordinance defines Open Space, Public Open Space and Common Open Space in the Subdivision of Land section. The definitions also link open space to Planned Residential Clusters and to Public Areas.

- Section 215-14 Village Cluster Option cites open space as a principal use. Subsection J cites Common Open Space as not less than 40% of the gross acreage of a tract as reduced by any dedications to the Borough shall be reserved for permanent common open space; not more than 20% of the permanent common open space on site shall be reserved for use for active recreation activities, including but not limited to playgrounds, playfields, tot-lots, tennis courts, swimming pools and other active recreation pursuits of similar type and intensity.
- Section 35 of the land use ordinance also establishes an Open Space, Recreation, Farmland and Historic Preservation Committee whose task it is to oversee and recommend parcels for preservation.

The Borough will seek assistance and clarification from the Council on the subject of generating funds from water users outside of the Highlands to offset the cost of highlands regulations, as other communities have done in the past.

#### Carbonate Rock (Karst) Topography

The Carbonate Rock (Karst) Topography section, as outlined in the RMP, is to manage development activities in carbonate rock areas to address the potential problems that are common to karst areas. The site assessment and design process can be modified for karst areas to allow applicants, municipalities and the Council to identify any karst concerns at a site and to incorporate appropriate design features in order to minimize future sinkhole (or other karst feature) formation, damage to development, and the potential for ground water contamination. The Borough does not contain any karst topography areas, therefore they do not cite any policies on the subject.

#### Lake Management

The Lake Management areas, as outlined in the RMP, are intended to protect lake ecosystems from further damage and to restore and enhance lakes that have been degraded. The Borough does not contain any lakes over 10 acres, therefore there are no Lake Management Areas located in Mendham.

### **Water Resources and Water Utilities**

The primary goal of the Highlands Act is to protect essential water supplies for both human use and support natural systems. The goals, policies and objectives outlined in the RMP relate to determining the amount of growth capacity in the Highlands Region versus the availability of water supplies. These water supplies, not only need to be monitored for quantity but also for quality. Quality and quantity of water rely heavily on the natural ecosystems ability to filter and promote recharge. The protection of aquatic ecosystems, such as streams and water bodies, is integral to achieving these goals.

#### Water Resource Availability

(as seen on the [Net Water Availability by HUC 14 map](#)) while the southeasterly portion of the Borough has some water availability.

#### Highlands RMP

- Protect water supplies for human use and ensure enough high quality water for current and potential users and enhance water resources through monitoring water availability.

#### Mendham Borough Policies

- Section 195 of the land development ordinance defines *drainage* as a means to induce groundwater recharge.
- Section 232-6 Standards for construction of water supply systems describes location of wells, storage and distribution of water and protection of potable water supply.
- No mention of promoting groundwater recharge through measures like open space preservation low impact development.

In order to satisfy these objectives, the Borough will need technical assistance to determine net availability within the Borough and its HUC 14s as well as methods to assess and monitor water availability.

Another major component of Plan Conformance will be the development of the Water Use and Conservation Management Plan, which the RMP states will be required for all conforming municipalities. This plan will require coordination with a variety of stakeholders, NJDEP and servicing utilities. While it is not entirely clear how exhaustive this Plan will be in the RMP, the Borough will need technical and financial assistance from the Council to achieve this provision.

#### Protection of Water Resources Quantity

The RMP promotes the monitoring and assessment of ground water recharge and net water availability in the Borough and by HUC 14 watershed. Mendham Borough's predominant sources of potable water are public and private wells. Recharge areas, such as the permeable soils that overlay upland areas of the Borough, and sites where the water table is high must be protected to ensure that rain and surface water can infiltrate back into the ground to replenish drinking water supplies (as identified on the [Prime Groundwater Recharge Area Map](#)).

The 2006 Conservation Plan element states that the over-development of these sensitive areas reduces the amount of pervious surfaces and results in greater stormwater runoff. Another threat to drinking water occurs when the amount of household pollutants discharged into septic systems exceeds the ability of septic system to treat these pollutants. Maintaining and caring for individual septic systems and minimizing the use of hazardous household chemicals will help prevent contamination of the aquifer. Because Mendham Borough's groundwater supply is limited due to underlying geologic formations, it is essential that the Borough protect groundwater from degradation and overuse. This can be achieved by requiring that all land developments meet the recharge requirements in the NJDEP Phase II stormwater rules. Best Management Practices for stormwater management should be employed, especially those practices that require infiltration of stormwater runoff to recharge the aquifers. The Borough should consider a well head protection ordinance to safeguard our public groundwater quality.

The policies and objectives outlined in this section relate primarily to monitoring and assessing water availability and groundwater recharge. The Borough will seek Highlands technical assistance to achieve plan conformance on these items, as well as seek any input on regulatory measures related to groundwater recharge and water availability.

#### Water Quality

Water quality in the Highlands Region is important in providing safe drinking water to millions of New Jersey residents. The goals and policies in this section relate to providing protection to surface and groundwater sources, providing restoration and enhancement of water supply areas and providing for

enhanced protection of wellhead protection areas. The Borough does not contain any wellhead protection areas, however, being near the headwaters of large watersheds means that Mendham enjoys generally unpolluted streams. The water quality in a stream is influenced primarily by land use practices, but it is also very important that individual citizens avoid the discharge of contaminants from their property since the contaminants can migrate into streams and groundwater. Potential contaminants include lawn fertilizer runoff, sewerage from poorly maintained septic systems, and any type of hydrocarbon. The 2006 Conservation Plan suggests that the Borough continue to educate residents and businesses on the proper use of fertilizers.

### Sustainable Development and Water Resources

The goals and policies in this section of the RMP attempt to ensure that future development and growth do not occur in inappropriate areas that will create a detriment to any water resources. The policies prohibit any expansion of infrastructure into areas not suited for additional growth and rather channel new growth into areas that can support such increases. The Borough has encouraged this type of activity throughout the planning process and has stated that new development should be directed near existing development and does not encroach on agricultural areas and areas of critical natural resources.

While the Borough’s master plan elements do not discuss “sustainability” per se, the actions listed above will lead to a sustainable solution when implemented in concert with other low impact actions.

### **Agricultural Resources**

The goals and policies of the RMP for agricultural resources seek to preserve agricultural land and retain the viability of the agricultural industry. The RMP objectives are intended to provide incentives and funding opportunities to preserve agriculture, encourage best management practices and enhance the resources of the Highlands.

To achieve these ends, many of the policy statements center on supporting farmland preservation activities, classify agricultural soils as a critical resource and reducing the loss of agricultural areas through inappropriate development. One of the methods discussed to reduce incursion into agricultural areas is to use techniques such as TDR, mandatory cluster provisions or conservation design techniques. In addition, the RMP seeks to minimize construction of non-agricultural development inducing water and wastewater infrastructure in the Agricultural Resource Areas and to protect and enhance surface and ground water quality.

The Borough has 43% of land in an Agricultural Resource Area (see [Agricultural Resource Area map](#)) and seeks to retain agricultural areas and practices. Through the Land Use Plan and Land Development Ordinance, many goals and provisions speak to the need to retain prime agricultural soils, encourage agricultural activities and continue efforts for farmland preservation. The Borough’s Land Use Ordinance states the desire to:

- Continue and expand commercial and home agricultural pursuits;
- Encourage a positive agricultural business climate; and
- Protect the farmer against municipal regulations and private nuisance suits.

At the same time, this section acknowledges the need to provide a proper balance among the varied and sometimes conflicting interests of all lawful activities in the State of New Jersey. Retain agricultural

activities to ensure numerous social, environmental and economic benefits, including the preservation of open space, atmospheric habitat, the preservation of land as a nonreplenishable resource and as a source for agricultural products for this and future generations and the protection and maintenance of the aesthetic beauty of the countryside and rural character of the community which includes farm architecture and scenic variety.

Section 35 of the Land Use Ordinance also establishes an Open Space, Recreation, Farmland and Historic Preservation Committee whose task is to oversee and recommend parcels for preservation. These goals are the most significant in the Borough and continue to play a vital role in the Borough's identity and future land use. One issue that will need to be reviewed is the use of mandatory clustering provisions, or conservation design techniques. The Borough previously adopted cluster provisions in the Agricultural Residential Zone, however these were repealed due to ineffectiveness at preserving the key agricultural areas they were intended to retain.

### **Historic Cultural, Archaeological and Scenic Resources**

The Highlands RMP identifies the value of historic sites, cultural resources and scenic vistas. The RMP encourages the preservation and conservation of such resources. Mendham Borough agrees that these resources are valuable to the quality of life for residents and the region and has established the following in the Land Use Ordinance:

- Section 215-51 establishes an Historic Preservation Commission;
- Section 215-18 establishes Development Standards for Historic Buildings;
- Chapter 27 is devoted to the Historic Preservation Commission which defines Historic District, Landmark, and Commission; and
- Chapter 35 also establishes an Open Space, Recreation, Farmland and Historic Preservation Committee whose task it is to oversee and recommend parcels for preservation.

The Borough will need to work with the Highlands Council to develop any specific regulations required by the RMP regarding the preservation and conservation of historic sites and areas.

### **Transportation**

The goals and objectives of the RMP for transportation networks encourage multi-model systems that provide for safe and adequate travel that will not result in a detriment to the Highlands region, its environment or the communities within.

The Borough's 2006 Circulation Plan goals and objectives regarding transportation conform to the Highlands RMP and focuses mainly on the town's historic roadways and scenic corridors. The Borough contains primarily county and local roads and focuses on Main Street as the main corridor through the town. The Borough's goals for circulation include maintenance of existing roadways and to avoid any new construction that would have a negative impact on existing villages and the overall character of the Borough. An up-to-date circulation plan, in conformance with the Regional RMP, will also require the Borough to work with local, regional and county transportation partners to review and implement any needed regulations regarding transportation networks.

### **Future Land Use**

The goals and objectives of the Highlands RMP for future land use center on maintaining an updated Land Use Capability Map, providing smart growth initiatives and discouraging inappropriate growth. In

addition, the Future Land Use section seeks to provide regional development opportunities where possible and without detriment to natural resources.

The Borough contains a smaller portion of Conservation Zone lands (18%). The RMP states that the Conservation Zone should include regionally significant agricultural lands and further that these areas should promote and expand sustainable and economically viable agricultural activities. The RMP also states that lands in the Conservation Zone be limited to agricultural uses or environmentally-compatible low density development. The Plan also encourages the use of clustering in these areas to reduce encroachment into agricultural lands, provided they are appropriate to the zone.

The goals and objectives in this section are similar to those already identified in Mendham's 2006 Land Use Plan. The Borough has previously asserted the need to guide development in an appropriate manner, so that new developed would occur near existing development or in areas that would not be a detriment to agricultural resources or natural resources.

The Borough will need to work with the Highlands Council to determine appropriate areas for redevelopment as well as areas where any new development is not appropriate.

### **Landowner Equity**

The Highlands RMP highlights several goals and policies to address land owner equity issues for areas where land development potential has been reduced. The RMP seeks to offset these effects through Transfer of Development Rights, Highlands Development Credit opportunities and introducing innovative design guidelines to allow for development with minimal impacts to the environment. Offsetting the cost of the Highlands RMP is key to the economic viability of the region for the short and long term, and many of the items in this section will require the Highlands Council to cooperate with appropriate State agencies. The Borough encourages any offsetting measures and will work with the Council to achieve the long term goals.

### **Sustainable Economic Development**

The Borough does not include an economic development plan in the master plan, but with regard to activities encouraged such as retail in town and agricultural businesses work with local characteristics and are compatible with retaining the character of the Borough.

The RMP requires the preparation and adoption of an Economic Plan Element that will provide strategies for achieving sustainable economic development consistent with the Highlands Plan. The Borough will require financial and technical support in this regard.

### **Air Quality**

Air quality is an ever increasing concern, both locally and globally. The Highlands RMP encourages the reduction of air pollution through alternative modes of transportation and the promotion of renewable energy sources.

The Borough concurs with this overall goal. The Borough's 2006 Conservation Plan includes language to protect air quality by reducing detrimental effects of development in the town. In addition, the dimensions and locations of residential roads impact the amount and speed of traffic, community character, and air pollution. Several roads are used heavily by commuters, resulting in increased vehicle

emissions, air pollution, and health hazards such as ground level ozone, which forms when carbon monoxide combines with oxygen. The New Jersey Department of Environmental Protection (NJDEP) maintains air quality monitoring stations to the east and west of the Borough in Morristown and Chester respectively. The data from these stations can be obtained at their web-site. The Borough should continue to join with other municipalities to address regional traffic issues.

The Borough will require technical assistance for any required monitoring and reporting necessary to achieve air quality standards. In addition, the Borough will coordinate with the Highlands Council on any regulatory practices involved in land development to encourage air quality mitigation and alternative energy implantation.

### **Local Participation**

The Highlands RMP relies on local participation and continual updates for the overall long term viability of the Plan. The Borough encourages an open and transparent process and will coordinate with the Highlands Council to ensure proper public participation and the participation of local government.

### **Major issues/Problems in Achieving Plan Conformance**

The major issues or problems related to plan conformance at this time are financial resources and technical assistance. The goals and objectives outlined in the RMP will result in extensive amendments to existing regulations adopted by the Borough. While the Borough has identified many of the major policy objectives through their own recent planning, the variety of development and regulatory measures that Mendham will need to adopt will be extensive. The Borough will require financial assistance to evaluate, create and implement the required documentation to achieve plan conformance. With the recent release by the Highlands Council that many of the needed planning documents will be created by the Council and submitted to the municipalities for review, this may not be a major issue.

Other major obstacles to plan conformance are the required technical documents and plans to be prepared and adopted by municipalities. These include:

- Land Use Capability Analysis
- Limiting Factor Analysis
- Build Out analysis
- Water Use Conservation and Management Plan
- Ground Water Recharge and Mitigation Plan
- Wellhead Protection Plan
- Wastewater Management Plan
- Septic System Management Plan
- Stormwater Management Plan
- Any applicable resource protection regulations
  - Open water and riparian areas
  - Ground water recharge
  - Wellhead protection (amended)
  - Stormwater
  - Steep Slopes
  - Forest Areas

- Open Space monitoring
- Critical habitat
- Lake Management
- Low impact development
- Historic and cultural protection

Many of these items will be completely new documents for the Borough, which will require time and technical and financial resources to prepare. It is assumed that the Highlands Council will provide a variety of model ordinances, documents and planning chapters that will reduce the time and expense of preparing these documents. Until these documents are available for review and comments, a timeframe or budget for the preparation, review and adoption of any given planning or regulatory document is difficult to forecast. Given the 9 to 15 month compliance timeline, the Borough will seek to communicate and partner with the Highlands in achieving conditional and full Plan conformance.

**APPENDIX A:**  
**2006 Land Use Plan Goals and Objectives**

The revised goals emerged from the 2000 Master Plan Reexamination and this sixth submission of the Mendham Borough Master Plan. They reflect the unique blend of traditional and contemporary lifestyles that stand side-by-side in this community. They are:

- To retain the small town character of the community by implementing the Village Planning Criteria as adopted for Village Center Clusters to plan for new development within the Village boundary.
- To preserve the rural quality of the Borough and its historic heritage beyond the Village environs
- To protect and preserve the Borough's open space and natural resources of soils, vegetation, air, and water through the wise use of planning techniques and careful control of land development
- To maintain a reasonable balance and variety of housing options within an approved housing element
- To maintain healthy business districts with a diversity of local businesses to serve the residents of Mendham Borough
- To improve traffic flow and provide for the safe movement of people and vehicles through the Borough while minimizing adverse impact on residential streets
- To provide adequate local community services and recreational facilities
- To recognize and encourage preservation and designation of those historic properties and buildings that contribute to the unique atmosphere that is Mendham, particularly those in the Historic District and which are on the State and National Registers of Historic Places
- To integrate new development and redevelopment into the historic fabric of the Village Center area
- To maintain the quality and historic character of existing buildings, including all structures which contribute to the Borough's history
- To continue to participate in area-wide programs for proper watershed management

**Table 1: Mendham Borough Plan Conformance Overview Checklist**

Submission Item	Conforms to RMP	Comments
1. Environmental Resource Inventory	Partial	Adopted in 2005 with the Conservation Plan Element
2. Municipal Master Plan	YES	Adopted in 2006
a. Statement of Policies, Goals & Objectives	YES	Adopted in 2006
b. Land Use Plan Element	YES	Adopted in 2006 - provides for denser development to be placed in village areas. Preserve outer areas.
i. Up-to-Date Developed Land Inventory	Partial	Will need to update.
c. Housing Plan Element	YES	Adopted in 2006
d. Conservation Plan Element	YES	Adopted in 2006 with the ERI
e. Utility Service Plan Element / Public Utilities Plan	YES	Adopted in 2006
f. Circulation Plan Element	Partial	Adopted in 2006, focus on historic roadways
g. Recreation and Open Space Plan Element	Partial	Adopted in 2006
i. Up-to-Date Open Space Inventory	Partial	Will need to update.
h. Agriculture Retention/Farmland Preservation Plan Element (if applicable)	N/A	N/A
i. Up-to-Date Preserved Farmland Inventory	Partial	Will need to update.
i. Community Facilities Plan Element	YES	Adopted in 2006
j. Sustainable Economic Development Plan Element	N/A	N/A
k. Historic and Cultural Preservation Plan Element (if applicable)	YES	Adopted in 2006
l. Development Transfer Plan (if applicable)	N/A	N/A
m. Statement of Relationship to other plans, Highlands RMP and SDRP	YES	Yes - in the Land Use Plan p. II-15
3. Master Plan Reexamination Reports	N/A	N/A
4. Zoning/Land Use Ordinances & Development Regulations		
a. Water Use & Wastewater Treatment Provisions Included	NO	Section 232 Sewage Disposal and Water Supply Systems, Individual; Section 168 Sewers
b. Development Application Checklist Ordinance Included	YES	Yes - section 124a Appendix A and Section 195 - Subdivision of Land and Site Plan Review. (Includes Ecological Impact Statement.)
5. Zoning Map and Schedule of Requirements	YES	Updated 2007
6. Official Map	YES	Land Use Plan map adopted with Master Plan in 2006
7. Redevelopment and/or Rehabilitation Plans (Adopted or Proposed)	NO	No
8. Environmental/Infrastructure Capacity Analysis		
a. Land Use Capability Analysis		
b. Limiting Factor Analysis	Partial	Land Use Plan element p.II-13
c. Build-Out Analysis	Partial	Land Use Plan element p.II-14
9. Management Plans		
a. Water Use Conservation & Management Plan	NO	No
b. Ground Water Recharge Protection and Mitigation Plan	NO	No
c. Wellhead Protection Plan	NO	No
d. Wastewater Management Plan (County WMP may be used)	YES	Yes
e. Septic System Management/Maintenance Plan	NO	No
f. Stormwater Management Plan	Partial	Soil Erosion/Sediment Control Plan identified as protection for riparian areas.

10. Resource Protection & Supporting Regulations/Plans	Conforms to RMP	Land Use Plan	Conservation Plan	NRI/ERI	Ordinance Regulations	Comments
a. Open Water and Riparian Areas	NO	Goals from the Reexam include: To protect and preserve the Borough's open space and natural resources of soils, vegetation, air, and water through the wise use of planning techniques and careful control of land development and To continue to participate in area-wide programs for proper watershed management	Protection measures include: A riparian buffer zone protection strategy will produce important improvement in stream quality. Residents should be educated in environmentally friendly lawn maintenance practices. The headwaters of the Whippany, Passaic, and Raritan, which are regionally important sources of potable water, are located in Mendham Borough. Stormwater runoff from existing roadways and other impervious surfaces into the Borough's high quality streams continues to have a harmful environmental impact on those streams. As part of the State's new stormwater management regulations at NJAC 7:8, Mendham Borough adopted a Stormwater Management Plan on April 11, 2005.	Streams and wetlands are the only natural water features in Mendham Borough and the surrounding towns. All "lakes" and ponds are artificial impoundments across natural drainage channels. All water bodies are considered environmentally critical areas in the Borough. Although only six (6) square miles in size, Mendham Borough contains portions of the headwaters of three (3) of New Jersey's four major watersheds: the Whippany, Raritan, and the Passaic, as well as many small lakes and ponds.	Section 179-4C Soil Erosion and Sediment Control lists the items to be included in a SESC Plan. They include trapping sediment in runoff; keeping any erosion from encroaching on watercourses; any fill placed next to a watercourse should be appropriately contained. The ordinance does not give a definition for Stream corridor	
b. Ground Water Recharge	NO		The Critical Water Resources Study commissioned by the Mendham Township Environmental Commission in 1994 documents evidence that continued development will have a significant impact on the quality and quantity of groundwater. Mendham Borough's predominant sources of potable water are public and private wells. Recharge areas, such as the permeable soils that overlay upland areas of the Borough, and sites where the water table is high must be protected to ensure that rain and surface water can infiltrate back into the ground to replenish drinking water supplies. Over-development of these sensitive areas reduces the amount of pervious surfaces and results in greater stormwater runoff.	The Critical Water Resources Study commissioned by the Mendham Township Environmental Commission in 1994 documents evidence that continued development will have a significant impact on the quality and quantity of groundwater. Mendham Borough's predominant sources of potable water are public and private wells. Recharge areas, such as the permeable soils that overlay upland areas of the Borough, and sites where the water table is high must be protected to ensure that rain and surface water can infiltrate back into the ground to replenish drinking water supplies. Over-development of these sensitive areas reduces the amount of pervious surfaces and results in greater stormwater runoff.	Section 195 defines Drainage as a means to induce groundwater recharge. § 232-6 Standards for construction of water supply systems describes location of wells, storage and distribution of water and protection of potable water supply. No mention of groundwater recharge, per se.	
c. Well Head Protection	Partial		The Borough should consider a well head protection ordinance to safeguard our public groundwater quality.		§ 232-6 Standards for construction of water supply systems describes location of wells, storage and distribution of water and protection of potable water supply.	

10. Resource Protection & Supporting Regulations/Plans	Conforms to RMP	Land Use Plan	Conservation Plan	NRI/ERI	Ordinance Regulations	Comments
d. Wastewater Management Plan (County WMP may be used)	<b>NO</b>		Recent wastewater treatment plant enhancements to address phosphorous and total dissolved solids should limit point loads to McVickers Brook.			
e. Steep Slopes	<b>YES</b>	steep slopes are listed on individual properties.	Much of the Borough is characterized by steep slopes, which in many cases adjoin streams, transition areas, wetlands, and/or flood prone areas. Inappropriate development of steep slope areas can result in soil instability, erosion, sedimentation, increased stormwater runoff, and flooding. Protection of these slopes is important to protect the high quality of Mendham Borough's streams. Regrading and/or stripping of native or existing vegetation on steep slopes is limited by standards in the Borough's Land Use Ordinances. Erosion on steep slopes is especially prevalent where excessive tree removal has taken place. Ordinances restricting construction and tree removal on steep slopes should be considered to protect the Borough's sensitive environment.	steep slopes are identified throughout the Borough. Development in slope areas will have an impact on the watersheds in Mendham Borough due to erosion, vegetation disturbance, sedimentation, and associated storm water issues. Specific recommendations related to particular slope areas and environmentally safe development may be found in the Mendham Borough Environmental Commission Open Space Report 1984. Further suggestions and regulatory guides are provided in the Natural Resource Management Guide for the County of Morris 2000 (pages 2-5).	Section 215-12.4 Steep Slope Regulations The map shall graphically represent, in a clear manner, the areas of slope less than 15% (unlimited disturbance allowed), from 15% to 24.99% (1,250 sq ft or 20% disturbance, whichever is greater), from 25% to 29.99% (750 sqft of disturbance), and those areas at 30% or greater slope (500 sq ft of disturbance). Only areas with an elevation change of 10 feet or more shall be subject to these regulations.	Levels of protection are the same as the Highlands.
f. Carbonate Rock	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
g. Forest Areas	<b>YES</b>	The land use plan does not discuss woodlands or forested areas, but protection of trees is noted as important. To form the basis for village streetscape design features which would support and coordinate with the Historic Business Zone standards; the design standards contemplated would cover such items as pavement types, street lights, landscaping materials, street trees, and street furniture (i.e. benches, signage and sign lighting, planters, etc.)	The 2006 Conservation Plan lists the following objectives for the Borough to consider in protecting forested areas. <ul style="list-style-type: none"> <li>o Protection of trees against unnecessary destruction, removal, injury and disease, both in new subdivisions and on residential lots.</li> <li>o Preserve natural and wooded areas bordering roadways through conservation easements.</li> <li>o Provide standards for landscaping suitable to promote the scenic appeal of roads as well as an approved plant list.</li> <li>o Use native species on Borough owned property and consider an ordinance requiring the use of native species in new subdivisions.</li> <li>o Wildlife management practices to control deer population.</li> </ul>	A large part of the Borough is densely wooded. Wooded areas provide natural habitat for wildlife. The vegetative cover in wooded areas helps to prevent erosion, which in turn protects the quality of surrounding water. The persistent deer population is causing not only health and safety issues for the residents of the Borough, but is also impacting the replenishment of our woodlands. Deer browsing is destroying new growth in the wooded areas giving new saplings no opportunity to grow and replenish the aging trees. Referencing Exhibit #14, Borough of Mendham Land Use Overview, a list of the woodland areas is included.	In Section 215-12.1 Woodlands are included in the definition of Farm. Section 202 Tree Conservation and Protection states that tree conservation will help secure safety from flood, promote a desirable visual environment, promote conservation of valuable natural resources and prevent degradation of the environment. In conjunction with an application for site plan approval or major or minor subdivision approval, the chapter further intends to preserve the maximum possible number of trees in the course of development of a site, to protect older specimen trees and to encourage careful site design and grading to promote the preservation of existing trees. Section 202-6	Should include more on woodlands not associated with farmland and more about forest habitat.

10. Resource Protection & Supporting Regulations/Plans	Conforms to RMP	Land Use Plan	Conservation Plan	NRI/ERI	Ordinance Regulations	Comments
h. Agricultural/Right to Farm	YES		<p>Sprawling farms, rolling hills, woodlands, open green areas, and pristine stream corridors represent the many varieties of open space which exist in the Borough. These open space properties, balanced with existing land uses, combine to give the Borough a rich, rural character, not only reflecting the locale's history but also adding to the quality of life enjoyed by its residents.</p>		<p>Support for commercial and home agricultural pursuits; a positive agricultural business climate; protection against municipal regulations and private nuisance suits. Retain ag activities to ensure social, environmental and economic benefits, including preservation of open space, atmospheric habitat, preservation of land as a nonreplenishable resource and as a source for ag products. Protect and maintain the aesthetic beauty of the countryside and rural character of the community which includes farm architecture and scenic variety. Chapter 35 establishes an Open Space, Recreation, Farmland and Historic Preservation Committee - oversees and recommends parcels for preservation.</p>	<p>Intent and language of the ordinance is in line with the RMP</p>
i. Open Space Monitoring/Stewardship	Partial		<p>Open space conservation planning should be utilized to preserve the character of Mendham Borough, preserve open space, and protect critical environmental areas. Open space should also promote the protection of biological diversity through the maintenance of large contiguous tracts and corridors of forest.</p>		<p>The ordinance defines Open Space, Public Open Space and Common Open Space in the Subdivision of Land section. The definitions also link open space to Planned Residential Clusters and to Public Areas. Section 215-14 Village Cluster Option cites open space as a principal use. Subsection J cites Common Open Space as not less than 40% of the gross acreage of a tract as reduced by any dedications to the Borough shall be reserved for permanent common open space; not more than 20% of the permanent common open space on site shall be reserved for use for active recreation activities, including but not limited to playgrounds, playfields, tot-lots, tennis courts, swimming pools and other active recreation pursuits of similar type and intensity. Chapter 35 also establishes an Open Space, Recreation, Farmland and Historic Preservation Committee whose task it is to oversee and recommend parcels for preservation.</p>	<p>Should say more about protecting natural open spaces not associated with a residential area.</p>
j. Critical Habitat	NO		<p>Habitat areas in Mendham Borough are supported by Flood Prone Areas, open spaces, woodland area, water sources, and wetlands areas. Protection of these areas will help to protect the critical habitat.</p>		<p>Section 195-32 lists drainage and conservation easements as areas that protect critical habitat and prohibits activity that would disturb these areas. Habitat is mentioned throughout the design standards section of the ordinance, but not in the context of critical wildlife habitat.</p>	<p>Ordinance does not talk about protection of open space, riparian areas, farmland, or woodlands for protection of critical habitats.</p>
k. Lake Management	N/A	N/A	N/A	N/A	N/A	N/A

10. Resource Protection & Supporting Regulations/Plans	Conforms to RMP	Land Use Plan	Conservation Plan	NRI/ERI	Ordinance Regulations	Comments
I. Low Impact Development	NO	Village Cluster Option mentions limited impact "on the area", but it is not defined as to what that means in terms of construction on a site.	The Borough has a stormwater pollution prevention plan (SPPP) which describes the ongoing activities required to comply with its NJPDES stormwater permit. Stormwater improvements implemented under the Borough's stormwater pollution prevention plan will reduce non-point discharges. However, increasing land development will continue to increase both point and non-point pollution into our streams. The Borough should consider stricter limits of septic disposal field setbacks and on distances between septic disposal fields and wells.		Village Cluster Option mentions limited impact "on the area", but it is not defined as to what that means in terms of construction on a site.	The Stormwater section especially should mention low impact development to reduce the potential for soil erosion and sedimentation.
m. Historic, Cultural, & Scenic	YES	A special land use category for a Village Center Cluster option is intended to encourage flexibility, economy, and environmental protection in layout and design, to implement cluster development planning within the Borough, to reflect its historic patterns, and to permit a variety of housing types and lot sizes. The Borough's Historic Business Area is centered on the intersection of Main Street and Hilltop Road/Mountain Avenue. The area extends generally from Orchard Street on the east to New Street on the west.	The Borough should provide standards for landscaping suitable to promote the scenic appeal of roads as well as an approved plant list.		Section 215-51 establishes an Historic Preservation Commission. Section 215-18 establishes Development Standards for Historic Buildings. Chapter 27 is devoted to the Historic Preservation Commission which defines Historic District, Landmark, and Commission. Chapter 35 also establishes an Open Space, Recreation, Farmland and Historic Preservation Committee whose task it is to oversee and recommend parcels for preservation.	A commission and committee have been established and development standards are also in place that are in line with the RMP.
11. Discretionary Items, List						

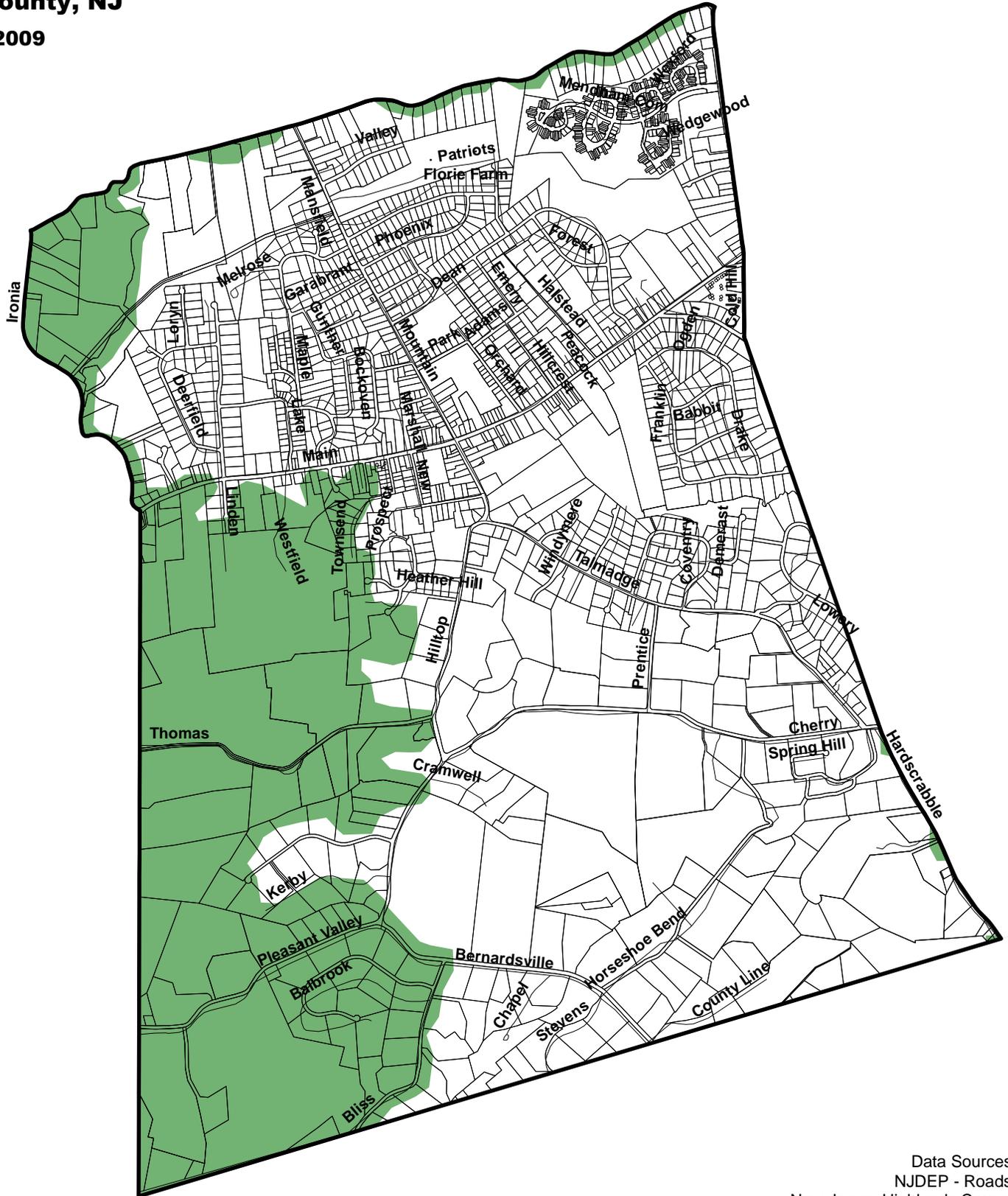
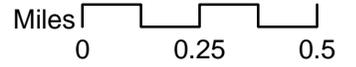
# Highlands Regional Master Plan

## Forest Resource Area

Mendham Borough

Morris County, NJ

February 2009



Data Sources:  
NJDEP - Roads  
New Jersey Highlands Council

### Legend



Forest Resource Area

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

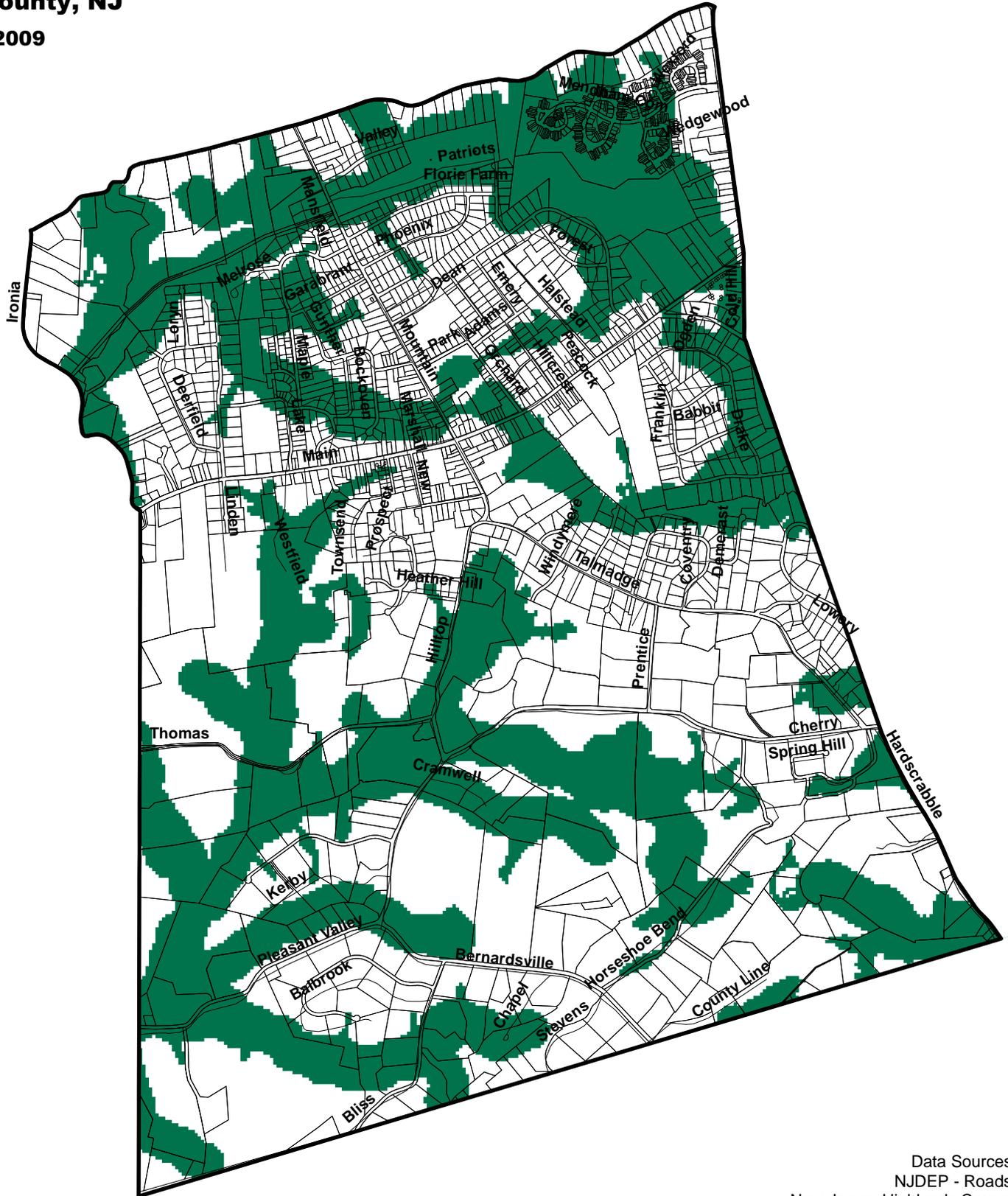
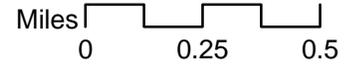
# Highlands Regional Master Plan

## Riparian Area

Mendham Borough

Morris County, NJ

February 2009



Data Sources:  
NJDEP - Roads  
New Jersey Highlands Council

### Legend



Riparian Area

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

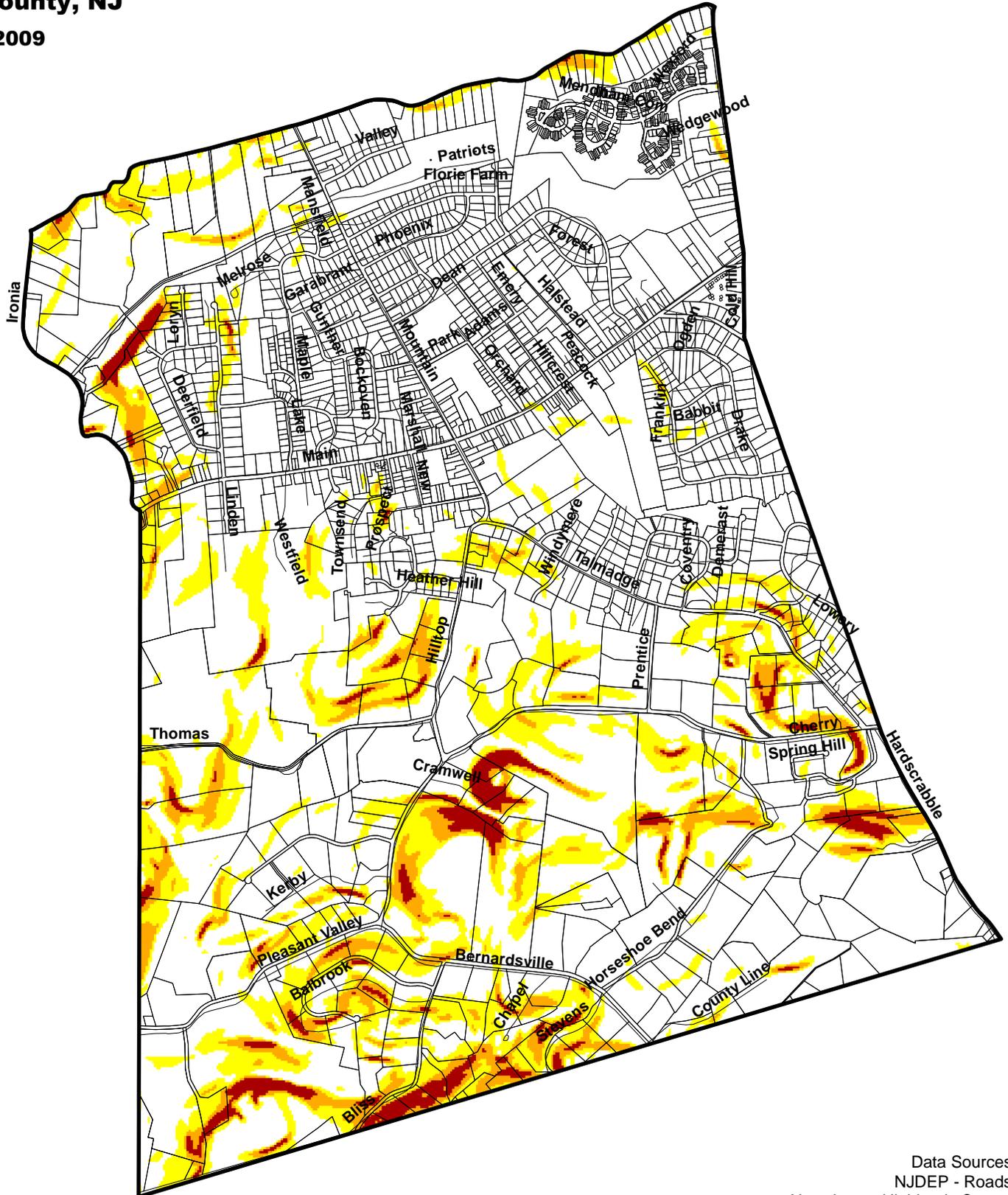
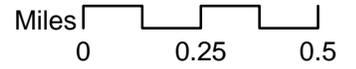
# Highlands Regional Master Plan

## Steep Slope Protection Area

Mendham Borough

Morris County, NJ

February 2009



Data Sources:  
NJDEP - Roads  
New Jersey Highlands Council

### Legend

-  Slopes less than 10%
-  Slopes 10% to 15%
-  Slopes 15% to 20%
-  Slopes greater than 20%

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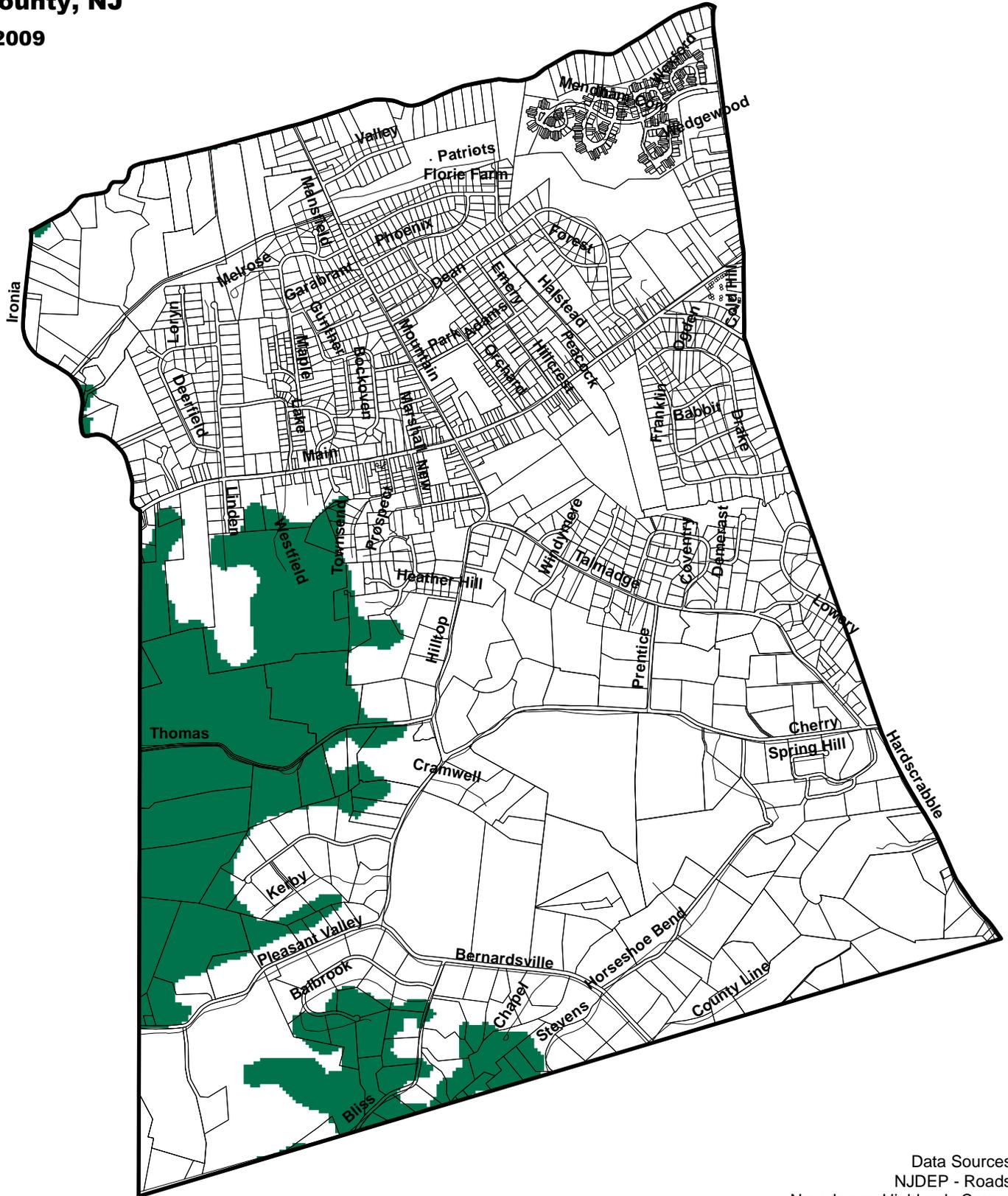
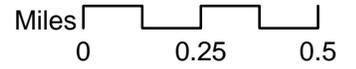
# Highlands Regional Master Plan

## Critical Wildlife Habitat

Mendham Borough

Morris County, NJ

February 2009



Data Sources:  
NJDEP - Roads  
New Jersey Highlands Council

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**Legend**  
 Critical Wildlife Habitat

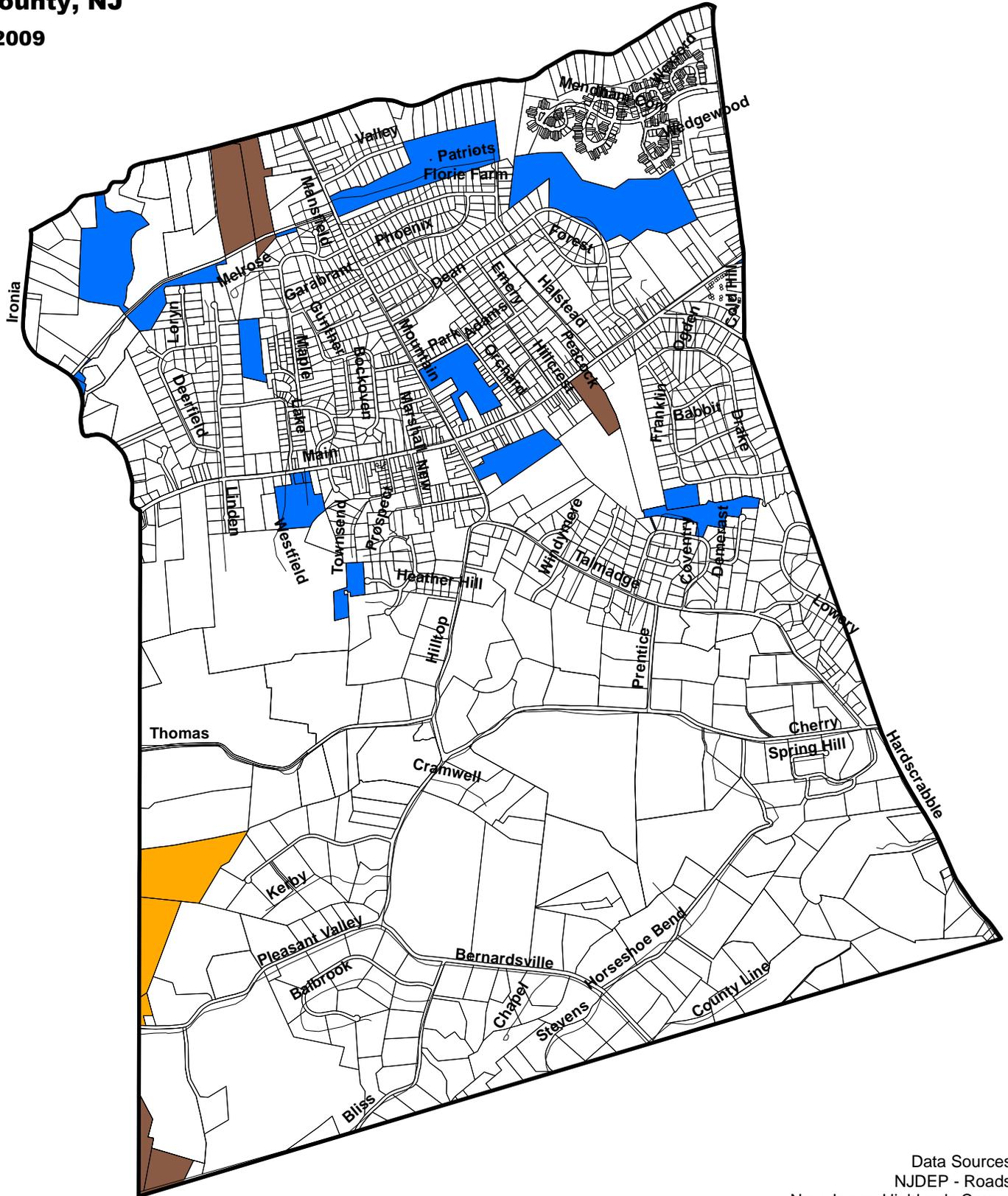
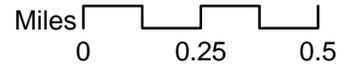
# Highlands Regional Master Plan

## Highlands Preserved Lands

Mendham Borough

Morris County, NJ

February 2009



Data Sources:  
NJDEP - Roads  
New Jersey Highlands Council

### Legend

-  Preserved Farmland
-  Municipal Open Space
-  Non-Profit/Private Open Space

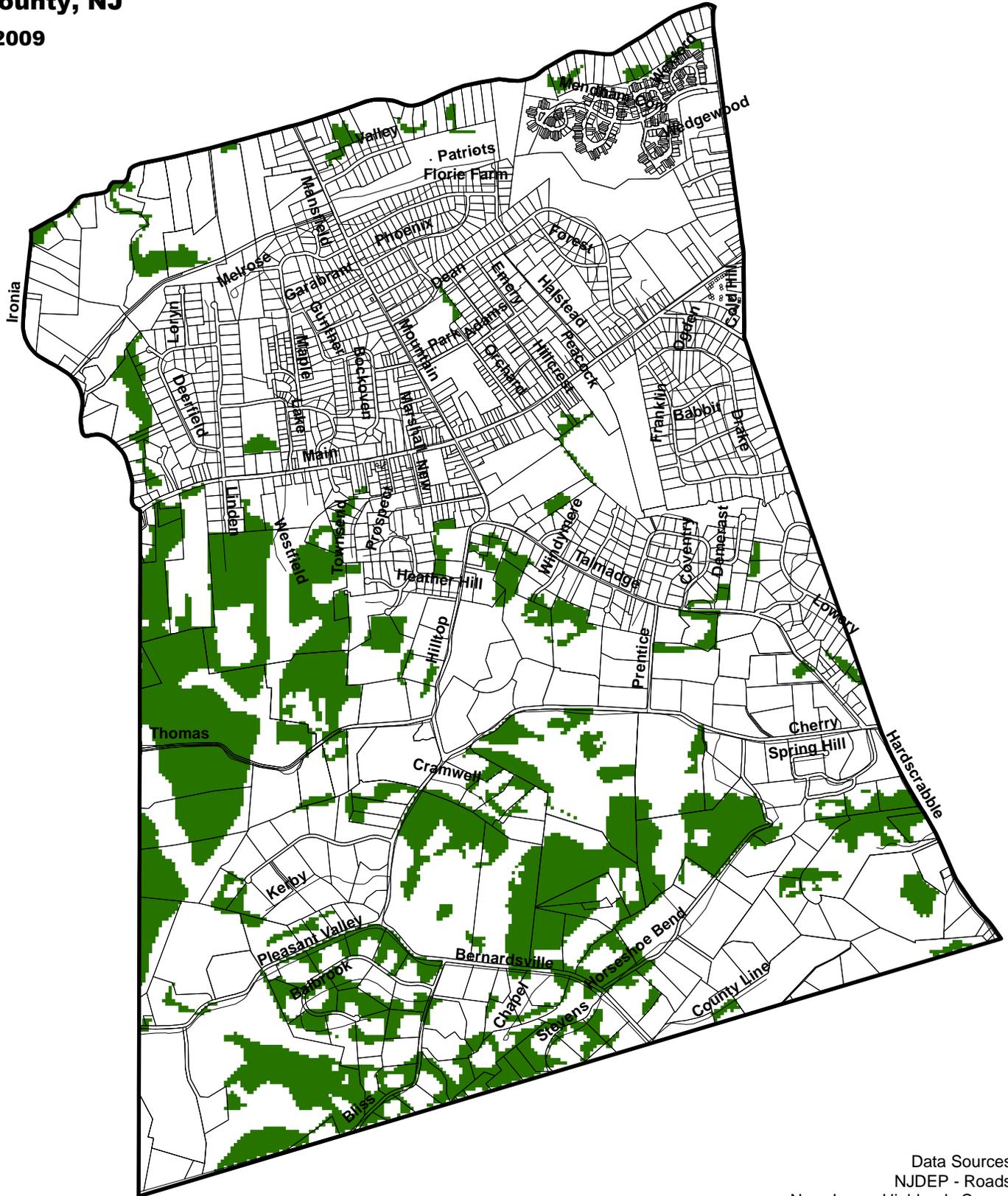
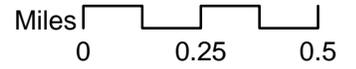
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# Highlands Regional Master Plan Prime Groundwater Recharge Area

Mendham Borough  
Morris County, NJ

February 2009



Data Sources:  
NJDEP - Roads  
New Jersey Highlands Council

**Legend**



Prime Groundwater Recharge Areas

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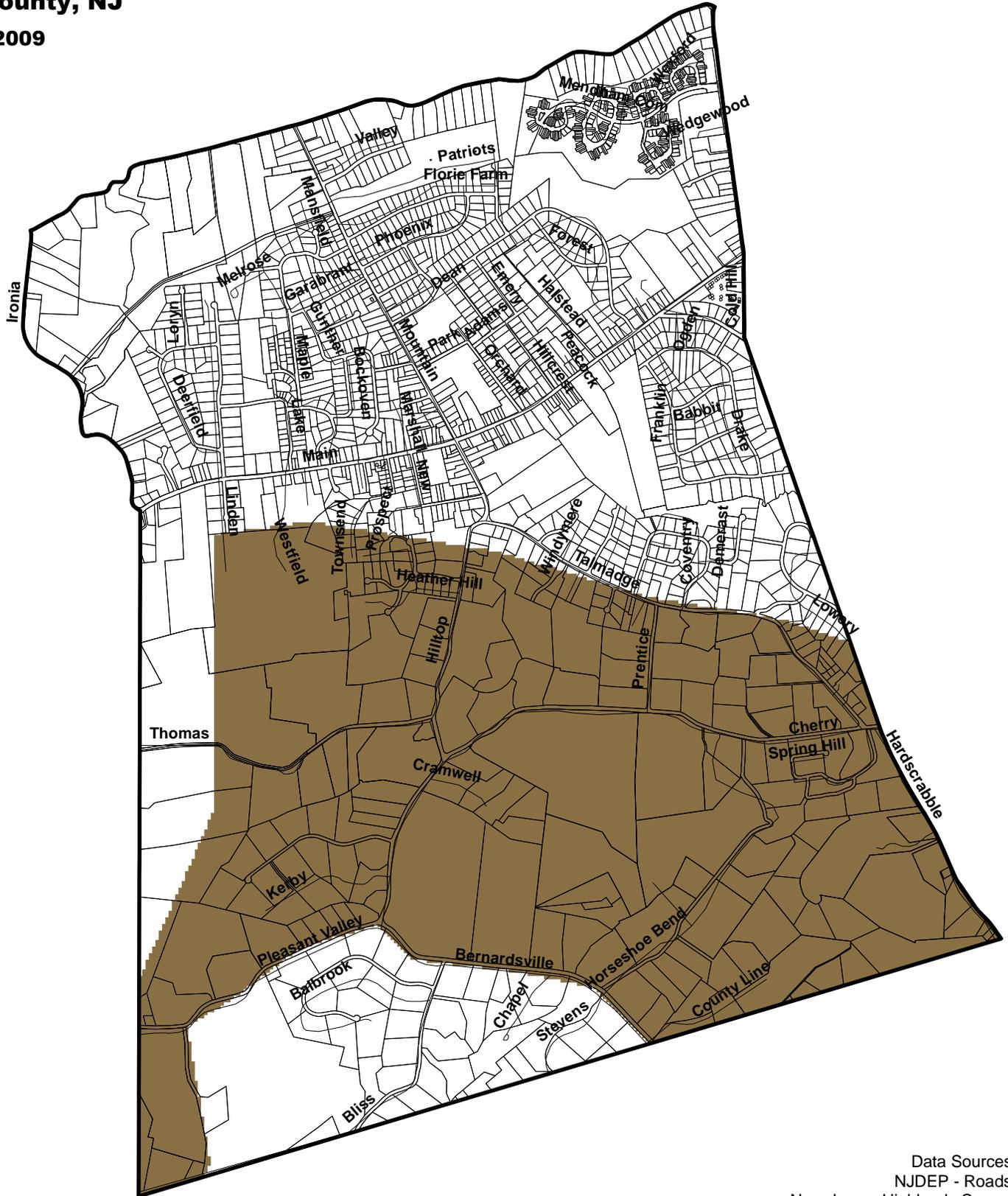
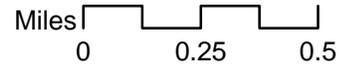
# Highlands Regional Master Plan

## Agricultural Resource Area

Mendham Borough

Morris County, NJ

February 2009



Data Sources:  
NJDEP - Roads  
New Jersey Highlands Council

### Legend



Agricultural Resource Area

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