

Borough of Far Hills

Somerset County, New Jersey



Master Plan

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Master Plan

Borough of Far Hills Somerset County, New Jersey

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Introduction

A Master Plan describes a community's vision for its future. It takes into account the degree to which permitted development will impact the landscape and natural and man-made systems and helps to maintain the quality of life in the community over time. Two principal concerns have shaped the development of the Borough's Master Plan. One is preservation of the rural countryside as an essential part of the Borough, which has largely been achieved through the careful management of development, especially in environmentally sensitive areas. Accordingly, steep slopes, stream corridor, and wetlands regulations have been enacted and large lot zoning patterns have been designed to minimize the adverse impacts of residential development on the environment and adjoining properties. The second concern is maintaining and preserving the quality of life in the Village and protecting its neighborly, small-town character as an integral element of life in the Borough. Together, these two concerns have guided the land use policies that have served to maintain an exceptional quality of life and unique ambiance that Far Hills residents have known and enjoyed for generations.

Preservation of the rural countryside... maintaining and preserving the quality of life in the Village...protecting neighborly, small-town character as an integral element of life in the Borough.

This Plan maintains the policy orientation of prior Master Plans, but refines local policies in order to better address evolving conditions and concerns. It updates the goals, objectives and intent of the Plan, and suggests new planning initiatives to achieve the Borough's objectives. The recommendations of the 2000 Reexamination Report are also reflected in this Master Plan.

Far Hills has long been a leader in protecting the environmentally sensitive countryside areas. Indeed, Far Hills Borough was among the first municipalities to limit the intensity of land use in response to environmental considerations. The Borough has not encouraged commerce and industry to locate in the Borough, nor has it developed an infrastructure that would attract such non-residential land uses. Rather, the Borough's planning strategies have been aimed at preserving the countryside and Village with few changes.

This Master Plan reinforces the Borough's vision and identifies additional regulatory strategies to better protect the environmentally sensitive countryside and maintain the quality of life in the Borough. These local policies have resulted in the designation of a "Village Center" under the State Development and Redevelopment Plan and endorsement of the Borough's countryside "Environs" planning strategies

A fundamental assumption of Far Hills planning program has been that the Borough's predominant 10 acre zoning, coupled with the difficult physical conditions and environmental constraints of the countryside, would protect the rural characteristics and environmental resources of the Borough and serve to limit major development. This approach has proven effective over time, and the Borough's policies and strategies in

furtherance of its vision have advanced the preservation of its landscape and natural resources.

Regional growth pressures and high desirability have resulted in a sustained high demand for housing throughout the Borough. Substantial residential and non-residential growth in adjoining municipalities and throughout the region since the Borough's last Master Plan in 1988 has resulted in perceptible changes in the quality of life in the Borough, primarily in increased demand for local services and increased traffic volumes on State and County highways and local roads. While the Borough cannot control growth and development beyond its borders, local planning and land use policies can be designed to protect the rural, small town character of the community.

As the supply of easily developable land in the Borough diminishes, pressure is being placed on more environmentally constrained areas and remaining farmland, open space and steep slope areas. The same attributes which the Borough seeks to protect - its scenic quality, natural resources, village neighborhood and agricultural lands - are the features that can attract new development that would forever alter the landscape if appropriate controls are not maintained. Thus, the Master Plan has reexamined and reaffirmed its planning policies and principles, and advances more proactive methods, including regulatory and acquisition approaches, to retain open areas and protect the environmentally sensitive countryside.

Goals and Objectives

The master plan is a statement of the desired evolution of a community and its contents should be guided by its goals. The goals and objectives, and the means by which they may be achieved, are also guided by the available resources and constraints present in the natural and built environments. The planning process is the method by which the vision and the goals and objectives contained in a plan are realized over time. Effective Land use planning is the primary means by which the comprehensive plan will be implemented. It seeks more than mere compatibility of uses in a spatial arrangement, which is functionally efficient. Planning is the process that provides the tools to fulfill the community's vision of its future.

The planning process utilized by Far Hills to create the 1988 Master Plan included participation by a Citizens Advisory Committee and involved two opinion surveys, one of all households and one of businesses. These activities offered all segments of the Borough input into the goals that guide the comprehensive plan and the zoning ordinance. The active involvement by the public also gave planners detailed information and insights into the opportunities and constraints in the Borough and helped to shape the plan.

The goals and objectives of the 1988 Master Plan for the Borough of Far Hills are still relevant and applicable in 2002. They have been reviewed and affirmed by the Planning Board and continue to reflect the general sentiment of the community. As certain elements of the community have changed, however, the Board has felt the need to update the goals and objectives to encompass and address those changes.

Master Plan Goals and Objectives

Protect and maintain the existing variety of residential housing opportunities and the historic land use patterns in the Borough.

- a. Preserve, protect and enhance the community's existing character.
- b. Maintain the existing balance of residential and non-residential uses in the Village.
- c. Encourage the construction and modification of aesthetically pleasing and efficient structures and modifications of structures.
- d. Maintain and enhance the Village area as the cultural, commercial and service hub of Far Hills.
- e. Provide for a range of retail and service activities in the Village at a scale designed to meet the everyday needs of the residents of Far Hills.
- f. Continue to provide a range of community services that meets the needs of the Borough.
- g. Manage growth to protect the village character and prevent the overloading of the regional infrastructure.

Protect the natural resources and cultural assets of the Borough.

- a. Identify and encourage the protection of architecturally and historically significant structures and districts.
- b. Provide for population densities that respect the capacities of natural systems and man-made infrastructure capabilities, and protect the local and regional quality of life.
- c. Preserve, protect and improve the ecological integrity and balance of the sensitive headwaters of the North Branch of the Raritan and Passaic Rivers.
- d. Protect and maintain wildlife and plant habitats.
- e. Protect and preserve scenic vistas.
- f. Protect against local and downstream flooding.
- g. Protect the local, regional and state water supply and quality.
- h. Enhance the supply of recreational opportunities and facilities available for use by residents of Far Hills.

Preserve and promote opportunities for agricultural and horticultural activities in the Borough.

- a. Encourage maintenance of existing agricultural and horticultural activities and practices.
- b. Encourage the preservation of areas of prime agricultural soils for continued agricultural use.
- c. Encourage the expansion of agricultural and horticultural activities on large parcels in the Borough in ways that maintain the existing quality of the natural environment.
- d. Identify and promote the right to farm as a local policy and through appropriate regulations.

Provide for adequate housing to meet local needs and regional obligations.

- a. Encourage the rehabilitation of housing units that may be now, or may become, substandard, especially to provide new affordable housing opportunities.
- b. Promote policies encouraging new housing construction that limit any negative impact on community character.

Goals of the Enabling Legislation

Local power to regulate land use comes from the Municipal Land Use Law (NJSA 40:55D-1 et. seq.). These powers are provided to municipalities to foster the following purposes:

- a. To encourage municipal action to guide the appropriate use of development of all lands in this State, in a manner which will promote the public health, safety, morals and general welfare;
- b. To secure safety from fire, flood, panic and other natural and manmade disasters;
- c. To provide adequate light, air and open space;
- d. To ensure that the development of individual municipalities does not conflict with the development and general welfare of neighboring municipalities, the county and the State as a whole;
- e. To promote the establishment of appropriate population densities and concentrations that will contribute to the well-being of persons,

neighborhoods, communities and regions and preservation of the environment;

- f. To encourage the appropriate and efficient expenditure of public funds by the coordination of public development with land use policies;
- g. To provide sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial and industrial uses and open space, both public and private, according to their respective environmental requirements in order to meet the needs of all New Jersey citizens;
- h. To encourage the location and design of transportation routes which will promote the free flow of traffic while discouraging location of such facilities and routes which result in congestion or blight;
- i. To promote a desirable visual environment through creative development techniques and good civic design and arrangements;
- j. To promote the conservation of historic sites and districts, open space, energy resources and valuable natural resources in the State and to prevent urban sprawl and degradation of the environment through improper use of land;
- k. To encourage planned unit developments which incorporate the best features of design and relate the type, design and layout of residential, commercial, industrial and recreational development of the particular site;
- l. To encourage senior citizen community housing construction;
- m. To encourage coordination of the various public and private procedures and activities shaping land development with a view of lessening the cost of such development and to the more efficient use of land; and
- n. To promote the utilization of renewable energy sources.
- o. To promote the maximum practicable recovery and recycling of recyclable materials from municipal solid waste through the use of planning practices designed to incorporate the State Recycling Plan goals and to compliment municipal recycling program.

Borough of Far Hills Master Plan - Introduction

The function of this Master Plan is to provide an overall framework for determining the future use and management of lands lying within the Borough of Far Hills. The framework is comprised of a set of planning policy recommendations, general guidelines, regulatory approaches, and general performance strategies. These policies reflect and amplify the Master Plan goals and objectives, and a thorough analysis of the existing conditions of the man-made and natural environment and the Municipal Land Use Law.

The areas directly or indirectly influenced by the Plan address the full range of opportunities open to a municipality in New Jersey. These include land use regulation, zoning, provision of infrastructure, capital budgeting and capital improvements, promulgation of performance standards, and provision of local services.

The policies and strategies identified in the Master Plan form the basis for zoning, as estimated in Far Hills' Land Management Ordinance (LMO). While the Master Plan may propose a certain density of residential development in a particular area of the Borough, the LMO will provide the detailed regulatory framework for achieving this development goal. Thus, the more general contents of the Master Plan are complemented by the specific regulations concerning permitted uses, detailed performance and design standards, criteria for determining whether a proposed land use is in compliance, and the procedure for reviewing development proposals.

Presented in the sections below are the planning proposals for the following elements of the Comprehensive Plan: Land Use, Conservation, Housing Element and Fair Share Plan, Utilities, Community Services, Recreation, Circulation, Economic Development, and Historic Preservation.

LAND USE PLAN ELEMENT

The Village

The Village area of Far Hills has long functioned as a combined residential-commercial-retail center for the surrounding Borough. The ambiance and vitality of the Village as a desirable residential area has been retained even while it has contained a number of commercial and retail establishments. The type, intensity, and proportion of non-residential uses in the Village have been confined to the periphery and not grown to a point where the quality of life in the Village has been adversely affected. However, the Village's location along regional transportation linkages including Route 202, Peapack Road (CR 512) and the railroad has served to amplify the impacts of regional growth within the Somerset Hills area on Village residents, particularly in the form of increased traffic volumes during peak hour commuting times.



These transportation corridors through the Village have yielded subtle changes to Village life over time, and will continue to impact the quality of life and level of activity in the Village as the region continues to grow. These changes are likely to include increased peak hour delays at highway intersections, increased cut-through traffic through Village neighborhoods and heightened parking shortages if commuter rail parking proves inadequate in the future.

An understanding of the Village's main functions is essential to developing effective land use policies and programs. The Village in Far Hills currently:

- Offers a high quality, relatively affordable supply of single-family residential housing at relatively high densities. The diversity of the housing opportunity in the Village provides a wide range of choice for both purchase and rental units and for age-restricted and non-age restricted market-rate and affordable housing.
- Serves as a small, specialty retail center for the surrounding region.
- Serves as a destination point for regional rail users who commute to the metropolitan area for employment.
- Is located on or adjacent to regional roadways that carry through the Village an ever-increasing amount of intra-regional traffic going to or from major area employment centers.
- Serves as the nucleus of the Borough, where community services and recreation are provided.

The form and substance of the land use pattern in the Village has evolved over the past century. The fabric of the Village has retained its vitality and diversity as a place to live notwithstanding the increasing commercialism along Route 202, Peapack Road and

DeMun Place. It provides a unifying core around which the cultural, social, and commercial activities of Far Hills' residents are organized. In addition, the Fairgrounds provide a recreational/open space opportunity for the Borough and the surrounding region.

All of the factors that contribute to the Village environment led the Borough to seek designation as a Village Center under the New Jersey State Development and Redevelopment Plan (SDRP). The SDRP provides policy guidance to New



Jersey communities and governments related to new development and infrastructure support. The Borough seeks to focus a limited amount of future growth into areas where infrastructure exists to support it, and where it can be guided away from undeveloped lands, known as “environs”. Far Hills SDRP designation as a Village Center corresponds to the definition of a center under the State Plan, which describes a center as “a compact form of development with one or more cores and residential neighborhoods.”¹ The Village consists of a core of commercial and service oriented uses (area of Route 202 and DeMun Place) surrounded by a higher density of residential uses.

As part of the designation as a Village Center, the Borough developed a set of goals and strategies to foster the traditional elements that made the Village what it is today. Known as the Planning Implementation Agenda (PIA), these activities outline an agenda for achieving objectives related to specific goals that foster the continuation of the center environment. The PIA is outlined in Table 1 (page 87).

Through the State Plan process, the Borough defined the geographic boundaries of the Village. The Schley Road area is an adjunct to the Village, providing for residential uses on somewhat larger lots than commonly found in the Village. The Polo Club represents an extension of the Village and provides housing types and opportunities not currently available elsewhere in the Borough. Its form differs significantly, however, from the urban form that has preceded it.

The issue of expanding residential and commercial uses in the Village core has received a great deal of attention during the planning process. The citizens of Far Hills have indicated that new commercial centers in the Borough, or significant expansion of the Village commercial area, are not desirable. The Village serves as a destination point for

¹ The New Jersey State Development and Redevelopment Plan, New Jersey State Planning Commission, March 1, 2001, Appendices, Page 319.

the surrounding area, and a new commercial area or expanded commercial core area would only invite additional congestion to the detriment of the existing residential neighborhoods. However it may be appropriate to provide additional use options within the Village in the face of changing economic circumstances.

Given the developed nature of the Village's commercial area and the relatively small area that it occupies, use and performance standards will shape the form that the commercial area takes. In an area such as this, with its strong historical antecedents, special attention must be given to urban design elements, in order to enhance the visual continuity and attractiveness that currently exists. Future development should be designed to reinforce the scale and architecture of development of the Village and avoid the introduction of inconsistent elements.

The residential portion of the Village has maintained a relatively stable style and character from its inception to modern day, with the exception of the 123-unit Polo Club development (98-market rate units and 25-affordable units) and modest infill growth that has occurred since 1988. The commercial intrusions have occurred at the periphery of the Village, and the primary alterations to the residential core have been limited to several new dwellings or changes from strictly single-family uses to two-family dwellings in a few instances. This stability has contributed to the desirability of the Village as a residential area. Complete descriptions of the Village's history and function are contained in Anne O'Brien's "A History of Far Hills and an Inventory of the Cultural Resources of the Borough" and are summarized in the Historic Preservation Plan Element included in this Master Plan.

Given the wastewater treatment constraints that will ultimately limit growth in the Village, a careful analysis of future needs is important to the planning process for the Village. The Borough should retain sufficient space within the Village to accommodate future affordable housing obligations that will be assigned to the Borough. Allowing unrestricted commercial and residential development to intrude on the Village residential area would invite a drastic alteration of the Village's character, and could preclude the Borough from addressing future affordable housing obligations within the Village, which is the most appropriate location for this housing type.

An alternative means of maintaining the homes in single-family use is to permit limited home businesses restricted to use by the residents. While the concept of working at home has become increasingly popular due to the shift towards a service economy and vastly improved communications technology, the fabric of a densely settled residential area like the Village can be undone if such opportunities are not conducted in conformance with strict performance standards.

The Environs

The portion of Far Hills lying outside the Village area consists of very low-density residential development on large parcels with accompanying agricultural, horticultural, or

woodlot uses. The existing land use and the land cover for the Countryside are presented in Figure A-15. Lot sizes are generally greater than 10 acres, and there are a number of parcels with areas exceeding 30 acres. Many of these parcels were settled and developed in the early part of this century by wealthy landowners who constructed very large residences, best characterized as estates or mansions. The agricultural origins of many of these estates produced a number of accessory structures (e.g. barns, employee quarters, gatehouses, etc.) that may be convertible to other uses, provided that the Borough's use and zoning density regulations are maintained.

The agricultural uses in Far Hills have not historically included intensive field crop due primarily to the Borough's topography. This has meant that much of the Borough has remained at least partially wooded, which has enhanced its desirability as a residential location while helping to maintain ecological function and the high quality of the existing environment. The topography and the presence of a number of small steep stream valleys, including the North Branch of the Raritan River, have a very scenic environment, as captured in the name "Far Hills".

The agriculture present in Far Hills today is generally associated with "lifestyle" farming as opposed to commercial agricultural production for profit. Pasture is the most prevalent part of the agricultural landscape and a defining element of the equestrian lifestyle of residents in certain parts of the Borough. These grasslands help to define the community character of Far Hills and also play an important role as habitat for migrating and nesting birds.



The physiographic aspects of the Far Hills environment and the related soil conditions present extremely limiting conditions for community development. Just as field crop agriculture never achieved a foothold under these conditions, residential development has been restricted due to the inherent environmental limitations and settlement patterns.

New Jersey has a long agricultural tradition, exemplified in the nickname of the "Garden State". A good "rule of thumb" when viewing the New Jersey landscape is that if it isn't farmed, it's too steep, too wet, or the soils are barren. On a microscopic scale, Far Hills reflects this tenet. The land use pattern that has emerged in the Far Hills countryside is as much a matter of necessity as one of choice. Soil limitations, the absence of sewers, and the limited water supply found throughout most of the Borough have limited the impacts of regional trends toward suburban development in Far Hills.

These factors, combined with the historical low intensity of land use have established the sparse residential development pattern that prevails today. While the region surrounding Far Hills has experienced dramatic growth over the past two decades, as industries and employment centers have



followed transportation routes and residential growth in the region has transformed the landscape, Far Hills has remained a desirable rural residential community amid the intense growth occurring around it. At the same time, Far Hills' approval of the Polo Club, a 123 unit inclusionary affordable housing development expanded the village area to satisfy the Borough's low- and moderate-income housing obligation.

As development pressure has increased and vacant land has become increasingly scarce, the pressure to develop marginal lands has become more intense. The price of land escalates under these conditions, even though the land may be less developable than that which has previously been used. Landowners frequently develop expectations of a larger economic payoff despite the inherent limitations of the land which they own. These forces put pressure on the planning process to respond to the economic expectations when, in fact, such expectations may run counter to sound planning principles. The phenomenon of developing marginal land has become especially prevalent in modern times, where technology has advanced to the point where septic systems can be placed in poor soils through the use of soil replacement and mound septic systems. These circumstances suggest that the Borough's land management programs for critical areas should be enhanced and expanded to ensure that marginal lands and environmentally sensitive areas are effectively protected from the impacts of development.

As amply demonstrated in the conservation plan, Far Hills occupies a sensitive natural environment. Steep slopes, shallow bedrock, poor soil conditions, poor drainage, limited water availability, heavy reliance on groundwater supplies and septic systems, and high quality surface waters fed by groundwater all contribute to the limited development capability found throughout most of the Borough. Additionally, the principal stream system, [the main surface water body in the Borough] the North Branch of the Raritan River, and its water quality, is of significant regional importance. However, this does not imply that the Borough is homogeneous. Certain areas present opportunities to accommodate greater intensities of development than do others and current zoning strategies reflect these relative limitations. Contributing to this differentiation are not only the natural factors listed above but also the man-made infrastructure and services that are provided through public action and expense.

As noted above, the large lot pattern that has evolved in the countryside of Far Hills, and

the time period during which the initial development took place, has produced a number of estate-type dwellings in the countryside. While these buildings, and their accessory structures, are frequently difficult and costly to maintain, residential conversions of these existing structures could be useful in maintaining these buildings, provided that density standards are maintained and other Borough goals are achieved.

While the density and use provisions that have been implemented by the Borough are important components in shaping future land use patterns, equally important are management and performance standards, which guide the manner in which activities are conducted. Just as performance standards for lot coverage, buffering, screening, and landscaping can preserve the Village environment, management standards can also contribute to the maintenance of a quality living environment in the countryside. Given the type of land uses that can be anticipated in the countryside as opposed to the Village, the performance / management standards will vary by use and area.

Management standards recommended for the countryside will serve to protect wetlands, water quality, stream corridors, steep slopes, habitats of threatened and endangered plants and animals, soil removal and fill, scenic resources, ridgelines, historic, archaeological, and cultural resources, forestry, agriculture, recreation, and housing.

Land Use Planning Proposals

The Land Use Plan is shown on Figure 1, with the Village detail shown on Figure 1 Inset. Village and Environs zoning strategies are consistent with the SDRP Center designation and PA-5 Environmentally Sensitive Planning Area designation for the Borough as shown on Figure 2.

The following recommendations address the policies, programs and general standards that should be enacted and implemented by the Borough of Far Hills in order to achieve the land use goals, resolve land use issues presented previously and effectively coordinate the Planning Implementation Agenda for the Village area. The proposals are subdivided into the categories of Village and countryside. Other Plan components affected by these recommendations are noted.

The Village

The commercial portion of the Village should not be expanded beyond the area currently zoned for commercial and retail uses, other than to incorporate the commercial uses south of Railroad Avenue. The Land Use Plan for the Village is presented in Figure 1 Inset and shows the boundaries of the commercial area. The construction of three residential dwellings along Railroad Avenue between Dumont Road and Prospect Street in the commercial zone, permitted by variance, warrant rezoning to place these residences in the residential zone.

St. Elizabeth's church and rectory at Peapack Road and Railroad Avenue provide an effective and appropriate terminus for non-residential uses. Including the existing

commercial uses in the Neighborhood Office zone will limit the need for future variances. Further expansion of the non-residential portion of the Village, however, would adversely affect the current residential character and desirability of the Village.

Home businesses can be an effective way to accommodate non-residential use in the Village provided such uses do not adversely affect residential character. Some home businesses can have a substantial adverse impact on adjacent residential uses by promoting increased traffic, increased parking, greater lot coverage, and structural change. The goal is to maintain the residential character of the neighborhood to the maximum extent possible by preserving the physical character of the lots and dwelling units. Home occupations may be permitted as a conditional use so that the Planning Board has an opportunity to evaluate the proposed use against a set of standards designed to maintain the residential character of the area.

Excessive bulk and density of structures in the Village results in a loss of green space, and adversely affects the character of the Village (i.e., it appears more dense and urban in visual character). It also reduces the permeable surface, thereby increasing the potential for localized flooding. The Borough has implemented a series of performance standards for residential and commercial uses in order to effectively protect the Village environment from over-development. These standards cover such areas as lot coverage by principal and accessory buildings, total lot coverage, screening, landscaping, buffers, and architectural design and have proven effective since their adoption in 1989.

The business survey identified the lack of available parking as a constraint by the Borough's merchants. Because of the limited geographic extent of the Village, however, the availability of additional parking areas is limited. This situation requires careful management of on-street parking and the municipal parking lot. The Borough recently enacted an ordinance establishing 4-hour time limits for on-street parking, to prevent commuters from avoiding parking fees at the railroad station lot by parking on Village streets during the day. The effectiveness of this ordinance has been closely monitored and appears to be achieving its goal. The Borough should also consider increasing the parking requirements for new commercial uses to assure that adequate off-street parking is provided, while at the same time maintaining limits on permitted lot coverage and requiring rigorous landscaping and buffering standards.

Other components of the infrastructure and utility services in the Village are the availability of water and sewer. The extension of these services to the Polo Club has expanded the systems beyond the historical limits of the Village and Schley Road areas. The Borough's reserve margin of available wastewater treatment capacity with EDC will enable Far Hills to respond to mandated growth levels associated with the provision of affordable housing. These factors are discussed further in the next section and the Utility Services Plan; the factors are also being reviewed as part of the Borough's Wastewater Management Plan.

Conversion of homes into apartments may commit them to remaining as apartments due to the cost for future purchasers to reconvert them into exclusively single-family uses.

Conversion of dwelling units in the Village residential district into apartments would also compromise the village as a desirable family neighborhood, leading to absentee ownership and frequently a reduction in maintenance. However, there are some dwellings on lots of 9,000 square feet or greater in the Village where conversion to permit a small apartment would not significantly affect the residential character of the area, if permitted by the Planning Board under a strict set of conditions and standards.



A primary objective is to protect the unique character and quality of the Village environment and, preserve the historic development pattern and scale of Village neighborhoods.

A primary objective of this Land Use Plan is to maintain the character of the Village and to protect the unique character and quality of the

Village environment. Appropriate controls are needed to preserve the historic development pattern and scale of Village neighborhoods. One concern relates to the “tear-down” syndrome where smaller, older homes are replaced with larger new homes that may be out of scale with existing development in the Village. This can also be problematical if multiple small lots are combined for redevelopment with a larger structure. The following is a brief summary of some regulatory techniques that can address this concern, either separately or in combination.

Floor Area Ratio (FAR) - This technique limits the floor area permitted on a lot, and measures the sum of all floors of all buildings as a ratio of the lot area. Floor area ratio is a regulatory control that carries special significance, since only the Zoning Board can approve variances from this standard, and only by a super majority vote. With the joint Planning/Zoning Board in Far Hills, the same body would review an application for relief from FAR standards, however the proofs involved for variance relief are beyond those required for a bulk variance, since FAR relief is treated very differently in the Municipal Land Use Law.

FAR is most frequently used in regulating non-residential land uses, although some municipalities have also used it to regulate residential use. It can be particularly invaluable in preventing the conversion of the character of historic villages by the introduction of large buildings that are out of scale with village form and frequently disregard historic architectural styles. In Far Hills Village, the control could be used to preserve community character and the scale of buildings within neighborhoods, and preserve a range of housing choice by maintaining a relatively affordable housing choice.

Maximum Building Size - Another technique for avoiding the introduction of buildings that are out of scale with their surroundings is a control on overall building size. Where FAR regulates the amount of building that can be on any individual lot, it does not control the size of any individual buildings, but rather the floor area of all buildings on a lot. A maximum building size requirement, conversely, prevents buildings from becoming out of scale with their surroundings, when properly gauged to neighborhood character. (Neighborhood character is generally perceived along a linear processional experience. A drive down the street, observing the size and placement of homes on both sides of the street, reinforces our sense of neighborhood character. Tree lined streets, with tree canopies overarching the roadway and homes, though differentiated in architectural style, similarly placed on the lot and similarly sized epitomize the relationship with neighborhood character that people experience in the Village and the concern for preventing its destruction.)

For example, in the Village where a mean house size may be 2,000-sq. ft., the variation from the mean tends to be fairly narrow, say, 1,700 – 2,300 or 2,400-sq. ft. These neighborhoods are particularly susceptible to intrusive new development or redevelopment, when homes that convey a dominant character are replaced by homes which are substantially larger and very dissimilar in architectural styles.

Mixed-use village areas typically have a fabric which is also susceptible to damage by the removal and replacement of older and smaller buildings with new larger buildings. Yet, in many cases, prevailing zoning standards permit a building envelope, based on setbacks, coverage and other standards, which can accommodate substantially more development than the historic forms. Where older settlement areas tend to be incremental, with a series of smaller buildings combining to create a sense of place, modern architectural and design efficiencies often provoke larger buildings with disparate architectural styles and institutional rather than individual appearances. The use of a maximum building size requirement can help to assure that when the floor area associated with a given area of land is established or modified, that the size of buildings can be reasonably related to the character that exists prior to the new construction. Of course, new construction will of necessity make changes in this character over time. However, this only makes it more important to prevent significant departures from neighborhood character.

Building Placement - Zoning regulations have typically required the placement of buildings within an “envelope” established by the minimum front, side and rear yards. Except for the limitations imposed by floor area or coverage controls, the building

envelope may be “filled up” by the addition of the unused development rights that remain to be acted out. Frequently, desirable residential and mixed-use locations are affected by market forces which make it attractive to alter the prevailing character by capturing the additional development potential. However, it is frequently this real estate investment incentive that destroys or dramatically alters neighborhood character. In residential neighborhoods, where some homes have been built at the minimum front yard setback while others have been set substantially further back, the results can be a “front yard vs. back yard” arrangement. In this setting, one resident’s front door faces another resident’s accessory uses in the rear yard, which include pools, fences, dog runs and the wide variety of on lot recreation which is typical in residential zones. The new urbanist design approach requires that new dwellings be built at a comparable front yard setback, creating a relationship where front yards are fairly consistent across a block and rear yard areas are preserved throughout the neighborhood for those activities more appropriate to rear yards. The mandates of new urbanism attempt to dictate architectural styles and may require porches and specific types of fences or other details. However, the theory underpins design attempts to recreate neighborhood forms which have been found to be desirable and workable in the past. In fact this theory advances these strategies to replicate a sense of place such as that which exists and the Borough seeks to protect in the Village. In the era of increasingly large lots which include flag lots and other arrangements that could result from lot mergers, such as through lots (street to street), juxtapositions of formal and informal spaces will become more common.

Requiring a front yard setback that has both a minimum and maximum requirement can help to address this concern. If the typical front yard setback in the neighborhood is 25’, it may be appropriate to require that dwellings be located no closer than 25’ and no further back than 30’ along their front building line. This establishment of a uniform approach to front yard appearances helps to retain the feeling of neighborhood character. Combining this technique with FAR and maximum building size will effectively limit the placement of structures on a lot so that the predictable, uniform and quaint character of the Village will be protected.

Lot-of-Record Restrictions - One technique for preventing the consolidation of multiple lots and the tearing down of existing buildings ties the use permitted in any specific zone to a lot-of-record. That is, a parcel existing as of a certain date. Restrictions on the use of lots-of-record are intended to prevent the combination of lots into larger parcels for larger development opportunities. While the assembly of parcels is not universally undesirable, it generally has a negative impact on neighborhood character, as it results in fewer buildings of larger size. Use rights associated with a specific lot-of-record can acknowledge the level of existing development with appropriate controls on bulk and intensity, but can also penalize users of land which has been combined with other lots to form a development parcel. Such penalties may limit permitted floor area, total building coverage, total impervious coverage and setbacks, and require landscaping designed to minimize the intrusiveness of new development.

The Environs

The Natural Resource Inventory (NRI), presented in Appendix A of this Plan, demonstrates the similarities and differences that prevail across different parts of the 'Environs' or countryside. All of Far Hills displays some measure of environmental sensitivity, due principally to soil conditions, topography, and water quality. The NRI describes the distribution of the physical and environmental constraints which limit development in much of the countryside portion of Far Hills. These factors combine to suggest that the land uses in these areas should continue the pattern of low density residential, open space, and agriculture / horticulture uses, low density residential uses as the primary permitted land use in the Countryside. The Land Use Plan for the Countryside is presented in Figure 1. There are no proposed commercial zoning districts in the non-Village portion of the Borough, since such uses would conflict with the established residential pattern. Other commercial nodes, such as Peapack-Gladstone, Bernardsville, and Bedminster, exist in close proximity to Far Hills and provide additional nearby shopping opportunities.

The northern and southern parts of the Borough are underlain by geologic formations that have very low water yields and capacity to dilute wastewater from on-site septic systems. The R-10 Districts, with a 10 acre minimum lot area, have high concentrations of steep slopes, which speed the movement of pollutants towards surface water bodies and which increase siltation, erosion, and flooding downstream when developed. These areas are presented in Figure A-14 of the NRI. Soils in both the northern and southern parts of the Borough generally have severe limitations for the location of septic systems and shallow building foundations due to several different factors including stoniness, depth to seasonal high water table, and depth to bedrock.

In the lower portion of the R-10 District, from the railroad south to the Borough line, consists of Basalt geology, an extremely low yielding aquifer, steep slopes in the south, and hydric soils and wetlands along Mine Brook. All of these factors indicate limited potential for development. In addition, the northern portion of this area contains the largest concentrations of agricultural lands on large parcels in the Borough.

The northern portion of the R-10 District, extending from Spring Hollow Road northward, presents similar resource opportunities and constraints as found in the south, with low yielding aquifers, very steep slopes, and direct hydrologic links, via overland and groundwater flow distances, to the North Branch of the Raritan River and its high water quality trout production waters. The limited road system and prevailing topography also require care in programming development for this area. As in the southern sector, the recommended development density is 10 acres per unit, and performance standards and management programs will be particularly important in these areas.

Besides the residential uses permitted in the northern and southern low density area, agricultural activities, including horticulture, silviculture, nurseries, and orchards, should be encouraged here and in the remainder of the Borough outside the Village. Parcels

capable of economically supporting some high value-added agricultural activities still exist in Far Hills. The intent of encouraging these lands to remain in agricultural use (or at least to prevent their conversion to a developed use) is to maintain large contiguous acreages which will enhance opportunities for continued agricultural or horticultural activities. The continuance of these activities will help Far Hills retain its agricultural/rural character and high visual and aesthetic value. Care must be taken in the conduct of agricultural activities and residential conversions so that neighboring residents and underlying resource characteristics are not negatively impacted, as further discussed in the Conservation Plan Element.

Residential conversions of existing residential accessory uses should also be permitted, subject to the same density and performance standards applicable to single-family dwellings, with a possible incentive provision where affordable housing is provided.

The central portion of the Borough, extending approximately from Route 202 to the railroad, can support residential development densities, in the range of one unit per five to ten acres, based on physiographic conditions, farmland values, and development patterns. The aquifer's ability to produce water and dilute wastewater is greater, due to underlying geology. In these same areas are found the highest concentrations of prime agricultural soils and active agricultural lands. This central area has access to Route 202, which presents the most difficult traffic management concerns in the Borough in terms of capacity and alignment. This plan recommends one unit per six acres for this R-6 District with the use of on-site septic systems as the accepted means of wastewater disposal. Because of the visual openness of the area, extensive buffers to Route 202 should be provided to maintain the scenic character of the transportation corridor through this portion of Far Hills. As continued development in the region impacts the Route 202 corridor, the visual relief offered along the Far Hills segment of the regional artery becomes increasingly valuable. Alternative and innovative design techniques should be used in this area, and may include incentives to encourage good site design and reduce development impacts caused by the extension of roads.

Design objectives should include the maximization of open space, minimization of impermeable surface, preservation of critical environmental resources (e.g., wetlands, specimen plants, wildlife habitat), or dedication of land for recreational use by Borough residents.

The R-3 district is a transitional area where increased development densities can be supported. This area is constrained by several natural and man-made features, which provide good planning area boundaries. Northeast of Sunny Branch Road adjacent property ownership limits suggest the likely impact area of the Townhouse District. Northwest on Sunny Branch Road approximately 2,400 feet from Route 202 there is a tributary of the North Branch, which, in combination with the prevailing steep slopes, creates a ravine-like area. These lot lines and tributaries form the boundaries of the higher density transition area.

In the southwest corner of the Borough, a transitional zoning district (R-10A) is located

south of I-287, west of Layton Road, extending to the Borough boundaries with Bernards and Bedminster Township where sanitary sewer collection infrastructure exists. This zone is established as a transition zone between the low density (R-10) District in the southerly portion of the Borough and the higher density areas lying beyond the Borough boundaries in Bernards and Bedminster Townships. The zone permits increased residential densities when development is situated adjacent to available infrastructure in a manner that supports the goals of the Borough's Master Plan. This zone includes a special use option that permits flexibility in the design of a subdivision provided that a minimum tract area of 30 acres is provided, and an overall density of not greater than 3.75 acres is achieved under a lot-averaging plan. A lot averaging plan is permitted provided that the larger lots adjoin the low density planning area in the Borough and the smaller lots adjoin smaller lots in the adjoining communities of Bedminster and Bernards Township, and further that all lots less than five (5) acres are served by sanitary sewers.

In order to respond to the constraints in the area, to encourage the use of innovative designs, and to maximize the use of the developable areas that do exist, the Borough may wish to employ lot averaging design alternatives. Lot averaging is a zoning technique which permits some lots to be sized smaller than average, provided that an equal number of lots, which have the most critical environmental features on the site, are greater than the average lot size. This technique will respect differing environmental characteristics within large parcels to be fully considered when lots are subdivided, while still meeting overall density guidelines.

There are a number of older modest homes throughout the Borough's countryside low-density areas. As the supply of land has begun to dwindle, these homes have become sought-after targets for redevelopment. The Borough has observed a trend of redevelopment of these homes that involves the construction of substantial additions to these dwellings, or in some cases demolition of these homes altogether and replacement with very large residential dwellings. This redevelopment activity prompts concerns regarding the adequacy of on site well and septic systems that served the predecessor dwellings. Environmental sensitivity and limited soils capacities to support on-site septic systems in countryside areas indicate the need for the installation of modern well and septic systems to serve these new homes. This will ensure that redeveloped sites are served with well and septic systems capable of supporting new homes on a long-term basis. In addition, updated well and septic systems will protect the environment, public health and limit the potential for negative impacts on groundwater quality and adjoining properties.

“Conservation is a state of harmony between men and land. By land is meant all of the things on, over, or in the earth. Harmony with land is like harmony with a friend; you cannot cherish his right hand and chop off his left. That is to say, you cannot love game and hate predators; you cannot conserve the waters and waste the ranges; you cannot build the forest and mine the farm. The land is one organism. Its parts, like our own parts, compete with each other and cooperate with each other. The competitions are as much a part of the inner workings as the co-operations. You can regulate them--cautiously--but not abolish them.

The outstanding scientific discovery of the twentieth century is not television, or radio, but rather the complexity of the land organism. Only those who know the most about it can appreciate how little we know about it. The last word in ignorance is the man who says of an animal or plant: "What good is it?" If the land mechanism as a whole is good, then every part is good, whether we understand it or not. If the biota, in the course of aeons, has built something we like but do not understand, then who but a fool would discard seemingly useless parts? To keep every cog and wheel is the first precaution of intelligent tinkering.”

Aldo Leopold, 1887-1948

The Municipal Land Use Law (*N.J.S.A. 40:55D-1 et seq.*) authorizes municipalities to plan and zone to promote the general welfare. The 15 purposes of the MLUL (*N.J.S.A. 40:55D-2*) articulate the State’s rationale for authorizing municipal land use planning and regulation. More than half of these purposes highlight the importance of conserving natural resources and a clean healthy environment, including:

- Public health and safety, which are affected by the use and management of New Jersey’s land and water resources.
- Securing safety from floods and other natural and manmade disasters and providing adequate light, air and open space.
- “Preservation of the environment”, in part through planning for “appropriate population densities and concentrations”.
- Providing sufficient space in appropriate locations for a variety of land uses, according to their respective environmental requirements, to meet the needs of all New Jersey citizens” for a healthy environment.
- Conservation of “open space, energy resources and valuable natural resources in the State and to prevent urban sprawl and degradation of the environment through improper use of land”.
- Conservation of energy, through utilization of renewable energy sources, and recovery and recycling of recyclable materials.

Preventing urban sprawl also has been a long-standing objective of New Jersey’s planning and zoning law, which is supported by the related objectives of protecting the natural environment and preventing its degradation. Sprawl is energy intensive and resource consumptive, increasing traffic and air pollution and destroying open spaces.

In furtherance of these conservation objectives, the MLUL provides for preparation and adoption of a Conservation Plan Element (*N.J.S.A. 40:55D-28b.8.*), which reads as follows:

“Conservation plan element, providing for the preservation, conservation and utilization of natural resources, including, to the extent appropriate, energy, open space, water supply, forests, soil, marshes, wetlands, harbors, rivers and other waters, fisheries, endangered or threatened species, wildlife and other resources, and which systematically analyzes the impact of each other component and element of the Master Plan on the present and future preservation, conservation and utilization of those resources;”

The Borough of Far Hills contains a variety of critical resources dispersed throughout the municipality. These areas are deserving of management and protection from inappropriate development for two basic reasons: the resources, in their own right, are unique and exhibit values that are deserving of protection and the environmental resources are potentially very sensitive to additional development. Environmental quality could be irreparably degraded by uncontrolled development. This element of the Master Plan presents recommended policies and strategies for protecting and maintaining the natural resources and existing environmental quality of Far Hills.

Surface Water, Stream Corridors and Wetlands



Stream Protection corridors should be maintained along all surface water bodies located within the Borough. These corridors should be at least 100 feet to 150 feet wide along all streams, ponds, rivers, and lakes, with wider buffers required where slopes are steeper. Stream corridor protection is especially important given the trout production status of the North Branch of the Raritan River. This status, assigned by the New Jersey Department of Environmental Protection, indicates that trout populations likely reproduce in these waters and they should be afforded the highest order of protection. Where streams and watercourses are classified Trout Maintenance or Trout Production by the NJDEP, a minimum buffer of 150’ permitting no disturbance should be maintained including the wetland areas that drain into these waters.

In the previous section recommendations were made concerning limitations on development in corridors along surface water bodies and in wetland buffers. The vital role that wetlands and stream corridors play in purifying surface water and groundwater; retarding the impact of soil erosion; providing habitat for wildlife and plant species warrants their absolute protection.

In an area where the severe topography could create "flash" flood conditions, the existence of protection corridors along surface water bodies and buffers around wetlands (see below) lessens the amount of runoff and resulting sediment load, which can affect local drainage ways after periods of precipitation and thaw. In addition, buffers adjacent to stream corridors and wetlands allow the vegetation located within these areas to remove from the surface and groundwater certain types of pollutants before they reach the receiving water bodies. The presence of stream protection corridors preserves valuable wildlife habitat, provides an attractive, aesthetic screen, and prevents erosion along stream banks.

Buffers around all statutorily defined wetlands are under the jurisdiction of the New Jersey Department of Environmental Protection, which preempts municipal authority to establish such buffers in local zoning ordinances. The standards for these buffers are contained in the N.J. Freshwater Wetlands Act (NJSA 13:9B-1 et. seq., also known as P.L. 1987, c. 1956). Within the designated buffers development is prohibited, other than certain water-dependent activities. The width of state-mandated wetlands buffers is related to the resource value, as follows:

Resource Value	Buffer Width
Exceptional – Trout Production and Trout Maintenance	150' 75' to 150'
Intermediate – all other streams, rivers and wetlands not exceptional or ordinary	25' to 50'
Ordinary- manmade or managed wetlands	0'

Exceptional wetlands are those that discharge into FW-1 waters and FW-2 trout production (TP) waters, or those that are potential or documented habitats for threatened or endangered species; ordinary wetlands are certain isolated wetlands, man-made drainage ditches, swales, and detention facilities. Intermediate wetlands are those not classified as exceptional or ordinary.

Municipal ordinances often provide building coverage standards, and many prescribe standards for total site coverage, but too often the issue of site clearing is not effectively addressed. Careful management of both clearing and coverage will ensure that rain or snowmelt will enter the groundwater regime and be available for groundwater aquifer recharge as a water supply and to provide the base flow in streams and rivers. Reduced clearing and coverage minimizes the possible adverse impacts of overland flow on receiving surface water bodies, and helps ensure that the quality of surface waters and ground water remains high. Cleared areas can be maintained as meadows since grassland meadows provide groundwater recharge and the added benefit of increasing valuable habitat for threatened and endangered wildlife species in the region. Borough groundwater design standards should ensure the maximum recharge of precipitation to facilitate groundwater recharge and maintenance of water supplies.

Groundwater quality surveys throughout New Jersey have identified areas where the past discharge of toxic and hazardous chemicals have caused the pollution of groundwater supplies to the extent that they are unusable. In some cases the suspected chemical has come from septic tank cleaners. To avoid these possibilities, the Borough should prohibit the discharge of toxic and hazardous pollutants and should require the use of septic tank cleaners that do not introduce noxious chemicals into the groundwater. Particularly in areas where on-site wells provide the primary source of drinking water, stringent measures must be enacted to avoid future problems.

Another important aspect of groundwater protection concerns the maintenance of individual on-site septic systems. Poor maintenance of septic systems results in poor operation and eventual groundwater and surface water pollution and potential groundwater contamination. Regular pumping of septic tanks can alleviate some of these problems and help protect a homeowner's investment. Public Education brochures or mailings from the Borough every two to three years can provide residents with a reminder of the importance of septic system maintenance.

The Borough should initiate a public information campaign consisting of periodic mailings from the Borough Clerk disseminating literature reminding residents of the need for regular septic system maintenance to ensure proper functioning of septic systems and the groundwater and environmental benefits that accrue from regular system maintenance. Literature should include information on the Borough's environmental constraints and the importance of responsible land stewardship. This effort could be supplemented with an outreach to new residents that may not be aware of the need for regular septic system maintenance. The Borough should prepare a "Welcome Neighbor" information brochure that is mailed to new residents shortly after they acquire a home in the Borough. The brochure might include general information concerning local services such as police and fire protection, local agency meeting dates, an explanation of the Borough's land stewardship philosophy, a brief overview of the history of the Borough, as well as information regarding the need for periodic septic system maintenance.

The Borough should consider proactively soliciting septic system service arrangements with private contractors to facilitate regular septic system maintenance by residents. The Borough's Environmental Commission could take the lead in coordinating public information dissemination including the identification of septic system maintenance contractors in the area that are experienced with the Borough's unique geology and the challenges it presents in system maintenance. It may be helpful for the Borough to assist homeowners with a voluntary scheduling program that tracks when system maintenance is performed and reminds homeowners when additional maintenance should be performed. Such a program would help ensure the proper long-term functioning of on-site septic systems and prevent groundwater contamination.

Ecology and Wetlands

Habitats of rare and endangered, and unique or desirable, plant and animal species occur in both wetland and upland areas. Wetlands species will receive some level of protection

through state wetlands development prohibitions, but the disturbance of upland habitat for these species should also be avoided or, at least, minimized. The maintenance of habitat will ensure the survival of plant and animal species in the Borough and, in so doing, will help maintain the environmental quality and rural ambiance of Far Hills. The loss of rare, endangered, unique, or desirable plants and animal species and habitats is an indication of a general diminution of environmental quality and a lack of land stewardship.

Figures A-16 and A-17 in the Natural Resource Inventory depict critical habitat identified under the New Jersey Landscapes Program (NJLP) by the conservation status of species present. This program, begun in 1993, identifies habitat suitable for threatened and endangered species, as well as species of special concern. For each of the habitat categories represented (grassland, forest, emergent and forested wetland) criteria for delineation were identified and then applied to satellite imagery. This imagery was then combined with the NJDEP Natural Heritage Program's Biological Conservation Database (BCD), highlighting areas where habitat was of a significant nature and the presence of threatened and endangered species was documented.

The data from the NJLP represents peer-reviewed scientific information that can aid in the preservation of habitat areas and threatened and endangered species through land use planning and stewardship programs. There are documented sightings of wood turtles, bobolinks and great blue heron in Far Hills Borough. (All of these species are state threatened or endangered.)

Clearing standards and limits for development on sloped wooded lots should be established so that as much forest cover as possible will remain unaffected by site preparation of construction activities on these environmentally sensitive areas. The preservation of woodlands, especially on slopes and along stream corridors, provides a number of benefits, along with maintaining the visual appeal of the Borough's countryside. Woodlands retard soil loss, erosion, and flooding; increase the quality of water being recharged to the soil, maintain the quality of surface waters, purify air; and provide valuable wildlife habitat.

Clearing standards and limits for development on sloped wooded lots should be established on these environmentally sensitive areas.

Woodlands can be managed for the production of lumber and timber as a limited energy resource. When agricultural lands are to be converted to other uses, reforestation or grassland management strategies should be required as part of any development plan. Additionally, the Borough should identify woodland management guidelines that permit residents to reasonably use their land, but afford a degree of protection for environmentally sensitive areas, especially forested slopes and stream corridors. Approval of woodland management should not be unreasonable withheld, but rather should permit use of the land in a manner that is consistent with and appropriate to residential land uses permitted in the countryside but are also consistent with State groundwater and surface water quality anti-degradation policies. Undisturbed buffer

areas should be maintained along parcel boundaries when woodland management and clearing activities are conducted so that neighborhood character is maintained and the impact of such activities on neighboring properties is limited.

Although the Natural Resource Inventory contains an inventory of reported rare plants, there are undoubtedly other specimen plant species (e.g., unusually large or old trees, rare or endangered plants, etc.) that exist in the Borough. Protection of trees and plants through the development review process is desirable and should be implemented in the Zoning Ordinance to one degree or another. Even those plants and trees not considered rare or endangered, such as specimen native and non-native trees, should be afforded some measure of consideration in the face of continuing development. The forested areas of the Borough are an essential part of the character of Far Hills and should therefore be maintained. Specimen species are uniquely valuable ecological resources and are deserving of protection. They are indicators of past natural and cultural processes, and they represent the record of man's tenure on earth.

Grasslands and meadows are identified in the NRI as important critical habitat in the Borough that support State Threatened and Endangered species, including the bobolink, red-shouldered hawk, and great blue heron. Figure A-17 in the NRI shows that grassland and meadow habitat is widely distributed throughout the Borough, including a number of isolated meadow areas ranging between 7 – 20 acres in the northerly highlands portion of the Borough and a concentration of larger grassland/meadow habitat areas in the south-central portion of the Borough ranging from less than 40 acres to as much as 100 acres. Moorland Farms includes an area of approximately 100 acres of grassland/meadow.

Grasslands and meadows provide natural water quality benefits as overland flows from rainfall drain through these natural filters to the Borough's open watercourses. Passive maintenance of open areas as meadows, rather than lawns will serve to reduce the amount of pollutants from fertilizers and pesticides from lawn maintenance entering the surface

Grasslands and meadows provide natural water quality benefits as overland flows from rainfall drain through these natural filters to the Borough's open watercourses.

and ground water regime. Homeowners should be encouraged to manage a portion of yard areas as meadow when feasible.



Particularly at Moorland Farms and throughout the south-central portion of the Borough, meadows and expansive open vistas establish the essential character of the Borough. Flat and gently sloping land that can be maintained as meadow provides natural water quality benefits. Meadows provide critical habitat and establish visual diversity in the terrain. Meadows establish the signature landscapes and open vistas that embody the essence of rural character in the Borough.

Maintaining open areas as meadows and grasslands assume a high priority in this plan, and particular attention should be placed on their preservation when open lands are proposed for development. Meadow and grassland management strategies may be appropriate for flat and gently sloping land. This could increase the amount of grassland habitat capable of supporting state threatened and endangered species. However, careful attention is needed to avoid clearing steep slope forested areas where erosion and sedimentation of stream courses and open waters could occur and water quality may be impaired.

Steep Slopes

The current Land Management includes slopes greater than 15% as one class of critical areas, and permits principal uses of agriculture and open space/recreational uses with pervious surfaces. Development on steep slopes can create a hazardous situation with regard to structural integrity, and it results in increased erosion, increased siltation in surface water bodies, alteration of natural drainage patterns, and increased flooding downstream by increasing the volume of runoff from the disturbed area. In addition, such areas are often crucial to maintaining ridgelines and skylines intact. Development and disturbance on steep slopes over 15% should be guided by standards that articulate a range of permitted activities according to the degree of slope. Certain activities should be avoided altogether and only those activities that result in minimal disturbance to the slope face should be allowed.

Steep slope protection and limiting development are especially important in high quality watersheds, such as those found in the Borough.

Issues surrounding steep slope protection and limiting development are especially important in high quality watersheds, such as those found in the northern half of the Borough. The trout production and trout maintenance status of the North Branch of the Raritan indicate that it is a high quality waterway. The northern half of the Borough, particularly in the area surrounding Ravine Lake and the North Branch of the Raritan, shows a prevalence of slopes greater than 25%. Tree clearing in these areas could lead to significant runoff and subsequent sedimentation of these high quality waters. Trout and their ability to thrive and reproduce is directly related to water quality, which is why Trout are good indicators of high quality streams. Any fluctuation in suspended solids and sediment can severely impact trout's ability to reproduce and even survive. Tree clearing is also directly related to an increase in water temperature, which is also vital to trout survival and reproduction. Trees that line stream and river banks provide shade from hot summer sun that effectively regulates water temperatures to ensure trout survival.

The need for establishing selective clearing standards has been identified in response to the problem of invasive exotic plant species that establish themselves in the forest understory. This phenomena results from the overpopulation of deer in the countryside that have grazed the forests to the point that the ecological balance has been disrupted through the elimination of indigenous low growing forest tree and plant species. Borough land use regulations should permit incremental selective clearing of the understudy and

successional woodlands to gradually improve forest health and restore the ecological balance. The Borough's land development checklist should include provisions for selective clearing to ensure that these activities are planned and monitored.

The distinctive name of Far Hills derives from the scenic values of the Borough's hillside areas. The perception that people have of the attractiveness of a place depends largely on the views to which at they are exposed. Pleasant views from a parcel of land to the surrounding countryside provide people with a sense of well being about their environs, and attractive views into a parcel of land by passersby establish the particular ambiance

The perception that people have of the attractiveness of a place depends largely on the views to which at they are exposed.

of an area that makes it distinctive. The Borough should enact hillside and related development standards that govern the location of a structure on a lot so that attractive views are maintained into and away from the lot, while minimizing the infringement on the views of neighboring properties.

Development standards for steep slope areas should be based on the degree of slope. On slopes less than 15% all activities should be permitted. On slopes between 15% and less than 25%, all activities should be permitted subject to review and approval of grading plans by the Borough Engineer. On slopes 25% to less than 30%, only transitional grading, or disturbance in that area of land between the original grade and the finished grade, adjacent to buildings, roads, driveways, parking areas, septic systems, retaining walls and other similar improvements should be permitted. In steep slopes areas in excess of 30%, no disturbance should be permitted without prior approval of the Planning Board and Zoning Board of Adjustment. However, the need to protect slopes should be balanced with residents need to use their land, protection of the environment, preservation of the landscape and important viewsheds and scenic vistas, and the impact disturbance activities may have on the community and neighbors. For this reason an exemption to permit the disturbance of up to 1,000-sq. ft. of the two regulated slope classes (25% to less than 30%; and slopes over 30%) should be provided. In this way, the Borough can protect attractive views while maintaining infringement of such activities on neighbors and at the same time accommodate a resident's need to use their land.

Ridgeline Protection

During the intervening 14 years since adoption of the last Master Plan and the implementation of Borough's design standards ordinances, it has become apparent that effective protection of ridgelines, scenic vistas and environmentally sensitive steep slope areas requires improved development standards. These standards should include a definition of the areas requiring protection, such as a



ridgeline, and should focus on limiting land disturbance in proximity to ridgelines and steep slope areas. Consistent with the Borough's policy orientation in protecting steep slopes by limiting disturbance and clearing in areas characterized as 15% slope and greater, "ridgeline protection" will limit visual impacts of development and reduce and environmental impacts near steep slope areas, including degradation of streams and water bodies in proximity to steep slope areas.

A ridgeline can be defined as *a horizontal line or demarcation that represents the intersection of two slopes having generally opposing aspects, usually representing the highest common elevation of both.* Simply put, a ridgeline is the area where the side slope of one hillside meets the flatter top or other portions of the mountain or hill. The ridgelines of the Borough of Far Hills are depicted on Figure A-13.

The ridgeline can be plotted by the Borough Engineer, by an applicant or landowner at the time an application is made for a construction permit or subdivision or site plan review. Ridgeline controls should require that all land disturbances and the placement of structures occur at appropriate distances from the delineated ridgeline. This will help to ensure that visual and environmental impacts are limited in proximity to steep slope areas.

Effective protection of ridgelines, scenic vistas and environmentally sensitive steep slope areas requires improved development standards.

Purposes of Ridgeline Protection

- To locate new development away from ridgelines in order to protect scenic values and a natural landscape appearance, and to conserve and promote property values.
- To prevent soil erosion and drainage problems related to development near the ridgeline.
- To minimize the visual impacts of new development on the natural appearance of the Far Hills landscape.
- To preserve, protect and enhance the visual character of the ridgeline.
- To retain existing native vegetation and a contiguous forest canopy along the ridgeline.
- To reduce the impacts of clearing on steep slope areas associated with high quality water courses and water bodies.

Riparian Areas



To protect water quality and wildlife, it is proposed that a riparian protection ordinance be fashioned.

Riparian areas are the lands that immediately surround water resources, and can include wetlands, floodplains, steep slopes and woodlands. They represent important resources for recreation, protection from flooding, migration corridors for wildlife, buffers for stream quality protection, filtration for non-point source pollution and wildlife habitat. Their protection is in the best interest of the Borough and its residents, as development and other activities that occur in riparian areas can seriously impact water quality.

The Natural Resource Inventory, located in Appendix B, delineates and describes riparian areas for the Borough of Far Hills. In order to protect these areas from the threat of development and the subsequent impacts to water quality and wildlife, it is proposed that a riparian protection ordinance be fashioned. This ordinance would protect riparian areas from anthropogenic activities and perpetuate them as buffers to the high quality waters and wildlife habitat that exists in them. The areas proposed

for protection under this ordinance are delineated as “riparian areas” on Figure A-4.

Agriculture

As areas change character from rural/agricultural to suburban, and population densities increase, there is often pressure to establish ordinances to regulate the hours of operation, odors, noise, and impact on adjacent uses that are created by agricultural activities. The encouragement of agricultural, horticultural, silvicultural, and orchard activities are goals of this Plan, so that open areas in the Borough are maintained. The Borough should adopt a right to farm ordinance, in furtherance of protecting farmers and those that engage in agricultural activities from nuisance complaints related to legitimate agricultural activities.



The encouragement of agricultural, horticultural, silvicultural, and orchard activities are goals of this Plan.

Farms do have impacts on adjoining properties and the environment but these impacts can be mitigated, or at least controlled. The Cooperative Extension Service and Agricultural Experiment Station regularly publish bulletins and provide information on proper conduct of agricultural activities. The Borough should promote the use of best management practices in all agricultural activities. Implementation of these practices can reduce the cost of farming, while also reducing soil erosion and other environmental impacts caused by agriculture.

The preservation of agricultural areas in Far Hills is consistent with both Somerset County and State of New Jersey agricultural policy. Somerset County has identified criteria for the designation of Agricultural Development Areas (ADA's), which apply to two areas of Far Hills. These include the concentration of prime agricultural soils in the southeastern part of the Borough and the cluster of prime agricultural soils along Pennbrook Road east of Lake Road.

The prime agricultural soils located adjacent to Route 202 and between 202 and the railroad were not identified as eligible for ADA's due to their proximity to Route 202.

HOUSING PLAN ELEMENT

FOREWORD

This Housing Plan Element has been prepared in accordance with the Municipal Land Use Law (MLUL), specifically N.J.S.A. 40:55D-28b.(3), as modified and clarified by the Fair Housing Act, specifically N.J.S.A. 52:27D-310, Mandatory Contents of Housing Element. As indicated in the latter statute, this Housing Plan Element includes the determination of the municipal fair share of the present and prospective affordable housing need for the region; the housing/fair share plan; an inventory and projection of the municipal housing stock; an analysis of the demographic characteristics of the Borough's residents; and, a discussion of municipal employment characteristics.

Municipal Determination of Fair Share

The Borough has calculated its present and prospective fair share for low and moderate income housing in accordance with the standards provided in proposed N.J.A.C. 5:93, Subchapter 2 (N.J.A.C. 5:93-2.1 to 2.21). Municipal Determination of Present and Prospective need and Technical Appendix A. In the following chart, the items which comprise need are positive values, and those which reduce need are shown as negative values:

Indigenous Need	+ 5
Reallocated Present Need	+ 4
Prospective Need (1993 – 1999)	+ 21
Prior Cycle Prospective Need	+13
Demolitions	+ 2
Filtering	- 2
Residential Conversion	- 1
Spontaneous Rehabilitation	<u>- 2</u>
Pre-credited Need	+40

The Borough's pre-credited need is further broken down into the rehabilitation component of 3 units (indigenous need minus spontaneous rehabilitation) and the new construction component of 37 units.

The pre-credited need for affordable housing represents the starting point in the municipal determination of fair share. From the pre-credited need, municipalities may

subtract credits and reductions in order to arrive at the calculated need for the municipality. The Borough's past housing activities have resulted in the following eligible credits and reductions.

New Construction

The following affordable housing sites, producing credits and reductions for 33 affordable units, have been developed in the Borough:

- The Polo Club, located in the Borough's TH-6.5, Townhouse Residential District, includes 25 affordable units among the total of 123 units in the development.
- An age-restricted rental project of 6 units located in Dumont Road. Since age-restricted rental units are eligible for one and one-third (1.33) units of credit for each unit constructed, the Borough is eligible for 8 credits for affordable units as a result of this development.

Summary

Based on the above analysis, the Borough is eligible for credits/ reductions of 33 units against its pre-credited need of 40 units, resulting in a calculated need of 7 units.

THE HOUSING PLAN

As indicated in the previous section, the Borough has established that 7 additional affordable housing units are needed to address the Borough's fair share obligation. Of these 7 units, the Borough must provide an opportunity for 3 additional rental units affordable to low and moderate income households. The Borough also has the option to provide up to 10 age-restricted, affordable units, which can be either rental units or units for sale, of which 6 units have been addressed through the approval of the age-restricted development on Dumont Road.

Methods to Address the Fair Share

The Borough proposes to address its fair share of 40 lower income units in the following manner:

	<u>Units</u>
Credits/Reductions	33
Rehabilitation program for 3 additional units, the maximum allowed by COAH	3
Accessory apartment program to create 4 accessory apartments affordable to lower income households	<u>4</u>
Total	40

In the following sections of the Plan, the above-referenced programs are described in greater detail.

Rehabilitation Program

The Borough intends to establish a rehabilitation program in order to rehabilitate three units, the maximum permitted by COAH’s rules. The Borough will provide a minimum of \$10,000 per unit, of which \$2,000 per unit may be used for administration and \$8,000 per unit for rehabilitation activity.

Accessory Apartment Program

The substantive rules of COAH permit a municipality to use up to 10 accessory apartments to address the municipal housing obligation, of which the Borough is proposing 4. The Borough must provide at least \$10,000 per unit to subsidize the creation of the accessory apartment, and the units must be subject to affordability controls and affirmatively marketed. Controls on affordability on accessory apartments must remain in effect for at least 10 years, and in order for the municipality to receive a rental bonus the controls on affordability must remain in effect for 30 years. The Borough intends to adopt an ordinance that will provide development standards and administrative procedures for this program.

Inventory of Municipal Housing Stock

The primary source of information for the inventory of the Borough's housing stock is the 1990 Census, which reports 260 housing units, of which 246 are occupied. Table 1 identifies the units in a structure by tenure. While the Borough largely consists of one-unit structures, the 1990 Census indicates 28 units situated in multi-family structures, and 6 units classified as "Other". Interestingly, 31.3% of the occupied units are reported as renter-occupied; this tenure pattern is higher than Somerset County (24.5% renter-occupied), but less than the State (35.1% renter-occupied) for this period.

Table 1
Units in Structure by Tenure

Units in Structure	Vacant Units	Total	Occupied Units	
			Owner	Renter
1, detached	11	213	159	54
1, attached	0	2	0	2
2	0	17	8	9
3 or 4	3	2	0	2
5 to 9	0	6	0	6
Other	0	6	2	4
Total	14	246	169	77

Source: 1990 U.S. Census, Summary Tape File 3, Profile 22, May, 1992.

The Borough has a relatively old housing stock. Table 2 presents the data concerning the year housing units were built by tenure, while Table 3 compares Far Hills to Somerset County and the State relative to newer (1980-1990) and older (pre-1939) units.

Table 2
Year Structure Built by Tenure

<u>Year Built</u>	<u>Vacant Units</u>	<u>Total</u>	<u>Occupied Units</u>	
			<u>Owner</u>	<u>Renter</u>
1980-1990	3	21	18	3
1970-1979	3	41	36	5
1960-1969	2	14	14	0
1950-1959	2	27	20	7
1940-1949	0	10	7	3
pre-1940	4	133	74	59

Source: 1990 U.S. Census, STF 3, Profile 22, May 1992.

Table 3
Comparison of Year of Construction
for Borough, County and State

<u>Jurisdiction</u>	<u>Pre-1940 Units (%)</u>	<u>1980-1990 Units (%)</u>
Far Hills	52.7	9.2
Somerset Co.	15.9	28.3
New Jersey	24.6	14.8

Source: 1990 U.S. Census, STF 3, Profile 22, May 1992.

The presence of an older housing stock is one of the factors which correlates highly with filtering, the phenomenon whereby housing requirements of lower income groups are addressed by supply additions to the higher income sectors of the housing market.

Information reported in the 1990 Census concerning occupancy characteristics includes the number of persons in occupied housing units by tenure, and the number of bedrooms per unit by tenure; these data are reported in Tables 4 and 5, respectively. Table 4 indicates that renter-occupied units generally house smaller households, with 86% of renter-occupied units having 3 persons or less compared to 67% of owner-occupied units. Interestingly, the only units in the Borough with seven or more persons are renter-occupied. Table 5 indicates that renter-occupied units generally have less bedrooms, with 56% having 2 bedrooms or less compared to 9% of owner-occupied units. In addition, renters occupy 73% of the occupied units of 2 bedrooms or less.

Table 4
Number of Persons in Occupied Housing Units by Tenure

<u>Household Size</u>	<u>Total Units</u>	<u>Owner Occupied Units</u>	<u>Renter Occupied Units</u>
1 person	41	24	17
2 persons	100	67	33
3 persons	38	22	16
4 persons	38	32	6
5 persons	21	19	2
6 persons	5	5	0
7+ persons	3	0	3
 TOTAL	 246	 169	 77
 Average persons/unit	 2.7	 2.9	 2.4

Source: 1990 U.S. Census, STF 3, Profile 21, May 1992

Table 5
Number of Bedrooms per Unit by Tenure

<u>Number of Bedrooms</u>	<u>Total</u>		-----Occupied Units-----			
	<u>Units</u>	<u>%</u>	<u>Vacant Units</u>	<u>Total</u>	<u>Owner</u>	<u>Renter</u>
No bedroom	0	0.00%	0	0	0	0
1 bedroom	27	10.4%	3	24	7	17
2 bedrooms	37	14.2%	2	35	9	26
3 bedrooms	83	31.9%	0	83	66	17
4 bedrooms	62	23.8%	5	57	46	11
5+ bedrooms	51	19.6%	4	47	41	6
 Total Housing Units	 260	 100.0%	 14	 246	 169	 77

Source: 1990 U.S. Census, STF 3, Profile 21, May 1992.

Comparing the data in Table 4 to the profiles for New Jersey and Somerset County, it is interesting to note that the Borough's average household sizes for all units, owner-occupied units and renter-occupied units are exactly the same as for New Jersey as a whole. Somerset County has the same average persons per unit for all units (2.7), but slightly lower for owner-occupied and renter-occupied units (2.8 and 2.3, respectively).

By contrast, the distribution of bedrooms per unit is considerably different in the Borough than in the State or County. Table 6 provides a comparison of the percentage of

total units with none or one bedroom and four bedrooms or more for the Borough, County and State. Combining these data with the previous conclusions on persons per unit indicates that the Borough has a relatively high percentage of larger units with relatively small households.

Table 6
Percentage of All Units by Number of Bedrooms

<u>Jurisdiction</u>	<u>None or One</u>	<u>Four or More</u>
Far Hills	10.4	43.4
Somerset Co.	12.7	30.0
New Jersey	17.9	21.0

Source: 1990 U.S. Census, STF 3, Profile 21, May 1992.

In addition to data concerning occupancy characteristics, the 1990 Census includes a number of indicators, or surrogates, which relate to the condition of the housing stock. The Council on Affordable Housing (COAH) uses these indicators in calculating a municipality's indigenous need. The surrogates used to identify housing quality, in addition to age (Table 2), are the following, as described in COAH's rules:

Persons Per Room. 1.01 or more persons per room is an index of overcrowding

Plumbing Facilities. Inadequate plumbing is indicated by either a lack of exclusive use of plumbing or incomplete plumbing facilities.

Kitchen Facilities. Inadequate kitchen facilities are indicated by shared use of a kitchen or the non-presence of a sink with piped water, a stove, or a refrigerator.

Heating Fuel. Inadequate heating is use of coal, coke, wood, or no fuel for heating.

Sewer. Inadequate sewer services are indicated by a lack of public sewer, septic tank, or cesspool.

Water. Inadequate water supply is indicated by a lack of either city water, or drilled well, or dug well.

Telephone. Inadequate telephone is indicated by the absence of a telephone in a unit.

Table 7 compares the Borough, County and State for the above indicators of housing quality. While the Borough has proportionally fewer inadequacies for four of the indicators (overcrowding, plumbing, sewer and telephone) compared to the County and State, three of

the indicators (inadequacy of kitchen, heating, or water) exceeded the County and State averages.

Table 7
Housing Quality for Borough, County and State

<u>Condition</u>	<u>Far Hills (%)</u>	<u>Somerset Co. (%)</u>	<u>NewJersey(%)</u>
Overcrowding ¹	0.8	1.8	3.9
Inadequate plumbing ²	0.0	0.2	0.5
Inadequate kitchen ²	1.2	0.4	0.6
Inadequate heating ¹	2.0	0.9	1.4
Inadequate sewer ²	0.0	0.2	0.5
Inadequate water ²	0.8	0.1	0.1
No telephone ¹	0.8	1.0	3.1

NOTES: ¹ The universe for these factors is occupied housing units.

² All housing units are the universe for these factors.

Source: 1990 U.S. Census, Summary Tape File, Profiles 23 and 27, May, 1992.

The last factors used to describe the municipal housing stock are the purchase and rental values for owner-occupied and renter-occupied units, respectively. With regard to purchase values, the data reported in the 1990 Census covers 68 of the 169 owner-occupied units, or 40%, and therefore may not be representative of the true range of values in the Borough. Table 8 indicates that the majority of units are in the \$200,000 to \$299,999 range, with a mean value of \$252,022 and a median value of \$226,000. In order to address the limited Census sample, a summary of real property classification was obtained from the Borough Tax Assessor for the year 1999. This information includes the assessments of two property classifications; residential and farm regular, and indicates a total of 335 items with an average assessment of \$376,311.

Table 8
Value of Owner-Occupied Housing Units¹

<u>Value</u>	<u>Number of Units</u>	<u>%</u>
\$125,000 - 149,999	7	10.3
\$150,000 - 174,999	7	10.3
\$175,000 - 199,999	7	10.3
\$200,000 - 249,999	25	36.8
\$250,000 - 299,999	12	17.6
\$300,000 - 399,999	3	4.4
\$400,000 - 499,999	3	4.4
\$500,000 or more	4	5.9
Mean value -\$252,022		
Median value -\$226,000		

With regard to renter-occupied units, the Census data is somewhat more complete, with 48 of the 77 renter-occupied units (62%) covered in the data on rental values. The data in Table 9 indicate that 25% the specified renter-occupied units rent for \$750/month or less; the figure of \$750/month, if utilities are included, is the maximum permitted rent for a one-person, moderate-income household in Somerset County.

The data in Table 10 indicate that there are ten (10) specified, renter households making less than \$20,000 annually, which is the approximate income threshold for a one-person, lower-income household in Somerset County. At least eight (8) of these ten (10) households are paying more than 30% of their income or rent; the 30% figure is considered the limit of affordability for housing costs. In addition, 14 of 25 renter households with incomes between \$20,000 and \$49,000 are paying more than 30% of their income for rent.

Table 9
Gross Rents for Specified Renter-Occupied Housing Units¹

<u>Monthly Rent</u>	<u>Number of Units</u>
\$300 - \$349	3
\$500 - \$549	2
\$600 - \$649	3
\$700 - \$749	4
\$750 - \$999	14
\$1000 or more	18
No cash rent	4

NOTES: ¹ Specified renter-occupied housing units total 48 of the 77 renter-occupied units in the Borough.

Source: 1990 U.S. Census, Summary Tape File 3, Profile 24, May, 1992.

Table 10
Household Income in 1989 by Gross Rent as a
Percentage of Household Income in 1989¹

<u>Income</u>	<u>Number of</u> <u>Households</u>	-----Percentage of Household Income-----					
		<u>0-19%</u>	<u>20-24%</u>	<u>25-29%</u>	<u>30-34%</u>	Not	<u>35+%</u>
<u>Computed</u>							
<\$10,000	3	0	0	0	0	3	0
\$10,000-19,999	7	0	0	0	3	2	2
\$20,000-34,999	12	0	0	5	2	5	0
\$35,000-49,999	13	2	0	4	7	0	0
\$50,000+	13	4	7	0	0	0	2

NOTE: ¹ The universe for this Table is specified renter-occupied housing units.

Source: 1990 U.S. Census, Summary Tape File 3, Profile 24, May, 1992.

Analysis of Demographic Characteristics

As with the inventory of the municipal housing stock, the primary source of information for the analysis of the demographic characteristics of the Borough's residents is the 1990 Census. The data collected in the 1990 Census provides a wealth of information concerning the characteristics of the Borough's population.

The 1990 Census indicates that the Borough has 671 residents, or 6 fewer residents than in 1980, representing a population loss of approximately 1%. During the same time period, Somerset County's population grew by approximately 18%, and New Jersey's grew by approximately 5%.

The age distribution of the Borough's residents is shown in Table 11. Table 12 compares the Borough to the County and State for the same age categories. Compared to both the County and State, the Borough has less of its population in the school-age category (5-17 years) and more of its population in the 45-64 year-old category. The Borough also differs from the County in that a lower proportion of its population is in the 25-44 year-old category.

Table 11
Population by Age and Sex

Age	Total Persons	Male	Female
0-4	40	15	25
5-17	80	40	40
18-24	75	33	42
25-44	217	119	98
45-64	169	81	88
65+	90	42	48
Total	671	330	341

Source: 1990 US Census, STF-3, Profile 2, May 1992.

Table 12
Comparison of Age Distribution for Borough, County, and State
(% of persons)

Age	Borough	County	State
0-4	6.0	7.0	6.9
5-17	11.9	15.0	16.4
18-24	11.2	8.5	10.1
25-44	32.3	37.0	33.1
45-64	25.2	21.6	20.2
65+	13.4	10.8	13.4

Source: 1990 US Census, *Summary Social, Economic, and Housing Characteristics for New Jersey*, 1990, CPH-5-32, May 1992.

Table 13 provides the Census data on household size for the Borough, while Table 14 compares household sizes in the Borough to those in Somerset County and the State. The primary differences between the Borough and the County and State occur in the smaller household sizes, with the Borough having a larger proportion of 2-person households while the County and State have larger percentages of 1-person and 3-person households.

Table 13
Persons in Household

Household Size	Number of Households
1 person	42
2 persons	100
3 persons	39
4 persons	39
5 persons	21
6 persons	5
7 or more persons	3
Total Households	249

Source: 1990 US Census, STF-3, Profile 6, May 1992.

Table 14
 Comparison of Persons in Household for Borough, County, and State
 (% of Households)

Household Size	Borough	County	State
1 person	16.9	20.6	23.1
2 persons	40.2	33.5	30.5
3 persons	15.7	19.4	18.2
4 persons	15.7	16.6	16.4
5 persons	8.4	6.8	7.4
6 persons	2.0	2.1	2.7
7 or more persons	1.2	1.1	1.7
Persons per household	2.69	2.67	2.70

Source: 1990 US Census, Summary Tape File 1, Profiles 3 and 4, June 1991.

Table 15 presents a detailed breakdown of the Borough's population by household type and relationship. There are 192 family households in the Borough and 57 non-family households; a family household includes a householder living with one or more persons related to him or her by birth, marriage, or adoption, while a non-family household includes a householder living alone or with non-relatives only. These data do not vary greatly from the data for County and State residents.

Table 15
Persons by Household Type and Relationship

	<u>Persons 65+</u>	<u>Total persons</u>
In family households:		
Householder	42	192
Spouse	28	161
Child:		
Natural or adopted	NA	167
Stepchild	NA	17
Grandchild	NA	12
Other relatives	6	17
Non-relatives	0	<u>31</u>
 Total persons in family households		 597
 In non-family households:		
Male householder:		
Living alone	0	17
Not living alone	0	5
Female householder:		
Living alone	12	25
Not living alone	2	10
Non-relatives	0	<u>17</u>
 Total persons in non-family households		 74

Source: 1990 US Census, STF-3, Profile 6, May 1992.

Table 16 provides 1989 income data for the Borough, County, and State. While the Borough's per capita income is approximately twice that of the county, the household median income is virtually the same; this difference is indicative of the relatively large number of high income (\$150,000+) households in the Borough. A comparison of the income levels of the Borough and of the State shows a similar difference.

Table 16
1989 Income for Borough, County, and State

Jurisdiction	Per Capita Income	Median Income		
		Households	Families	Non-family Households
Far Hills	48,975	56,187	68,705	41,458
Somerset County	25,111	55,519	62,255	33,472
New Jersey	18,714	40,927	47,589	22,287

Source: 1990 US Census, *Summary Social, Economic, and Housing Characteristics for New Jersey*, CPH-5-32, May 1992; 1990 US Census, STF-3, Profile 15, May 1992.

Table 17 addresses the lower end of the income spectrum by providing data on poverty levels for persons and families. The determination of poverty status and the associated income levels is based on the cost of an economy food plan and ranges from an annual income of \$6,300 for a one-person family to \$21,300 for an eight-person family (three-person family is \$9,900). Interestingly, the Borough has had twice the percentage of persons and families in poverty status as the County, and the percentage of Borough residents in poverty status approaches that of the State.

Table 17
Poverty Status for Persons and Families for Borough, County, and State
(% with 1989 income below poverty)

Jurisdiction	Persons	Families
Far Hills	5.7	2.6
Somerset County	2.6	1.4
New Jersey	7.6	5.6

Source: 1990 US Census, STF-3, Profile 17, September 1992; 1990 US Census, CPH-5-32, May 1992.

The US Census includes a vast array of additional demographic data that provides interesting insights into an area's population. For example, Table 18 provides a comparison of the percent of persons 5 years old and over who live in the same house as in 1985; this is a surrogate measure of the mobility/stability of a population. The data indicate that the percent of Far Hill's residents residing in the same house as in 1985 slightly exceeds that of the County and is slightly less than that of the State.

Table 18
Comparison of 1985 and 1990 Place of Residence for Borough, County, and State

Jurisdiction	Percent living in same house as in 1985
Far Hills	57.5
Somerset County	55.5
New Jersey	60.1

Source: 1990 US Census, CPH-5-32, May 1992.

Table 19 compares the educational attainment for Borough, County, and State residents, and indicates that Far Hills residents exceed the other two jurisdictions for both high school and college graduates. It is interesting to note that among the State's 21 Counties, Somerset has the highest percent with bachelor's degrees or higher, and the second highest percent of high school graduates or higher, behind Morris County's 87%.

Table 19
Educational Attainment for Borough, County, and State Residents
(Persons 25 years and over)

Jurisdiction	Percent high school graduate or higher	Percent with bachelor's degree or higher
Far Hills	89.7	40.1
Somerset County	86.3	38.3
New Jersey	76.7	24.9

Source: 1990 US Census, CPH-5-32, May 1992

The 1990 Census also provides data on the means of transportation which people use to reach their place of work. Table 20 compares the Census data for the Borough, County, and State relative to driving alone, carpooling, using public transit, and using other means of transportation. The Borough has a relatively low percentage of those who drive alone or use public transit, and a relatively high percentage of workers who carpool or use other means of transportation to reach work. Of the workers who reside in the Borough and use other means of transportation to reach work, approximately half work at home and 40% walk to work.

Table 20
Means of Transportation to Work for Borough, County, and State
(Workers 16 years and over)

Jurisdiction	Percent who drive alone	Percent in carpools	Percent using public transit	Percent using other means
Far Hills	69.3	14.2	3.2	13.3
Somerset County	81.4	9.4	3.9	5.3
New Jersey	71.6	12.4	8.8	7.2

Source: 1990 US Census, CPH-5-32, May 1992; 1990 US Census, STF-3, May 1992.

Projection of Municipal Housing StockAs part of the mandatory contents of a housing element, the Borough is required to produce "a projection of the municipality's housing stock, including the probable future construction of low and moderate income housing, for the next six years, taking into account, but not necessarily limited to, construction permits issued, approvals of applications for development, and probable residential development of lands." [N.J.S.A. 52:27D-310b]

Taking into account the Borough's 246 occupied housing units reported in the 1990 Census, the Polo Club inclusionary development of 123 units (including 25 low and moderate income units) constitutes the greatest single development increase in the Borough's municipal housing stock to date. The Polo Club resulted in an approximate 50% increase in the Borough's housing stock.

In addition, the Borough has experienced an acceleration in the usual background growth that has historically occurred. Over the 20 years between 1980 and 1999, inclusive, available data indicate the issuance of the following building and demolition permits:

Table 21
Building Permits, 1980-1999

Year	Number of Building Units	Number of Demolitions
1980	0	0
1981	2	0
1982	2	0
1983	3	0
1984	0	0
1985	2	0
1986	4	0
1987	4	0
1988	1	2
1989	1	0
1990	0	1
1991	0	0
1992	12	0
1993	48	0
1994	53	0
1995	8	0
1996	2	*
1997	3	*
1998	10	*
1999	8	*
Total	163	3

Source: NJ Department of Labor

*Data no longer collected for demolitions after 1995.

For the years 1992 – 1995, the unusually high number of building permits issued resulted from construction of the Polo Club development.

Over the 20 period, the Borough averaged a net increase of 8 units annually ($163 - 3 \div 20$). For the 1980-1989 ten-year period, the average increase was 1.7 units annually ($19 - 2 \div 10$), while the average increase for 1990-1999 was 14.3 units annually ($144 - 1 \div 10$). For the 1990-1999 period, if the 123 Polo Club units were excluded, the annual increase would have been 2.1 units per year ($144-123 \div 10$) resulting in a slight increase

from the prior 10-year period. This background growth rate suggests that the Borough may expect approximately 13 units during the 2000 to 2006 period.

The 1996 and 1997 permits issued more typically represent the background growth that the Borough has experienced over time, exclusive of the Polo Club. However, the average of 9 units per year for 1998 and 1999 suggests acceleration in the historic pace of background development. This may indicate that regional growth pressures and the vitality of the economy could continue to result in an increased pace of residential development in the Borough in the future.

Municipal Employment Characteristics

As part of the mandatory contents of a housing element, the Borough is to provide "an analysis of the existing and probable future employment characteristics of the municipality." [N.J.S.A. 52:27D-310d] This information had more relevance when COAH used employment data, in terms of how many people worked within a municipal border, as an allocation factor for its affordable housing need allocations. Since COAH is proposing to change this allocation factor to the value of non-residential ratables, this information on place of work employment by municipality assumes less importance.

The reasons for which COAH has changed this allocation factor from employment to non-residential valuation are the methodological problems of using employment data. The New Jersey Department of Labor compiles data on the number of people working within a municipality's borders from unemployment insurance forms filed by employers; thus, only private sector employees are reported, and only those covered by their employers for unemployment insurance. In addition, the data is compiled by the zip code address of the firm, which may not reflect the actual location of employment. For example, if a business has more than one location, its total employment is allocated to only the location listed on the unemployment insurance form. Also, the data accuracy suffers from what has been termed the "Princeton" phenomenon, whereby businesses use mailing addresses in perceived prestigious communities, even though the actual facility is located elsewhere. Thus, the data is fraught with uncertainty.

The unreliability of the data is exemplified by reference to the Borough's prior lower income housing litigation (*Hauéis, et al. v. Far Hills Planning Board, et al.*). The published figure (New Jersey Department of Labor, Division of Planning and Research, Office of Demographic and Economic Analysis (ODEA)) for the number of private sector jobs in the third quarter of 1983 for the Borough was 544. Based on the limited number of employers and apparently low level of employment in the Borough, the ODEA was asked to review the figure. The ODEA provided the Borough with its confidential list of employers who listed a facility location in Far Hills, and it was found that only 49 of the 92 listed facilities were located in the Borough. Thus, the Borough's 1983 employment figure was reduced to 326 jobs. In fact, even this list of 49 employers was flawed, as such establishments as the United States Golf Association headquarters were listed in Far Hills.

Unfortunately, the flaws in employment figures have not been corrected in the ensuing decade. For example, the ODEA reported that in the third quarter of 1990 the Borough had 102 private sector employers and 799 private sector jobs. Because of the prior difficulty with the employment data, in 1987 the Borough conducted a survey of all business establishments as part of the 1988 Master Plan. Of the 36 surveys distributed, 23 were returned, including all of the major employers at the time (Ludlow's, Schlott, Apgar, and Turpin), and the total number of employees was 138, or an average of 6 jobs per business. If the establishments, which did not respond maintained the average of 6 jobs, which seems unrealistically high, then total employment among these establishments is 216 jobs. Adding in jobs which may exist on farms and estates in the Borough, it is likely that the number of jobs in the Borough does not exceed 250 for this time period. With the redevelopment of the Ludlow/Claremont site as service and office uses, it is estimated that 15-25 jobs were added to the existing employment base of the Borough.

Housing Planning Proposals

A contractual arrangement between the Borough and a local land owner can provide Far Hills with an additional option in the provision of low and moderate income housing, while also making excellent use of currently vacant or underutilized accessory structures. The existing use of accessory structures on large parcels (i.e., employee quarters, stables and barns, gate houses, etc.) as dwelling units for qualifying low- and moderate income households should be recognized and counted toward the Borough's Fair Share obligation.

Conversion of accessory structures should only be permitted for low- and moderate-income housing, subject to the same density and performance standards applicable to single-family dwelling units. The reuse of these structures may assist in providing low and moderate income housing in Far Hills, while also providing housing for Borough residents who no longer wish to bear the costs and labor involved in maintaining a large structure on a large lot.

UTILITY SERVICE PLAN ELEMENT

The Utilities Service Plan Element of the Master Plan is prepared in accordance with N.J.S.A.: 40:55D-28b:

(5) A utility service plan element analyzing the need for and showing the future general location of water supply and distribution facilities, drainage and flood control facilities, sewerage and waste treatment, solid waste disposal and provision for other related utilities, and including any storm water management plan required pursuant to the provisions of P.L.1981, c.32 (C.40:55D-93 et seq.);

The Village area of Far Hills, including the Schley Road and Far Hills Avenue section and Polo Club neighborhood is currently the only part of the Borough that is served by public water and sewer systems. Potable water is provided to the Village through a centralized water supply distribution system by the NJ American Water Company. Wastewater treatment by Environmental Disposal Corporation (EDC) serves the businesses and homes connected to the centralized sanitary sewer collection system in the Village.

During the 1990's, the Village sanitary sewer collection mains were rehabilitated under a contract with Applied Wastewater Treatment Systems. The rehabilitation project included lining existing sanitary sewer mains to prevent groundwater infiltration, and manhole repairs to prevent the inflow of surface water from entering the system through leaking manhole covers and fittings. Manholes were reconditioned by re-grouting to accommodate inflow-prevention manhole covers. These repairs reduce storm water inflow from streets into sewer lines during rain events, thereby reducing the amount of effluent requiring treatment by EDC at the Borough's expense. Similarly, lining sewer lines reduced infiltration of groundwater into sewer lines that also increased the amount of effluent requiring treatment. In addition to the rehabilitation of collection mains, the Borough instituted a program to rehabilitate laterals connecting to residences and businesses. Eliminating infiltration at the lateral connections in conjunction with mains has subsequently reduced flows and therefore costs for Borough residents.

EDC has an operational capacity of 2.1 million gallons per day (MGD) based on its NJDEP discharge allocation certificate for its franchise service area that includes Far Hills Borough, Bedminster Township, The Borough of Peapack & Gladstone, and Bernards Township. Far Hills Borough has been allocated 65,000 GPD by EDC and has purchased 54,350 GPD or 84% of the allocated service. The average daily flow for Far Hills from January to September 2001 was 46,900 GPD, or 86% of the purchased volume from EDC, roughly equal to 72% of the Borough's total allocation. The Borough has no current plans or need for additions or expansion of the current public sewer system. The relatively small lot pattern of residential neighborhoods and predominantly developed character of the Village provides few opportunities for significant growth and additional connections to the sanitary sewer collection system. Future growth in the Borough will be predominantly accommodated in the countryside and served by individual on-site septic systems.

Utility Services Planning Proposals

One area requiring attention with respect to the provision of potable water and sanitary sewer service is the possibility of additional affordable housing that may be assigned to the Borough under COAH's third round of regional affordable housing calculations. The calculations for this round are expected to be concluded in October of 2002. As such, the Borough has adequate capacity for water and wastewater treatment should it be needed to respond to an additional affordable housing obligation under COAH's third rounds.

In order to reduce the demand on the area's aquifers it is advantageous that the water supply system be extended to coincide with the sewer area, should that become necessary to accommodate more affordable housing in the future. However, extending the area served by public water beyond the sewer area, even if the physical infrastructure is present, would not be practical or advantageous to the Borough. Such an expansion would put pressure on the low density, single family areas in town, and would adversely affect the natural environment in these areas.

The Borough responds to State law requirements for the collection of recyclables by participating in Somerset County's recycling program. Under this program, the Borough satisfies the requirement for a Recycling Plan for the collection of both household and non-residential recyclables. Non-residential land uses should be required to identify their plan for recycling at the time of site plan review before the Planning Board or Zoning Board of Adjustment.

COMMUNITY FACILITIES PLAN ELEMENT

The Community Facilities Plan Element of the Master Plan is prepared in accordance with N.J.S.A. 40:55D-28b(6), which reads as follows:

- (6) A community facilities plan element showing the existing and proposed location and type of educational or cultural facilities, historic sites, libraries, hospitals, firehouse, police stations and other related facilities, including their relation to the surrounding areas

Municipal Services

Police

The Borough currently has a police force consisting of seven officers, including the Officer in Charge, four full-time sworn officers and two special officers. The Police Department has a total of three police cars including one unmarked vehicle and two cruisers. The Department occupies the lower level of Borough Hall and the Judges Chambers and Court Administrator have been recently relocated to the upper level of Borough Hall as a result of a remodeling project. These municipal functions are provided with adequate space in Borough Hall and there is no need for expansion or improvements to the facilities supporting the Police Department and Municipal Court.

Borough Offices

The Borough utilizes independent contractors in a part-time capacity for the general administrative offices including the Tax Assessor and Tax Collector. Additionally, the Borough employs independent contractors licensed by the NJ Department of Community Affairs for plumbing, electrical and building sub-code inspections. Likewise, the Borough employs a part-time Zoning Officer and Board of Health Officer. The Borough employs one full-time employee to act as both Borough Clerk and Planning and Zoning Board Administrator. There is no identified need for additional municipal employees since current administrative personnel deliver effective and efficient municipal services and the Borough has a relatively small and stable population base and foresees limited growth in the demand of municipal services.

Schools

Far Hills Borough is one of four sending municipalities in the Somerset Hills School District. The Borough's school-age children may attend the Bedwell Elementary School for grades Kindergarten through 4th Grade; the Bernardsville Middle School for Grades 5 through 8; and the Bernardsville High School for Grades 9 through 12. Enrollment varies from year to year, however the 2002 Board of Education records indicate that the Borough is sending approximately 85 students to District Schools. The other sending municipalities to the District include: Bernardsville, Peapack-Gladstone for all grades and Bedminster Township for grades 9 through 12.

Emergency Services

First Aid – the Far Hills-Bedminster First Aid Squad, Inc. is a shared service and joint undertaking of the two municipalities, which provides emergency medical services for the two municipalities. The First Aid Squad building is located on a 2.01 acre lot on the south side of Main Street adjacent to the North Branch of the Raritan River, which is the municipal boundary between Bedminster and Far Hills.

The First Aid Squad is supported financially from voluntary donations from the two communities along with fund-raising and contributions by the two municipalities it serves. The Borough provides 20% and Bedminster provides 80% of annual municipal contributions to the Squad. This responds to the Squad's regular replacement schedule for primary and auxiliary equipment and operations.

As with most volunteer emergency services, the Squad has a limited number of members available for providing service Monday-Friday from 6 a.m. to 5 p.m. when most volunteers have employment commitments. In the past, this situation has resulted in the Peapack-Gladstone First Aid Squad responding to calls for the Squad. In fact as recently as 1998, the Peapack-Gladstone First Aid Squad responded to as many as 55 calls on behalf of the Far Hills-Bedminster Squad. However, renewed efforts by the Squad have resulted in a dramatic improvement of volunteer services to the point that this year, the Far Hills-Bedminster Squad covered for Peapack-Gladstone on occasion, demonstrating the degree to which the availability of weekday volunteers and response rate has improved. In fact, of the roughly 700 calls for service per year, the Squad arrives on scene at approximately 90% of its calls within 10 minutes of receiving the call. The Squad arrives on scene at the remaining 10% within 10-16 minutes of receiving the call.

The squad's current membership consists of nineteen individuals. Seventeen are New Jersey State Certified Medical Technicians – EMT's. Two members are drivers, with CPR certification. All are available for day, evening, night and weekend response. A limited number of members are generally available during the daytime, due to employment commitments in other municipalities. The squad has mutual aid agreements with Squads in all surrounding municipalities, including Peapack-Gladstone, Tewksbury, Whitehouse, Branchburg, Green Knoll, Liberty Corner, Bernardsville and Martinsville.

The Far Hills-Bedminster First Aid Squad's current inventory of vehicles includes the following:

- 2002 Chevrolet – First Responder Truck
- 1998 Ford Horton – Ambulance
- 2002 Ford Horton – Ambulance

The First Responder Truck responds directly to the scene to begin emergency patient care. The truck is fully equipped with EMS equipment, which includes a defibrillator, oxygen and oxygen adjuncts, immobilization devices (long board, KED, splints) and onboard lighting. It is a non-patient transport vehicle.

The primary advanced life support unit, MICU, is Somerset Medical Center's 681 and 682. Secondary MICU's are Morristown Medical Center's MICU 11 and 12, and

Hunterdon Medical Center's EMS 1. MEDEVAC support is from North Star, South Star and Lehigh Valley MEDEVAC's.

Fire Protection Services - Far Hills and Bedminster Township share the services of the Far Hills-Bedminster Fire Company. Annual contributions from both municipalities assist in supporting this all-volunteer Fire Company. Under the Borough-Township shared services agreement, local contributions are provided based on proportional demand for services, with the Borough contributing 20% and Bedminster Township providing 80% of the local municipal contributions that support Fire Company operations.

The Fire Company is the busiest all volunteer Fire Company in the County, responding to over 600 calls for service in each of the four last years. The Fire Company currently operate two firehouses: Station No. 1 (Union Hook and Ladder firehouse), built in 1931 is located in Far Hills on Dumont Road; and Station No. 2, built in 1983 at Miller Lane in Bedminster Village. Station No. 1 is primarily used for training and meetings since, due to its size and age, it can no longer garage the larger modern fire-fighting apparatus that is used today. The Fire Company consolidated all of its apparatus at Station No. 2 in 1994, which enabled the Company to better coordinate its response to emergency calls for service.

Due to growth within the service area, the Fire Company has outgrown Station No. 2 and now requires a new firehouse to garage all of its apparatus under one roof. The new firehouse is currently in the planning and design stages and construction is expected to begin during 2002-2003, once plans and design work has been completed. The new firehouse will be funded in part through funds provided by the Borough and Bedminster Township. Municipal capital assistance to construct the new firehouse will be provided in accordance with the shared services agreement that calls for the Borough to provide 20% and Bedminster Township to provide 80% of the municipal assistance provided. The Fire Company will fund the balance of facility construction costs through annual fund raising efforts and private donations that are anticipated from residents of the community.

Once the new firehouse is constructed, Station No. 1 (Union Hook and Ladder firehouse) on Dumont Road will no longer be needed for training and meeting space and the Fire Company plans to sell the building to help pay the cost of the new firehouse. The firehouse was constructed in 1931 and has been landmark in the Borough ever since. The sale of the firehouse presents the opportunity for creative adaptive reuse of the building.

Library

The Clarence Dillon Public Library, located on Lamington Road west of Route 206, is a free public library, which jointly serves Far Hills Borough and Bedminster Township. Prior to 1982 the library was an association library of Somerset County and was managed by the Crossroads Public Library Association. In 1982, the Clarence Dillon Public Library withdrew from the Somerset County Library system, based upon a voter-approved public referendum, which established the "Joint Free Public Library of

Bedminster and Far Hills,” effective January 1982. The newly established municipal library would be governed by a ten member Board of Trustees, consisting of the Mayor of Far Hills and the Mayor of Bedminster or their appointed Alternate, the Superintendent of Bedminster Township School and the Superintendent of the Somerset Hills Regional School District (representing the Far Hills student population) or their designated Alternates, and three citizen representatives from the Borough of Far Hills and Bedminster Township, appointed by their respective governing Mayors.

The library is located on a 2.03-acre parcel and occupies 15,200 square feet. The current book stock includes approximately 80,000 volumes. There are currently four full-time professional librarians, two full-time para-professionals, and ten part-time staff. In addition, the library operates an active volunteer service program, with approximately twenty volunteers.

Under the terms of N.J.S.A. 40.54-29.4, the governing bodies of each municipality shall “provide for the apportionment of annual and special appropriations therefore among such municipalities...such apportionment of appropriations may be based on the assessed valuations of the respective municipalities, their populations, or such factors as the governing bodies shall agree. Such agreement shall provide that the combined minimum appropriation for the joint library shall annually not be less than one-third of a mill on every dollar of assessable property with the participating municipalities based upon the equalized valuation of such property...as certified by the Director of the Division of Taxation in the Department of the Treasury.” (amended by L. 1988, c 38 2.)

Beginning in 1996, both municipalities reached the minimum funding appropriation level as specified by state law.

Community Service Planning Proposals

Police

The existing complement of community facilities and services appears to be adequate, even taking into account the growth in population of the last decade. The Police Department is well staffed and capable of providing effective police protection for Borough residents. Recent upgrades to the Police Station are expected to effectively meet local needs well into the foreseeable future.

Borough Offices

The Borough offices are well staffed and well maintained as a result of recent efforts by the Borough Council to improve the delivery of services and a dedicated and efficient staff. The Borough has made many significant upgrades to Borough Hall over the past decade, which has resulted in a well maintained facility that adequately responds to residents needs for municipal services.

Schools

The Master Plan proposes no changes to the existing regional district schools structure for educational of the Borough's school-age children. The Somerset Hills School District facilities provide an excellent, cost-efficient education.

Emergency Services

The Far Hills-Bedminster Fire Company is well staffed by capable volunteers that provide effective fire protection services. The Fire Company has outgrown Station No. 2 and requires a new firehouse to garage all of its apparatus under one roof. The Fire Company's planned firehouse, is expected to be adequate for the level of growth anticipated in both Far Hills and Bedminster Township for the next 20 years.

The Union Hook and Ladder firehouse on Dumont Street will be sold by the Fire Company once the new firehouse is constructed and Fire Company operations are consolidated to the new location. The firehouse embodies an important element of Village identity and should be retained on site in its current form. It is the policy of this Master Plan that this community facility be adaptively reused and the façade of the firehouse remain unchanged from its original form. To ensure that the firehouse is reused in way respectful and sensitive to Village life, the Borough should analyze alternative uses that may be appropriate for the firehouse, such as mixed-use that includes a business on the first floor and affordable housing apartments on the second floor. Since parking is at a premium in this area of the Village, future use of the firehouse should require a nominal amount of parking and generate a limited amount of traffic.



Library

The Clarence Dillon Public Library underwent an extensive \$2.4 million renovation/expansion project in 1992-1993. The old library was enlarged and renovated with a new 10,000 square foot addition, bringing total space to 15,200 square feet. The much-improved library facility features a community meeting room, used by over 6,200 people in year 2001. The number of registered patrons has tripled since the mid-1980s to over 8,500 patrons. The library continues to register an average of sixty new patrons every month, ten percent of which are non-residents, who pay for the privilege of using the Clarence Dillon Public Library.

The increased demands for library services, as well as the increased physical size of the library, necessitated an increase in paid staff. There are currently four full-time professional librarians, two full-time paraprofessionals, and ten part-time para-

professional staff members, including a part-time custodian. The 10,000 square foot building addition to the library increased the overall maintenance costs associated with the building, including heating, air conditioning, electric and water bills. The library has been able to provide quality service to its patrons through the general appropriations from both municipalities and with the additional assistance of the Friends of the Library and state grant funds.

The library increased service hours in year 2000 to a total of 58 service hours per week. The library is open six days a week, with at least one professional librarian on duty at all times. In the future, the library board will need to exercise continued fiscal restraint in order to provide quality service and to maintain an adequate book stock and library materials for its patrons. The library board expects to conduct a Vision Planning Seminar every five years, with input from various community organizations and the governing bodies, in order to assess ongoing community needs with respect to library service. The Vision Plan should provide an overview or framework for the more detailed Strategic Plan, which is revised more frequently.

All minutes to public meetings and library documents are subject to the NJ Right to Know Act and corresponding open records statutes. The library further abides by all applicable New Jersey State Library Laws.

Summary

Far Hills should maintain the emphasis on the Village as the social, cultural, and service center of Far Hills by locating any new future community service facilities in or immediately adjacent to the Village. The historical role of the Village as the provider of services for the outlying parts of the Borough should be maintained. In addition, there are economies of scale in centralizing services both in terms of the availability of infrastructure and in accessibility by all residents of the Borough.

RECREATION PLAN ELEMENT

The Municipal Land Use Law provides for the preparation of a “recreation plan element showing a comprehensive system of areas and public sites for recreation” at N.J.S.A. 40:55D-28b(7). Far Hills has a number of significant recreational facilities located within the Borough, both publicly and privately owned. These include the Fairgrounds with adjoining URWA open space, the Pond, a Green Acres Open Space parcel, Buck Garden, a Somerset County Park, and Moorland Farms (see Recreation & Open Space Resources map on following page). With the exception of the Fairgrounds, most of these facilities preserve valuable natural assets and provide for limited passive recreational use (e.g., hiking, picnicking, bird watching, walking or sight-seeing). These sites also tend to be regional facilities drawing users from throughout the county.

The increase in population in the Borough of approximately 160 persons during the last decade suggests the need to monitor the availability of recreation resources and expand and diversify facilities as local needs emerge. Village residents enjoy convenient access to the Fairgrounds and the North Branch of the Raritan River, which is the south-westerly boundary of the site. The Fairgrounds provide resources such as athletic fields, a tot lot, walking-jogging track. These facilities seem adequate to respond to the population growth that has occurred in the Borough during the last decade.



The Fairgrounds is the recreational and cultural centerpiece of Village life and together with Moorland Farms embodies a signature landscape so prized by Borough residents.

The Fairgrounds is the recreational and cultural centerpiece of Village life and together with Moorland Farms embodies a signature landscape so prized by Borough residents. These sites establish an essential community character that defines the Borough and sets it apart from every other community in New Jersey. The Fairgrounds provides open space for passive and active recreation and cultural activities, and is open to the public. The Steeple Chase at Moorland Farms and other public-spirited large-scale events distinguish life in the Borough and the Somerset Hills area from all other places. These sites are deeply valued and widely enjoyed by residents in the region and the public has a proprietary interest in their ongoing operation and preservation.

The Fairgrounds is public open space owned by the Borough and it will remain unchanged well into the future. It's preservation is not threatened since it is public open

space. Visitors and the public are welcome to use the Fairgrounds throughout the year and the Borough has established reasonable restrictions on its use while at the same time keeping the site relatively accessible. Moorland Farms, however, is not publicly owned and its preservation may pose a daunting challenge if the Borough is committed to its survival as a community and regional open space resource.

The Fairgrounds

The Fairgrounds includes a number of active recreational opportunities that serve a wide variety of age groups. The site includes three baseball fields, a basketball court, a tot lot and a walking track. Direct access to the North Branch of the Raritan River is a water-based recreational resource and site amenity. A walking trail extends from the site northward along the river into a passive open space parcel owned by the Upper Raritan Watershed Association. The site also serves as host to a range of cultural activities throughout the year.

Activities conducted by non-government organizations such as the Visiting Nurse Association, have generated contributions that help the Borough maintain and upgrade to the Fairgrounds. Somerset County also provides a contribution for maintenance of the Fairgrounds, as does the Little League serving the Somerset Hills. These sources of revenue help in maintaining the Fairgrounds, however the primary expense of its upkeep falls to the Borough residents.

Interestingly, of the 180 or so participants in the Little League, for example, Far Hills children are but a small number of its players, numbering less than 20. Recent overtures to the Borough by the Bernardsville High School for use of the Fairgrounds fields indicate a need for the recreation space in the area, but the School is unable to provide a monetary contribution toward maintenance. Peapack also wants use of the Fairgrounds fields and has offered mowing in exchange for field use. There is no shortage of demand for use of the Fairgrounds.

While the Borough would like to accommodate groups that want to use the Fairgrounds, a policy is needed to address the expense of maintaining the site so Borough residents do not have to pay a disproportionate share of the cost to maintain the site for its use by others. Similarly, Borough police protection at public gatherings and events sponsored by non-government organizations should be paid by the users since local police are best equipped to ensure public safety and maintain order at public gatherings at the Fairgrounds.

The Borough should develop a cost-based usage fee structure for the Fairgrounds. This should take into account both routine and long-term maintenance of the site and its improvements, and also for the provision of adequate police protection. This approach will ensure that all persons, both non-residents and Borough residents alike, will have a safe, high quality experience at the Fairgrounds and will also serve to maintain this prized regional resource well into the future for all to enjoy. The Borough should designate a recreation advisory group, comprised of residents, members of the governing body and

Planning Board to assist the Borough Council in monitoring activities at the Fairgrounds and in providing recommendations for facilities, their use and maintenance.

Moorland Farms is home to the Far Hills Race Meeting Association, the owner of the site. The site is characterized by breathtakingly scenic long bucolic vistas from the Village, US 202 and Liberty Corner Road. Moorland Farms is the perfect compliment to the Fairgrounds and anchors the essential character of the Borough as a signature landscape of the community. At one time the preservation of Moorland Farms seemed assured. An easement preventing development of the site was placed on the site by its prior owner, AT&T, in conjunction with a development approval in Bedminster Township. However, a subsequent development approval in Bedminster lifted the restriction, leaving Moorland Farms once again vulnerable to potential development in the future.

The Far Hills Race Meeting and the Midland Run are held at Moorland Farms and these sporting events generate extraordinarily large numbers of visitors that transform life in the Borough on the days of these events. The Borough is well known for these events, which are apparently quite lucrative for their sponsors, the Far Hills Race Meeting Association and the Somerset Medical Center, and residents in the region enthusiastically flock to the Borough en masse on the day of these events. Managing the large crowds and traffic jams when these events take place requires local police and emergency services to ensure public safety and a quality experience for all.

Moorland Farms is intrinsically linked to the open space character and quality of life in



the Borough and its preservation assumes a high priority. However, conventional means of preservation such as acquisition in fee by the Borough does not appear likely. Given the development potential of the site and its extremely high real estate value, a limited form of preservation, such as a development easement preserving a portion of the site, should be considered and explored with its owners.

Once a site is threatened with development, it is often too late for a municipality to effectively compete with the market to prevent development. Therefore if Moorland Farms is to be preserved, the Borough should launch efforts to enroll State and County agencies in acquiring the development rights on the site. This approach would leave the Race Meeting Association with ownership of the site and permanently preserve the landscape for the Borough. Sources of funding such as the State's Farmland Direct Easement Purchase Program and the NJDEP Green Acres Program should be

investigated along with the NJ Environmental Infrastructure Trust Program and the County/Municipal Open Space Partnership Program as partners in financing preservation of the site.

Ravine Lake

Under threat of failure, the aging Ravine Lake Dam was repaired with assistance from Far Hills Borough. The Borough signed a loan guarantee to put State funding in place to pay for repair of the dam. The Lake Club membership, a private club with approximately 10 acres of land that also owns Ravine Lake, has



assumed repayment obligation for debt service on the loan, but the Borough's assistance was needed to secure the State-funded loan. The site and the lake are important open space and landscape elements in the Borough, and their long-term preservation assumes a high priority. The Lake Club has been a good steward of these resources. Nonetheless, the Borough should explore a right of first refusal so that if the Lake Club ever chooses to sell the site, these important open space elements will be protected and preserved.

Recreation Planning Proposals

The Borough should assess whether the existing supply of recreation facilities at the Fairgrounds is adequate to meet the current and emerging needs of Far Hill's residents. It is suggested that the addition of tennis courts for Village residents may be a worthy compliment to the range of activities presently accommodated at the Fairgrounds. The addition of a covered picnic area for gatherings and seating areas with benches may also expand the utility of the park for Borough residents, recreation and civic functions. The provision of a shelter to shade players using the athletic fields at the Fairgrounds may also be a useful amenity for warm weather sports activities. While these are only suggestions, a recreation advisory group would serve to help identify any additions that may be needed to the recreation infrastructure in the Borough.

There exists the need for a designated dog walk area in the Borough. The local ordinance requiring dogs to be leashed has been effective over time. However, the Fairgrounds is commonly used by the public to walk and run their dogs despite a prohibition against dogs in the park. One result is the problem of animal waste left at the Fairgrounds, which inconveniences others who use the Fairgrounds. As the Fairgrounds is the central focus of recreation and civic activities in the Borough, this problem could be resolved by establishing a convenient site where residents are permitted to walk dogs away from the Fairgrounds. This would address the need for a dog walk area and at the same time assist in maintaining the Fairgrounds as a clean recreation environment.

"The Pond", a Green Acres parcel on Route 202 is currently used for passive open space and recreation, nature study and habitat protection. This site adjoins the Village and

includes a forested area, open field and a pond. Residents could be well served by establishing a nature trail at this location. Additionally, a fenced-in compound could be provided for use as a dog walk area, which could be supported by a modest parking area for perhaps 3–5 vehicles. This approach would minimize changes to the site, maintain natural habitat and passive recreation and open space areas, while at the same time providing residents with an appropriate location to walk dogs close to the Village.

Bridle Trails

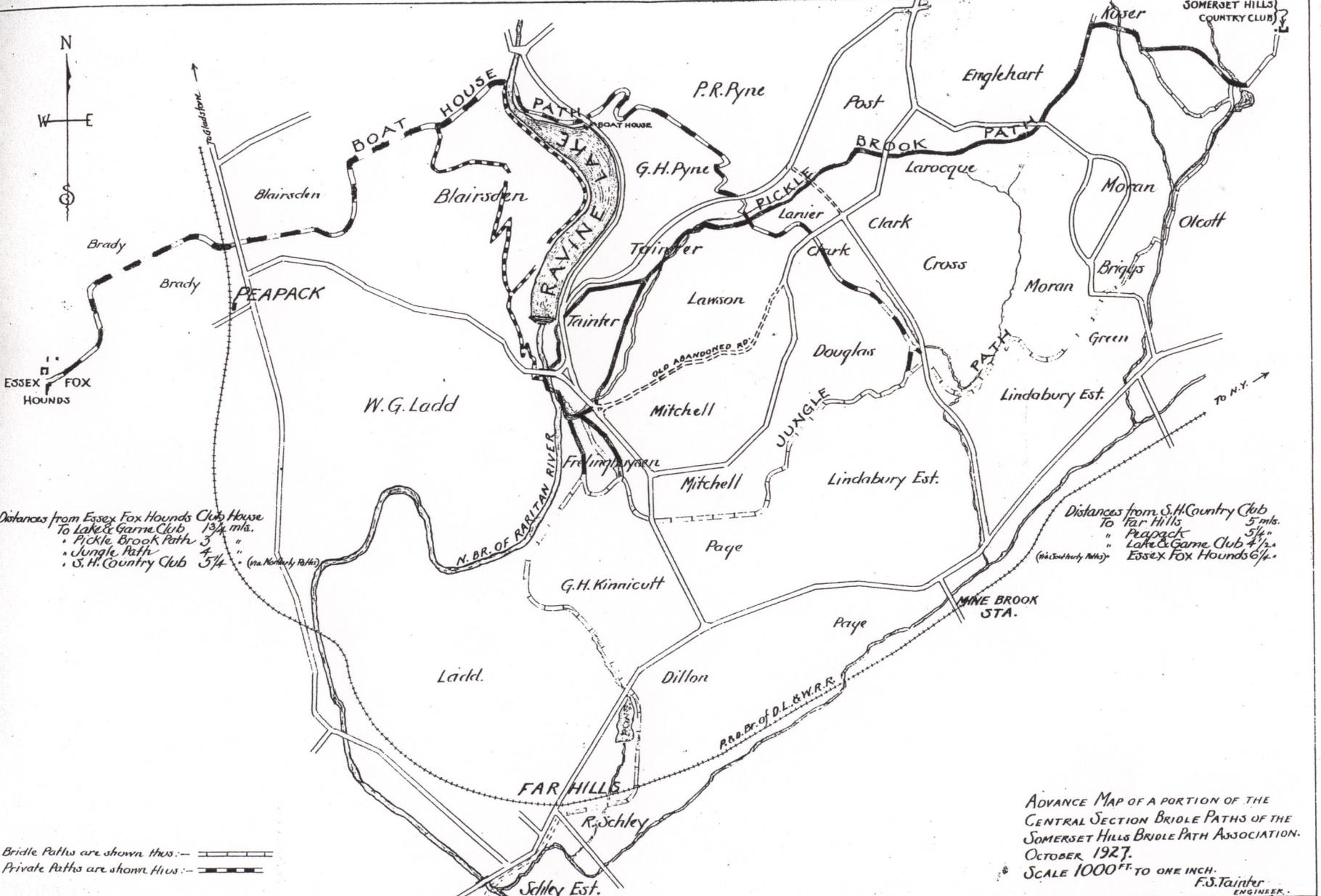
Far Hills Borough has been endowed with an extensive network of bridle trails that traverse the countryside and extend into adjoining communities. These historic trails, a hallmark of the Borough’s equestrian heritage, date to a simpler time when there were no automobiles; horse & buggy, stagecoach and wagon were the common means of mobility and the railroads were the primary means of long distance transport in this country. These bridle trails are emblematic of a whole way of life that remains largely intact today, and are a priceless resource that enables truly unique recreational, social and cultural opportunities and supports an equestrian way of life for the Borough’s residents and its neighbors.

Over time, the integrity of the bridle trail network has been compromised by fragmentation and disuse. Fragmentation can occur as a result of the subdivision of land or when a landowner erects a barrier such as a fence or a wall along a new property boundary, disrupting equestrian travel. Disuse can result from a change in ownership of the land, or when a landowner enters a life-cycle phase that may prohibit horseback riding. Nevertheless, horsemanship and its time-honored traditions remain very much alive today among the Borough’s countryside dwellers and their new neighbors.

Maintaining the integrity and utility of the bridle trail network in the countryside is fundamental to preserving the equestrian way of life in Far Hills. Efforts should be made to ensure that new neighbors recognize this unique infrastructure and respect its value for all residents. The Borough should assist the creation of new trail linkages within the existing network and expand opportunities for riding in the countryside.

Maintaining the integrity and utility of the bridle trail network in the countryside is fundamental to preserving the equestrian way of life in Far Hills.

Particular attention should be focused on maintaining the existing bridle trail network when a subdivision is proposed to protect and enhance this infrastructure. The Planning Board should encourage a subdivider to keep these pathways open and explore opportunities to extend the bridle trail network whenever possible, and promote permanent trail preservation. Included in this section are the maps entitled “Far Hills Countryside Trails – 1927” and “Bridle Paths of the Somerset County Bridle Path Association – 1968”, which show the location of the trails as they existed in 1927 as well as many trails that remain passable today. When reviewing subdivision plans for countryside properties, the Planning Board should refer to these documents to identify important trail linkages and guide landowner actions that will ensure the long-term integrity of the trail network.

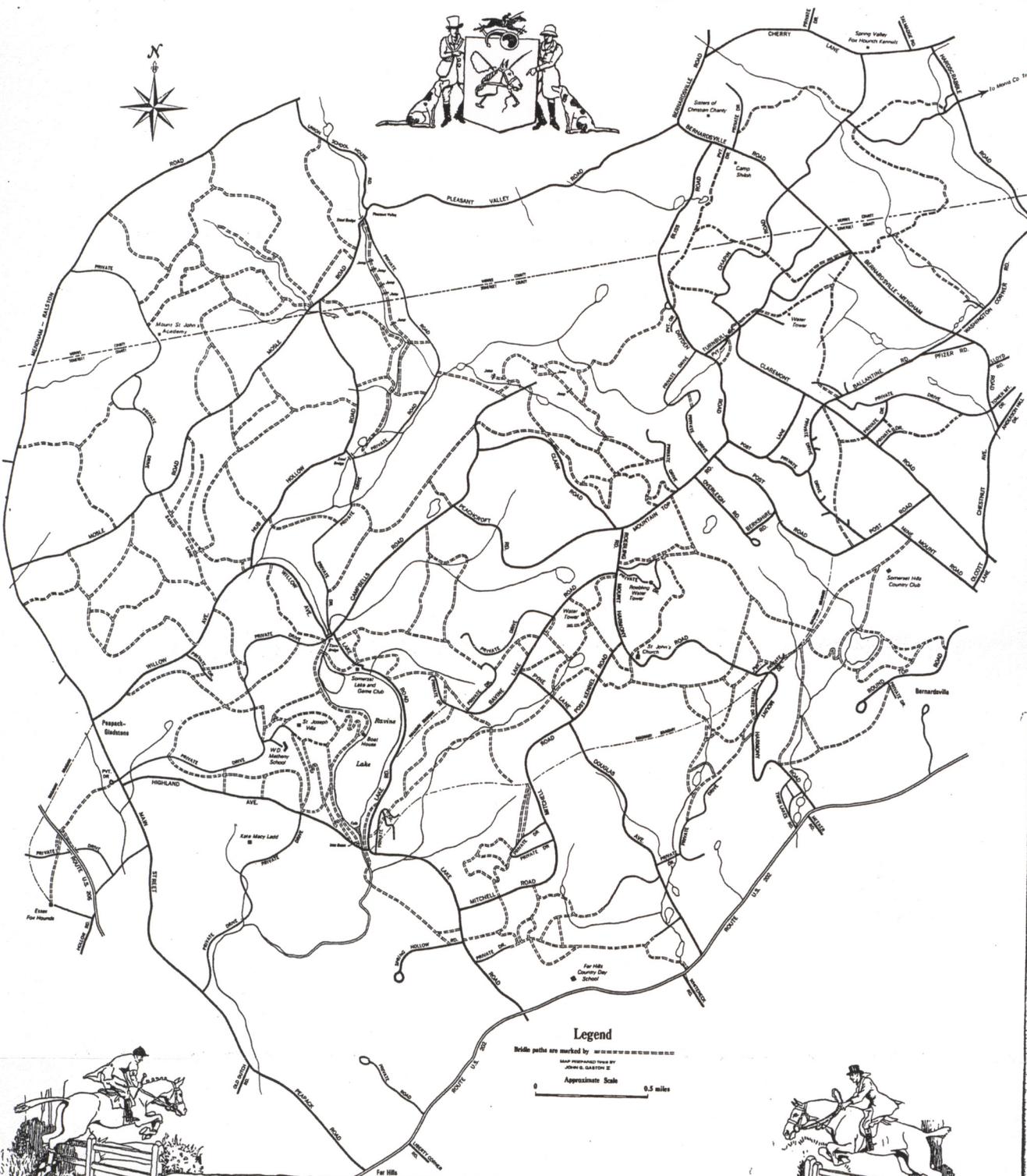
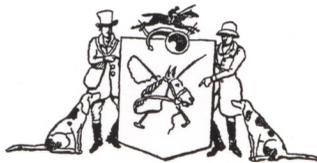


Distances from Essex Fox Hounds Club House
 To Lake & Game Club 13 1/4 mls.
 " Pickle Brook Path 3 " "
 " Jungle Path 7 " "
 " S. H. Country Club 5 1/4 " (via Northern Path)

Distances from S. H. Country Club
 To Far Hills 5 mls.
 " Peapack 5 1/4 " "
 " Lake & Game Club 4 1/2 " "
 " Essex Fox Hounds 6 1/4 " (via Southern Path)

Bridle Paths are shown thus: ————
 Private Paths are shown thus: - - - - -

ADVANCE MAP OF A PORTION OF THE
 CENTRAL SECTION BRIDLE PATHS OF THE
 SOMERSET HILLS BRIDLE PATH ASSOCIATION.
 OCTOBER, 1927.
 * SCALE 1000 FT. TO ONE INCH.
 F.S. Tainter
 ENGINEER.



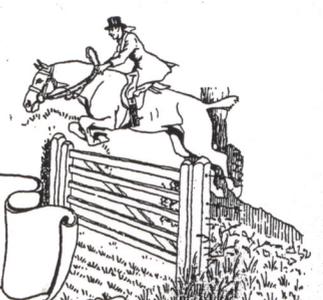
Legend

Bridle paths are marked by -----

MAP PREPARED UNDER THE
DIRECTION OF

JOHN G. GASTON, II

Approximate Scale



**BRIDLE PATHS
OF THE
SOMERSET COUNTY BRIDLE PATH ASSOCIATION**

The Somerset County Bridle Path Association (the Association) is an organization which promotes the creation and maintenance of riding trails for horse owners. The Association oversees a network of trails that runs through a number of municipalities within Somerset and Morris counties, including the Borough of Far Hills. Although a majority of the people in the Borough are not riders, the trails that exist are a recreation resource to a population that extends well beyond Far Hills, serving the greater region. One of the greatest issues that the Association deals with and provides as a service to its member riders is liability insurance. This provides a measure of assurance to private property owners that give permission for trails on their property, removing a potential point of contention.

Although maps exist giving the general location of bridle paths, there is no accurate map that depicts the precise location of trails that the Association maintains. With the advent of Global Positioning System (GPS) technology, the Association should seek out a partnership with a local organization or school that could provide this service through a student to create accurate maps of available trails. In this manner, when properties come in for subdivision or site plan approval, linkages can be made in appropriate locations through the obtaining of easements from developers. In this area, forming a partnership with the Association will set up an information exchange that will benefit the recreation resources of the Borough and the region.

A bridle trails plan should be developed in cooperation with equestrian groups in the Somerset Hills area. The Borough should identify opportunities to forge partnerships among trails groups and private property owners that encourage the maintenance of trails while at the same time respecting property owners concerns for safety and liability. Additionally, the North Branch of the Raritan may provide an excellent opportunity to extend a bridle trail and provide linkages to other trails in adjoining communities.

CIRCULATION PLAN ELEMENT

This section of the Master Plan was prepared in accordance with the Municipal Land Use Law, N.J.S.A. 40:55D-28b:

(4) A circulation plan element showing the location and types of facilities for all modes of transportation required for the efficient movement of people and goods into, about, and through the municipality, taking into account the functional highway classification system of the Federal Highway Administration and the types, locations, conditions, and availability of existing and proposed transportation facilities, including air, water, road, and rail;

The transportation network in Far Hills consists of a compact network of local village streets and widely priced rural collector roads. These Roads feed State highway, Route 202, a two-lane major east/west arterial and County Route 512, a two lane major collector that traverses the easterly portion of the Borough. These two roads channel significant daily volumes of regional automobile traffic through the Borough, particularly during peak periods as workers are commuting to and from the major nearby employment centers. Route 202 witnesses 14,000 automobiles a day and County Route 512 approximately 7,300 a day. Increased traffic along these two arterials resulting from residential and employment center growth in the region over the preceding three decades has served to increase the traffic flow through Borough and on local Village streets. The jurisdiction of roadways within the Borough is depicted on Figure 3.

Development in the surrounding region is also leading to an increase in traffic on secondary roads located in the southerly section of Far Hills south of I-287, as commuters seek to bypass parts of the congestion on I-287 (through the Borough volumes range from 56,000 to 64,000 on a daily basis) and congested intersections as they proceed to work. The Hills development in Bernards and Bedminster Townships has produced significant new traffic patterns and volumes during these periods, and as a result, residents use the back roads and side streets in an attempt to bypass the congestion.

NJDOT provides weekday commuter rail service to the metropolitan area from the Far Hills railroad station, and weekend service is provided as well. Lakeland Bus Lines provides bus service Monday through Friday from the Far Hills railroad station to New York. Travel time by bus is approximately one hour and ten minutes from the Borough to New York.



The Far Hills train station is a regional rail stop that attracts substantial numbers of rail commuters that park in the Borough. The expansion of the parking lot at the NJDOT railroad station has resulted in increased on-site parking capacity and reduced on-street commuter parking in the Village. At the time of Center Designation by the State Planning Commission (2001), the Planning and Implementation Agenda recommended exploring opportunities for expanded bus service and/or some form of para-transit or van to the station, which could in addition provide linkages to nearby corporate office complexes and the Hills Development.

A persistent issue of concern is on-street parking in the Village. The local new car dealer, Welsh Motors, located on Dumont Road in the Village, has occupied the same site for over 75 years. While this business has continued to thrive and grow over time, the scant availability of land in the Village results in the dealership's heavy reliance of on-street vehicle parking. Along with parking demands of other Village businesses, these conditions frequently result in parking shortages and congestion in the commercial district. The Borough recognizes the importance of providing ample parking for shoppers in the Village, and has enacted a parking ordinance that limits the amount of time for on-street parking to four hours. While creation of additional off-street parking areas would reduce on-street parking, such development would require the removal of buildings and the loss of green space, adversely affecting the character and quality of life in the Village.

CIRCULATION PLANNING PROPOSALS

The Village

The Borough has undertaken a multi-phased Village infrastructure improvement project to upgrade the aging road network, install curbs and provide handicapped accessible sidewalks. This road project followed a series of repairs to sewer mains and manholes to permit construction of the comprehensive road overlay, curb and sidewalk construction project. At present, the sewer line and manhole project is complete and approximately 75% of all Village road, curb and sidewalk improvements have been completed.

Road, curb and sidewalk reconstruction activities have been funded through annual local appropriations and a series of grant awards from the New Jersey Department of Transportation – Local Aid and Somerset County Community Development Block Grant Program (CDBG). The Village roads, curb and sidewalk segments completed under this project include Dumont Road, DeMun Place, Railroad Avenue, Spring Street and Prospect Street. For FY 2002, several curb and sidewalk segments along Peapack Road are planned which will complete this project in the Village



Road, curb and sidewalk reconstruction activities have been funded through annual local appropriations and a series of grant awards from the Somerset County.

on the east side of Peapack Road. The State Planning Commission suggested in the Borough’s Planning and Implementation Agenda that the Borough coordinate this effort with Bedminster to explore a better inter-municipal pedestrian connection.

Remaining long-term Village roadway improvement plans include pavement overlays to Far Hills Avenue and Schley Road on the west side of Peapack Road with a possible loop connection of Far Hills Road, Schley Road and Peapack Road through the unimproved Ludlow Avenue right-of-way. While The Borough has not yet secured funding for these improvements, despite several applications for NJDOT Local Aid funding, completion of these Village road improvements remains a local objective.

The Borough has considered using one-way traffic flow along village streets to control “cut-through” of regional traffic through the Village. One such strategy would make Dumont Road one-way northbound between Route 202 and DeMun Place, requiring all northbound traffic on Dumont to turn left onto DeMun Place. This would route traffic down commercially zoned DeMun street, and prevent the use of Railroad Avenue as access to residential streets to reach northbound Peapack Road.

Current levels of “cut-through” traffic in the Village seem to be tolerable. This stems in part from intersection improvements to Route 202 and Peapack Road (CR512) that included a new traffic signal and turning lanes, which has reduced the need to implement a directional flow strategy at this time. However this remains an option along with limiting on-street parking along both DeMun and Dumont if cut-through traffic results in increasing traffic congestion in the Village in the future.

The Borough now requires that all new residential development in the Village, including the construction of accessory apartments within existing units, provide adequate on-site parking. This has resulted in reduced demand for on-street parking spaces by residents of

the Village. The Borough also requires home businesses in the Village to provide one additional on-site parking space for each full-time equivalent employee. This lessens the demand for on-street parking spaces, and frees-up on-street parking spaces for use by shoppers.

In addition, the imposition of a 4-hour parking restriction on some Village streets, combined with a substantial expansion of commuter parking availability at the railroad station has reduced congestion on Village streets. Although not permitted on Route 202, on-street parking is permitted along the west side of Peapack Road, which supports commercial and office uses in the VN District along Peapack Road. Peapack Road parking also provides parking for visitors to the Fairgrounds.

The Borough should explore joint efforts with Bedminster, the County, NJ Transit, NJDOT and Ridewise, the Transportation Management Association in the County, to implement demand management techniques in conjunction with the rail station to reduce congestion in the Village. Expanded bus service or some other form of para-transit could reduce congestion and optimize Village parking opportunities. Ridewise could play a valuable role as a management agent in such a venture, with NJDOT and the North Jersey Transportation Planning Authority providing funding.

Countryside

In the countryside, the Borough has one substantial road improvement project planned, which consists of upgrades to Pennbrook Road. These improvements, which include storm drain, roadway repair and pavement resurfacing, are likely to be undertaken during 2003. This project is planned on the heels of the recently completed Lake Road resurfacing, which corrected poor pavement and drainage conditions.



While the Borough generates minimal traffic in the Countryside, the causes of the transportation impacts (i.e., the Hills Development, AT&T, etc.) are beyond the direct control of the Borough, requiring cooperation with adjacent municipalities, or approvals from County or State governmental agencies. Any changes to Douglas Road, for example, would require cooperation with Bernards Township.

A study should be undertaken jointly by Far Hills and Bernards Twp. To assess safety and traffic calming approaches for Douglas Road. The narrowness of the right-of-way and pavement, along with the hilly terrain and limited sightlines makes it hazardous for this section of Douglas Road to convey the high volumes of traffic that have resulted

from the new residents at The Hills. Additional study should also explore whether left turns from Layton Road onto Liberty Corner Road should be prohibited.

Lake Road between Campbell-Turnbull Road and the triangle intersection at the south end of Ravine Lake could be made one-way. The narrowness of the road, the fact that it provides access only to the Somerset Lake and Game Club, and the low use it receives make this option desirable. However, such a change should be weighed against the inconvenience it would bring to residents of the area.

BICYCLE AND PEDESTRIAN CIRCULATION

NJDOT in July 2000 adopted the following policy: “Bicycling and walking are viable and important travel modes and offer untapped potential for meeting transportation needs and providing recreational and health benefits. Provisions for bicycling and walking are important and necessary elements of comprehensive solutions to transportation problems and needs. Opportunities should be actively sought to address transportation needs and deficiencies through the provision of bicycle and pedestrian accommodations. These modes can also supplement transit use and replace motor vehicle trips by serving short trips.”

“Bicycling and walking are important travel modes and necessary elements of comprehensive solutions to transportation problems and needs.”

In adopting this policy NJDOT has established guidelines and a number of funding programs to conduct and implement bicycling and pedestrian efforts of counties and municipalities. Bedminster Township has participated in this effort by establishing a comprehensive bike and hike trail to link the villages of Bedminster and Pluckemin, including the school, parks and other services. This effort is utilizing FY 2001 Transportation and Community and System Preservation funding.

To protect and maintain the rural and scenic character of Far Hills, the Borough should work with the County to establish a Comprehensive Bicycle Plan. The Borough should also utilize the assistance of the County in securing funding for bicycle-related projects through its position on NJTPA. The Borough’s Circulation Plan can also serve as a tool to secure Transportation Enhancement funding and its village center designation enables Far Hills to secure NJDOT’s Local Aid for Centers of Place.

SCENIC CORRIDORS AND ROADWAYS



The Somerset County Planning Board has prepared a study of Scenic Corridors and Roadways (July 1992), which reviewed a wide range of literature and existing regulatory models in developing a rating system for scenic corridors, and roadways. According to the County, scenic corridors have an area of influence, which extends beyond those lands that border the roadway, to include the entire landscape, while scenic roadways focus on the visual foreground at the edge of the roadway.

The County study suggests that while the State Development and Redevelopment Plan espouses worthy objectives relative to scenic corridors, "... the State Plan has not provided practical guidance on how to implement these policies." The County Planning Board suggests that "... use of

an objective rating system can not only aid in this endeavor, but also lend credibility and support to a scenic roads program and thereby shield the municipality from court challenges."

The County developed designation criteria to allow an objective evaluation of candidate roadways. A rating system was developed to establish the relative scenic merits of various roadways, and all appropriate County road segments were analyzed. These designation criteria included positive features (vegetation, landscape composition, road characteristics and structures or historic districts); and negative features (landscape "scars" such as quarry sites or utility lines, structures such as junkyards, car lots or storage tanks and "other features such as high traffic volumes, litter, and landscape manipulation). Based on this ratings system, in Peapack Road and Liberty Corner Road, in Far Hills (rating 20-24.99) were designated as scenic roadway segment.

The highest ranking segment in the County (42.5) was Route 606 in Branchburg Township, where it crosses the broad flood plain of the South Branch.

The County study suggests the use of an objective rating system to enhance the opportunities to protect scenic corridors. Far Hills should evaluate the potential benefits of such an approach, both to bolster the credibility of the local scenic resource management program and to prioritize roadways based on the scenic resource values. Priority scenic roadway and scenic vista designations in the Borough are shown on Figure 4, entitled "Scenic Roadways".

The County also suggests that municipalities utilize the master plan, zoning ordinance and site plan and subdivision standards to enhance scenic resource protection. Master plans should coordinate circulation, conservation and historic preservation plan policies with scenic resource protection goals. Zoning ordinances can provide "scenic zones" based upon the boundaries of the "view shed" observed from a scenic corridor or roadway. Standards for such zones would provide for development that minimizes visual intrusion on the landscape.



Site plan and subdivision standards may have the greatest role in protecting scenic qualities since they can control the siting of buildings, lots and roads. Creative and flexible development options are recommended, and while these may include clustering of development, the generally rural areas traversed by these roadways may not always be suitable for clustering. A comparison of conventional vs. creative development techniques is outlined in the County report.

Additionally, specific road design and maintenance standards are recommended by the County, including standards for cartways, bridges and culverts, curbing and drainage, guide rails, vehicle limits, intersection treatments, landscaping, lighting and signage. The County also cites mitigation strategies, including landscape management plans and lighting and signage controls.

ECONOMIC PLAN ELEMENT

The major growth issue confronting Far Hills is the reality of strong development pressures that currently exist all around the Borough. The northwest portion of Somerset County along the I-78 and I-287 corridors has experienced substantial growth over the last 20 years, particularly since 1980, and it shows no sign of abating. Strong growth pressure is a reality in the municipalities adjacent to Far Hills and in the Borough itself. Perhaps the key manifestation in Far Hills is the increasing pressure and potential economic return available to landowners from the subdivision and development of their large parcels. The key question for Far Hills is how much, and on what kind of terms, the residents wish to accommodate this growth. Clearly, if Far Hills wishes to grow, the market demand exists for it to do so.

A directly related growth issue is the type of economic development that will be permitted in the Village. The Village has traditionally provided some of the basic services required by the remainder of Far Hills. At present, some basic services, such as grocery stores, are unavailable in the Village. More recently the Village has become a specialized retail location with some professional and service employment. Far Hills has more employed residents (regardless of where they work) than they do employment opportunities available within the Borough.

Economic Plan Proposals

Recent changes in technology have made it increasingly feasible for persons to work at home, and this has implications for both the Village and the non-Village parts of Far Hills. The types of businesses permitted in the Village, including those permitted in residences, will be a major determinant of the ability to maintain the residential character of the Village. Selected, non-residential, adaptive reuse of the large estate dwelling units by home occupations is also an emerging economic development issue.

A limit should be placed on the types of business uses, including home occupations, in the residentially zoned section of the Village to those uses that do not result in an outward change in the residential appearance of dwelling units and those uses that do not attract significant pedestrian or automobile traffic. Only businesses that do not adversely affect the residential character of the Village should be permitted in the residentially zoned area.

An attempt should be made to maintain, at a minimum, the current proportion of businesses in the Village that provide essential retail and personal services to the residents of the Borough and adjacent Bedminster. Examples include barbershops, pharmacies, clothing stores, service stations, hairdressers, etc.

The evolution of the Village toward a retail center consisting of more specialized retail shops will adversely affect the residential quality of life in the Village. Shoppers would increasingly become non-residents from the surrounding region, bringing with them increased levels of traffic into the Village and exacerbating parking shortages. The

relatively small size of the Village and its lack of off-street parking limit its potential suitability as a specialty retail activity center directed at the regional and tourist markets. The availability of a range of essential services in the Village for the residents of Far Hills will help maintain its historical role as the center of the Borough.

Permitted economic uses in the residential districts in Far Hills should focus on professional and business services that are knowledge intensive (i.e., business or management consulting, engineering, accounting, real estate, etc.), do not require walk-in trade or exposure to high traffic flows (i.e., location is not a factor), can be economically conducted in relatively small buildings or residences, and do not involve



more than one employee. Businesses with these characteristics would have the least adverse impact on the residential character of the Village or on estate properties. Permitting businesses that do not require exposure to traffic flow or those that rely on communications equipment (e.g., phone, computers, etc.) to conduct their activities will minimize the amount of traffic attracted into Far Hills.

Maintain current proportion of businesses in the Village that provide essential retail and personal services to the residents of the Borough

HISTORIC PRESERVATION PLAN ELEMENT

The Historic Preservation Plan Element of the Master Plan is prepared pursuant to N.J.S.A. 40:55D-28b(10), which reads as follows:

- (10) A historic preservation plan element: (a) indicating the location and significance of historic sites and historic districts; (b) identifying the standards used to assess worthiness for historic site or district identification; and (c) analyzing the impact of each component and element of the master plan on the preservation of historic sites and districts.

The Borough of Far Hills has a very interesting development history that has resulted in the construction of a number of unique and architecturally valuable structures throughout the Borough. A detailed inventory of the cultural, historic and architectural resources of Far Hills are described in *A History of Far Hills and An Inventory of the Cultural Resources of the Borough for the Far Hills Master Plan*, prepared in 1987 by Anne O'Brien of Bedminster. This document also describes in depth the development history of the Borough, tracing its early settlement in colonial times, the role of the Schley family in determining the current configuration of the Borough, and the development of the AT&T facility and the construction of I-287.

At present, there are two structures in Far Hills that are listed on the National Register of Historic Places: (1) the Far Hills Train Station, and (2) the Linn House located on Route 202 just northeast of the Village. There are a number of other old and architecturally interesting structures that may be worthy of preservation. However, as noted in the Cultural Resource Inventory, some of these structures have been substantially modified over time such that their original architectural features have been eliminated or modified. The following section is a brief summary of the document followed by the full list of properties of historic and cultural significance in the Borough:

Far Hills Borough was contained within a 7,000-acre tract of land purchased by William Penn in 1717. Primarily Scots and Scotch-Irish settled the Borough, located until 1921 within Bernards Township. However, Dutch settled the region that is now Far Hills. Far Hills contained no village in the mid 1800's and, as of 1873, the entire region only housed about 42 residences, three sawmills, a gristmill, a brush block factory and a limekiln. The Borough remained a primarily rural area that had no major early roads, turnpikes or railways until the 1880's.

The foundation for future development was the introduction of the railway in 1872 when the first train ran on the New Jersey West Line from Bernardsville to New York via the Delaware, Lackawanna and Western. The New Jersey West Line was later sold and renamed the Passaic and Delaware Railroad and then sold to the Delaware, Lackawanna Western. The railway was expanded to Peapack-Gladstone in 1890. The expansion of the railway through what is now Far Hills

was a result of the efforts of Grant Schley, who sat on many company boards, including mining and railway companies.

Evander Schley, and later his brother Grant B. Schley, came to Bernards Township in the late 1880's in order to purchase farmland to resell as estates for the affluent who were seeking respite from the heat and urban life. Elizabeth Schley, Grant's wife, came to look at Evander's farms and was said to have remarked upon the scenic "far hills". Thus the name of Far Hills was later given to the village.

In November 1892 trains from Gladstone began to make trips to New York. The first buildings constructed in Far Hills included a railway shed, a post office with L.V. Ludlow as the postmaster, a blacksmith shop operated by William F. Parks to serve the railroad and a general store owned by Mark Lance and Richard Potter. William Parks and Charles Welsh opened a livery stable and the state road 16 was macadamized in the 1890's. Evander Schley had purchased the former M. DeMun farm and divided it into building lots. The first house was built in 1896 by the blacksmith William Parks. The area remained rural until the early part of this century when owners of the large estates began to live in their homes year round instead of only on weekends and during the summer months.

Despite the prohibitive provision that no alcoholic beverages would be served or given away in any structure in the area, building lots sold rapidly. Grant Schley began to build a large variety of community facilities including a village school, church, firehouse, social club, fairgrounds, barns and a host of other buildings. The village homes reflected the new architecture of the period with designs that accommodated central heat and indoor plumbing. Electricity came to the village in 1910 and in 1912 telephone service began.

In 1921 Far Hills separated from Bernards Township. Rising taxes in the village upset residents who felt that they were paying to maintain roads and other municipal features that were not part of their community. The bill authorizing the incorporation of Far Hills was introduced into the legislature on March 28, 1921 and passed in a 30-minute session. On May 12, 1921 a local referendum was approved for the incorporation of the Borough.

Through the Depression growth in the Borough stopped for a time but during the 1930's, and the national call to create jobs through public works, the Borough built a gravity sewer system of red tile with a chlorinated treatment plant and electric trains replaced steam powered engines. In 1932 the Borough adopted its first zoning ordinance of 25-acre minimum lot size for the entire Borough outside of the village center.

During the 1940's, the zoning ordinance was replaced with a 10-acre minimum lot size and the deaths of several major property owners during World War II lead to the subdivision of the large estates into smaller holdings.

The construction of I-287, which had no access or egress in Far Hills, increased development pressures on the Borough from 1964 to 1966. The interstate cut through Schley Mountain, Moggy Hollow and Buck Gardens. School enrollment declined, which resulted in the decision to close the Far Hills School in 1967 where students began attending Bedminster School.

The opening of the interstate system prompted AT&T to acquire 225 acres in Far Hills and 140 acres in Bedminster, lands once part of Grant Schley's Froh-Heim farm, to construct their corporate headquarters for Long Lines Division in 1970. AT&T pledged to keep the land as open space and allow the area to be open for the annual Essex Fox Hounds Race Meeting. AT&T constructed a sewage treatment plant that replaced the long-standing chlorinator built in the 1930's.

The 1980's saw the Borough's rejection to sell alcoholic beverages within the Borough, thus maintaining the long-standing regulations set forth by the Schley's. Far Hills terminated its K-8 send-receive relationship with Bedminster and began sending students to Bernardsville. Conrail deeded the Far Hills Train Station to the Borough where a restaurant opened in the waiting room.

Despite the growth and change throughout Far Hills, the Borough remains rural in character and proud of its history. The population of the Borough has not changed much over the past 70 years. In 1930 the population of Far Hills was 560 and in 1988 the population was 700. According to the 2000 census the current population of Far Hills is 859. Many of the sites and buildings that were constructed throughout the growth of the Borough can still be found and efforts to preserve the character of Far Hills continue by many local residents.

Inventory of Cultural Resources of the Borough

Block	Lot	Use	Date	Style	Historic or Common Name
1	1	Residence	1885-1910	Chateaesque	Peter Z. Smith Homesite
1	1	Residence	1700s	Vernacular/Georgian	Site of Smith Family saw mill and brush block factory
3	5	Residence	1865	Gr Revival/Italian	Ludlow
3	7	Residence	1880	Italianate/Victorian	
		Bridge	1910	Stone Arch & Concrete Plate	Smith picnic bridge
3	9	Residence	1910-1940	Colonial Revival	
3	17	Residence	1700s	Vernacular	Pennbrook Farms
3	17	Residence	1749	Vernacular	Pennbrook Farms
6	18.03	Residence	1700s	Georgian	
19	1	Farmhouse	1866	Colonial Revival	Ripplebrook
19	3	Residence	1896	Prairie	Brook Cottage
18	1	Office/Res.	1885-1910	Romanesque/Mediterranean	Froh-Heim, Moorland Farm
18	3	Residence	1910-1940	Mediterranean	Froh-Heim, Moorland Farm
19	12	Residence	1860-85	Gr. Revival/Italian	Belcher Estate (demolished)
19	14	Farmhouse	1835-60	Vernacular	
23	3	Farmhouse	1835-60	Gothic Revival	Smok Tree Farm
23	5	Residence	1835-60	Greek Revival	
23	12	Residence	1750	Vernacular	Loanoak
19	18	Farmhouse	1800-35	Greek Revival	The Charles Merrill Chapin House
19	18	Residence	1910-40	Chateaesque	The Charles Merrill Chapin House
6	19	Residence	1750	Vernacular/Georgian	M.F. Baldwin
3	20	Residence	1910	Tudor	The Clarence Blair Mitchell House
3	2	Residence	1910	Colonial Revival	
5	5	Residence	1880	Neo-Classical	
101	15&7	Railroad Depot & Restaurant	1910-40	Mission	
14	4	Store	1885-1910	Stick	
14	3	Shopping Center	1790	Federal	Far Hills Center
9	1	Church	1908	neo-gothic	St. Elizabeth Church
8	1-4	Village	1835-1940	Varied	
9	1-6	Village	1835-1940	Varied	
10	1-14	Village	1835-1940	Varied	
11	1-10	Village	1835-1940	Varied	
12	1-2	Village	1835-1940	Varied	
13	1-21	Village	1835-1940	Varied	
14	1-6	Village	1835-1940	Varied	
15	1-8	Village	1835-1940	Varied	
16	1-2	Village	1835-1940	Varied	

Historic Preservation Planning Proposals

The resources noted in the Cultural Resource Inventory should be assessed for their potential eligibility on either the National or New Jersey Registers of Historic Places. The Cultural Resource Inventory identified a number of structures and sites that either because of their architectural value, or their development history, may be worthy of being so designated.

The land use policies and contents of the zoning ordinance should constrain, to the maximum extent possible, the type and extent of exterior architectural and structural modifications permitted to the Borough's estate and manor houses. Adaptive reuse for these structures should stress the preservation of their exterior characteristics. These structures comprise a unique architectural and cultural resource that is worthy of preservation.

The designation of a Historic Preservation Commission is permitted by the Municipal Land Use Law (Chapter 291, 40:55D-107). This legislation authorizes such Commissions to make recommendations to the Planning Board on the preservation of historic structures and also requires that the Board shall make available to the Commission an informational copy of all permits for development in historic districts or involving historic structures. The preservation of valuable historic resources helps a community to retain a sense of its past. Retaining these assets where possible will help to prevent their irretrievable loss.

CONSISTENCY WITH OTHER MASTER PLANS

Surrounding Municipalities

Bedminster Township

Bedminster Township borders Far Hills on the west. There is a high degree of compatibility and consistency of the proposed Far Hills Comprehensive Plan with the current Master Plan and zoning ordinance provisions of Bedminster. The current zoning along Route 202 just west of the Village of Far Hills is Village Neighborhood. This designation is clearly compatible with the proposed commercial area of the Village of Far Hills along Route 202. Immediately north of the Village area of Bedminster is a medium density residential zone, which is similar in permitted development intensity and land uses to the proposed Village Residential district in the northern part of the Village of Far Hills.

The AT&T facility encompasses the Office Residential zone south of the Village area of Bedminster, east of the North Branch of Raritan River. . Remaining as open space under the Far Hills Plan is the Moorland Farms tract in Far Hills, which is adjacent to the AT&T facility.

The compatibility between the two municipalities' plan continues north of Route 202 where the proposed Low Density Residential area in Far Hills abut an RI low density zone in Bedminster.

Bedminster is currently in the process of revising its Master Plan and zoning ordinance. Preliminary indications are that the proposed changes to the plan and the zoning ordinance will not occur along its border with Far Hills.

Bernards Township

Residential districts in Bernards Township adjoin the Borough's south and south-east boundary. Bernards permits one residential dwelling unit per three acres of land along nearly the entirety of the Borough boundary and Far Hills' R-10 residential district. While Bernards' residential zoning is compatible with residential uses permitted in the Borough's R-10 zoning district, the intensity of development that is permitted is approximately three (3) times the low-density residential development permitted in the Borough.

At the southeast corner of the Borough boundary along Douglas Road, The Hills planned unit development open space adjoins the Borough boundary. This development in and the open space set-aside in Bernards resulted from court-ordered high-density residential development that is served by public water and sewer service. Acknowledging the availability of nearby sewer service at The Hills, Far Hills provides a reduced lot size zoning option for approximately 35-acres of land bound by Douglas Road on the south, Layton Road to the east and I-287 to the north. This option permits lot sizes as small as

3.75-acres when subdivided from a tract at least thirty acres in area and when at least two-thirds of the lots are served by sanitary sewer.

Recognizing the environmentally sensitive nature of lands in Bernards Township that adjoin the Borough's southeast and southerly border, the Bernards Planning Board has recommended a reduction in residential density to permit one unit per 10 acres of land in its 2002 Master Plan update. When adopted, this aspect of the Bernards Land Use Plan will be compatible with the Borough's Master Plan.

Borough of Bernardsville

There is also a high degree of consistency and compatibility between the Master Plan of Bernardsville and the proposed Far Hills Comprehensive Plan. Both plans designate the area along their common boundary as a low density residential area. The two plans are also consistent in their treatment of the Route 202 corridor, defined as the area between the railroad and the highway. This corridor is proposed as a moderate density residential area in Far Hills, which is consistent with its designation in Bernardsville as a medium density residential corridor.

Peapack/Gladstone

The proposed Far Hills Comprehensive Plan is highly compatible with the Peapack/Gladstone Master Plan and zoning ordinance. Both municipalities have designated the area along their common border as a low density residential area. This is because of the similarity in environmental characteristics (e.g., steep slopes, soils with severe limitations for septic systems) in this area, which limits the intensity of residential development using on-site septic systems.

There is one difference between the two plans in that the area of Peapack/Gladstone just east of Peapack Road and north of the North Branch of the Raritan River could also be developed as an adult community at a density of one dwelling unit per acre. The probability of this happening cannot be determined, but this potential difference between the two plans should be noted.

Somerset County

The Somerset County Master Plan designated the entire area outside of the Village of Far Hills as a rural preservation area. This designation takes into account the environmental limitations of this region, along with its traditional agricultural uses. The recommendation by the County is clearly consistent with proposed designation of the Country portion of Far Hills as a low density residential area. The Somerset County Plan does not envision the extension of sewer infrastructure well out into the Country section of Far Hills east along Route 202.

The Village of Far Hills is proposed as a community settlement in the County's Master Plan, which is clearly in accord with the Village's proposed use and intensity under the

Far Hills Comprehensive Plan. The County's designation is also consistent with the commercial and residential balance and character of the Village that the residents of Far Hills have said they desire to maintain.

New Jersey State Development and Redevelopment Plan

The State Plan Policy Map of the New Jersey State Development and Redevelopment Plan (State Plan), adopted on March 1, 2001, classifies all of Far Hills Borough as PA-5 (Environmentally Sensitive Planning Area). PA-5 areas are “characterized by watersheds of pristine waters, trout streams and drinking water supply reservoirs; recharge areas for potable water aquifers; habitats of endangered and threatened plant and animal species; coastal and freshwater wetlands; prime forested areas; scenic vistas; and other significant topographical, geological or ecological features, particularly coastal barrier spits and islands. These resources are critically important not only for the residents of these areas, but for all New Jersey citizens.”² Many of these elements are present in combination in the Borough of Far Hills.

The State Plan outlines numerous objectives for PA-5 and subsequent policies aimed at achieving these objectives. It is the intent of the State Plan to:

- protect environmental resources through the protection of large contiguous areas of land
- accommodate growth in Centers
- protect the character of existing stable communities
- confine programmed sewers and public water services to Centers
- revitalize cities and towns

The goals and objectives of the Borough of Far Hills are generally consistent with the intent and goals of the State Plan for PA-5. Through the Master Plan process, the Borough has identified all of the significant resources in the Borough. The land use policies that are and will continue to be in place will ensure that the development that will occur in the future will be mindful of these resources.

It is also the intent of the Borough to protect, in every way possible, the existing character of Far Hills for its residents and visitors. Far Hills is a stable community with abundant character, evident in the charm of the Village and the surrounding countryside. The policies and objectives of this plan clearly articulate this goal.

Infrastructure will be confined to the area of the designated Village Center, the boundary of which is depicted in Figure 21. This represents the limit of higher density development that will occur in the Village and defines the beginning of the countryside or “environs”. The limitation of sewer and public water, along with appropriate zoning for the countryside, will ensure that growth suitable to PA-5 will occur in Far Hills.

² The New Jersey State Development and Redevelopment Plan, New Jersey State Planning Commission, March 1, 2001, Page 215.

The Borough has a Planning and Implementation Agenda (PIA), which is shown at the end of this section. The PIA outlines a path to satisfy the requirements of the Borough's designation as a center under the State Development and Redevelopment Plan. This path includes the development and monitoring of the policies and actions that meet the intent of the State Plan while guiding the Borough's land use policies.

The Borough will seek to, with the aid of a grant from Somerset County, the Borough will seek to develop targets and indicators to measure the development and success of the center as well as the Master Plan. For the Master Plan, in many ways, emulates some of the elements contained in the PIA relative to the center designation.

The Borough will continue to follow through on the PIA, already having completed some of the elements required in conjunction with the center designation. The first item has been completed in conjunction with this Master Plan update, being an infill potential map. This is depicted at the end of this section. The areas around the train station at this point in time are better suited to commuter parking than infill residential development. The Borough has enacted a variety of ordinances related to parking on the streets in the Village in order to combat a lack of parking in the commuter lots. For the convenience of Village residents and businesses, it is essential that the commuter parking facilities remain intact.

The re-evaluation of sewer capacity with adjoining municipalities that are served by the EDC is an item that will be undertaken after the completion of this plan. With recent upgrades completed, there will undoubtedly be capacity available in the system within these areas. The question remains, however, if additional development densities are appropriate in the stable Village area. With the release of new affordable housing obligations from the Council on Affordable Housing (COAH), the Borough may be in the position of needing additional housing to meet their requirements. This will be determined by a new Fair Share Plan and Housing Element, to be prepared once new numbers are released. Additional capacity may be helpful in the Borough meeting this obligation by permitting a limited amount of higher density housing adjacent to the existing Village center, perhaps sponsored by Far Hills.

Once COAH obligation and sewer capacity issues are settled, the Borough will be in a position to evaluate the appropriateness of the current Community Development Boundary for the Village center. Major change is unlikely, however, a more appropriate boundary may have to be decided based on additional development at the fringe of the Village. The Borough's intent, however, is to adjust this line only to accommodate potential affordable housing needs and not to encourage additional residential development outside of the current limits of the Village.

Transportation is another item addressed in the PIA, including the promotion of pedestrian accessibility and safety and the potential establishment of para-transit or van-on-demand system to promote ridership out of the Far Hills station. As noted in the PIA, the Borough has undertaken a variety of opportunities to expand the pedestrian system and increase safety for those utilizing it. There exists a network of sidewalks that inter-

connects the Village, including the Schley Road neighborhood and the Polo Club. There is also a sidewalk that connects Far Hills to Bedminster Village across the North Branch of the Raritan.

The Borough is making strides towards achieving a green belt around the existing Village. The Fair Grounds is the western boundary of the Village, fulfilling one quarter of the needed space for a continuous “belt”. Moorland Farms is the southern boundary of the Village. While not protected open space, the Borough is exploring ways to ensure that the character and intensity of the development there essentially remains the same. Far Hills will continue to explore opportunities to utilize easement donation, easement purchase and fee simple acquisition to preserve this site. The additional areas around the Village on the north and east remain largely rural and undeveloped. With the exception of the property to the east of the Polo Club, the remainder of this area is zoned for low intensity residential development at a density of one unit per 10 acres. Even without preservation, this density lends to the maintenance of green space and retains a largely open feel.

After the adoption of the Master Plan, the Borough will review and evaluate the application of a right-to-farm ordinance as part of the Land Development Ordinance for Far Hills. Review may prove it unnecessary as a number of the properties that are farmed do not rival the commercial operations where nuisance and odor complaints are more common. The character of agricultural operations in the Borough is confined primarily to hay production as the soils present limit the productivity of the soil for field crops. This will all be taken into consideration when the Borough moves to consider and adopt ordinances to carry out the Master Plan.

**Far Hills Village Center Planning and Implementation Agenda
September 2001**

Table 1

Activity	Local Effort	State/County Assistance	Time Table
<i>Land Use</i>			
1. Prepare infill potential map to identify suitable infill and redevelopment sites in and around the Village Center; assess lands around the train station used for commuter parking.	Planning Board to inventory potential infill and redevelopment sites in the Center and assess the property around the train station.	N/A	Part of the Master Plan Update in Fall of 2001
2. Reevaluate sewer capacity of the EDC plant in cooperation with Bedminster and Peapack Gladstone in	Planning Board and governing bodies of the three municipalities to initiate and coordinate	N/A	Part of the Master Plan Update in Fall 2001

order to effectively plan for the strategic use of the remaining sewer capacity within the proposed centers in these municipalities.	this effort.		
Adjust Center boundary to include the entirety of the Polo Club and R-9 sewer service area lots in the Village Center.	Planning Board to prepare recommended mapping changes for referral to Borough Council.	Somerset County and OSP to provide technical assistance as needed.	CDB maps changes per SPC/Far Hills approval.
Upon Completion of 1 and 2 above, evaluate adjustments to either the center boundary or sewer service area in the R-3 zone.	Planning Board to prepare recommended mapping changes for referral to Borough Council.	Somerset County and OSP to provide technical assistance as needed.	Part of the Master Plan Update in Fall 2001
Borough to establish targets and indicators.	Planning Board to establish appropriate targets and indicators for Center/environs land use management strategy, (i.e. infill and redevelopment in center, protection of natural systems, water quality and quantity, and farmland and open space preservation in the environs.	County and State technical assistance.	Planning Board to identify targets and indicators after the adoption of the master plan in fall of 2002.
Transportation			
Promote pedestrian accessibility and safety throughout the Village Center; coordinate efforts with Bedminster Village.	Comprehensive pedestrian accessibility and safety improvement program underway, establishing continuous network of sidewalk through the Village. Borough to explore pedestrian circulation connectivity with Bedminster.	Borough to continue use of local funds and County CDBG Program funds for sidewalk repairs and expansion of sidewalk network throughout the Village.	2 nd and 3 rd phase of sidewalk expansion activities underway. Explore intermunicipal connection with Bedminster and continue participation in County CDBG Program for funding in 2002 if necessary.
Explore opportunities for expanded bus service and/or some	Borough to solicit participation of Bedminster, County,	Enroll participation from Somerset County, NJDOT,	2001-2002

form of para-transit or van-on-demand system to the train station which also provides linkages to nearby corporate office complexes with Bedminster.	State and other transportation agencies to identify opportunities for expanded bus service, and strategies to reduce congestion and maximize rail transit ridership.	NJTPA, NJ Transit & Ridewise to promote connectivity to train station and employment centers, and reduce peak hour congestion.	
Natural Resource Conservation			
Assess opportunities to create a protected, preserved greenbelt around the village center.	Planning Board to examine opportunities to establish preserved greenbelt around center. Identify strategies such as easement donation, easement purchase, and acquisition in fee for greenbelt preservation. Evaluate use of funding sources to establish protected greenbelt	County and State funding sources for farmland and open space preservation (County Farmland Preservation and Open Space Partnership Programs; NJ Dept. of Ag. PIG Program; NJDEP Green Acres); Alliances with private non-profit community participants	Greenbelt planning activities as part of Master Plan update (Autumn 2001).
Agriculture			
Borough should adopt right to farm ordinance.	Planning Board to review right to farm ordinance and make recommendation concerning adoption of same to Borough Council.	N/A	Planning Board to review right-to-farm ordinance (Autumn 2001).

Geology

The bedrock geology beneath Far Hills Borough is associated with three distinct geologic periods, the Precambrian (older than 570 million years), the Cambrian (570 to 500 million years ago), and the Triassic-Jurassic (230 to 140 million years ago). The geology of Far Hills Borough is shown on Figure A-1. This geologic map is based on the “Bedrock Geologic Map of Northern New Jersey” (1996 USGS MIS Map I-2540-A) prepared jointly by the United States Geological Survey (USGS) and New Jersey Geological Survey (NJGS).

The Precambrian rocks are located in the northern third of the Borough beneath Mine Mountain. The Cambrian rocks are located in the far northern tip of the Borough adjacent to the North Branch of the Raritan River. The Precambrian and Cambrian rocks are associated with the Highlands Physiographic Province, which is characterized in northern New Jersey by steep, rounded to flat-topped ridges separated by narrow valleys. Erosion-resistant Precambrian crystalline igneous and metamorphic rocks typically underlie the ridges where as the valleys are underlain by more easily eroded Cambrian meta-sedimentary rocks such as limestone, dolomite, and quartzite.

A fault or large fracture oriented north-northeast to south-southwest is tangential to the eastern shore of Ravine Lake. Two small faults cross through the northern-tip of the Borough fracturing Cambrian meta-sedimentary rocks. Generally, the more malleable Precambrian rocks are poorly fractured whereas, the more-brittle Cambrian rocks are readily fractured. Rock aquifer systems have very little to no primary porosity or open space between grains or particles. Therefore, fractures and other secondary openings provide the space for water to accumulate and move as groundwater. Since groundwater is stored and migrates through faults and related or interconnected fractures, the density and spacing of these breaks between blocks of unfractured rock and between each other are directly related to the capability of a rock-type to yield water to wells.

Triassic-Jurassic rocks formed as the Newark Basin opened, currently underlie the southern two-thirds of the Borough. This section of the Borough is located within the Piedmont Physiographic Province, which is characterized by broad-gently sloping to flat plains separated in Somerset County by steep-elongated ridges of the Watchung Mountains. Sedimentary and meta-sedimentary shales, sandstones, mudstones, siltstones, quartzite, and conglomerates of the Passaic Formation underlie the broad plains. Erosion-resistant extrusive magmas comprised of basalt underlie the ridges of the Watchung Mountains.

There were at least three different periods of volcanic activity late in the Triassic, which gave rise to the range of Watchung Mountains in northern central New Jersey. Because the volcanic eruptions were accompanied by almost simultaneous weathering and deposition of sediments from the Appalachians to the west, the Watchung Mountains consist of alternating shale and basalt layers in some occurrences. The basalt intrusion is

apparent in the southern third of the Borough, where the Preakness Basalt is between the Feltville and Towaco formations.

Normal faults formed by Triassic-Jurassic earthquakes as the Newark Basin was pulled apart cross through the lower two-thirds of Far Hills. These fractures are associated with the Ramapo border fault system with the main Ramapo Fault crossing Far Hills and paralleling Mine Brook and US Route 202. The northern most fracture of this border fault system separates the weakly fractured Precambrian rocks of the Highlands Province from the more brittle Triassic-Jurassic rocks of the Piedmont Province. Rotation of the tensional forces in the Newark Basin resulted in increased faulting near Far Hills as splays or smaller faults diverge from the main Ramapo Fault. Some of these divergent faults more closely parallel the main fault and trend to the northeast while others have a more easterly trend.

The geologic formations shown on Figure A-1 are described by the USGS/NJGS as follows:

Precambrian Rocks

Rocks of Uncertain Origin (Middle Proterozoic)

Diorite – Gray- to tan-weathering, greenish-gray to brownish-gray, medium- to coarse-grained, greasy-lustered, massive diorite containing andesine or oligoclase, clinopyroxene, hornblende, hypersthene, and sparse amounts of biotite and magnetite. Amphibolite layers common.

Metasedimentary Rocks (Middle Proterozoic)

Biotite-quartz-feldspar gneiss - Gray-weathering, locally rusty, gray to tan or greenish-gray, fine- to medium-coarse-grained, moderately layered and foliated gneiss that is variable in texture and composition. Composed of oligoclase, microcline microperthite, quartz, and biotite. Locally contains garnet, graphite, sillimanite, and opaque minerals.

Byram Intrusive Suite (Middle Proterozoic)

Hornblende granite - Pinkish-gray- to medium-buff-weathering, pinkish-white or light-pinkish-gray, medium- to coarse-grained, gneissoid to indistinctly foliated granite and sparse granite gneiss composed principally of microcline microperthite, quartz, oligoclase, and hornblende. Some phases are quartz syenite or quartz monzonite.

Cambrian Formations

Kittatinny Supergroup (Lower Ordovician and Cambrian)

Leithsville Formation (Middle and Lower Cambrian) (Wherry, 1909) – Thin- to thick-bedded dolomite containing subordinate siliciclastic rocks. Upper part is medium- to medium-dark-gray, fine- to medium-grained, pitted, friable, mottled and massive dolomite. Middle part is medium-gray, stylonitic, fine-grained, thin- to medium-bedded dolomite that is interbedded with shaly dolomite and, less commonly, varicolored quartz sandstone, siltstone, and shale. Lower part is medium-gray, medium-grained, medium-bedded dolomite containing quartz-sand grains in stringers and lenses near the contact

with the Hardyston Quartzite. Archaeocyathids of Early Cambrian age suggest an intraformational disconformity separating rocks of Middle and Early Cambrian age (Palmer and Rozanov, 1976). Thickness approximately 305 meters (1,000 feet).

Hardyston Quartzite (Lower Cambrian) (Wolff and Brooks, 1898) – Medium- to light-gray, fine- to coarse-grained, medium- to thick-bedded quartzite, arkosic sandstone, and dolomitic sandstone. Basal pebble to cobble conglomerate typically contains clasts of local basement affinities. Contains fragments of the trilobite *Olenellus thompsoni* of Early Cambrian age. Thickness ranges from 0.5 to 62 meters (1.6-200 feet)

Triassic-Jurassic Formations

Newark Supergroup (Lower Jurassic and Upper Triassic)

Passaic Formation (Lower Jurassic and Upper Triassic) (Olsen, 1980) – The Passaic Formation is comprised of a series of units subdivided by differing rock types. In Far Hills, three of these distinct units have been mapped and are shown on Figure A-1 as the Passaic Formation, Conglomerate and Sandstone Facies, and Quartzite-clast Conglomerate Facies. Within the Newark Basin, the more widely mapped reddish-brown to brownish-purple and grayish-red siltstone, mudstone, sandstone, and shale are often considered as the standard rocks of the Passaic Formation (**Passaic Formation**) and have a maximum thickness 3,600 meters (11,810 feet).

In the northern portion of the Borough, conglomeratic sandstone (**Conglomerate and Sandstone Facies**) and conglomerate containing clasts of quartzite (**Quartzite-clast Conglomerate Facies**). Formation have been mapped with sufficient thickness to warrant distinction from the more-commonly found red-brown shale, siltstone, mudstone, and sandstone. These facies coarsen up section and to the southwest. Quartzite-clast Conglomerate Facies is reddish-brown pebble conglomerate, pebbly sandstone, and sandstone, in upward-fining sequences 1 to 2 meters (3-6 feet) thick. Clasts are subangular to subrounded, quartz and quartzite in sandstone matrix. Sandstone is medium to coarse grained, feldspathic (up to 20 percent feldspar), and locally contains pebble and cobble layers. Conglomerate thickness exceeds 850 meters (2,790 feet). Conglomeratic and Sandstone Facies is brownish-red pebble conglomerate, medium- to coarse-grained, feldspathic sandstone and micaceous siltstone; unit is planar to low-angle trough cross laminated, burrowed, and contains local pebble layers. Unit forms upward-fining sequences 0.5 to 2.5 meters (1.6-8 feet) thick. Conglomeratic sandstone thickness exceeds 800 meters (2,625 feet).

Felville Formation (Lower Jurassic) (Olsen, 1980) - Interbedded brownish-red to light-grayish red, fine- to coarse-grained sandstone, gray and black, coarse siltstone in upward-fining cycles, and silty mudstone. Fine-grained sandstone and siltstone are moderately well sorted, commonly cross-laminated, and have 15 percent or more feldspar; interbedded with brownish-red, indistinctly laminated, bioturbated calcareous mudstone. Thermally metamorphosed into hornfels where in contact with Preakness Basalt. Near the base are two thin, laterally continuous beds of black, carbonaceous limestone and gray, calcareous siltstone, each up to 3 meters (10 feet) thick. These

contain abundant fish, reptile, anthropod, and diagnostic plant fossils. Three or four, thin, gray to black siltstone and mudstone sequences occur in upper part of unit. Maximum thickness about 155 meters (510 feet).

Preakness Basalt (Lower Jurassic) (Olsen, 1980) - Dark-greenish-gray to black, very-fine grained, dense, hard basalt composed mostly of intergrown calcic plagioclase (An55-60) and clinopyroxene (pigeonite and augite). Crystals are generally less than 1 millimeter (0.04 inch) long, but locally feldspar crystals are larger than 1.3 centimeter (0.5 inch). Small spherical to tubular cavities (gas-escape vesicles) may be filled by zeolite minerals or calcite. Consists of at least three major flows. Prominent amygdaloidal zones occur at most contacts between flows. A thin, 2 to 8 meter (6.6-26 feet) bed of siltstone separates the lower flows. The basal 20 meters (66 feet) of the lowest flow is commonly highly vesicular or brecciated. Radiating slender columns 20 to 71 centimeter (8-28 inch) wide, caused by shrinkage while cooling, are most abundant in the highest flow. Thickness ranges from 250 m (820ft) (Olsen and others, 1989) to 320 m (1,050 ft).

Towaco Formation (Lower Jurassic) (Olsen, 1980) - Reddish-brown to brownish-purple, fine- to medium-grained micaceous sandstone, siltstone, and silty mudstone in upward-fining sequences 1 to 3 meter (3-10 feet) thick. Distributed throughout formation are eight or more sequences of gray to greenish- or brownish-gray, fine-grained sandstone, siltstone and calcareous siltstone and black, microlaminated calcareous siltstone and mudstone containing diagnostic pollen, fish and dinosaur tracks. Sandstone is commonly trough cross laminated; siltstone is commonly planar laminated or bioturbated, but can be indistinctly laminated to massive. Thermally metamorphosed into hornfels where in contact with Hook Mountain Basalt. Maximum thickness is about 380 meters (1,250 feet).

Hydrogeologic Framework

The rock-type and response to deformation have profound affects on aspects such as terrain, landform, water availability and recharge. Igneous and metamorphic rocks are resistant to erosion, often poorly fractured and more malleable in response to deformation. Therefore, these types of rocks typically are found in north-central New Jersey forming ridges and higher elevations. Sedimentary rocks such as limestone, dolomite, shale, and sandstone respond to deformation by readily fracturing and are more easily eroded. Community development factors including construction of roads, housing and septic disposal are also affected by rock-type. The most important of these factors is the availability of groundwater, which will be analyzed for the three distinct regions of the Borough.

The USGS has categorized, in a general fashion, the expected yields and common well depths by aquifer formation, which are presented in Table 1. The igneous and metamorphic rocks of the northern third of the Borough are categorized as the worst yielding formations of northern New Jersey. The range of yield in gallons per minute is anywhere from 5 to 50, which pales in comparison to the other formations listed. The

aquifers of the Newark Group, found in the lower two thirds of the Borough generally have much higher potential yields.

Table 1
Aquifer Characteristics

Aquifer Name and Description	Well Characteristics			Remarks
	Depth in Feet		Yield (gal/min)	
	Common Range	Common Range	May Exceed	
Aquifers in the Newark Group: Shale and sandstone: Shale, sandstone, some conglomerate. Unconfined to partially confined in upper 200 ft.; confined at greater depth	30-1,500	10-500	1,500	Most productive aquifers in Essex, Passaic and Union Counties. Water generally hard; may have large concentrations of iron and sulfate. Saltwater has intruded areas of large ground-water withdrawals near bays and estuaries.
Valley and Ridge sedimentary units: Predominately limestone and shale; some dolomite, calcareous sandstone and siltstone, sandstone, conglomerate and slate. Confined and unconfined.	150-400	5-500	1,500	Highest yields from cavernous limestones and in weathered and fractured zone within 300 feet of land surface. Locally excessive iron, hardness and low pH.
Highlands crystalline units: Gneiss, marble, quartzite, pegmatite; some schist, amphibolite and granite. Includes thin belts of conglomerate, sandstone, not significant as aquifers. Confined and unconfined.	35-800	5-50	400	Most water obtained from weathered and fractured zone in upper 300 feet; high yields in or near major fault zones. Excellent source for domestic water use in some areas.

Source: New Jersey Geological Survey, 2000.

Precambrian Rocks

According to Freeze and Cherry (1979), unfractured metamorphic and igneous rocks have porosities that rarely exceed 2 percent and the crystalline rocks found in Far Hills, especially those in the northern two-thirds probably have maximum porosities two to several orders of magnitude lower than the maximum suggested by Freeze and Cherry . The intercrystalline voids have been compressed and are not interconnected and the primary water storing and transmitting abilities of these rocks is consequently very small. Certain natural processes that characteristically occur after the formation of the igneous and metamorphic rocks can enhance their water storage and transmission properties. The primary mechanism that improves these properties is the release of the confining load (removal of overlying strata), which results in expansion and fracturing of the rocks. Fractures that enhance permeability of the rock typically extend to depths of 90 feet. Other fractures formed as a result of past tectonic activity may extend to greater depths. Weathering of the rock can enhance these fractures.

More specific well data for the Borough of Far Hills was obtained from the New Jersey Department of Environmental Protection's Bureau of Water Allocation. The data showed that wells in igneous and metamorphic rocks throughout the Borough with the highest specific capacities are at depths from 81 to 90 feet and that wells drilled deeper in these rocks have greatly diminished specific capacities. (Specific capacity measures the yield per foot of drawdown, with low specific capacities associated with poor wells and aquifers). Water well data from the Precambrian rock of the Borough shows two opposing trends in the availability of groundwater. Five of the twenty-seven wells for which complete data were available had specific capacities over 1 gpm/foot, with an average value of 3 gpm/foot. The average specific capacity for the remainder of the wells was 0.27 gpm/foot. The few wells with high specific capacities may be indicative of zones of weathering and fracture. The wells with low specific capacities probably represent the presence of comparatively unfractured rock.

The average specific capacity, which included those from domestic water wells in the immediate vicinity of the Borough, was used to estimate the transmissivity of the aquifer. Transmissivity is a characteristic of an aquifer that can be determined from pumping tests and measures the ability of the aquifer to transmit water. Aquifer systems with high transmissivities will typically have wells with high yields and aquifers with low transmissivities will have low yielding wells. The average specific capacity for all wells for which complete information was available was 0.79 gallons per foot of drawdown; this resulted in an estimated value for transmissivity of 1,188 gallons per day per foot for the Precambrian rocks.

Another value representative of the characteristics of an aquifer that is useful for planning purposes is potential aquifer yield, which is measured in gallons per day per square mile (gpd/mi²). Widmer, et al. (1975) has determined a value of 100,000 gpd/mi² for Precambrian rocks. Another published value suggests a range of values for the formations for wet and dry years; 120,000 gpd/mi² is the anticipated yield for a dry year and 200,000 gpd/mi² is suggested representative of yields during wet years (Houghton et

al., 1983). In this report, the value of 100,000 gpd/mi² is considered to be an appropriate conservative representation of groundwater availability in the gneissic bedrock of the Borough of Far Hills.

Cambrian Formations

The Cambrian Hardyston Formation has aquifer characteristics similar to the Precambrian igneous and metamorphic rocks and wells completed in these rocks typically have very low yields. The Cambrian Leithsville Formation is comprised of dolomite and solution features caused by the dissolution of the rock with weakly-acidic waters and fractures also enhanced by this property of carbonate rocks, can transmit very high volumes of water. Dolomitic rocks are some of the most prolific aquifer systems in northern New Jersey with yields sometimes exceeding 1000 gallons per minute and transmissivities a few thousand to several tens of thousands of gallons per day per foot. The Cambrian rocks have limited exposure in Far Hills Borough, and therefore, should be considered inconsequential in the evaluation of municipal groundwater resources. Given the limited presence of these rock-types, they most likely should be considered on a site by site basis.

Triassic-Jurassic Formations

The Passaic Formation shales, conglomerate/sandstone facies, and quartzite-clast conglomerate facies found in the central third of the borough, have aquifer characteristics that are quite different from the igneous and metamorphic rocks mapped in the northern third. Freeze and Cherry (1979) report that the porosity of most shale is less than 20 percent. The intercrystalline voids that compose the primary porosity are poorly connected, therefore the primary permeability of these rocks is very low.

Unfractured sections of Passaic Formation rocks, sometimes a few feet to several tens of feet will constitute aquitards (strata that inhibit groundwater flow). Highly weathered water-bearing zones sometimes a few inches to several feet thick that coincide with distinct depositional beds will constitute aquifers between “dry” unfractured zones. The Triassic-Jurassic rocks responded to the tensional forces of the Newark Basin opening by fracturing often with three distinct fracture patterns. As indicated above, faulting associated with the Ramapo border fault system most likely has resulted in extensive fracturing along vertical to near vertical planes. These vertical to near vertical fractures often interconnect water-bearing zones at different depths.

In the Borough of Far Hills, wells drilled in the Passaic Formation rocks generally provide the largest volumes of groundwater, as compared to wells drilled in the Precambrian igneous and metamorphic rocks and Triassic-Jurassic basalts in the Borough. The average specific capacity of domestic wells occurring in the Passaic Formation rocks beneath the Borough is slightly over 1 gallon per foot of drawdown. This average specific capacity suggests an estimated average aquifer transmissivity 1,500 gallons per day per foot.

Regional values for the average daily yield in gallons per day per square mile in the Passaic Formation show a range for dry years from 200,000 gpd/mi² to 350,000 gpd/mi² for wet years. A value of 225,000 to 350,000 gpd/mi² is provided in the 1974 LORDS Report. Pizor et al. (1983) suggest values from 200,000 to 350,000 gpd/mi². Hordon (1987) supplied a potential range of values from 250,000 to 300,000 gpd/mi². The value of 250,000 gpd/mi² is considered to be an appropriately conservative number representative of the groundwater supplies in the Passaic Formation in the Borough of Far Hills.

Basalt flows, such as those found in the southern third of the Borough, when they first form may have high primary permeability. The crustal material in the flowing lava tends to become fractured and this material is pulled under during flow. Gas vents, tree molds and lava tubes also increase primary porosity of the lava. The net result is a blocky mass of rock that is interspersed with rubble zones of high permeability. Hence, the overall permeability of young basalts is usually high. Subsequent alteration of the basalts by burial, compaction or the influx of cementing fluids, however, significantly decrease primary permeability (Freeze and Cherry, 1979).

The basalts in the vicinity of Far Hills have experienced significant weathering in the 200 million years since their deposition. Moreover, the variable history of the formation of each individual layer of the composite basalt flow has further complicated the hydrogeology of the basalt formations in the Borough. In basalt flows in New Jersey, a few residual layers of high permeability may remain however, they are often poorly interconnected. Since these lava flows were deposited in layers, contemporaneous shales and other sedimentary rocks interbedded between layers have been highly metamorphosed into hornfels. These metamorphosed rocks and the interlayered basalts combined have a very low primary permeability. Occasional fractures and other secondary openings are often the only residual zones for storing and transmitting water beneath these ridges.

Available data from the Borough of Far Hills and the immediate vicinity for wells completed in basalts and interlayered hornfels have an average specific capacity 0.62 gpm/ft, which suggest an average aquifer transmissivity 925 gallons per day per foot. This estimated transmissivity is slightly lower than the Precambrian rocks, which were recognized by Kasabach (1966) and Widmer et al. (1975) as a very poor aquifer system. The basalts should also be considered a very poor aquifer system.

Values for the yield in gallons per day per square mile show a wide variability. Houghton (1983) provided values from 225,000 to 350,000 gpd/mi². Pizor et al. (1983) and Widmer et al. (1975) respectively suggested values of 100,000 and 50,000 gpd/mi². Hordon (1987) recommended a range of values from 100,000 to 150,000 gpd/mi². The value of 100,000 gpd/mi² is considered to be an appropriately conservative indication of groundwater supplies in the basalt found in the southern third of the Borough.

The table below summarizes the transmissivity and yield values for the three characteristic rock-types found in the Borough of Far Hills. Since the Cambrian

Formations occupy such little area of the Borough, these rock are unlikely to significantly influence the Boroughs water resources. They should be considered on a site by site basis. Transmissivity is highest in the central third of the borough, which also has the highest potential yield in terms of gallons per day per square mile. Transmissivity is found to be slightly lower in the northern third of the Borough and significantly lower in the southern third, with both having potential yields that are significantly lower than that of the shale found in the central third.

Formation	Precambrian	Passaic Formation	Basalt
Location	<i>Northern 1/3</i>	<i>Central 1/3</i>	<i>Southern 1/3</i>
Transmissivity	1,188 gpd/ft	1,500 gpd/ft	925 gpd/ft
Yield	100,000 gpd/mi ²	250,000 gpd/mi ²	100,000 gpd/mi ²

Surface Water

The North Branch of the Raritan River is the principle surface water body in the Borough, ultimately receiving the flow of streams draining 85% of the Borough. The other major receiving surface water body is the Passaic River, which has a small subwatershed in the southeastern part of the Borough that drains to it (subwatershed boundaries are depicted on Figure A-6). The North Branch is located west of the Borough, flowing south. Therefore, the tributary streams draining the Borough have a westerly flow.

In 1998, the New Jersey Department of Environmental Protection (NJDEP), Division of Environmental Planning, adopted new Surface Water Quality Standards,(N.J.A.C 7:9B). With these new standards, NJDEP has applied several different classifications to the North Branch of the Raritan River and it's tributaries that flow through the Borough. Accompanying the various designations are a variety of uses and maintenance standards. The classifications and uses are depicted on Figure A-2 and enumerated in the following discussion. (Note: text appearing in italics is directly excerpted from the standards)

Where it borders Far Hills Borough, the North Branch has two classifications. From its source, to the upstream end of Ravine Lake, the river is an FW2-TP (C1) waterway. The TP designation indicates that the waterway may support populations of native reproducing trout. The possible uses described for FW-2 waters include:

1. Maintenance, migration and propagation of the natural and established biota;
2. Primary and secondary contact recreation;
3. Industrial and agricultural water supply;
4. Public potable water supply after conventional filtration treatment (a series of processes including filtration, flocculation, coagulation, and sedimentation, resulting in substantial particulate removal but no consistent removal of chemical constituents) and disinfection; and
5. Any other reasonable uses.

The C1 indicates a Category 1 anti-degradation policy, as follows: *“Category One Waters shall be protected from any measurable changes (including calculable or predicted changes) to the existing water quality. Water quality characteristics that are generally worse than the water quality criteria, except as due to natural conditions, shall be improved to maintain or provide for the designated uses where this can be accomplished without adverse impacts on organisms, communities or ecosystems of concern. Therefore, these waters are protected from changes in water quality.”* They are considered to possess exceptional aesthetic, ecological, recreational, and/or fishing value. Planning policies related to these waterways should be regulated to preserve these values or to reestablish them in any instances where they have been lost.

From the upstream limit of Ravine Lake to Route 512 in Bedminster, the North Branch is classified as FW2-TM (C2), meaning that the waterway can support trout populations, although none reproduce in these waters. The C2 indicates a Category 2 anti-degradation policy, as follows: *“For Category Two Waters, water quality characteristics that are generally better than, or equal to, the water quality standards shall be maintained within a range of quality that shall protect the existing/designated uses, as determined by studies acceptable to the Department, relating existing/designated uses to water quality. Where such studies are not available or are inconclusive, water quality shall be protected from changes that might be detrimental to the attainment of the designated uses or maintenance of the existing uses. Water quality characteristics that are generally worse than the water quality criteria shall be improved to meet the water quality criteria.”*

Aside from the trout maintenance/trout production classifications, the upper and lower stretches of the river differ slightly from a planning perspective. Since the stretch upstream from Ravine Lake has a C1 designation, the high quality of these waters must be maintained, and “shall be protected from any measurable changes” (NJDEP, 1998). The policy pertaining to the downstream stretch is slightly less restrictive, requiring that they “shall be protected from changes that might be detrimental to the attainment of the designated uses or maintenance of the existing uses.” Nevertheless, it is noted that the Division of Water Resources classification of the upstream and downstream stretches of the North Branch of the Raritan River are clearly intended to promote careful conservation; application of the anti-degradation policy may even imply restrictive use of, and restrictive development around, the upper stretches of the North Branch.

The Surface Water Quality Standards adopted in 1998 also established strict guidelines for the presence of numerous contaminants, both man made and naturally occurring. Included in these categories are items such as fecal coliform, enterococci, dissolved oxygen, floating colloidal solids, petroleum hydrocarbons, phosphorus, suspended solids, total dissolved solids, sulfates and taste and odor producing substances. Also important, especially to areas of trout maintenance and trout production, are alterations to temperature and the addition of toxic substances.

The remaining tributaries draining to the North Branch, and the tributary draining to the Passaic in the southeastern corner of the Borough, carry FW2-NT designations. These are surface waters which cannot support trout populations. They are subject to the

Category 2 anti-degradation policy of the Surface Water Quality Standards and are therefore afforded some protection. A common stigma is that waterways carrying the TP (trout production) and TM (trout maintenance) designations should be scrutinized for planning purposes, applying stricter standards pertaining to development practices. And while this is true, all surface waters, regardless of designation, should be afforded the same consideration.

Water Quality Indicators

The Bureau of Freshwater Biological Monitoring, a division of the NJDEP, currently conducts monitoring of freshwater rivers and streams in New Jersey. The Ambient Biomonitoring Network (AMNET) has an average of 165 monitoring sites in the major drainage basins of the State.

AMNET monitoring focuses on populations of macroinvertebrates (benthic communities) present in freshwaters. These biotic communities, which are mainly stationary and cost effective to monitor, integrate the effects of changes in water quality into their life cycle, providing effective indicators of change over time. AMNET has three monitoring stations for waterways in or near the Borough, providing data from 1993-1994 and 1998-1999. Figure A-3 depicts the location of these monitoring stations, one located just outside of Far Hills on Peapack Brook, one on the North Branch of the Raritan River west of the village and one south of the village on the Mine Brook.

The AMNET data for the Borough of Far Hills shows that two of the three sites depicted on Figure A-13 have non-impaired benthic communities, while one site showed moderate benthic impairment. The sites on the Peapack Brook and the North Branch of the Raritan River scored 30 out of a possible 30 for judging of benthic impairment (1 being most impaired, 30 being non-impaired). The monitoring site for the Mine Brook scored 21 on the benthic impairment scale, missing non-impairment by 3 points.

The AMNET monitoring program provides data for two sampling periods, as indicated previously. The Peapack Brook and the North Branch of the Raritan River experienced no changes in rating from 1993/94 to 1998/99. The Mine Brook, however, had scored 30 in the 1993/94 round and decreased to 21 in the 1998/99 monitoring. This shows a substantial change in rating in just a period of five years. A number of factors can lead to decline in benthic communities, including lack of dissolved oxygen, higher than normal temperature, excessive turbidity, toxic substances, eutrophication, lack of bank vegetation, excessive sedimentation and lack of streamflow. Many anthropogenic activities can contribute to the above factors, including deforestation, agricultural operations, wastewater discharges, artificial channelization and drought conditions.

The data for AMNET monitoring also includes an assessment of habitat within a 100-200 foot radius of the sampling site. This assessment provides information on in-stream substrate, channel morphology, bank structural features and riparian vegetation. Habitat assessment is done independent of biological monitoring and did not factor into the final impairment score for the monitoring sites for Far Hills. The Peapack Brook site scored

160 (out of 200) in the habitat assessment, indicating optimal habitat. The North Branch of the Raritan River and the Mine Brook scored in the sub-optimal range (110-159) with ratings of 140 and 119 respectively.

Riparian Areas

Water resources, including streams, rivers and lakes, have associated areas adjacent known as riparian areas. Many definitions have been put forth to attempt to define riparian areas, including the following:

“the aquatic ecosystem and the portions of the adjacent terrestrial ecosystem that directly affect or are affected by the aquatic environment. This includes streams, rivers, lakes and bays and their adjacent side channels, flood plain and wetlands. In specific cases, the riparian area may also include a portion of the hillslope that directly serves as streamside habitats for wildlife.” – USDA Forest Service

“vegetated ecosystems along a waterbody through which energy, materials and water pass. Riparian areas characteristically have a high water table and are subject to periodic flooding and influence from the adjacent water body. These systems encompass wetlands, uplands or some combination of these two landforms. They will not in all cases have all the characteristics necessary for them to be classified as wetlands.”-Coastal Zone Management Handbook

“the lands adjacent to streams, rivers or other bodies of water where vegetation is strongly influenced by the presence of water.”-American Fisheries Society

Far Hills is home to a number of streams, rivers and lakes that represent high quality surface waters, designated as trout production and trout maintenance water bodies in the Surface Water Quality Standards of New Jersey. These waters are found primarily north of County Route 512 in the northern half of the Borough (see Figure A-2). Protection of these water resources is of critical importance to the Borough and the State of New Jersey, evident in the strict anti-degradation policies that the NJDEP has fashioned for these waters. In order for their designation as high quality waters to perpetuate, it is important to understand the elements that lend to their designation as such. The concept of riparian areas moves towards this understanding.

The surface waters in the northern half of Far Hills are quite different in character from those in the southern half of the Borough. This is due to differences evident between the two landforms; the northern half of the Borough is characterized by forested lands with varied, often steep terrain while the southern half is characterized by open meadow lands with relatively flat terrain. There are areas in the southern half of the Borough, however, that display characteristics similar to those in the northern half, although to a lesser degree of contrast. Surface waters in the northern half of the Borough are generally in wooded areas, with steep sloping banks. Surface waters in the southern half of the Borough, with the exception of those in the southwestern corner, are generally in flatter areas adjacent to open lands. Streams in the southwestern corner of the Borough are in

forested areas with steep slopes adjacent to the stream banks, similar to those in the northern half of Far Hills.

The riparian area, the area adjacent to streams and rivers, is a major contributing factor to designation as a high quality water. A forested riparian area acts as a stream or river stabilizer in many ways, controlling stream temperature, stabilizing the stream bank, filtering pollutants from runoff, controlling sedimentation and contributing organic matter to the stream ecosystem. Therefore, many of the rivers and streams that are designated as trout maintenance and trout production are those with forested riparian areas. Riparian areas of meadow streams are quite different from the forested riparian area. Generally speaking, meadow streams have no tree cover to protect from the sun and are subject to greater fluctuation in seasonal temperature. This is especially true in summer months when water levels are lower and the sun is stronger. Meadow streams are also subject to greater exposure to pollutants such as fertilizers, nitrates from animal waste and non-point source pollution, depending on proximity to impervious surfaces.

Figure A-2 shows that most of the Trout production and trout maintenance streams in the Borough of Far Hills are located in the forested areas in the northern half. The forested riparian areas provide the necessary elements to perpetuate and foster populations of native trout. Figure A-2 also indicates that none of the streams in the southern half of the Borough are designated as trout maintenance or trout production streams. This is primarily due to the meadow nature of the stream corridors for those located in the central and southeastern part of the Borough. The streams in the southwestern corner of the Borough are likely impacted by the presence of the Interstate 287 corridor.

Trout production and trout maintenance designations stipulate that there can be no measurable change in water quality. Changes in biological factors in a stream, such as water temperature, turbidity, available oxygen, available nutrient matter and diversity can have an adverse impact on water quality and subsequently, fish and macroinvertebrate ability to reproduce. This is the primary reason that these two elements are utilized as indicators of water quality.

Careful delineation of riparian areas and implementation of management strategies for them is an effective means to insure continuation of high quality waters. Figure A-4 depicts riparian areas for the Borough of Far Hills, defined as “*the area immediately adjacent to a waterbody, including the 100 year floodplain, wetlands and their required, in no case less than a buffer of 75 feet from the stream bank edge.*” The NJDEP anti-degradation policy provides good argument for inclusion of the above elements in the riparian area, for they are the elements that surround and contribute to the high quality designation.

Protection of riparian areas is critical to maintaining water quality goals. The Borough should move to fashion protective measures for riparian areas through the land development ordinance. These protective measures could include limitations on tree clearing in riparian areas, limitations on grading and disturbance, limitations on expanded impervious surfaces, reestablishment of forested areas, decreased use of pesticides and fertilizers and many others.

FEMA Floodzones

The Federal Emergency Management Agency (FEMA) maps the 100-year floodplain that occurs along most of the streams and rivers in the Borough, as depicted on Figure A-5. This mapping is done in order to provide information to homeowners, floodplain managers, engineers and flood insurance providers on the risk associated with dwellings and structures as it pertains to flooding.

Far Hills Borough participates in the National Flood Insurance Program (NFIP), whereby the Borough adopted standards regarding development in the floodplain. A Flood Hazard Study was completed for the Township in 1978, initiating their participation in the Program. Far Hills has implemented development regulations to prohibit or limit development in the floodplain in order to reduce the risk of damage occurring due to flooding, thereby protecting public safety.

FEMA strongly recommends that all persons within a special flood hazard area shown on the Flood Insurance Rate Maps (FIRM) purchase flood insurance. They also recommend that even those not directly in a flood hazard area purchase insurance, as flood damage can occur outside the flood hazard areas as well.

The flood plain along the North Branch of the Raritan River penetrates the Borough in variable spans, some as large as 800 feet in width. The flood plain along the Mine Brook is also extensive, at some points spanning 800 feet from one side of the brook to the other. The 100 year floodplains for the other brooks in the Borough are comparatively limited, and average 100 to 200 feet from side to side.

The mapping of the 100-year floodplain that occurred through FIRM is essential, due to the hazard of flood associated with these areas. Clearly the extent of the 100-year flood plain imposes severe limitations on development and a sound policy is to prohibit development throughout these mapped areas, as the Borough generally tries to do.

Sub-watershed Boundaries

The sub-watershed boundaries for the Borough of Far Hills are depicted in Figure A-6. As indicated previously, almost all of the surface waters in the Borough drain to the North Branch of the Raritan River; only the southeastern section of the Borough has drainage into the Passaic River.

The sub-watershed boundaries reflect the drainage basins of the smaller and intermittent streams in the Borough. Knowledge of these drainage basins is especially important since the basins will implicitly define the area from which contamination found in their respective surface water bodies originates. Accurate knowledge of the drainage basins will be important from a land use perspective, if the Borough defines goals of maintaining or restoring high water quality in particular drainage basins.

Two of the sub-watersheds depicted in Figure A-6 deserve special consideration with respect to planning policies related to surface water. These sub-watersheds drain directly into Category 1 trout production surface waters. It would be reasonable for the Borough to fashion stricter storm water management guidelines for development occurring in these areas. This could include use of water quality and bio-retention basins, reduction in the amount of paved surfaces and decreasing density of development, to name a few.

Lakes

Ravine Lake is the principal lake in the Borough, as depicted in Figure A-7. A dammed section of the North Branch of the Raritan River forms the lake. The principal uses of the Lake at the present time are recreational boating, swimming, sport fishing and in the winter, ice skating. The Lake club makes specific use of Ravine Lake as a recreational resource, with a building, tennis courts and limited parking available for members. The Lake is also a haven for wildlife, with the frequent appearance of ducks, geese, beavers and the threatened wood turtle and heron. The presence of the latter two species makes the Lake an important habitat resource, deserving of continued protection and careful management.

As stated previously, the upstream extent of the lake delineates the FW2-TP and FW2-TM waters of the North Branch. However, since it is the outflow end of the dam that forms a more obvious demarcation line in this section of the stream, and since trout breeding upstream can range freely into Ravine Lake, it may be prudent environmental policy for the Borough to protect Ravine Lake as if it were designated Category 1 (C1) waters.

Protection should take the form of regulation of development and tree clearing on slopes greater than 15%. This is of critical importance given the fact that a majority of the slopes are greater than 25%. Development on slopes, and the earth movement and tree clearing that is associated with it, invites the potential for severe erosion. Even with the use of erosion control methods, it only takes one heavy downpour to erode a significant amount of soil into the Lake and the North Branch of the Raritan.

Wetlands

Wetland habitats generally occur between well drained upland areas that rarely receive flood water and low-lying, permanently flooded waters of lakes or streams. Wetlands characteristically include swamps, bogs, marshes and bottomland areas. Although they usually lie along rivers and lakes, wetlands may occur on slopes where they are associated with groundwater seeps. Wetlands depicted on Figure A-8 are taken from the New Jersey Department of Environmental Protection's Land Use/Land Cover information from 1995. Wetlands were photo-interpreted from Color Infrared aerial photography.

The importance of wetlands is multi-faceted, particularly as they serve as aquifer recharge areas and as areas that trap and filter pollutants through natural bio-chemical

processes. The filtering capabilities of wetlands are particularly useful along the trout production and trout maintenance waters of the North Branch. Wetlands here may serve as a buffer to harmful non-point source pollutants. Wetlands also serve as headwaters to some of the tributary streams that are within the Borough.

The NJDEP wetland mapping in Figure A-8 indicates that 247.08 acres of wetlands exist in the Borough of Far Hills. The predominant type is deciduous wooded wetlands, comprising just over 75% of the total wetlands at 185.87 acres. Nearly all of the wetlands found along the North Branch are deciduous wooded wetlands, particularly in the central part of the Borough. This bodes well for the continuation of trout maintenance waters in this area, as a buffer is set up affording some protection from development. Additionally, the wooded areas along stream and river corridors also offer protection from temperature fluctuations. The other significant deciduous wooded wetlands are found along the Mine Brook corridor, the Moggy Brook corridor and the Spring Brook corridor in the southeastern corner of the Borough. The deciduous wooded wetlands in the southeastern part of the Borough act as headwaters to the Spring Brook. And although separated by Interstate 287, they are significant nonetheless.

Five other wetland types are identified in Figure A-8, including herbaceous, coniferous, mixed wooded, agricultural and disturbed. The table below lists the wetlands by type and the acreage and percentage of each found within the Borough.

Type	Acres	%
Agricultural Wetlands	31.05	12.6
Coniferous Wooded Wetlands	5.79	2.3
Deciduous Wooded Wetlands	185.88	75.2
Disturbed Wetlands	13.47	5.5
Herbaceous Wetlands	8.69	3.5
Mixed Wooded Wetlands	2.21	0.9
Total	247.09	100.0

Most of the wetlands that are found in the Borough are designated as Palustrine and are typically described as marshy, boggy or swampy. The types of Palustrine wetlands in the Borough are further defined according to the dominant types of vegetation found in each, or according to the form and composition of the substrate material of each wetland. The Palustrine Forested Broad Leaf Deciduous wetland, for example, is at least 50% forested and forested predominately with deciduous trees having broad leaves, such as oak or maple.

The other classifications of palustrine wetlands include emergent, open water and scrub/shrub broad leaved deciduous. The open water classification refers to wetland areas that appear wet, as in a ponded area. The emergent designation means that most of the characteristic vegetation is rooted in shallow water. The scrub/shrub type of wetland is dominated by small trees and shrubs.

Although State regulations afford a fair amount of protection for wetlands, it is always prudent to further investigate increased regulations that can expand on this protection.

More and more, the importance of wetlands in flood control and water quality is becoming known. Flood control was an especially popular subject after Hurricane Floyd in 1999, destroying millions and millions of dollars worth of property and even claiming lives. It is careful planning and consideration that can avoid loss from disasters such as Hurricane Floyd in the future.

Soils

The United States Department of Agriculture, Natural Resource Conservation Service, has described three soil associations, at least 20 soil series and at least 44 soil phases in the Borough of Far Hills. The three soil associations include the Edneyville-Parker-Meckesville, the Neshaminy-Mount Lucas-Amwell, and the Parsippany-Landsdowne-Watchung. The general characteristics of these three associations are described below.

The Edneyville-Parker-Meckesville Association, found in the northern third of the Borough, and the Neshaminy-Mount Lucas-Amwell Association, found in the central third of the Borough, represent soils that were formed mainly in glacial till or material weathered from granitic gneiss, diabase or basalt. The nearly level to very steep soils that make up these associations are dominantly gravelly, very stony, or rocky and are underlain by granitic gneiss, diabase, or basalt bedrock. The depth to bedrock is mainly 4 or more feet. In some areas of the steep and very steep soils, outcrops of bedrock are common. The soils of these associations are on ridges and are mostly wooded.

The Parsippany-Landsdowne-Watchung Association represents soils that were formed mainly in glacial lake and marine sediment. These associations are mostly nearly level to gently sloping, are mainly poorly drained, but somewhat poorly drained and moderately well drained soils are also present in some areas. These soils represent deposition of sediment from the old Passaic Lake basin and occupy the lowest elevations along the Dead and Passaic Rivers. Most areas where this association is found are wooded and the surface layer is predominately silt loam in texture. The soils of this association are found in the southeastern corner of the Borough.

The following discussion describes the various factors that are related to soils, including farmland capability, septic suitability, depth to seasonal high water and depth to bedrock. All of these factors affect the environment and community development and their enumeration will guide policy as it relates to both.

Figure A-9 depicts the farmland capability of the soils in Far Hills Borough, with better than 60% of the soils being of significant agricultural value. The following descriptions of prime farmlands, soils of statewide importance and farmland of local importance are taken from the "New Jersey Important Farmlands Inventory", prepared by the State Agriculture Development Committee in 1990. Not included in this description is the category for unique farmlands, which are generally poorly drained soils used for specialty crops such as cranberries and blueberries, which do not occur in the Borough.

Prime Farmlands-Prime Farmlands include all those soils in Land Capability Class I and selected soils from Land Capability Class II. Prime Farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops and is also available for these uses. It has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed according to acceptable farming methods. Prime Farmlands are not excessively erodible or saturated with water for a long period of time, and they either do not flood frequently or are protected from flooding.

Soils of Statewide Importance-Farmlands of statewide importance include those soils in Land Capability Classes II and III that do not meet the criteria as Prime Farmland. These soils are nearly Prime Farmland and economically produce high yields of crops when treated and managed according to acceptable farming methods. Some may produce yields as high as Prime Farmland if conditions are favorable.

Farmland of Local Importance-Farmland of local importance includes those soils that are not prime or statewide important and are used for the production of high value food, fiber or horticultural crops.

Overall, statewide important soils account for the largest percentage of soils in the Borough at 31.6%. Prime soils are a close second, comprising 26.8% of the soils, with locally important soils accounting for a mere 2.2%. Prime and statewide important soils are farmed extensively in the southern third of the Borough. A rich belt of prime agricultural soils is found in the central third of the Borough, where a large mass of prime and statewide important soils is present. Although some agricultural land uses exist, a majority of these soils are covered by forest. The southern third of the Borough, however, is a different case, with a majority of the prime and statewide important soils being farmed.

Agriculturally productive soils are a finite resource that once converted to developed uses, are unlikely to be recuperated for agricultural use. In addition, agricultural soils and the farming that they support are a prized part of Far Hills Borough's history and current character. Agriculture and the development pattern associated with it defines the character of the Borough, lending to the country appeal that is prized by residents as well as visitors.

Figure A-10 categorizes the soils in the Borough based on their ability to dispose of effluent on-site utilizing a septic system. An overwhelming number of soils, 86.2%, have severe limitations for on-site disposal of effluent. Factors that contribute to the presence of severe limitations include seasonal high water at depths of 0 to 4 feet, perched water tables, bedrock at a depth of 1 to 1.5 feet, slopes between 15% and 25%, slow permeability in the subsoil, rapid permeability through the soil profile, high clay content and hazard of stream overflow. Severe limitations, as categorized by the USDA in the Somerset County Soil Survey, indicates that soil properties are so unfavorable and difficult to overcome that soil reclamation, special design and intensive maintenance will likely be required. Often the costs of corrective measures are exorbitant and even if used,

could create problems in the future due to the nature of the limitations. Engineers will promise a system that is designed to overcome these limitations, however, this is not an assurance that a proper routine maintenance plan will be followed by the homeowner.

Soils with moderate limitations for septic disposal comprise 12.2% of the Borough and are found primarily in the northern and southern thirds. Moderate limitations are considered unfavorable, but with careful planning, design and management may be overcome. Engineering practice can often easily address unfavorable conditions, but homeowner maintenance is once again the key to successful mitigation of potential problems. Factors that contribute to moderate limitations include hazard of groundwater pollution, bedrock at depths of 3.5 to 5 feet, soils that are very stony, rapid permeability and slow permeability in the subsoil.

Soils with slight limitations make up only 1.1% of those found in the Borough. Slight limitations indicate that factors are minor and easily overcome. Soils of this classification generally have water tables at a depth greater than 4 to 5 feet, bedrock at depths greater than 5 or 6 feet and good permeability (not too fast, not too slow). In the Borough of Far Hills, these soils are found in the central third around the Route 202 corridor in already developed areas.

Figure A-11 depicts depth to seasonal high water for the soils found in the Borough of Far Hills. Depth to seasonal high water indicates the highest level below the surface that groundwater reaches in most years, typically occurring between December and April. The depth to seasonal high water is important in determining limitations for development. Potential impacts from a shallow depth to seasonal high water include flooding of basements, weakening of foundations and serious limitations for on-site disposal of effluent. Shallow seasonal high water tables, while presenting limitations for development, also support diverse plant and wildlife communities. Therefore, these factors are a good determinant for lands which deserve protection in order to limit destruction of property and fostering of diverse plant and animal communities.

Of the soils in the Borough of Far Hills, 22.6% have generally shallow depths to seasonal high water. This category is comprised of soils ranging from 0 to 3 feet. A majority of the soils in this category are located along the stream and river corridors of the Borough. Most notable in Figure A-11 are the soils located along the North Branch of the Raritan River on the western edge of the Borough, and the soils in the southeastern corner of the Borough that drain towards the Passaic River. The southeastern corner of the Borough also has a significant wetland area associated with a generally high water table, indicating the presence of a valuable ecosystem. Shallow depths to seasonal high water present numerous limitations for development, most notably installation and maintenance of septic systems. Even with soil replacement and other engineering measures, septic systems placed in high water tables have the potential to pollute groundwater. And as most of the soils with shallow depths to seasonal high water are located around streams, there is also the potential for surface water contamination in periods of flooding. If a system is maintained improperly and ceases to function, effluent from the cesspool that rises to the surface can be carried off in surface water. Even in times when flooding is

not prevalent, a failing cesspool with surface contamination can be introduced into surface water by runoff.

A fair number of the soils in the Borough, 36.4%, have variable tendencies, ranging in depth from 1 to 4 feet. These soils, however, may have the tendency to have shallow depths to seasonal high water. A majority of the soils with variable tendencies are found in the central and southern third of the Borough. Soils with variable tendencies are difficult to categorize in terms of limitations, as in certain periods they don't exhibit tendencies that could severely limit community development activities. The soils in this category are most likely better categorized as having a shallow depths in wet years and moderate depths in dry years.

A majority of the soils in the Borough, 40.5%, have generally deep depths to seasonal high water at greater than 4 feet. While these soil types are found throughout Far Hills, most are in the northern half of the Borough and are located in wooded areas. The soils in the southern half with deep depths coincide with agriculturally productive soils of prime classification and are currently in agricultural production. The soils in this category are least susceptible to potential problems related to development and any of the minor limitations that may be present can be overcome.

Figure A-12 depicts the depth to bedrock for soils found in the Borough of Far Hills. A vast majority of these soils have moderate to deep depths to bedrock, together comprising 90%. Depth to bedrock is one of the many components that determine suitability for septic disposal of effluent, indicating the amount of soil that is present in the profile. The depth (profile) of the soil has a direct relationship on its ability to process effluent effectively, as soils remove the nitrates and other organic compounds present in human waste. The more soil present, the better its processing capabilities. Depth to bedrock also influences other community development factors such as septic system installation, road construction, basement and foundation construction, landscaping and drainage.

Only about 9.4% of the soils in the Borough have shallow depths to bedrock. A majority of these soil types are found in the central third of Far Hills, just south of the border with Peapack/Gladstone Borough. Most of the soils in this area have depths in the range of 1 to 3.5 feet, with some in the range of 1 to 1.5 feet. There are also small pockets of soils with similar depth characteristics in the southern third of the Borough, south of Route 202 and in the extreme southeastern corner. Shallow depth to bedrock presents serious limitations for community development, especially with respect to installation and operation of septic systems. In soils with shallow depth to bedrock, the profile of the soil in general is shallow, with only a few feet of soil available for the processing of effluent. Often soil replacement and mound systems must be utilized in order to ensure health and safety. Shallow depth to bedrock also presents limitations for the construction of homes with basements, increasing construction costs greatly when excavation has to occur in the bedrock layer.

Almost half of the soils in the Borough, 46.6% experience moderate depths to bedrock. While these soils are scattered throughout Far Hills, a majority are found in the northern

two thirds. Soils with moderate depths to bedrock are those that are greater than 3.5 to just over 5 feet. While moderate depth to bedrock presents some limitations for community development, these limitations can often be overcome with only modest cost increases.

The remainder of soils in Far Hills, 43.4%, are categorized as having generally deep depths to bedrock. Soils categorized as having generally deep depths to bedrock have bedrock that is 4 or more feet from the surface. These soils are found along the North Branch of the Raritan River in the central third of the Borough, in the southern third of the Borough and interlaced with soils having moderate depth to bedrock in the northern third of the Borough. Soils that have bedrock at depths greater than 4 feet are generally favorable in relation to community development factors. They pose no real limiting factors that would require increased engineering and subsequent increased costs for community development projects.

Step Slopes and Ridgelines

Steep slopes and ridgelines play a large role in defining the essential character of Far Hills. The topography of the northern half of the Borough provides many scenic vistas; to the flat land of the central part of the Borough and to adjacent ridges and hillsides in neighboring municipalities. For this reason, ridgelines are prized development sites.

Development on ridgelines, to the benefit of one homeowner, is often to the detriment of many. Large scale homes developed on topographically prominent features scar the view shed and are visually destructive. Many times, tree clearing is necessary in order to construct homes, making them a more evident element in the visual landscape.

The first step in mitigating visual impact from development on ridgelines is to map their occurrence. Figure A-13 depicts ridgelines for the Borough of Far Hills, defined as *a horizontal line or demarcation that represents the intersection of two slopes having generally opposing aspects, usually representing the highest common elevation of both.* The second step is to develop a reasonable standard that protects ridgelines from development impacts, preserving the visual landscape. One example of a reasonable standard is to buffer the ridgeline 100' down-slope, requiring that no development occur in the buffer.

Figure A-14 depicts steep slopes within the Borough. Slopes that are greater than 15% are considered steep and are regulated in the Borough's land development ordinance. A majority of the steep slopes in the Borough are located in the northern third, which is characterized by the granitic and basaltic geologic formations. There are numerous areas here with slopes greater than 15%.

There are also areas of steep slopes in the southern third of Far Hills, which are aligned along the Feltville Formation. These slopes are mostly greater than 15% and occur in areas that are wooded. Additional areas of slopes which are greater than 15% are found in the southwestern corner of the Borough, along Moggy Brook and a tributary to the

North Branch of the Raritan River. A good portion of these slopes run along the Interstate 287 corridor.

Steep slopes have a number of implications on community development and the environment. Slopes in excess of 25% present serious limitations for development, often times requiring extensive and costly engineering and construction. Slopes in excess of 15% present implications for degradation of the environment if not properly managed. Since most slopes occur in and around the banks of streams and rivers, clearing these areas for development creates the potential for erosion and stream sedimentation. With a majority of the steep slopes occurring in the northern third of the Borough, concurrent with high quality trout maintenance and trout production streams, protection of steep slope areas becomes even more critical. The clearing of trees and stabilizing vegetation not only causes erosion and sedimentation problems, it can also contribute to increased water temperatures in streams and rivers.

Due to the concurrence of high quality surface waters and steep slopes, protective measures should be fashioned through the Master Plan and Land Development Ordinance in order to ensure continuance of trout production and maintenance. A steward program could also be initiated in order to alert landowners to the importance of these considerations.

Land Use/Land Cover

In 1999, the New Jersey Department of Environmental Protection (NJDEP) released the most comprehensive data set ever produced related to land use and land cover. Utilizing color infrared aerial photography flown in 1995, NJDEP undertook an extensive photo-interpretation project that categorized the state based on a system of land use codes, with more than 60 detailed categories. The resulting data set, depicted in Figure A-15, provides the best view available for our communities with respect to how land is utilized.

Far Hills Borough is a rich tapestry of land uses and land covers, primarily consisting of forest and agriculture. Together, these two land cover categories comprise 73.4% or 2,289.96 of the Borough's 3,120.59 acres. Forest cover alone accounts for 1,437.10 acres, or 46.1% of the land in Far Hills.

A majority of the agricultural land, which accounts for 27.3%, is found in the center of the Borough. South of the railroad tracks are a few large parcels that continue in agriculture. Somewhat deceiving is the large area of wetlands present along the railroad track; deceiving in that it is primarily agricultural wetlands and disturbed wetlands that have been converted to field uses. This core of agriculture is then separated from another by a forest corridor located a few hundred feet to the south of Mine Brook. Other agricultural land cover exists in the Borough as well, sectioned off in large parcels that are somewhat contiguous and interspersed with residential uses.

Forest land is distributed throughout the Borough, with large contiguous forests in the northern and southern thirds of Far Hills. Together these account for more than 50% of

the 1,437.10 acres of forest. Other patches of contiguous forest also exist, although not as large as those in the northern and southern thirds. It is the land cover described here is that lends to the rural feel that the Borough has, creating privacy, woodland vistas and canopied drives.

The next largest land cover in Far Hills is residential, accounting for 13% of the land in the Borough. Figure A-15 shows that these residential uses, including the multi-family category, are scattered throughout Far Hills, with a concentration in and around the Village at the intersection of Route 202 and the NJ Transit line. Along with a concentration of residential uses, the Village area around the train station is a core of commercial uses. A majority of the commercial land in the Borough, representing 0.5% or 14.22 acres, is located here. The only industrial land cover, as classified by the NJDEP, is also found in the Village.

Wetlands account for 7.9% of the land cover in the Borough, and are found primarily along the stream corridors and along the North Branch of the Raritan River. Some of the wetlands depicted on Figure A-12 are actively farmed and are categorized as agricultural or disturbed. There are also wetland areas in Far Hills that act as headwaters to small streams. Most notable is the wetland area bisected by Interstate 287, which acts as headwaters to Spring Brook, eventually draining into the Passaic River.

Other land cover categories make up relatively small percentages of the Borough's area, including transportation/utilities at 0.7%, barren land at 0.2% other urban land at 1.8% and recreational land at 1.5%.

Ecology

The vegetation of Somerset County is representative of New Jersey's Piedmont region and is characterized by the presence of mixed-oak type forest. White, black and red oaks are the primary species present. Other associated species include chestnut oak, scarlet oak, hickory, red maple, sugar maple, white ash, tulip tree, beech, black cherry, black birch and elm. The understory of the mixed-oak forest is composed primarily of dogwood, hop hornbeam, sassafras, wormwood and American chestnut. Typical species making up the shrub layer include maple leaf viburnum, black haw, ironwood, spice bush, witch hazel and red and gray dogwood (Robichaud and Buell, 1973). Pines and hemlocks can also be found in the Borough, and hemlocks, although in decline in the northeast region, are especially prevalent on the slopes of Ravine Lake.

Over the years, the Borough's land has been cleared in various places, cultivated by man and re-vegetated through succession. In general, the vegetation of the Borough can be characterized as a combination of mature wooded stands, old fields and forested areas showing a mixture of early, mid and late successional stages. Factors influencing the species composition of these areas include climate, soil, light availability, topographic location and animal-plant interactions.

In Somerset County, certain plant species occur in conjunction with the soil associations found here. The northern third of Far Hills is characterized by the Edneyville-Parker-Meckesville soil association; yellow poplar, ash, red oak, black oak and scarlet oak are the dominant overstory species favoring this soil association. Understory species include dogwood, blackhaw, service berry, spice bush and various species of viburnum. Flowering dogwood characteristically occur in drier locations. On the steep slopes of Ravine Lake, hemlock tends to be the dominant species in certain areas.

The central third of the Borough is underlain by the Neshaminy-Mount Lucas-Amwell soil association. Trees represented in existing stands here include red oak, Virginia pine, yellow poplar and ash. Understory species include viburnum, dogwood, spicebush, sassafras and arrowwood.

The southern third of Far Hills is characterized by soils of the Parsippany-Landsdowne-Watchung association. Drainage is generally poor to moderate in this association. Trees representative of this association include pin oak, ash, red oak, yellow oak, yellow poplar, sycamore, red maple and gray birch. Favored understory species include blackhaw, spicebush and hawthorne. On flood plains, such as the southeastern corner of the Borough, gray stem dogwood, silky dogwood, buttonbush, highbush blueberry and steplebush sumac are indicated.

The Somerset County Natural Resource Inventory has reported that many species of herbaceous plants occur throughout the County and in the Borough. Herbaceous plants are frequently a good indicator of an area's climate, soil conditions, whether the land experiences a high water table, is prone to flooding, is swampy or is dry. A partial list of representative plant species for the Borough of Far Hills is presented in Table 2. The list is derived from the Natural Resource Inventory prepared by the Somerset County Planning Board. It should be noted that no threatened or endangered plant species have been reported for the Borough of Far Hills. The Conservation and Environmental Studies Center, Inc., however, has compiled a list of rare and endangered plant species that occupy habitats *similar* to those found in the Borough. This list is presented in Table 3.

One area that deserves special mention within the Borough is Moggy Hollow. Located in the southern portion of the Borough, the site, which is owned by the Upper Raritan Watershed Association, was put on the National Registry of Landmarks in 1969. Moggy Hollow is a 90 foot deep gorge that once formed the outlet for ancient Lake Passaic. This site is therefore important because of its geologic history and for the habitat it provides for wetland plant species.

Wildlife and Critical Habitat

In 1994, the New Jersey Department of Environmental Protection Endangered and Non-game Species Program (ENSP) initiated a move to a landscape level approach for endangered species protection. With suburbanization and development occurring in all areas of the State, an increasing amount of habitat that could potentially support threatened and endangered species was being lost daily.

In order to address habitat loss, ENSP needed to grasp the extent and suitability of remaining resources in the State. To accomplish this, they partnered with the Center for Remote Sensing and Spatial Analysis (CRSSA) at Cook College, Rutgers University. Utilizing LandSat thematic mapper satellite imagery, CRSSA mapped land cover for the entire State of New Jersey, broken down into 20 different habitat/landcover types. After generalized cover types were classified, detailed methodologies were developed to address the habitat suitability issues for each focus category, including beach/dunes, emergent landscapes, forested wetlands, forested areas and grasslands.

After reclassifying data based on standards developed for each category, the habitat data was intersected or combined with the Natural Heritage Program's Biological Conservation Database (BCD). This database is a Geographic Information System (GIS) coverage that provides information on the sighting of threatened and endangered species, based on the field work of ENSP scientists and sighting reported by members of the public. It is the most comprehensive data available in digital form on the location of threatened and endangered species.

The combination of these two data sets resulted in the data that is depicted in Figures 16 and 17. The Landscapes Program data provides users with scientifically sound, peer reviewed information on the location of critical habitat based on the conservation status of the species that are present. Habitats are ranked on a scale of 1 to 5, based on the following criteria:

Rank	Indication
1	Suitable habitat, no special concern, threatened or endangered species sighted
2	Habitat patch with species of special concern present
3	Habitat patch with State threatened species present
4	Habitat patch with State endangered species present
5	Habitat patch with Federal threatened or endangered species present

Far Hills Borough is rich with habitat that is suitable to support populations of threatened and endangered species. The northern and southern thirds of the Borough contain forested wetland, emergent, forest and grassland habitat with the documented presence of State threatened and endangered species. Species include the wood turtle, bog turtle, great blue heron, the bobolink and the red shouldered hawk.

The northern third of the Borough contains significant amounts of contiguous forest habitat with the presence of State threatened species documented. The forested area around Ravine Lake, all of which coincides with the presence of steep slopes (greater than 15%), deserves special attention, owing to its combination of critical resources. Trout production, critical habitat, steep slopes and scenic vistas all combine to make Ravine Lake one of the most valuable resources the Borough has.

The southern third of the Borough is densely covered by a variety of critical habitats, including grassland, forest, emergent habitats and forested wetlands. Moorland Farm is considered high ranking critical habitat due to the documented sighting of the bobolink, a state endangered species. Forest habitat for the wood turtle is also extensive north and south of Interstate 287, as well as stretching northeast from Liberty Corner Road. The southeastern corner of Far Hills, north and south of Interstate 287, possesses a large area of forested wetland and emergent habitat that is home to the wood turtle and the state endangered red shouldered hawk.

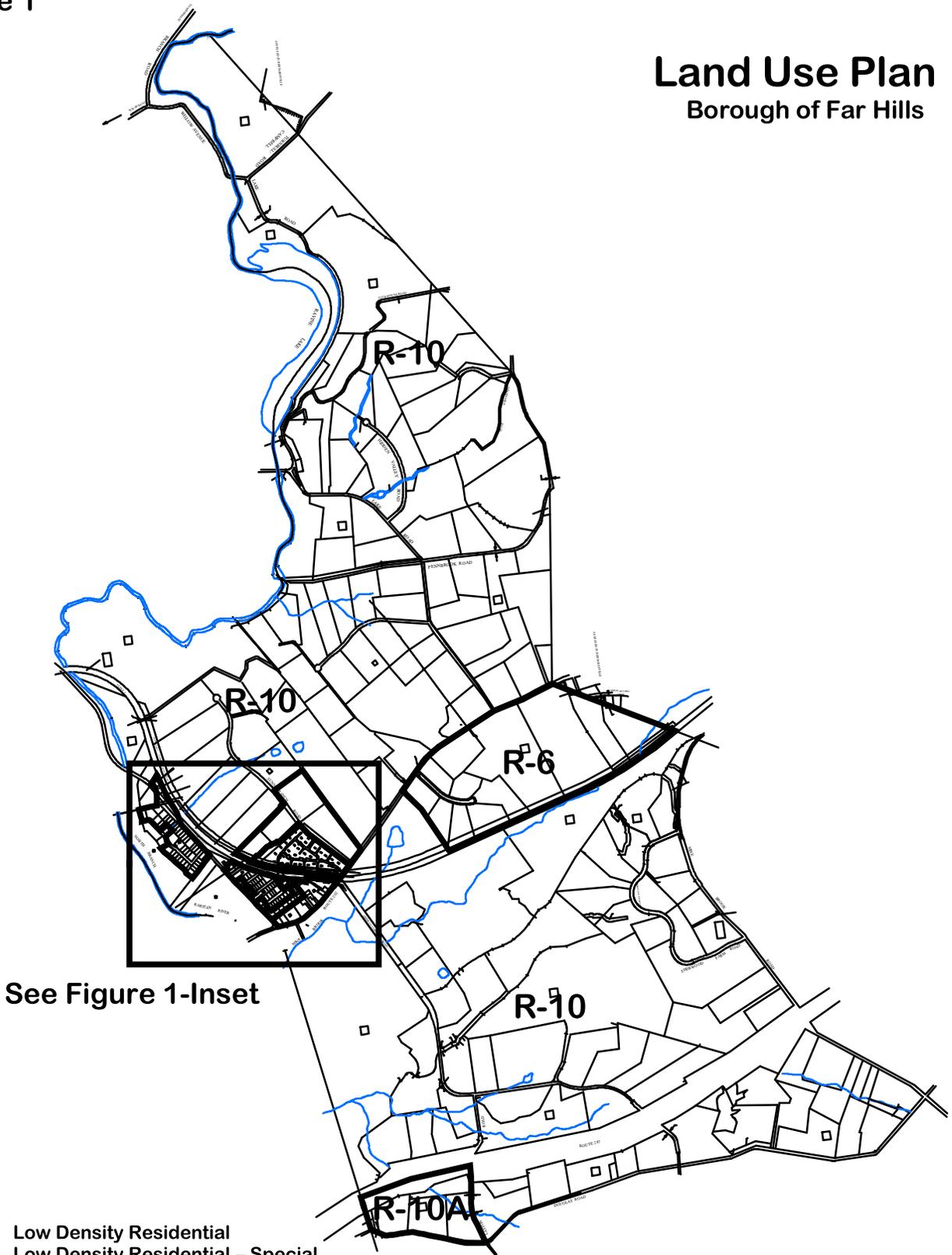
The Landscapes Program data was intended to aid municipalities, County and State governments, conservation agencies and citizens in determining the extent of critical habitat within their respective jurisdictions and communities. After identifying critical habitat, a variety of means can be employed to protect it, including the following:

- Prioritizing open space acquisitions based on the presence of habitat for threatened and endangered species
- Adopting regulations aimed at protecting critical habitat
- Adopting management policies for open space that are consistent with protection of critical habitat
- Permitting flexibility in development techniques that can accommodate the protection of critical habitat
- Promoting land stewardship practices that are consistent with the protection of critical habitat

Figure 1

Land Use Plan

Borough of Far Hills



See Figure 1-Inset

- R-10 Low Density Residential
- R-10A Low Density Residential – Special Residential Development Option
- R-6 Moderate Density Residential
- R-3 Intermediate Density Residential
- R-9 Suburban Residential
- R-5 Village Residential
- TH-6.5 Townhouse Residential
- VC Village Commercial
- NO Neighborhood Office



Not to Scale

Figure 1-Inset

Land Use Plan Village Inset Borough of Far Hills



- R-10 Low Density Residential
- R-10A Low Density Residential – Special Residential Development Option
- R-6 Moderate Density Residential
- R-3 Intermediate Density Residential
- R-9 Suburban Residential
- R-5 Village Residential
- TH-6.5 Townhouse Residential
- VC Village Commercial
- NO Neighborhood Office

Data Sources:
Banisch Associates, Inc.
Ferriero Engineering



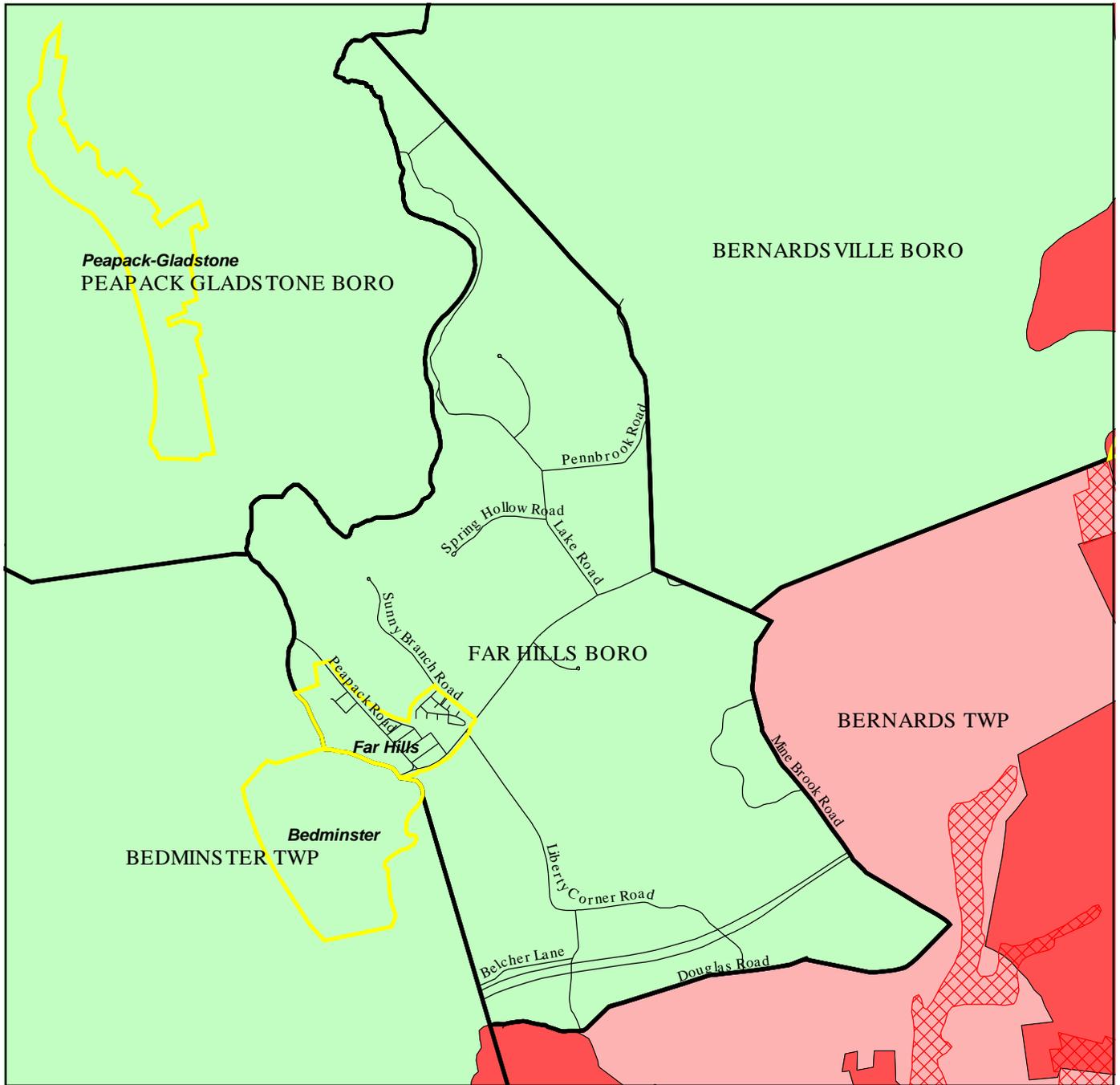
Not to Scale

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Figure 2

State Plan Policy Map

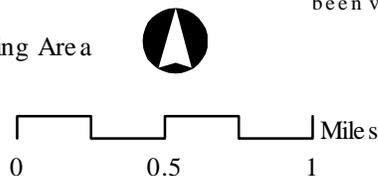
Borough of Far Hills



Legend

- Community Development Boundary
- Critical Environmental Site
- PA-2 Suburban Planning Area
- PA-3 Fringe Planning Area
- PA-5 Environmentally Sensitive Planning Area

Data Sources:
NJDEP
NJOSP



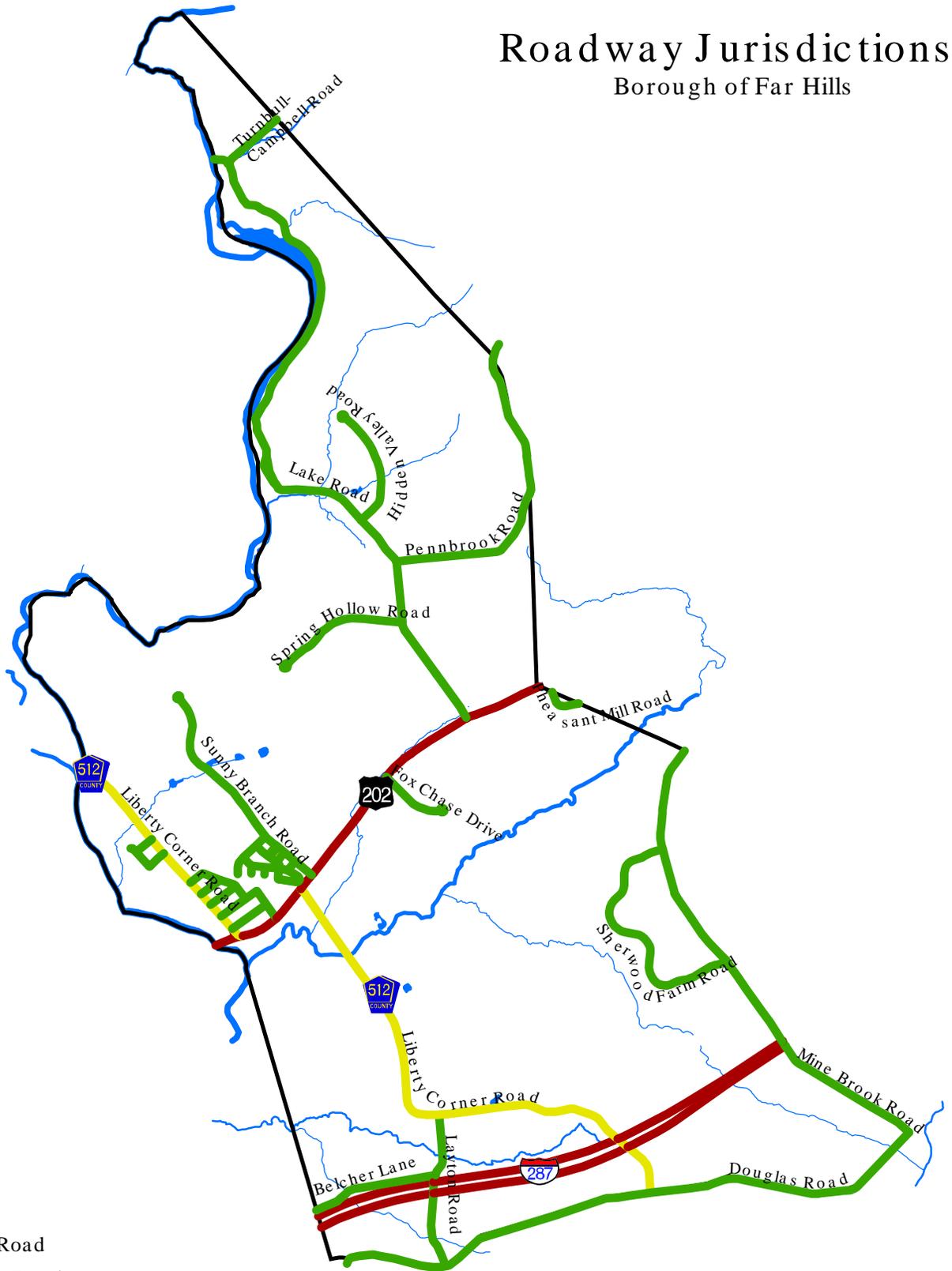
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Figure 3

Roadway Jurisdictions

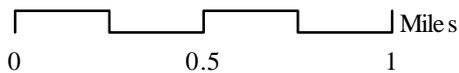
Borough of Far Hills



Legend

- State Road
- County Road
- Local Road

Data Sources:
Banisch Associates, Inc.
Somerset County Planning Board



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Figure 4

Scenic Roads, Corridors and Scenic Vistas

Borough of Far Hills

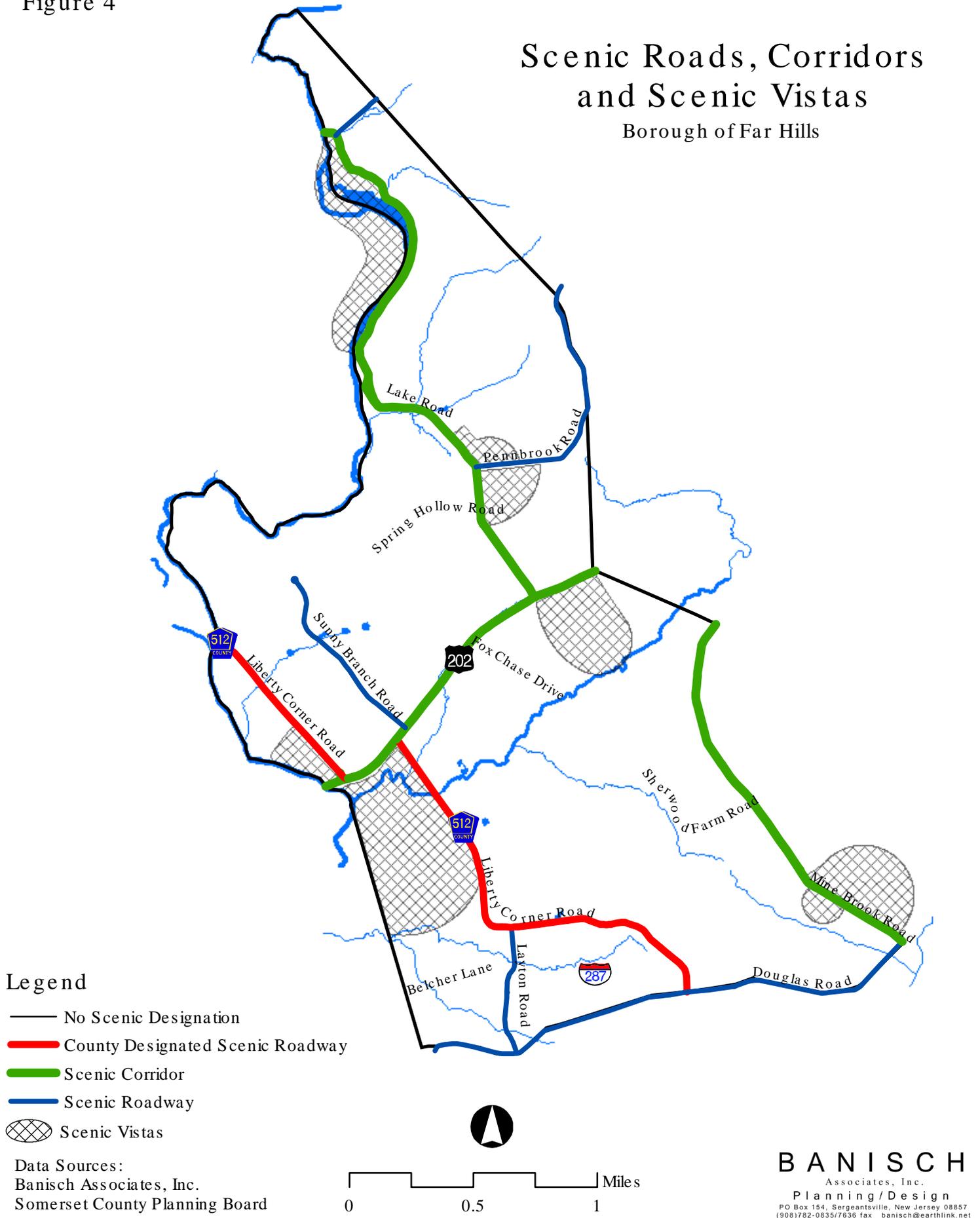
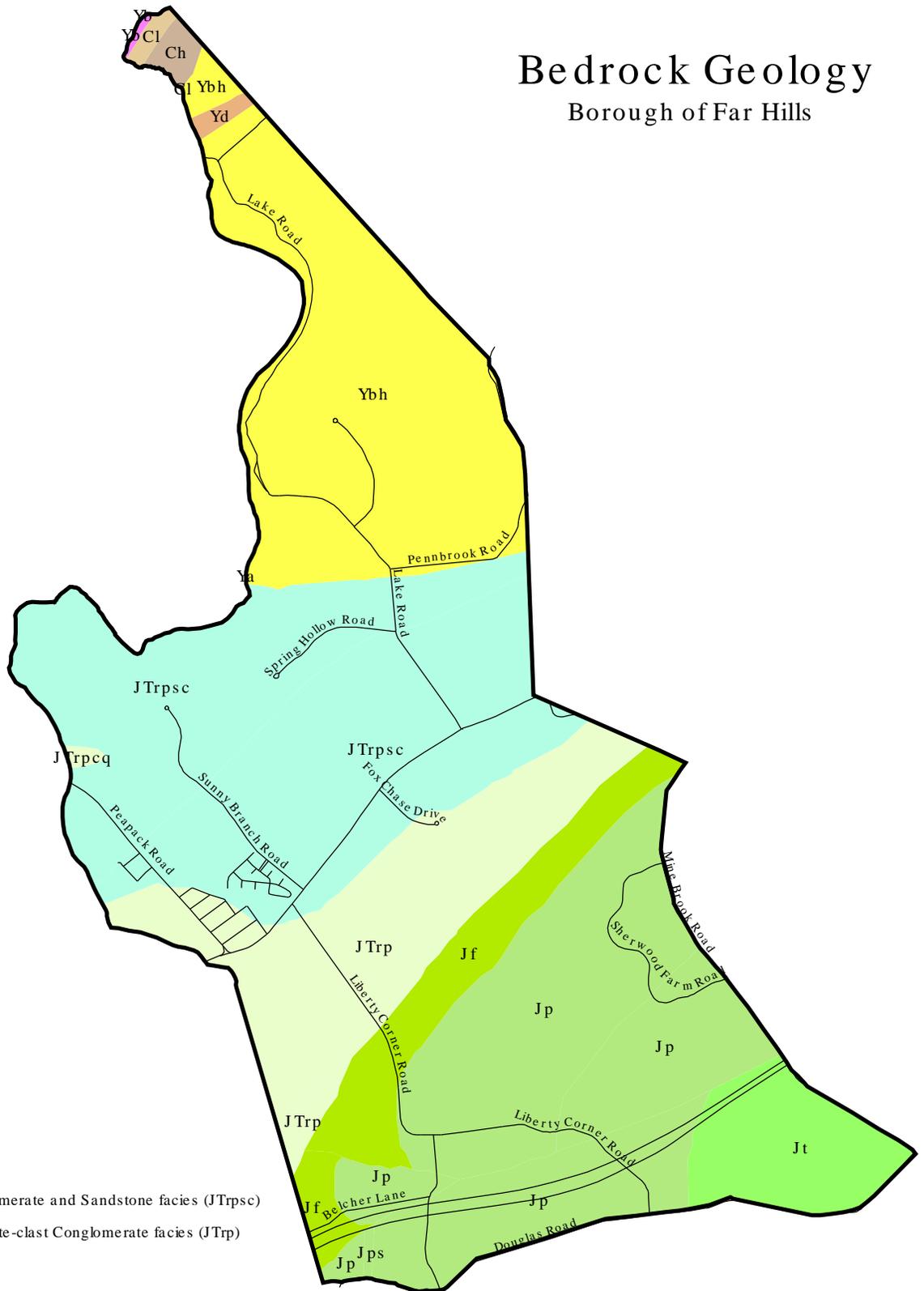


Figure A-1

Bedrock Geology

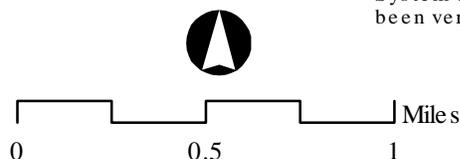
Borough of Far Hills



Legend

- Towaco Formation (Jt)
- Preakness Basalt (Jf)
- Feltville Formation (Jf)
- Passaic Formation (JTrp)
- Passaic Formation Conglomerate and Sandstone facies (JTrpsc)
- Passaic Formation Quartzite-clast Conglomerate facies (JTrp)
- Leithsville Formation (Cl)
- Hardyston Quartzite (Ch)
- Hornblende Granite (Ybh)
- Biotite-Quartz-Feldspar Gneiss (Yb)
- Diorite (Yd)

Data Sources:
 NJDEP
 NJ Geological Survey



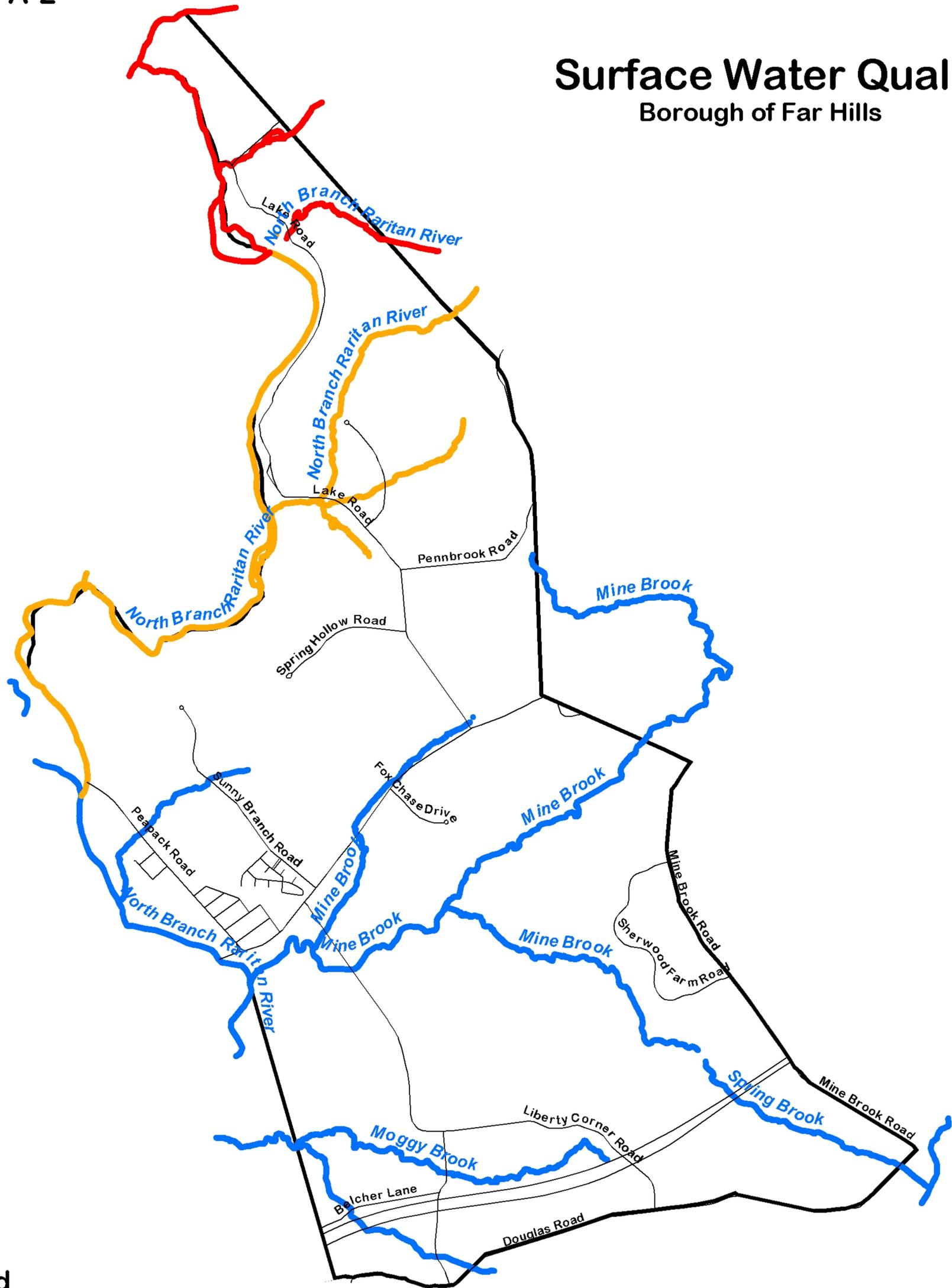
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Figure A-2

Surface Water Quality

Borough of Far Hills

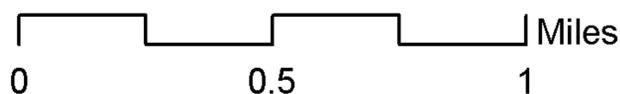


Legend

- Trout Production
- Trout Maintenance
- Non-Trout

Data Sources:
NJDEP

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Figure A-3

AMNET Monitoring Sites

Borough of Far Hills

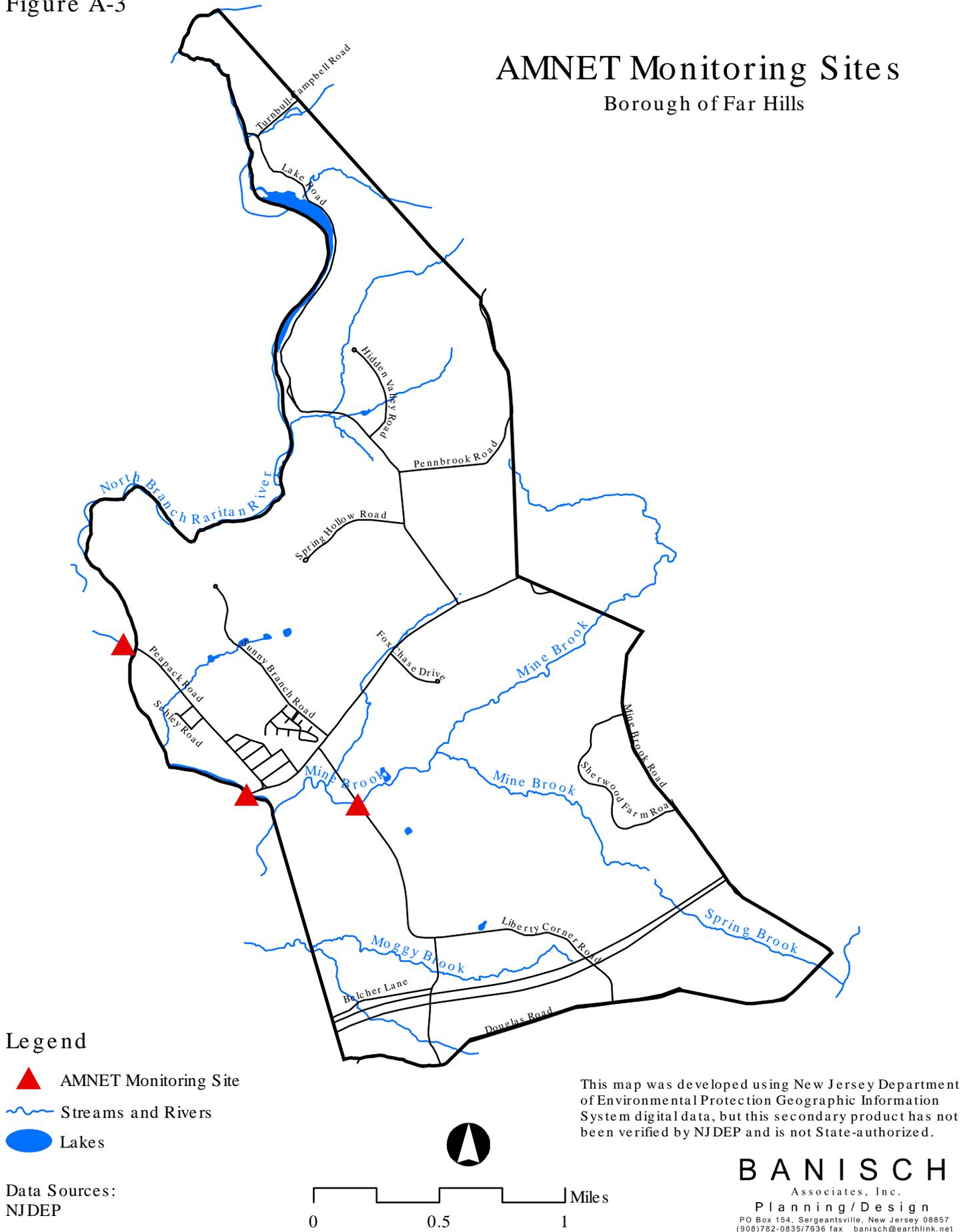
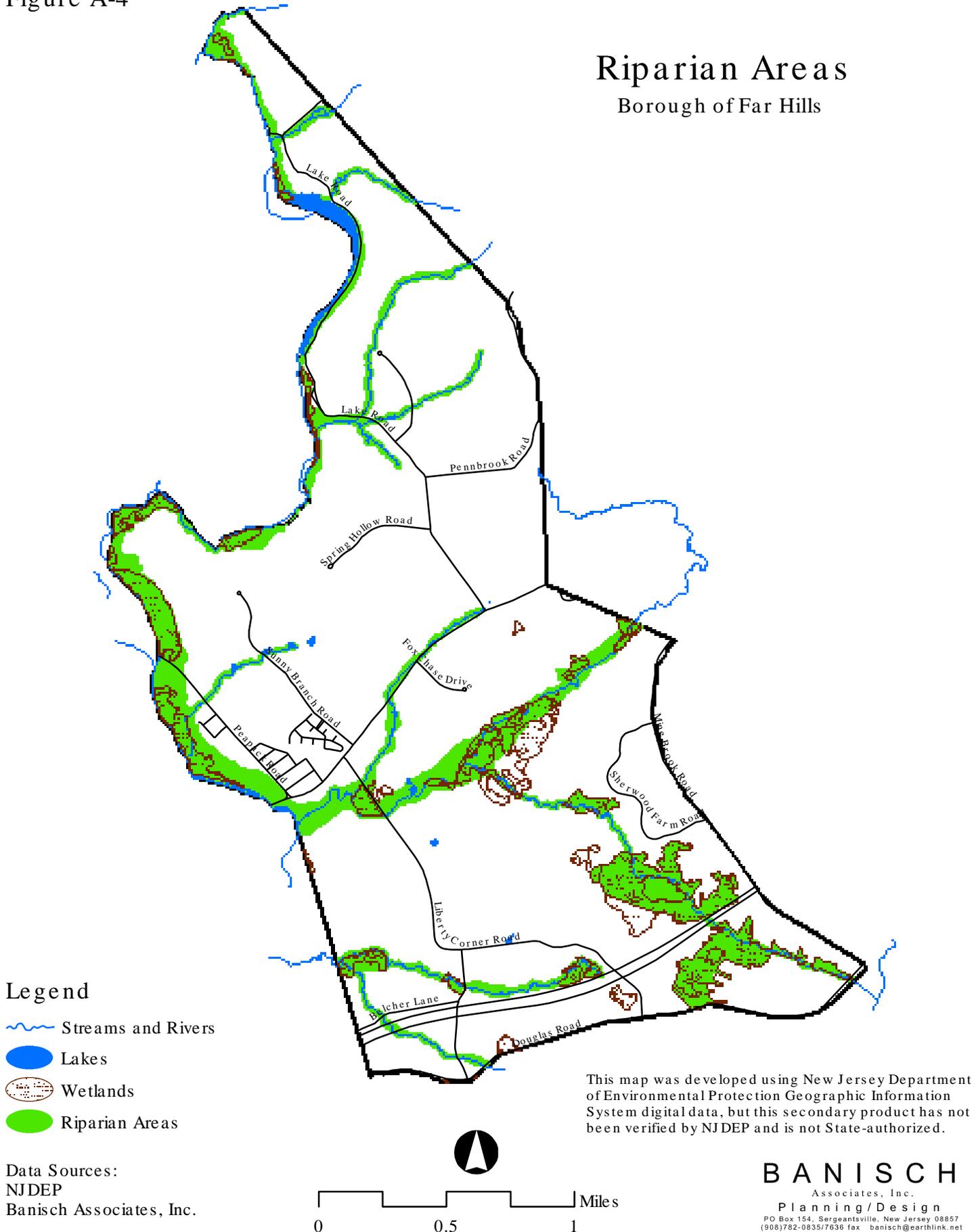


Figure A-4

Riparian Areas

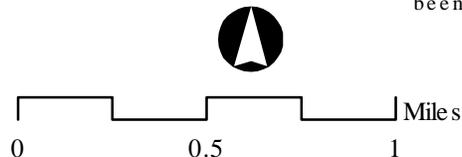
Borough of Far Hills



Legend

- Streams and Rivers
- Lakes
- Wetlands
- Riparian Areas

Data Sources:
NJDEP
Banisch Associates, Inc.



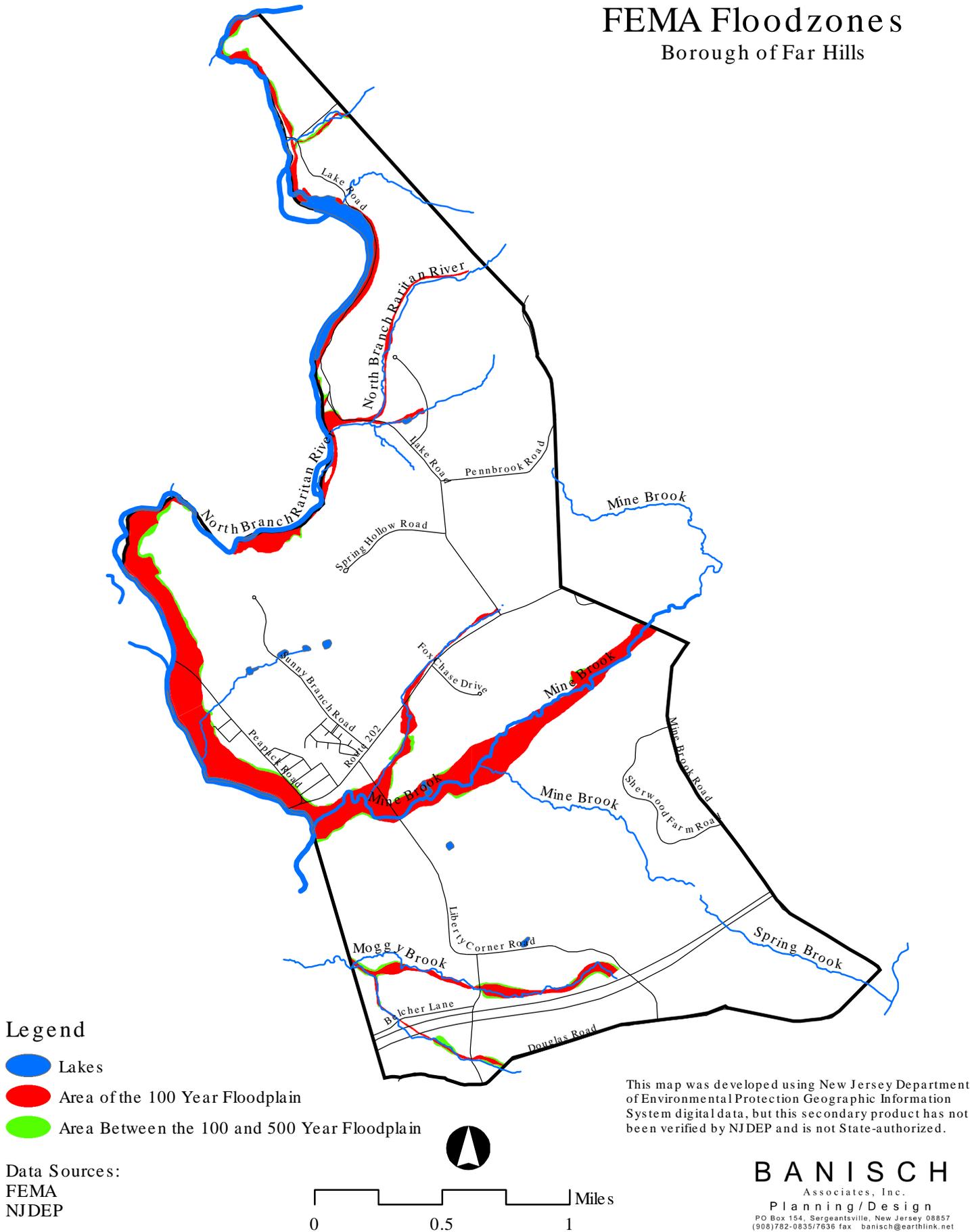
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Figure A-5

FEMA Floodzones

Borough of Far Hills



Legend

- Lakes
- Area of the 100 Year Floodplain
- Area Between the 100 and 500 Year Floodplain

Data Sources:
FEMA
NJDEP

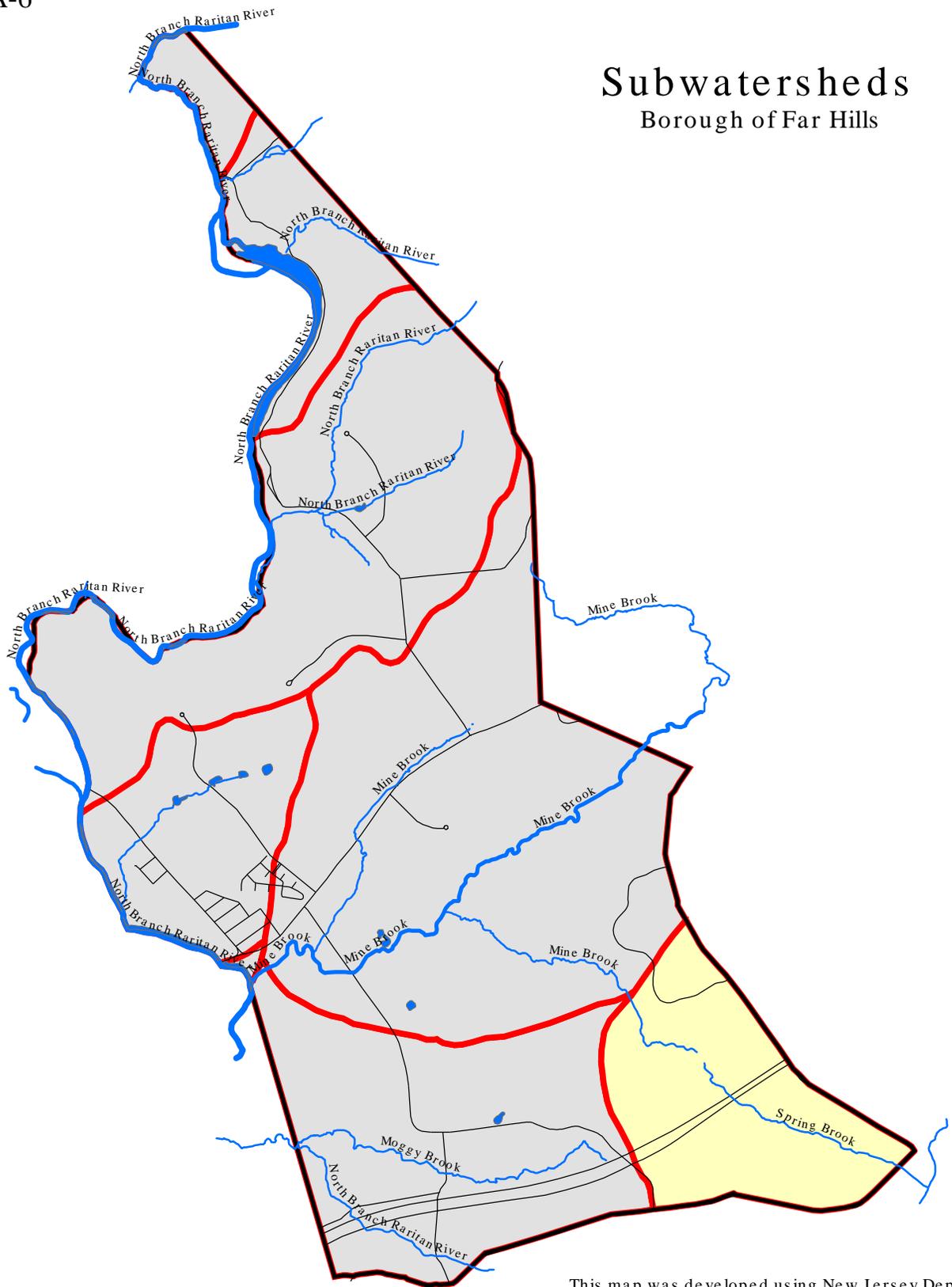
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Figure A-6

Subwatersheds

Borough of Far Hills

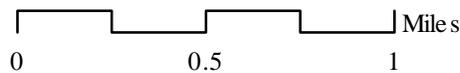


Legend

-  Passaic River
-  Raritan River

Data Sources:
NJDEP

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

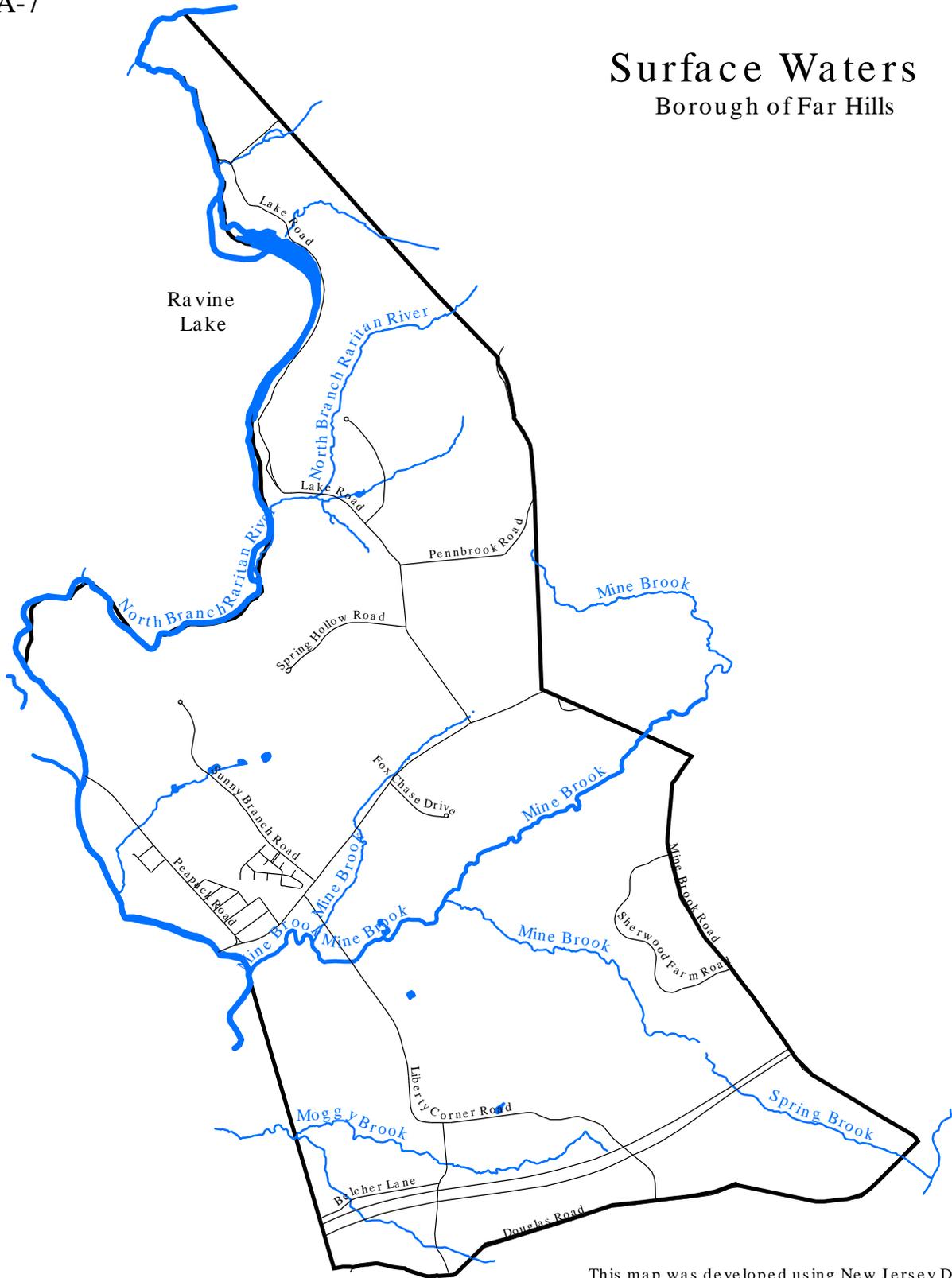


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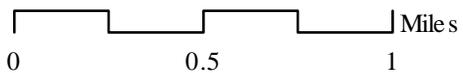
Figure A-7

Surface Waters

Borough of Far Hills



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



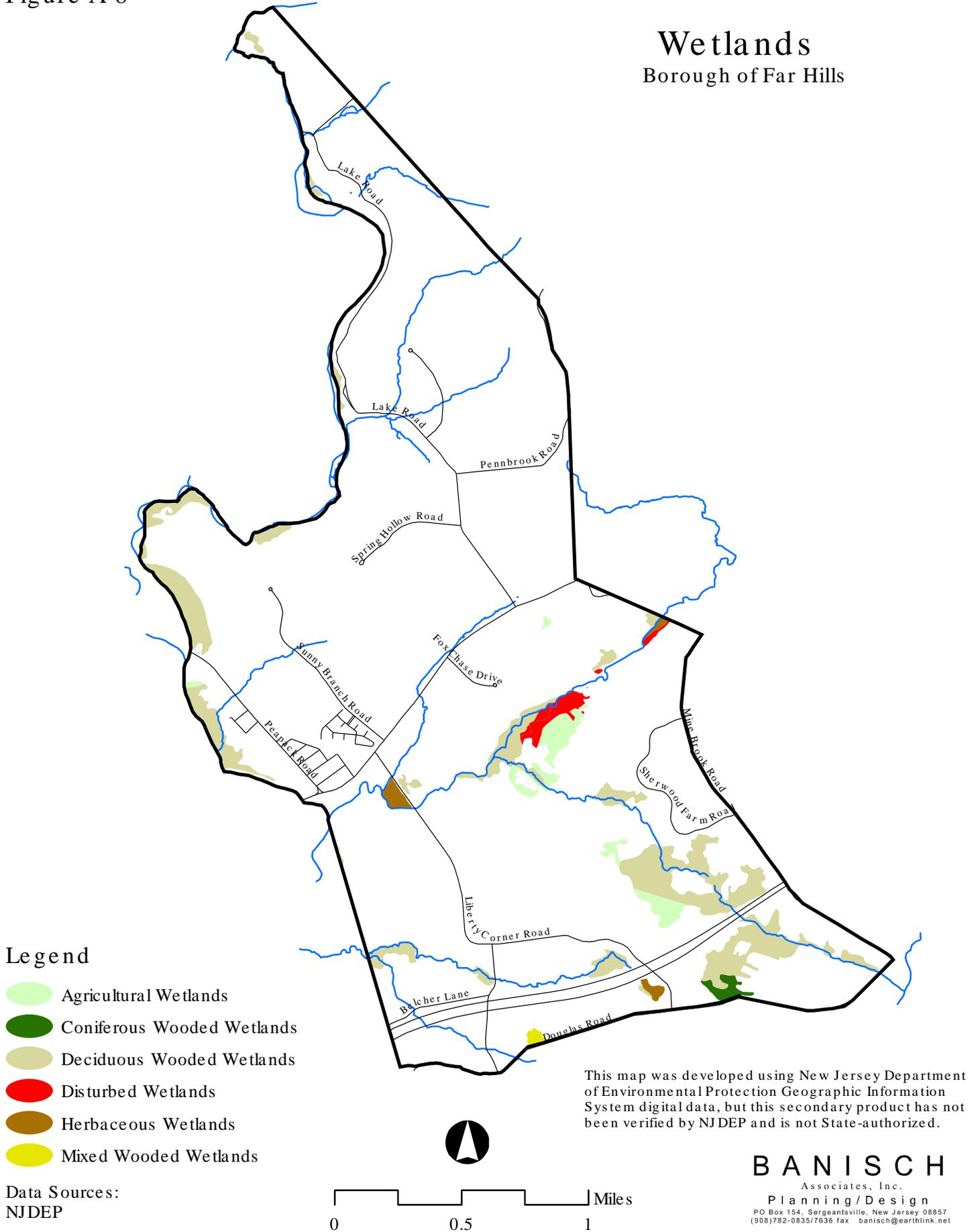
Data Sources:
NJDEP

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Figure A-8

Wetlands

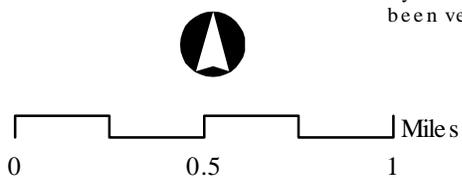
Borough of Far Hills



Legend

-  Agricultural Wetlands
-  Coniferous Wooded Wetlands
-  Deciduous Wooded Wetlands
-  Disturbed Wetlands
-  Herbaceous Wetlands
-  Mixed Wooded Wetlands

Data Sources:
NJDEP



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Figure A-9

Farmland Capability

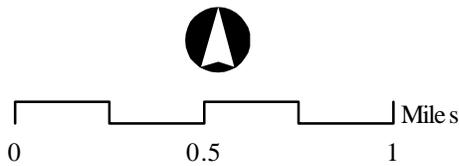
Borough of Far Hills



Legend

- Prime Soils
- Statewide Important Soils
- Locally Important Soils

Data Sources:
USDA NRCS



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Figure A-10

Limitations for On-Site Disposal of Effluent Borough of Far Hills

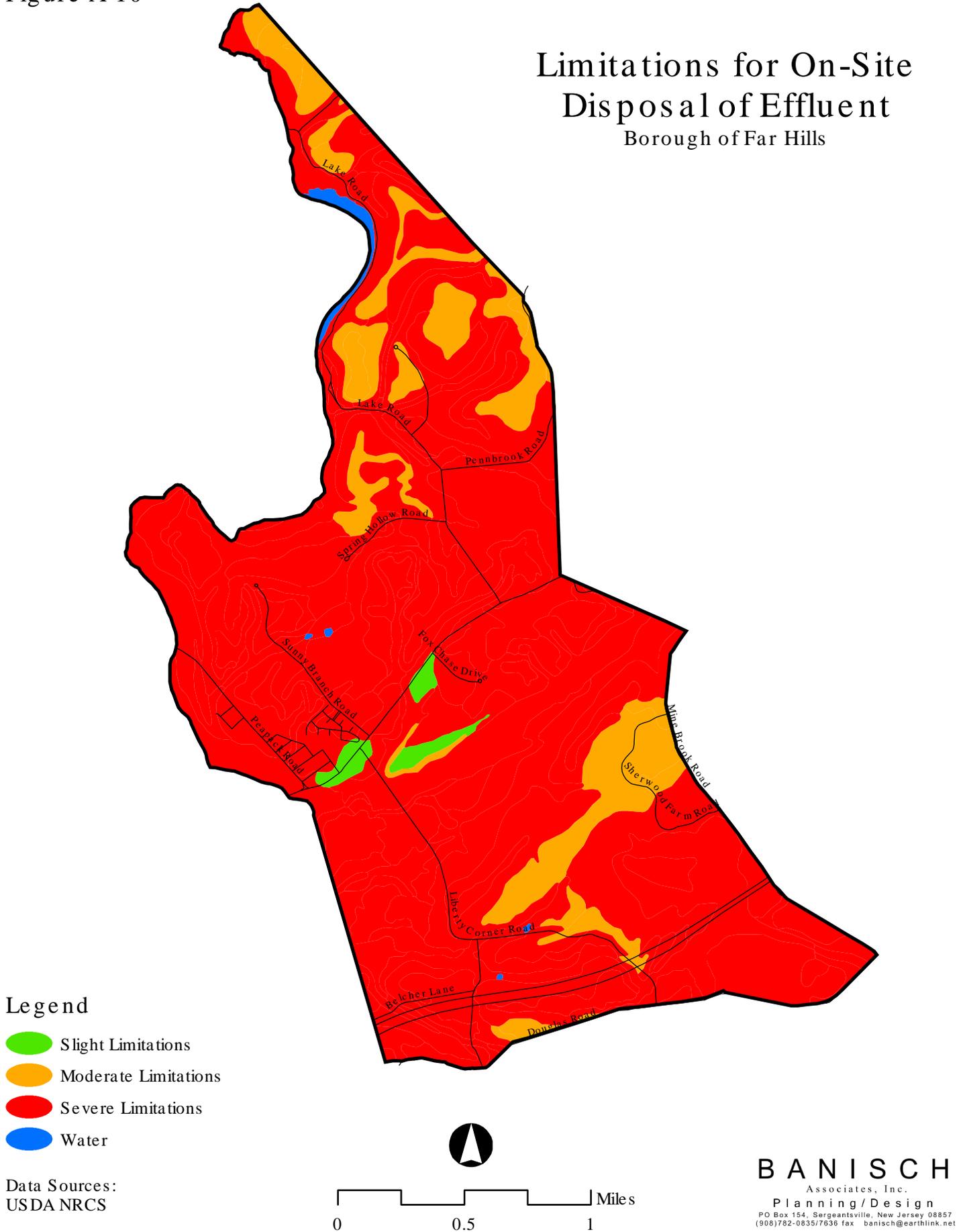
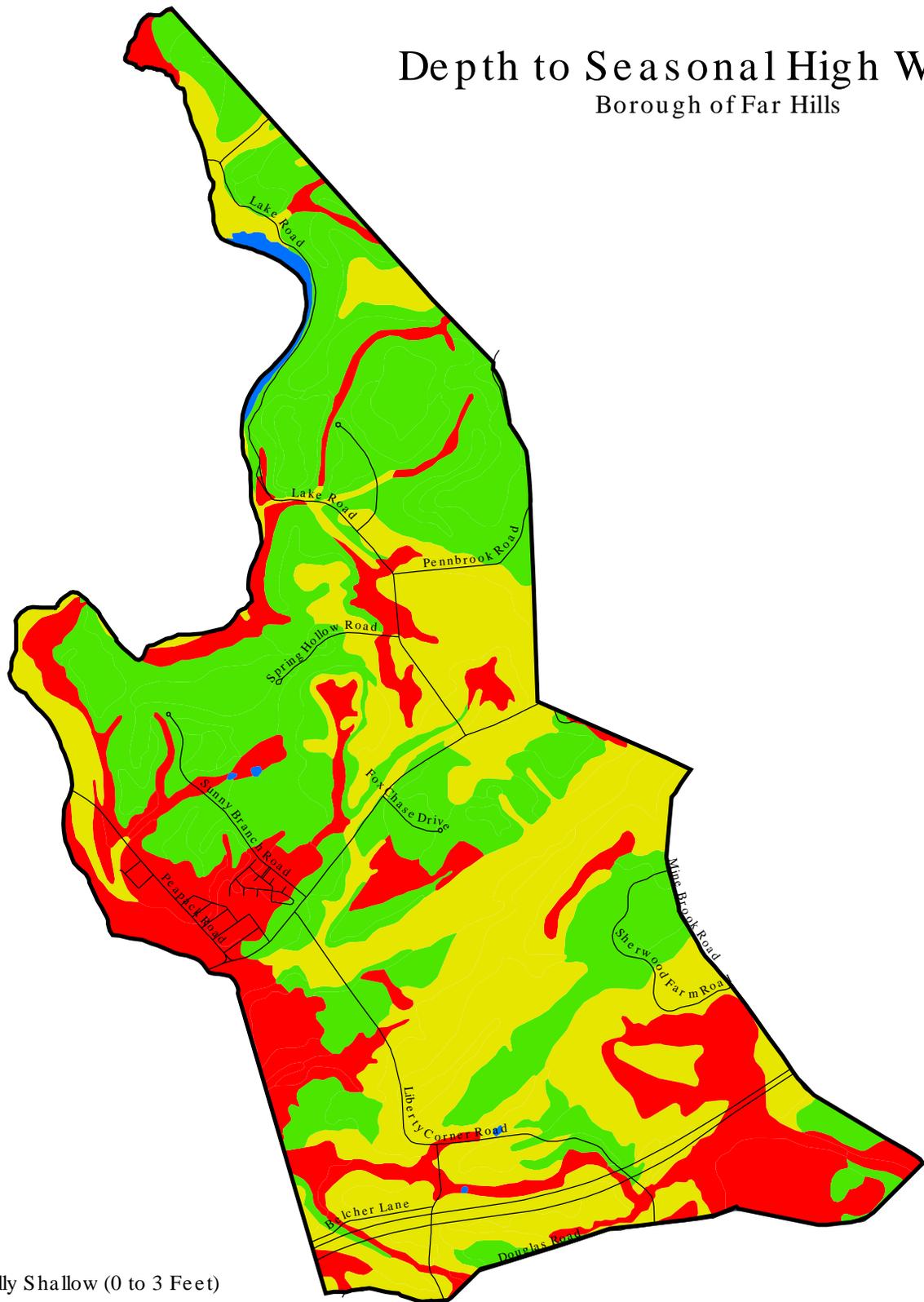


Figure A-11

Depth to Seasonal High Water

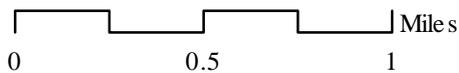
Borough of Far Hills



Legend

- Generally Shallow (0 to 3 Feet)
- Variable, Possibly Shallow (1 to 4 Feet)
- Generally Deep (Greater than 4 feet)
- Water

Data Sources:
USDA NRCS

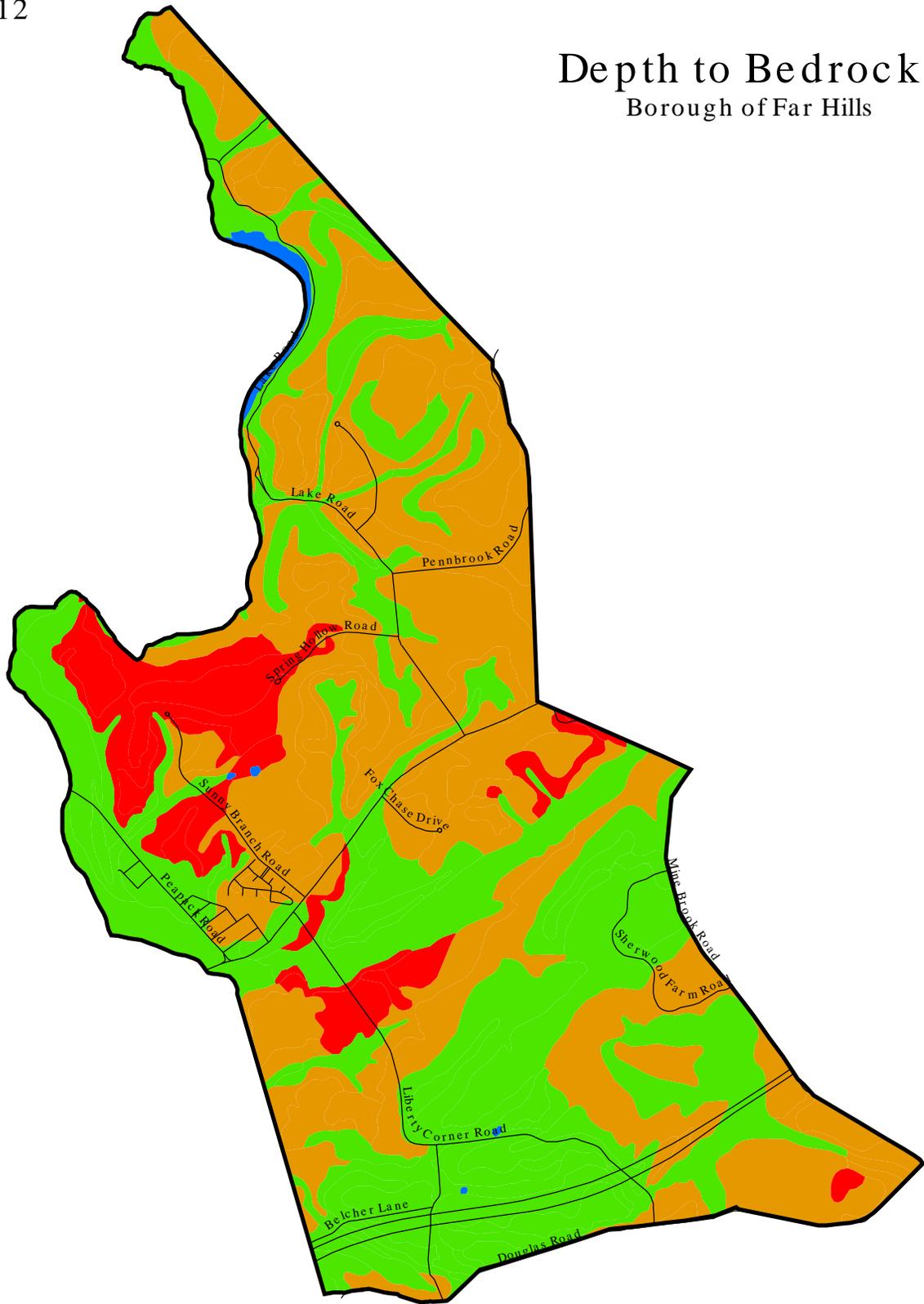


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Figure A-12

Depth to Bedrock

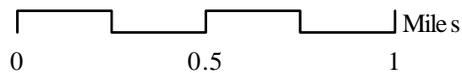
Borough of Far Hills



Legend

- Generally Shallow (1 to 3.5 Feet)
- Generally Moderate (3.5 to Greater than 5 Feet)
- Generally Deep (Greater than 4 Feet)
- Water

Data Sources:
USDA NRCS

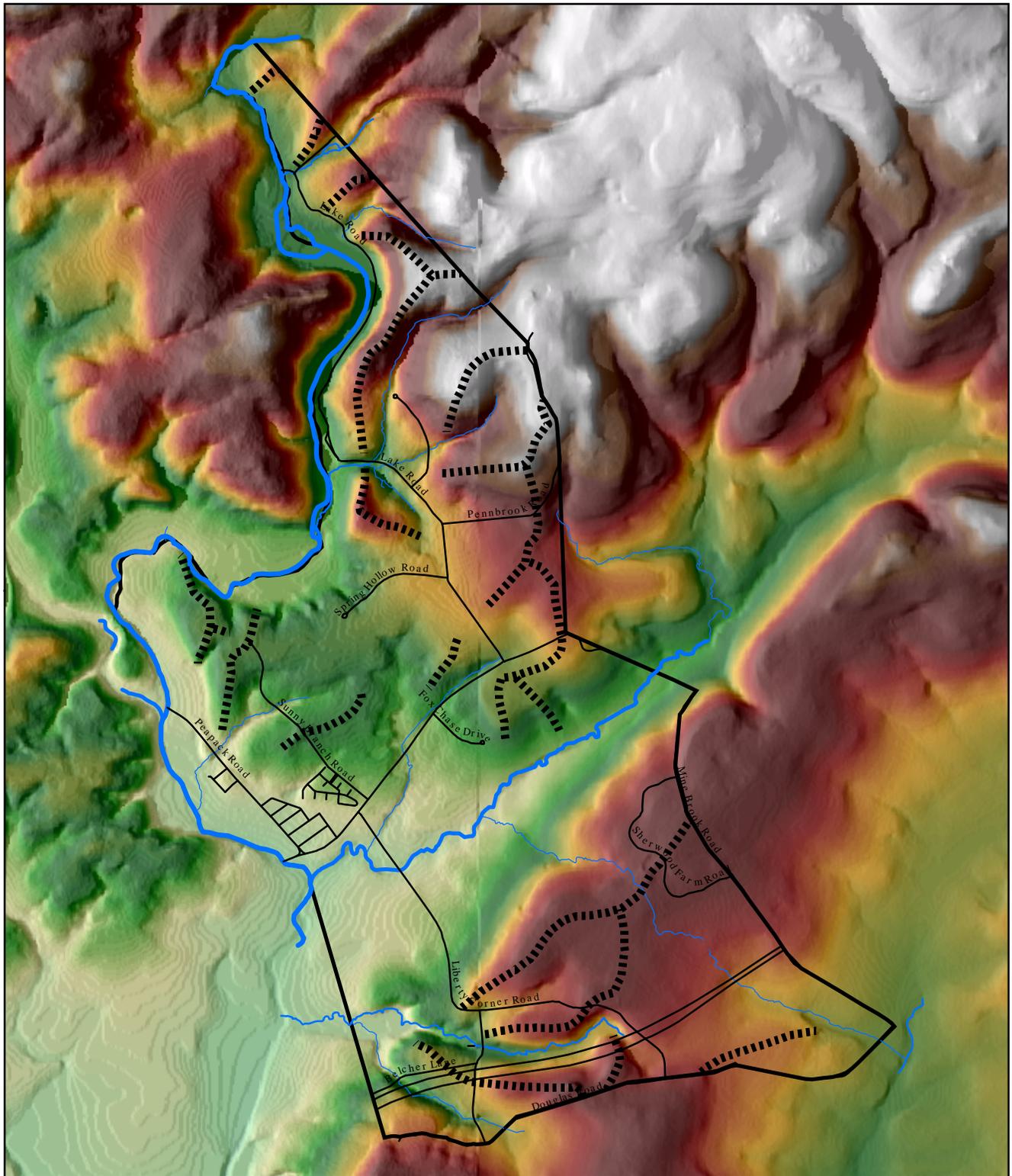


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Figure A-13

Topography and Ridgelines

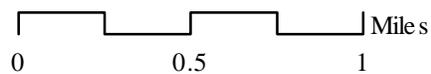
Borough of Far Hills



Legend

 Ridgeline

Data Sources:
USGS
Banisch Associates, Inc.

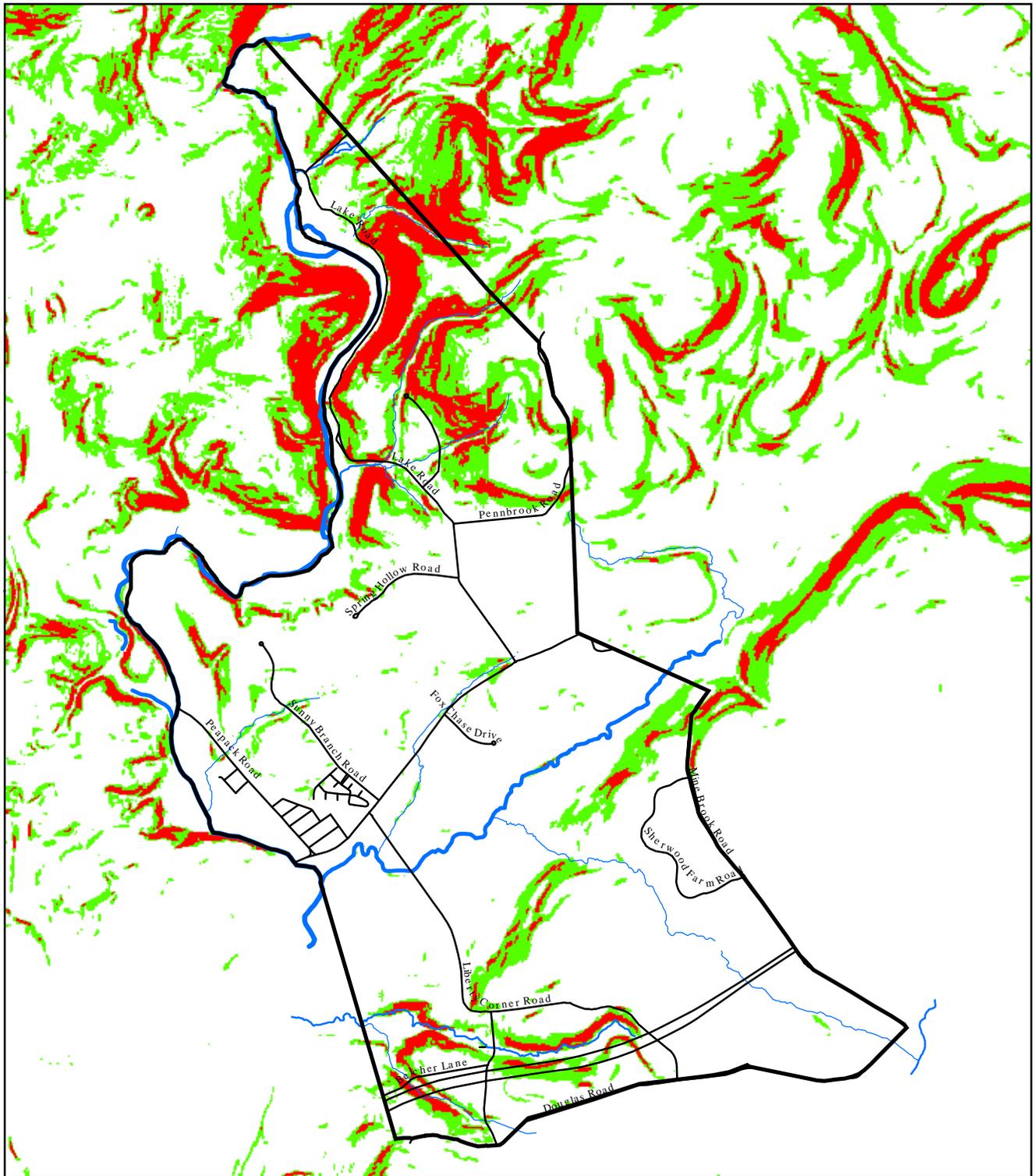


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Figure A-14

Steep Slopes

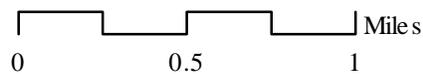
Borough of Far Hills



Legend

-  Slopes less than 15%
-  Slopes 15% to 25%
-  Slopes Greater than 25%

Data Sources:
USGS



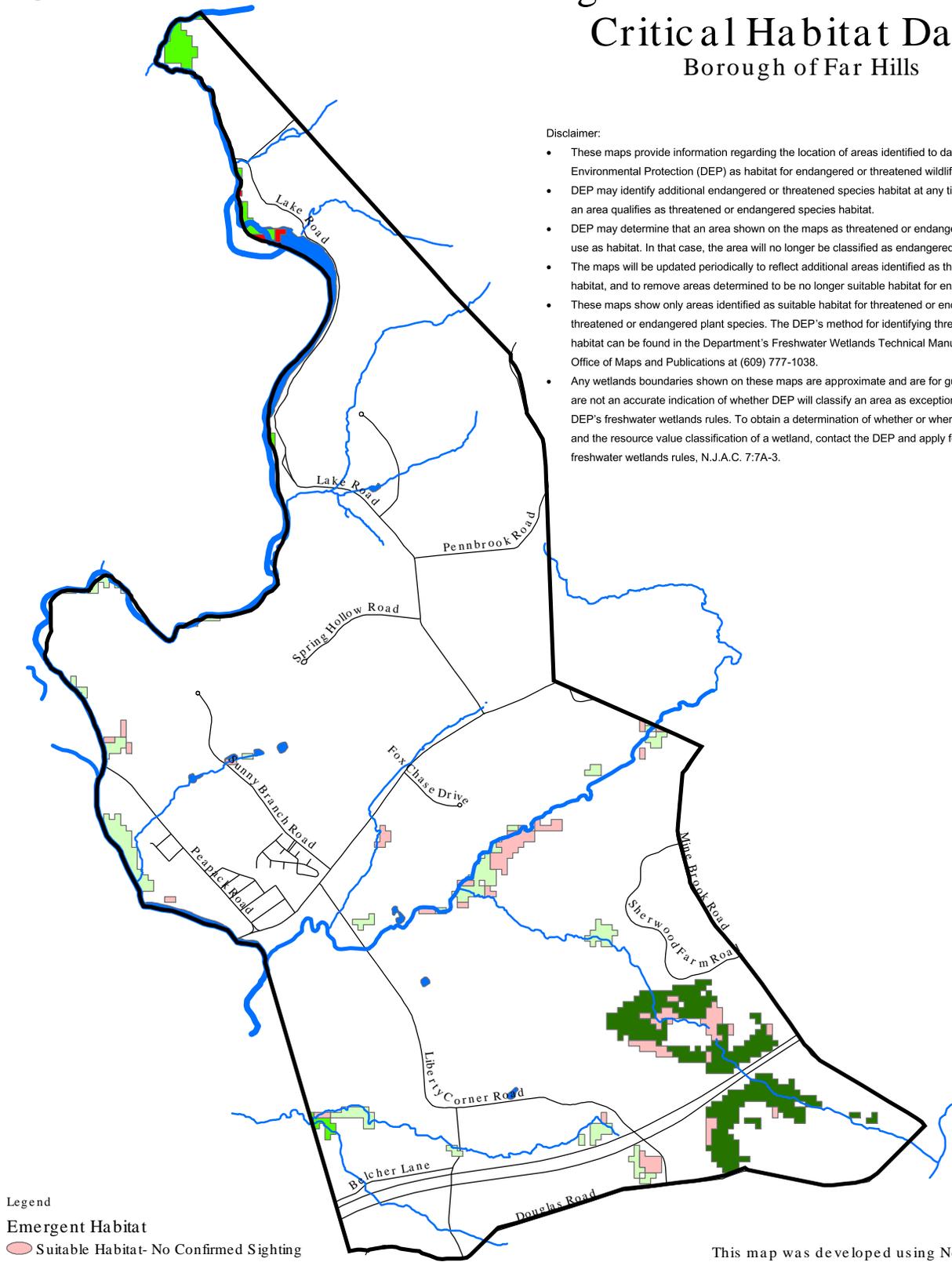
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Figure A-16

Emergent and Forested Wetland Critical Habitat Data Borough of Far Hills

Disclaimer:

- These maps provide information regarding the location of areas identified to date by the New Jersey Department of Environmental Protection (DEP) as habitat for endangered or threatened wildlife species.
- DEP may identify additional endangered or threatened species habitat at any time if there is sufficient evidence that an area qualifies as threatened or endangered species habitat.
- DEP may determine that an area shown on the maps as threatened or endangered wildlife habitat is not suitable for use as habitat. In that case, the area will no longer be classified as endangered or threatened species habitat.
- The maps will be updated periodically to reflect additional areas identified as threatened or endangered wildlife habitat, and to remove areas determined to be no longer suitable habitat for endangered or threatened wildlife.
- These maps show only areas identified as suitable habitat for threatened or endangered animal species, not threatened or endangered plant species. The DEP's method for identifying threatened or endangered plant species habitat can be found in the Department's Freshwater Wetlands Technical Manual, available from the Department's Office of Maps and Publications at (609) 777-1038.
- Any wetlands boundaries shown on these maps are approximate and are for guidance only. Therefore, these maps are not an accurate indication of whether DEP will classify an area as exceptional resource value wetland under the DEP's freshwater wetlands rules. To obtain a determination of whether or where wetlands are located on a property and the resource value classification of a wetland, contact the DEP and apply for a letter of interpretation under the freshwater wetlands rules, N.J.A.C. 7:7A-3.



Legend

Emergent Habitat

- Suitable Habitat- No Confirmed Sighting
- State Threatened Sighting

Forested Wetland Habitat

- Suitable Habitat - No Confirmed Sighting
- State Threatened Sighting
- State Endangered Sighting

Data Sources:
NJDEP ENSP

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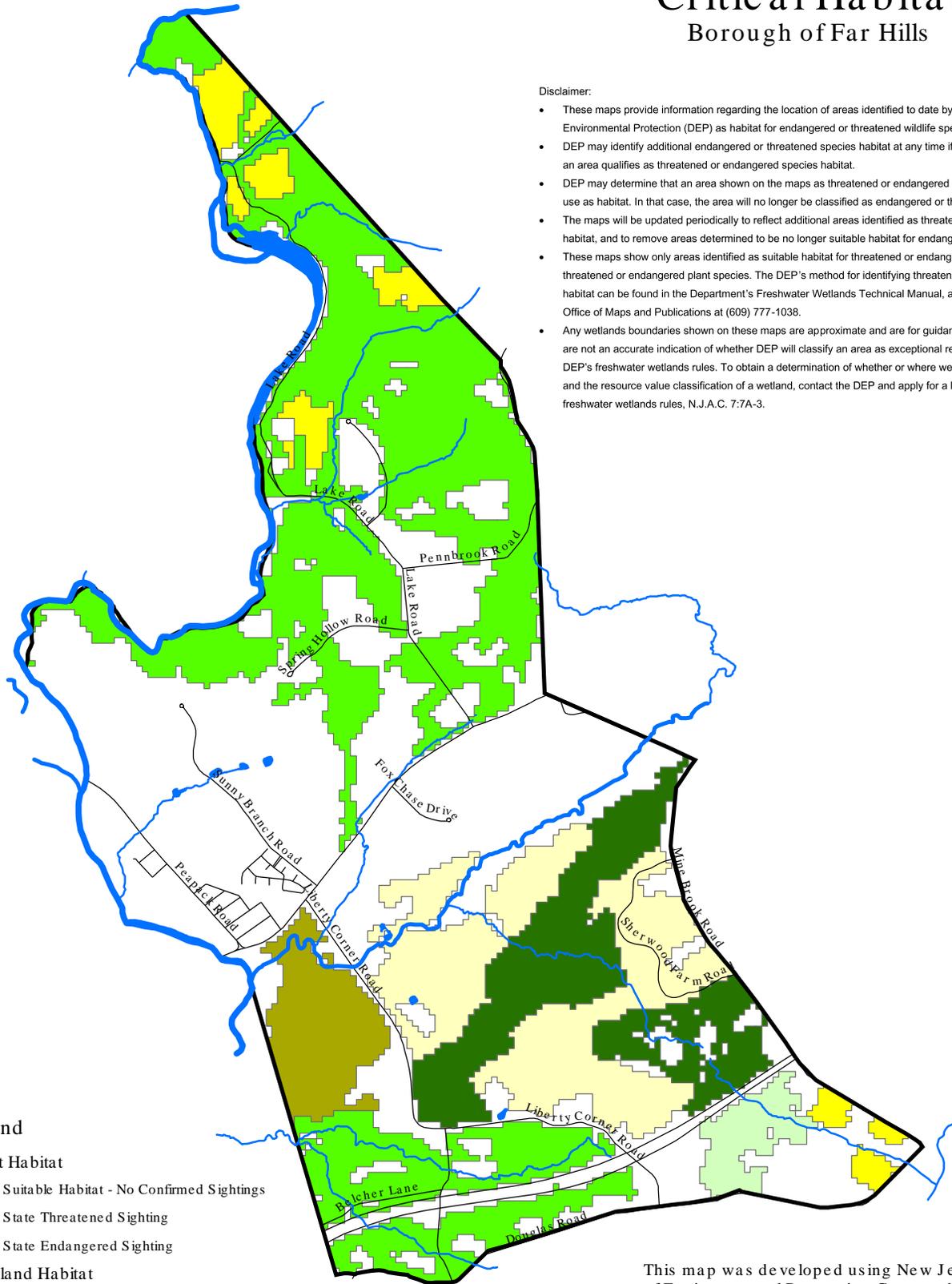


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Figure A-17

Grassland and Forest Critical Habitat

Borough of Far Hills



Disclaimer:

- These maps provide information regarding the location of areas identified to date by the New Jersey Department of Environmental Protection (DEP) as habitat for endangered or threatened wildlife species.
- DEP may identify additional endangered or threatened species habitat at any time if there is sufficient evidence that an area qualifies as threatened or endangered species habitat.
- DEP may determine that an area shown on the maps as threatened or endangered wildlife habitat is not suitable for use as habitat. In that case, the area will no longer be classified as endangered or threatened species habitat.
- The maps will be updated periodically to reflect additional areas identified as threatened or endangered wildlife habitat, and to remove areas determined to be no longer suitable habitat for endangered or threatened wildlife.
- These maps show only areas identified as suitable habitat for threatened or endangered animal species, not threatened or endangered plant species. The DEP's method for identifying threatened or endangered plant species habitat can be found in the Department's Freshwater Wetlands Technical Manual, available from the Department's Office of Maps and Publications at (609) 777-1038.
- Any wetlands boundaries shown on these maps are approximate and are for guidance only. Therefore, these maps are not an accurate indication of whether DEP will classify an area as exceptional resource value wetland under the DEP's freshwater wetlands rules. To obtain a determination of whether or where wetlands are located on a property and the resource value classification of a wetland, contact the DEP and apply for a letter of interpretation under the freshwater wetlands rules, N.J.A.C. 7:7A-3.

Legend

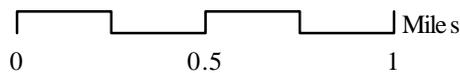
Forest Habitat

- Suitable Habitat - No Confirmed Sightings
- State Threatened Sighting
- State Endangered Sighting

Grassland Habitat

- Suitable Habitat - No Confirmed Sighting
- State Threatened Sighting
- State Endangered Sighting

Data Sources:
NJDEP ENSP



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

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