Amendment to the Master Plan
TOWNSHIP OF READINGTON

Wallendjack Farm, Pine Bank Road

PLANNING BOARD
TOWNSHIP OF READINGTON
HUNTERDON COUNTY, NEW JERSEY

November 23, 1998

Amendment to the Master Plan
TOWNSHIP OF READINGTON

GOALS AND POLICIES

◆

LAND USE

◆

CONSERVATION, NATURAL RESOURCES & AGRICULTURE

◆

PARKS, RECREATION & OPEN SPACE

◆

PLANNING CONSISTENCY

PLANNING BOARD
TOWNSHIP OF READINGTON
HUNTERDON COUNTY, NEW JERSEY

November, 23 1998

Amendment to the Master Plan
TOWNSHIP OF READINGTON

Prepared pursuant to *N.J.S.A.* 40:55D-28,
of the New Jersey Municipal Land Use Law

Adopted by the Readington Township Planning Board
November 23, 1998

◆ ◆ ◆

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A signed and sealed original is on file with the Township Clerk's office

TOWNSHIP OF READINGTON
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PARKS, RECREATION & OPEN SPACE

PLANNING CONSISTENCY

1998 AMENDMENT TO THE MASTER PLAN OF READINGTON TOWNSHIP HUNTERDON COUNTY, NEW JERSEY

INTRODUCTION

This amendment to the Master Plan of Readington Township consists of a Conservation, Natural Resources & Agriculture Plan Element which replaces both the Conservation Plan and the Agriculture Plan Elements of the 1990 Master Plan, a statement of the relationship of the Master Plan, as amended, to the zoning ordinances and plans of contiguous municipalities, the county and the state which replaces the corresponding statement in the 1990 Master Plan, and various amendments and revisions to the Goals & Policies, Land Use, and Parks, Recreation & Open Space Plan Elements of the 1990 Master Plan. It is the intent of the Planning Board that this amendment shall supercede the 1990 Master Plan and the 1995 Re-Examination Report in the event of any inconsistencies which may exist among these documents.

Preparation of this Conservation, Natural Resources & Agriculture Plan Element and the amendment to the Parks, Recreation and Open Space Plan Element were greatly facilitated by the report entitled "Open Space Preservation", dated September, 1998 and prepared by Julia Allen, Township Committee member.

II. GOALS & POLICIES PLAN ELEMENT

The Goals & Policies related to Agricultural Preservation in the 1990 Master Plan (p. 5) shall be replaced with the following:

1. AGRICULTURAL PRESERVATION

Goal: Preserve farmlands and encourage their continued use recognizing that farming is an important component of the economy of the township, the region, and the state, and that agricultural lands are an irreplaceable natural resource and a key element of the Township's rural character.

Policies: Coordinate local agricultural land use preservation efforts with those of the state and the county and with those of adjoining municipalities.

Preserve large agricultural areas free from the intrusion of residential and other uses by zoning for appropriate intensity of use, requiring that new residential units in agricultural areas be clustered and by acquiring development rights and open space in agricultural areas.

2. ENVIRONMENTAL PROTECTION

The Goal of Environmental Protection shall remain as in the 1990 Master Plan; however, the first policy shall be replaced with the following:

Conserve and protect as many environmentally sensitive areas as possible. To that end (i); continue to require new development to observe rigorous performance standards to minimize any potential adverse environmental effects; and (ii) relate development standards and the permitted intensity of use to the carrying capacity of the soil and groundwater quality and to the objective of preserving farmland, open space and natural features.

III. LAND USE PLAN ELEMENT

The Readington Township Planning Board has re-examined the evolving land use pattern within the Rural Residential zoning district and has determined that the current zoning density must be revised in order to better align it with the Township's Master Plan goals and policies.

The pace of residential development in Readington during this decade has been running at historically high rates, with over 1,100 units added to the Township's housing stock since 1990 (a growth rate of approximately 25%). While a significant number of these new units are located in the Planned Neighborhood Development district, substantial acreage within the Rural Residential district has also been consumed by recent subdivisions. The loss of land to development within the Township's Agriculture Development Area (ADA) is evidenced by land under farmland assessment in Readington which declined by 2,077 acres (from 16,519 acres to 14,442 acres) between 1982 and 1998.

The Township's efforts to preserve farmland and natural open space, as detailed in the Conservation, Natural Resources and Agriculture Plan Element, have been productive. A total of 1,960 acres are subject to permanent farmland preservation easements and 132 acres are subject to an eight year easement. The Township continues to actively pursue the purchase of additional development rights and the set-aside of land for farming through clustering of lots in residential subdivision applications.

Readington's historical interest in agricultural preservation has been reflected at the state level. The 1992 State Development and Redevelopment Plan designates the vast majority of the Township's Agriculture Development Area as either Planning Area 4 (Rural), 4B (Rural/Environmentally Sensitive) or 5 (Environmentally Sensitive). The policies of the State Plan, as described in the Conservation, Natural Resources and Agricultural Plan Element, are supportive of the capacity-based zoning approach and other planning principles incorporated in the 1990 Master Plan and in this Plan Amendment. In addition, on November 3, 1998, New Jersey voters approved – by a substantial margin – a constitutional referendum which is intended to provide funding for the acquisition of development rights on 500,000 acres of farmland throughout the state over the next ten years.

The 1990 Master Plan sets forth the Township's intent to preserve farmland, particularly in areas where large parcels in agricultural use predominate. It also identifies the carrying capacity of the soil and preservation of environmental features as key indices for gauging the appropriate intensity of residential use.

This Master Plan Amendment brings renewed focus to these issues through the Conservation Plan Element, into which the Agriculture Plan Element from the 1990 Master Plan has been expanded and consolidated. The Conservation Plan Element evaluates the ADA from the perspective of existing land use, geology, soils, groundwater quality, farmland assessed property, farmland preserved property, adjacent municipal zoning and county and state planning policies. Based on this analysis, it is clear that the goals of the Master Plan (both the 1990 version and this amendment) would be better achieved through the creation of a new land use designation, termed Agricultural Residential (AR).

The Agricultural Residential land use category provides for larger minimum lot sizes (5-6 acres) than the existing Rural Residential (RR) category. It replaces only that portion of the existing Rural Residential land use category which is within the Agriculture Development Area (see Land Use Plan of Readington Township).

On this basis alone, the revised land use designation results in a reduction in the theoretical residential development capacity of vacant land of 995 units (a 43% decline). Those units which are developed will either be on 6 acre lots which can qualify for farmland assessment or on 1.5 acre lots within a cluster subdivision with a substantial land reservation for open space which will likely be farmed. Conversely, the amount of open space which would be set aside under cluster subdivisions of parcels 40 acres and larger would increase by 1,013 acres (a 40% increase.)

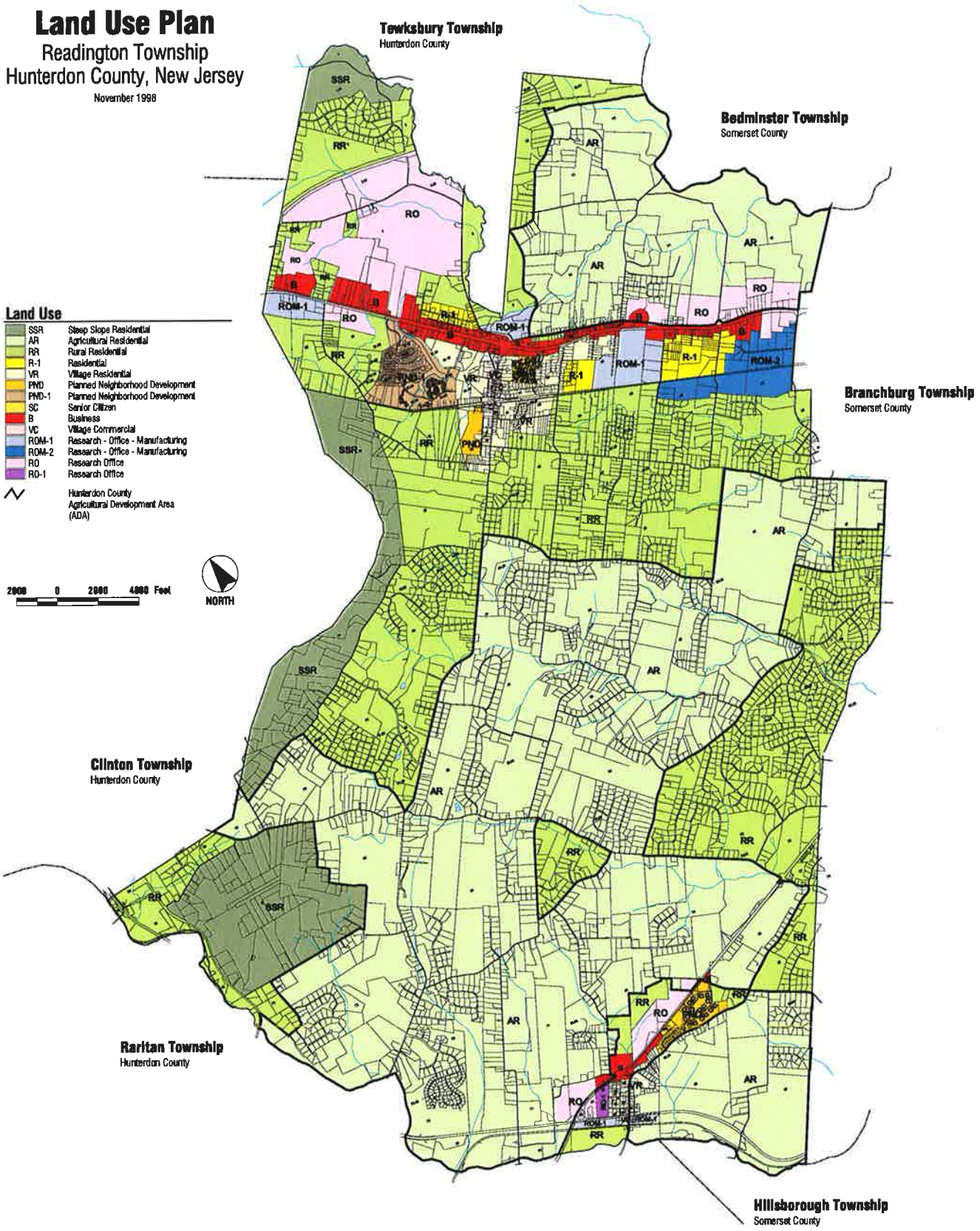
The Township's goals of preserving agriculture as a viable industry, preserving its rural character, protecting groundwater, protecting forested areas and other natural features, protecting wetlands, floodplains and surface water quality, and conforming to county and state planning policies are all advanced by the creation of the Agricultural Residential land use category.

In addition, the reduction in development capacity will reduce the need to widen, straighten and otherwise "improve" Readington's rural road system. This road network has many sections which are narrow, winding and paved with only a stone surface. These sections are also quite scenic and, since much of the perception of a place is from the public rights-of-way, they contribute to the rural character of the Township. While these rural roads have functioned reasonably well over the years, their capacity to accommodate additional traffic volumes safely is limited.

Land Use Plan

Readington Township
Hunterdon County, New Jersey

November 1998



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Base Map Source: Thomas I. Yager & Associates
10 Gray Rock Road, Clinton New Jersey

While this Master Plan amendment deals exclusively with land within the Agriculture Development Area where the priority for farmland preservation is most clearly established, the Rural Residential areas outside of the ADA should also be examined to determine whether extensions of the Agricultural Residential land use category are warranted.

RURAL RESIDENTIAL - RR (1 d.u. /3 acre lot)

The single-family areas of Readington Township that lie outside of the Hunterdon County Agricultural Development Area (ADA) are designated for Rural Residential (RR) development. Three types of developments are possible under this zone, including conventional three acre single family lots, open space cluster development with two acre lots and one-third of the tract devoted to open space, and agriculture clusters with 1.5 acre lots and 50% of the tract devoted to open space or agriculture.

For the most part, RR designated areas are not within the sewer and water districts within the township. This lack of public utilities in conjunction with environmental concerns and geologic and topographic constraints are the primary deterrents to intensive development in these areas. Additionally, Readington is concerned with the rate at which development has consumed large areas of prime farmland. Readington Township strongly favors the clustering of residential development as the principal permitted use on large tracts of land with agriculturally significant soils.

RR properties may develop either as conventional subdivisions or as open space clusters. Under this latter option one-third of the tract is dedicated as permanent open space and two-acre minimum lots are permitted for single-family development.

Within the RR district is the existing hamlet of Readington, which has an established historic development pattern that should be preserved. The State Development and Redevelopment Plan describes a hamlet as "a small cluster of homes with a distinct identity in a rural area" and observes that they are typically located at crossroads and have a compact nucleus which permits infill development.

The hamlet of Readington is worth preserving, so it is intended that any residential development of parcels within the hamlet be sensitive to the historic architecture and scale of the existing homes as well as the site planning patterns which evolved in these settlements over the years. For example, if development is proposed for a large tract that starts in the hamlet and continues into the

surrounding farmland the houses should be clustered tightly with the hamlet at a similar scale and organization as the existing residential fabric. Furthermore, in this scenario the outer portion of the tract would be permanent open space - perhaps farmed, perhaps not - but at least a natural buffer which will forever set the hamlet apart from the encroaching standard three-acre lot subdivision.

In order to further encourage farming as a viable land use, the RR district will permit the development of agricultural commercial villages as a conditional use. The concept of such a village is to provide a concentration of agricultural services and retailers in a rural village atmosphere. Permitted uses would include feed and seed sales, saddle shop, nursery, veterinarian, lawn and garden equipment sales and service, farm produce sales, etc.

Conditions to the agricultural commercial village use would include the following: a minimum tract size of 70 acres to insure that sufficient lands would buffer the commercial buildings from surrounding residential uses; frontage on, and good traffic accessibility to, Route 202; architectural controls on the buildings to maintain a rural appearance; continued maintenance of the lands buffering the commercial structure(s) in pasture; limits on intensity of development (FAR), adequate vehicular circulation and parking; and visual screening/buffering to protect present or future residents from any unreasonable adverse effect.

A second conditional use which will be permitted in the RR district is ECHO housing which is essentially a small second house that will be restricted in size to accommodate only one or two persons that are blood-relatives of the owner/occupant of the primary dwelling on the lot. The occupants of the ECHO housing will be required to be either senior citizens or disabled persons. Conditions for the ECHO housing will include that the lot be at least 1.5 acres in size, that the additional unit be positioned in such a way as to minimize its visibility from the other lots or public right-of-way, that the additional unit is provided through a program either sponsored by or approved by Readington Township and that the unit is removed at the end of the term of occupancy.

The standards and options within the RR zone are intended to allow the interior of Readington Township to remain rural in character while assuring the residents adequate health, safety and general welfare.

AGRICULTURAL RESIDENTIAL-AR (1 d.u./5-6 acre lot)

Three types of developments are possible under this zone: conventional six - acre single - family lots, an optional cluster with 1.5 – 2 acre lots with an open space

set aside, and a mandatory agricultural cluster development with 1.5 acre lots and 70% of the tract devoted to open space or agriculture.

The AR designation is created as an effective means for the preservation of agricultural lands in Readington. While residential uses are permitted, it is intended to promote the retention of farmland. Mirroring the Hunterdon County Agricultural Development Area, it is intended as an implementation of the agricultural preservation policies and goals of Readington Township, Hunterdon County and the State of New Jersey. The AR designation also reflects the intent of Readington to base residential density upon the capacity of the land to absorb nitrate contaminants from septic field effluent. Lot sizes are consistent with the most recent New Jersey Geological Survey (NJGS) recommendations available regarding acceptable levels of nitrates in drinking water and acceptable levels of groundwater degradation.

Readington recognizes the increasing residential development pressure within the Township and that the present zoning has not been sufficiently effective in preserving large contiguous areas of prime farmland. The AR zone provides for the permanent preservation of land for agriculture through the clustering of residential development as a permitted principal use on large tracts of land with agriculturally-significant soils within the Hunterdon County Agricultural Development Area (ADA). Mandatory clustering will result in the preservation of 70% of tract areas for agriculture or open space. On smaller parcels within the ADA, where cluster development is not as feasible, the minimum lot size has been set at six (6) acres for conventional subdivisions. This permits the development of parcels that will be eligible for farmland assessment, while also allowing for a dwelling unit on each lot.

The gross density (5-6 acres per dwelling) established in the AR zone should ensure that the ground water supply within the geologic underpinnings of Readington is not degraded below the levels contained in the proposed New Jersey Groundwater Quality Standards, as recommended by the NJGS. Where public sewage treatment is available, density will remain at 1 dwelling unit per 5-6 acres to promote agricultural retention on large parcels.

Within the AR district are two hamlets - Stanton and Readington - which have an established historic development pattern that should be preserved. The State Development and Redevelopment Plan describes a hamlet as "a small cluster of homes with a distinct identity in a rural area" and observes that they are typically located at crossroads and have a compact nucleus which permits infill development.

Both of Readington Township's hamlets are worth preserving, so it is intended that any residential development of parcels within the hamlets be sensitive to the historic architecture and scale of the existing homes as well as the site planning patterns which evolved in these settlements over the years. For example, if development is proposed for a large tract that starts within the hamlet and continues into the surrounding farmland, the houses should be clustered tightly with the hamlet at a similar scale and organization as the existing residential fabric. Furthermore, in this scenario the outer portion of the tract would be permanent open space - perhaps farmed, perhaps not - but at least a natural buffer which will forever set the hamlet apart from the encroaching 5-6 acre lot subdivisions.

In order to continue to encourage the preservation of farming as a viable land use, the AR district will permit the development of agricultural commercial villages as a conditional use. The concept of such a village is to provide a concentration of agricultural services and retailers in a rural village atmosphere. Permitted uses would include feed and seed sales, saddle shop, nursery, veterinarian, lawn and garden equipment sales and service, farm produce sales, etc.

Conditions attached to the agricultural commercial village use would include the following: a minimum tract size of 70 acres to insure that sufficient land would buffer the commercial buildings from surrounding residential uses; frontage on, and good traffic accessibility to, Route 202; architectural controls on the buildings to maintain a rural appearance; continued maintenance of the lands buffering the commercial structure(s) in pasture; limits on the intensity of development (FAR), adequate vehicular circulation and parking; and screening/buffering to protect present or future residents from any unreasonable adverse effect.

A second conditional use which will be permitted in the AR district is ECHO housing which is essentially a small second house that will be restricted in size to accommodate only one or two persons that are blood-relatives of the owner/occupant of the primary dwelling on the lot. The occupants of the ECHO housing will be required to be either senior citizens or disabled persons. Conditions for the ECHO housing will include: that the lot be at least 1.5 acres in size; that the additional unit be positioned in such a way as to minimize its visibility from the other lots or public right-of-way; that the additional unit is provided through a program either sponsored by or approved by Readington Township; that the placement of the unit does not render the property ineligible for farmland assessment; and that the unit is removed at the end of the term of occupancy.

The standards and options within the AR zone are intended to encourage the preservation of the agricultural lands and uses that are an essential component of the rural character of Readington Township while assuring the residents adequate health, safety and general welfare.

V. CONSERVATION, NATURAL RESOURCES & AGRICULTURE

This Plan Element examines the natural features, the natural and man-made systems, and existing and proposed land uses within Readington in order to strike an appropriate balance between future development, the preservation of environmental resources and the capacity of the underlying natural and man-made systems. Topography, geology, groundwater quality, soils, steep slopes, flood plains and wetlands are considered. State and County policies and goals in support of planning for the protection of these natural resources are assessed.

Also included in this section is a detailed examination of agricultural preservation, which was formerly a separate plan element, that reflects recent State, County and local agricultural preservation objectives. Finally, a build-out analysis is used to determine the theoretical residential development potential in the portions of the Hunterdon County Agriculture Development Area that lie within Readington under existing and proposed zoning scenarios.

TOPOGRAPHY & SLOPE

Readington Township lies completely within the physiographic province known as the Piedmont. This province has two main elements in Hunterdon County: the Hunterdon Plateau and Raritan Valley Lowland. Only the latter element is evident in Readington. The Lowlands are characterized by low rolling plains which slope gently southeastward from 200-300 feet above sea level in the central section of the county to 150-200 feet near the Hunterdon-Somerset County Boundary. Cushetunk Mountain has two peaks above 700 feet and Round Mountain's peak is over 600 feet above sea level. There are higher elevations in the Cushetunk Mountain area, however, they fall outside of the Township's boundary. With the exception of several other areas in the western section of the Township, the remaining land lies at 300 feet or less above sea level.

The topography of land is important in environmental planning in order to identify critical areas which should remain undeveloped as well as those which are suitable for development. The slopes in Readington Township can be grouped into three categories: 0-8 percent, 8-15 percent, and 15 percent and greater. 80% of the Township's land is in the 0-8 percent category.

The 0-8 percent slope category is found mostly in the eastern and southern portions of the Township. These areas produce the lowest peak rates of water run-off and contain the deepest soil over bedrock. Consequently, these slopes

are the least restrictive and are suitable for nearly all agricultural, residential, industrial, commercial and institutional development.

Slopes within the 8-15 percent range are found in approximately 10% of the Township. Generally speaking, areas with slopes of 8-15 percent must be handled sensitively if they are to be developed without producing negative environmental impacts. These slopes must be treated selectively. They can be accommodated within tracts being developed, but it is preferable to avoid re-grading and improvements on the slopes, using them instead as sites for plantings, yard space, and perhaps an occasional, careful siting of a structure. The installation of foundations, basements, walkways, drives and utilities in these areas will prove to be more costly and will require run-off and erosion management techniques. Additionally, a 12 percent slope is considered by the Soil Conservation Service to be the maximum slope suitable for septic tank fields.

Land with slopes of more that 15 percent occur in about 10% of the Township. On these critical environmental impact areas soils are very often thin and have relatively low natural fertility. It is not uncommon to find that most steep slopes are covered with forest growth. The trees hold the soil in place and provide forest floor mulch which absorbs rain water. The trees also absorb and evaporate large amounts of ground water and therefore make room for additional storage of water. Any disruption of this pattern can have far reaching implications with respect to ground water recharge and erosion.

Development in areas with excessive slope, particularly those above 15 percent should be limited. To the extent possible such land should be left in its natural condition or maintained in grass or tree cover. Disturbing the vegetation on steep slopes can produce severe erosion. Once eroded, it is extremely difficult to reestablish vegetation. Septic tank absorption fields function very poorly on steep slopes with the effluent running through the top layer of soil directly into nearby streams causing pollution of surface water. Driveway and road locations as well as structure placement on the sides of hills can also be difficult and costly.

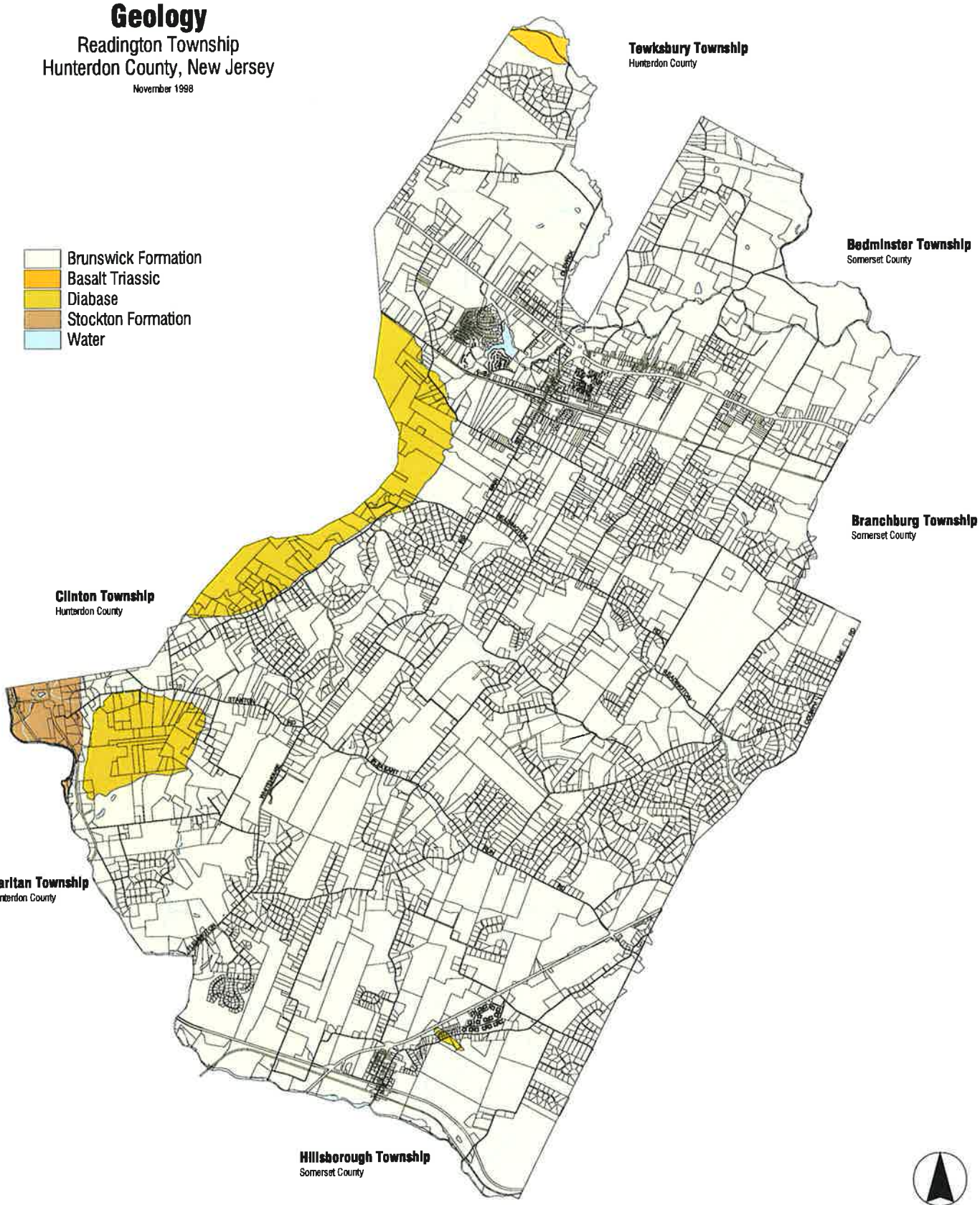
GEOLOGY & GROUND WATER

The Geology Map of Readington Township indicates the four types of underlying geologic formations of the Township. The predominant formation is the Brunswick Shale (a.k.a. Passaic), which forms the topographic low plains of the Township. The higher portions of the Township near Cushetunk and Round Mountains are underlain by the Diabase Formation.

Geology

Readington Township
Hunterdon County, New Jersey

November 1998



Base Map Source: Thomas L. Yager & Associates
10 Gray Rock Road, Clinton New Jersey
Source: Hunterdon County Planning Board

CLARKE CATON HINTZ
A Professional Corporation
400 Sullivan Way, Trenton, New Jersey

Brunswick Shale has little primary porosity. However, it is a highly fractured sedimentary rock (red shale) and ground water runs between the joints and fractures within it. This shale is generally considered to be a good aquifer (source of potable water supply) with an estimated safe water yield of 200,000 to 300,000 gallons of water per square mile per day. The highest yields tend to be in areas near streams or where the shale is overlain by coarse sand and gravel. The general exception to this yield is where the Brunswick Shale begins to interface with the other geologic formations. In these locations as well as areas of steeper slopes, poorer yields begin to occur. Also on steeper slopes rapid storm water runoff is more prevalent, therefore there is less opportunity for aquifer recharge. The Stockton Sandstone forms the only other significant aquifer in the Township.

The majority of Readington Township depends on individual wells and ground water resources for most of its water needs. Only certain areas of Whitehouse Station and Three Bridges (specifically the sewer service areas) are serviced by the Elizabethtown Water Company. Most agricultural irrigation uses streams and ponds.

The Township's major concern regarding future water supply relates to the quality of ground water resources. This is true for both future uses which continue to rely on individual wells and those for whom the Elizabethtown Water Company or other water supply company provides services using deep production wells or surface water. In any case, proper steps must be taken to insure that residential or commercial development does not jeopardize the aquifer's ability to recharge and supply the Township with the necessary potable water.

Groundwater drawn from wells continues to be the primary source of potable water for residents of Readington. The principal threat to Readington's groundwater quality is the contamination that can occur from nitrates contained in effluent from septic disposal fields. High concentration of nitrates may lead to eutrophication of lakes and estuaries. Extremely high concentrations may cause illness, especially in infants. Future development should ensure that groundwater supplies are not subject to degradation by nitrate contamination.

SUPPORT FOR PROTECTION OF GROUNDWATER RESOURCES

Protection of the potable water supply is of critical importance in land use planning, particularly in rural areas which rely on groundwater from relatively shallow wells. State and County policies strongly support planning for water quality purposes.

Municipal Land Use Law 40:55D

The intents and purposes of the Municipal Land Use Law, as enumerated in 40:55D-2, support protection of ground water supplies from a public health perspective and from an environmental protection standpoint.

> *a. To encourage municipal action to guide the appropriate use or development of all lands in this State, in a manner which will promote the public health, safety and welfare;*
>
> *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 the preservation of the environment;*
>
> *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;*
>
> *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;*

New Jersey Department of Environmental Protection Strategic Plan (1998 Draft)

The NJDEP is developing a plan to encompass myriad environmental protection policies within a single comprehensive document. This plan includes goals, milestones and strategies to guide the Department in the protection of groundwater quality.

> *Goal: Clean and Plentiful Water*
>
> *Groundwater will be a clean source of water. Every person in New Jersey will have safe drinking water. Adequate quantities of surface and ground water will be available for all needed uses.*

New Jersey Ground Water Quality Standards NJAC 7:9C-1 (proposed)

These standards are in the process of revision and re-codification. An anti-degradation policy is proposed to reduce the potential for ground water contamination. This policy recognizes existing water supplies that have background nitrate levels that are below the 10mg/l standard and strives to keep nitrate levels closer to the background level. This policy also builds in a factor of safety to account for anomalies in soils and geology that could result in higher than expected concentrations of nitrates.

New Jersey State Development and Redevelopment Plan (SDRP)

The 1992 State Plan (SDRP) and 1997 Preliminary SDRP contain statewide policies aimed at the protection of ground water and surface water quality:

> *Include policies and standards for managing development in county and municipal master plans and development regulations to protect aquifer recharge areas and wellheads of public and private potable water supply systems.*
>
> *Manage the character, location and magnitude of development based on direct and indirect, individual and cumulative impacts on surface water quality, as measured quantitatively.*
>
> *Provide for well-designed and maintained individual and community on-site wastewater treatment systems that produce treated effluent suitable for recharge to groundwater supplies to enhance the recharge of ground water systems.*
>
> *Manage the location and design of land uses and structures that involve the use, storage, treatment or disposal of toxic and hazardous materials to prevent contamination of ground water.*
>
> *Manage the character, location and magnitude of development in aquifer recharge potential, contamination or saltwater intrusion and to otherwise avoid adversely affecting the quantity and quality of water in the aquifer.*

Manage the character, location and magnitude of development to prevent the discharge of pollutants that may adversely affect public and private wellfields and areas designated as existing or future water supply sources.

Strategies for Managing Growth in Hunterdon County (1998 Draft)

These recommendations, prepared by the Hunterdon County Growth Management Task Forces, contain specific recommendations for the incorporation of groundwater resource protection measures within local planning initiatives:

Municipalities should use the best scientific information available to evaluate groundwater supply and quality.

Local land use planning projects/efforts should include information based upon geology, aquifers and contaminated site data.

CAPACITY – BASED PLANNING FOR PROTECTION OF GROUND WATER QUALITY

The 1992 State Development and Redevelopment Plan (SDRP) and the 1997 Preliminary SDRP recommend the use of capacity-based planning as a strategy in the implementation of the State's planning policies. Simply put, capacity-based planning examines the future build-out of proposed land uses, at specific intensities, and estimates the capacity of natural and man-made systems to accommodate such growth. Ideally, land uses should be planned at levels of intensity which will not overwhelm the natural systems. Plans for the improvement of built systems (i.e. sewer plants, roadways) to accommodate the future development of land uses based on the build-out analysis should be weighed carefully against the municipality's planning goals for environmental protection and preservation of traditional character. According to the SDRP:

Use the State Plan as a guide to achieve comprehensive, coordinated, long-term planning based on capacity analysis and citizen participation; and to integrate planning with investment, program and regulatory land use decisions at all levels of government and the private sector, in an efficient, effective and equitable manner. Ensure that all development, redevelopment, revitalization or conservation efforts support State Plan Goals and are consistent with the Statewide Policies and Resource Planning and Management Structure of the State Plan.

Use the most up-to-date information available on the capacities of natural, infrastructure, social and economic systems, and on desirable level of service standards to inform growth and development planning and decisions.

"capacity analysis " is a matter of logic -- public policy and private investments should not generate demand that exceeds capacity. The approach incorporates economic (including fiscal) and social considerations to make the implications of piecemeal decisions explicit by accounting for off-site, cumulative and regional impacts of growth.

Capacity analysis recognizes that the ultimate, cumulative results of development, known as "build-out" need to be understood.

Understanding the capacity of the natural and built environment does not necessarily require a sophisticated planning capability. Nor does it necessarily require that all systems be extensively analyzed to maintain alignment between demand and capacity. In many areas, the controlling factors -- those that are limiting -- are easily identified and understood and pre-empt the need to understand the capacity of other systems. For example, in some areas, potable water may be the limiting factor. Information about existing and planned water supply is available from the purveyors of water and from state, regional and local agencies. That information can be translated into development capacity by using established demand-coefficients. There may be other system capacities that could be analyzed, but if the availability of potable water is the limiting factor, other capacities need not be analyzed. In some situations, understanding system capacities may require technical assistance to ensure that all important community values are protected.

While the capacity of several systems may be analyzed to assess the potential impacts of the build-out of the residential lands, within Readington's non-sewered areas the most limiting natural process is the ability of the underlying aquifer to absorb and dilute effluent from individual septic disposal fields. The maximum permitted residential density may be determined by using a capacity-based approach that examines the ability of the aquifer to resist significant groundwater degradation.

NITRATE DILUTION MODEL

Residential lot size or density has a direct relationship to the resultant concentration of nitrates in ground water supplies. Mathematical models may be employed to determine appropriate lot sizes and density in order to attain a target level of nitrates in groundwater. Known as nitrate dilution models, these calculations consider aquifer recharge rates, natural de-nitrification rates,

persons per family, wastewater generation per person, and initial nitrate concentration in the calculation of a resultant final nitrate concentration. The United States Environmental Protection Agency (USEPA) has set a maximum allowable concentration of 10mg/l of nitrates for drinking water. However, the 10mg/l standard is intended, primarily, for evaluating water in public water supply systems, not individual septic disposal fields.

The State Planning Commission relied on nitrate dilution modeling to calibrate appropriate densities in preparing the "Planning Standards and Guidelines" – Volume III of the Preliminary SDRP (January, 1989). The Commission retained Rogers, Golden and Halpern to prepare a report entitled "Application of Nitrate Dilution Model" (February, 1988, rev. December, 1988.). Based in part on this technical reference document, The Preliminary SDRP recommended a more conservative 5mg/1 standard for Tiers 5 and 6A (generally equivalent to Planning Area 4A in the Final SDRP) and a very stringent 3 mg/1 standard for Tiers 6B and 7 (generally equivalent to Planning Areas 4B and 5) (p 1-179).

The New Jersey Geological Survey (NJGS) within the NJ Department of Environmental Protection recently applied the Trela-Douglas nitrate-dilution model to the non-sewered areas of Readington Township. This application updated a prior study performed nearly 20 years ago for the Township by Dr. Robert Hordon. NJGS applied the Trela-Douglas model utilizing an anti-degradation policy from the State's proposed ground water quality standards, known as the *New Jersey Ground Water Quality Standards* (NJAC 7:9C-1). This policy limits ground water quality degradation to one-half of the difference between the current nitrate level and the USEPA standard (10mg/l).

Using the NJGS approach, minimum lot sizes for unsewered portions of Readington should range from 3.7 to 5.9 acres (average 4.8 acres). If a more conservative standard of 5 or 3 mg/1 were utilized in the model, as recommended in the Preliminary SDRP for areas such as the Agriculture Development Areas in Readington Township, the range of minimum lot sizes would be higher.

RECOMMENDATION

It is clear from the preceding discussion that planning for protection of ground water quality is a legitimate and fundamental purpose at all levels of government. In Readington, the majority of the Township lands are not served by a sewer treatment plant, nor are there any plans to extend the existing sewer service areas related to the villages of Whitehouse Station and Three Bridges. Development within non-sewered lands is dependent upon individual septic

disposal fields. In order to protect groundwater quality in the non-sewered areas of the Township, minimum residential lot sizes or maximum permitted density should be set appropriately. Appropriate minimum residential lot sizes, or density, should be consistent with the recommendations of the New Jersey Geological Survey.

SOILS & SOIL RELATED DATA

The Soils Map of Readington Township presents the 36 types of soils found in Readington as identified by the Soil Conservation Service. These types are derived largely from the underlying Brunswick Shale. Table V-1, entitled *Soil Limitations for Development* describes the limitations of each of these soil types for various forms of development. The factors which severely limit the use of the land are shallow depth to bedrock, high water table, flooding or stream overflow hazard areas, steep slopes and soil impermeability.

Most of the soils found in Readington have a high water table (less than five feet) and a shallow depth to bedrock. These two factors combine to severely restrict the use of these soils as an assimilator of wastewaters. As indicated in the limitations table the bulk of the Township consists of soils which are severely limited for on-site septic systems. Soil suitability for septic systems is a function of the relative permeability of the soil, the depth to the seasonal high water table and the depth to bedrock. Where rapidly permeable soils overlay fractured bedrock, such as Brunswick Shale, a septic system will often appear to function efficiently, but groundwater contamination can occur from the movement of improperly filtered septic effluent into the aquifer. If the bedrock is shallow and un-fractured, insufficiently filtered effluent can run along the rock barrier and enter surface waters.

Table V-1: Soil Limitations for Development

Soil Series	USDA Symbol	Building Foundations W/Basement	Building Foundations W/out Basement	Septic Systems	Limitations
Abbottstown	AbA; AdB	C	B	C	1, 2
Alluvial	Ac; Ae	C	C	C	1, 2
Annandale &		A	A	B	
Edneyville	ApB	B	A	B	
Annandale &	ApC	B	B	B	3
Edneyville		B	C	B	3
Athol	AtB; AtC2	A	A	B	
Athol	AtD2	B	B	C	2, 3
Birdsboro	BdA;BdB;BcC2	A	A	A/B-Bd, C	2
Bowmansville	Bt	C	C	C	1

(Continued on Following Page)

USDA Soil Series	Symbol	Building Foundations W/Basement	W/out Basement	Septic Systems	Limitations
Bucks	Bub;BuC2	A	A	B	2
Califon	CbB	C	B	C	1
Chalfont	CdB	C	B	C	1, 2
Hazelton	HaC2	A	A	B	2
Klinesville	KIC, KID	C	B	C	1, 2
Lansdowne	LdB	C	B	C	2
Legore	LgC	A	A	B	
Legore	LgD	C	C	C	3
Lehigh	Lhb; LhC2	B	B	C	1, 2
Mt.Lucas	MoB	B	B	C	1, 2
Mt.Lucas-Watchung	MwB	C	C	C	1
Neshaminy	NeC2	B	A	B	2
Neshaminy	NhC	B	B	C	2
Neshaminy	NhD; NhZ	C	C	C	2
Neshaminy-Mt.Lucas	NkC	B	B	C	2
		C	C	C	2
Norton	NoB	B	A	C	2
Norton	NoC2	B	A	C	2
Norton	NoD2	B	B	C	2, 3
Penn	PeB; PeC2	B	A	C	2
Penn	PeD	B	B	C	2
Penn-Bucks	PfB	B	A	C	2
		A	A	B	2
Penn-Bucks	PfC2	B	A	C	2
		A	A	B	2
Raritan	RbA; RbB	C	B	C	1,2
Readington	ReC2	B	A	B	1, 2
Reaville	ReA;ReB;ReC2	C	B	C	1, 2
Reaville	RfA; RfB	C	C	C	1, 2
Rowland	Ro	C	C	C	1, 2
Rough-Broken Land	- RIF	C	C	C	
Turbotville	TuB	C	B	C	1

Key To Land Use Implications

A: **SLIGHT** ratings mean little or no limitation or limitations easily corrected by use of normal equipment and design techniques.

B: **MODERATE** rating means presence of some limitation which normally can be overcome by careful design and management at somewhat greater costs.

C: **SEVERE** limitations are those which, normally, cannot be overcome without exceptional, complex or costly measure.

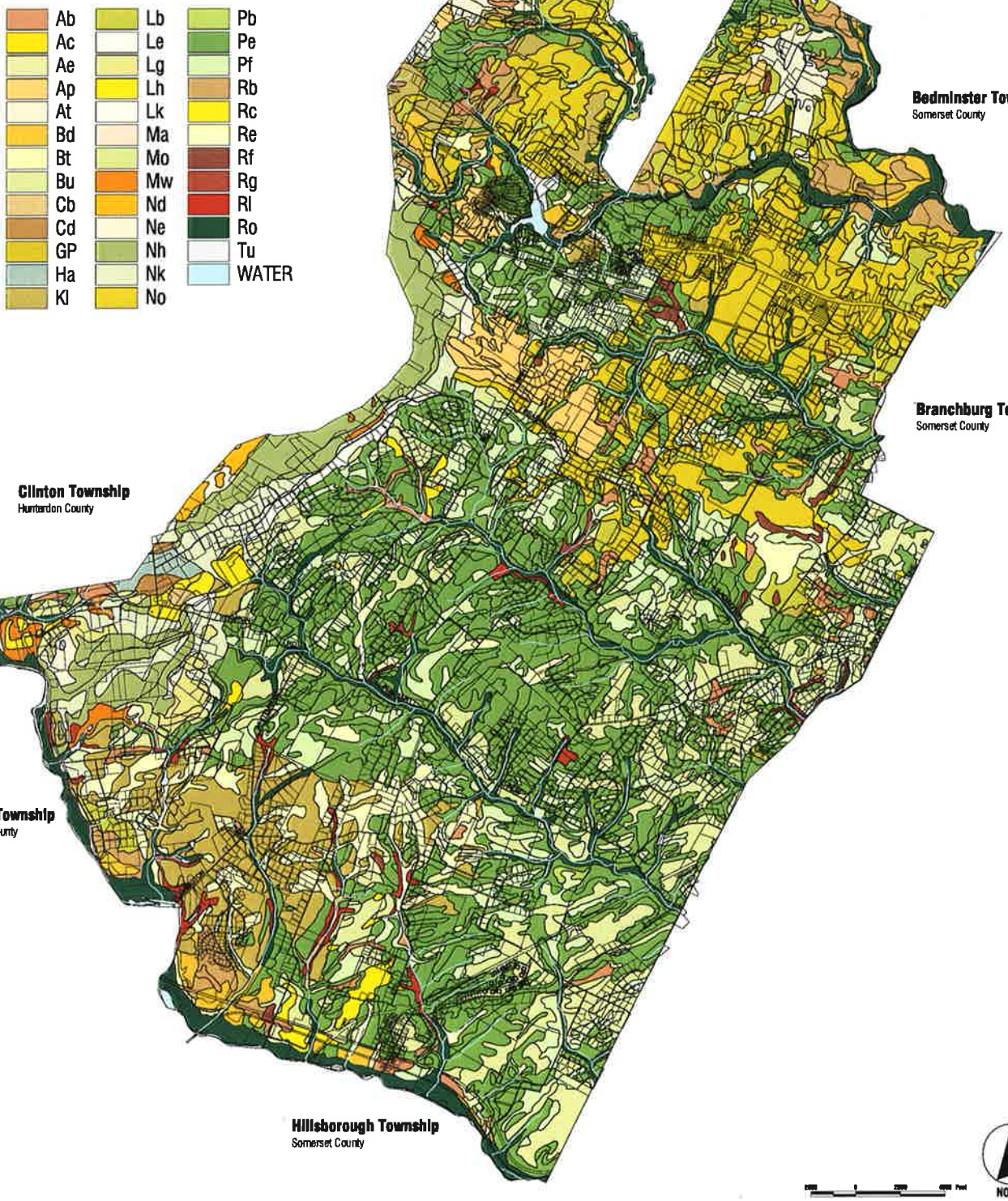
Key To Limitations

1: high water table (0-3 feet)
2: shallow depth to bedrock (less than 5 feet)
3: strongly sloping (15% or over)

Soils

Readington Township
Hunterdon County, New Jersey

November 1998



Base Map Source: Thomas L. Yager & Associates
10 Gray Rock Road, Clinton New Jersey
Source: Hunterdon County Planning Board

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Other implications of bedrock are the increased costs in developing roads, utility lines, and siting buildings. The more bedrock encountered during development, the higher the cost of construction. The most critical function of fractured bedrock is its ability to act as a ground water sponge. In the same manner that untreated effluent can reach ground water supplies, so can rain water be absorbed in large amounts to recharge the ground water supplies. Because of the danger of contamination by surface wastes, it is essential that on-site septic systems not be located over areas with shallow depth to bedrock.

It is important to identify high water tables for similar reasons. In the areas where the water table is less than 5 feet from the surface, there is a higher potential for erosion, wet basements, alteration of plant life and frost action on footings, paving and septic systems.

It is important that the Township carefully evaluate applications for septic systems particularly in areas reflecting "severe" conditions. Septic systems can operate properly, but they will require careful design and construction and enough acreage to allow for dilution, followed by continual inspection and maintenance. If not, problems can be expected.

Several soils occur more frequently in Readington Township than others. Below is a listing of these soils and brief descriptions of their properties.

ANNANDALE AND EDNEYVILLE SERIES

consists of deep gently sloping to strongly sloping, well drained, loamy soils. Permeability is moderate in the surface layer and substratum and moderately slow to slow in the subsoil. The available water capacity is high, and natural fertility is moderate. The gently sloping soils are suited to corn, small grain, soybeans, orchard crops, hay, or pasture. Steeper soils are suited to hay, pasture or trees. Control of erosion is needed in cultivated areas. The agricultural suitability of the soils in this series appears in Class I & Class II.

BUCKS SERIES

consists of deep gently sloping to strongly sloping, well-drained soils that are underlain by Red Shale. These soils are on uplands. Red Shale bedrock is at a depth of about 44 inches. Permeability is moderate to moderately slow to moderately rapid in the underlying material. These soils have a high available water capacity. Natural fertility is moderate.

Crops on Bucks soils respond well to lime and fertilizer. Most areas of Bucks soils have been cleared and are farmed. Control of erosion is needed in cultivated areas. The soils are well suited to corn, small grain, soybeans, nursery crops, pasture and hay. The subsoils of this series are in Class II or III.

KLINESVILLE SERIES

consists of shallow, gently sloping to moderately steep, well-drained soils on uplands. Permeability is moderately rapid. Available water capacity and natural fertility are low. The shallow depth of these soils causes low crop production. Many areas of the soils are wooded, especially the steeper slopes. Cleared areas of these soils are used for small grain, hay, and pasture. Areas of sloping to moderately steep soils which have been cleared need careful control of erosion. Many areas are idle or reverting to trees. During periods of prolonged rainfall, the soil becomes saturated and water flows along the surface of the hard bedrock. Water seeps into cellars during these periods. Klinesville soils fall into Class II and III.

NORTON SERIES

consists of deep, gently sloping to moderately steep soils that formed on rounded slopes and divides in material weathered from old red shale glacial till. Permeability is slow. Available water capacity is high, natural fertility is moderate. Extensive, formerly cleared areas are now idle and reverting to trees. Small areas are used for corn, small grain, hay and pasture. Tillage is delayed in places by excess water above the firm subsoil, but water does not stay in the profile for long periods. Control of erosion is needed. Norton soils are in Classes II and III.

PENN SERIES

consists of moderately deep, gently sloping to moderately steep, well-drained, loamy soil that formed over red shale or siltstone on uplands. Permeability is moderate to moderately rapid in the surface layer and subsoil. Available water capacity is moderate to high depending on the depth to bedrock and the content of shale. Natural fertility is moderate. Most areas of Penn soils have been cleared for farming. Many areas of the more sloping soils are wooded. Cleared areas require erosion control. In places, late in winter and early in spring, the

lowest part of the subsoil is saturated, and water flows laterally over the surface of the bedrock. Water seeps into cellars during these periods. Classes II and III are represented in this series.

The Soil Conservation Service divides the agricultural capabilities of soils into the following classes:

Class I soils have few limitations that restrict their use.

Class II soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

Class III soils have severe limitations that reduce the choice of plants, require special conservation practices, or both.

Class IV soils have very severe limitations that reduce the choice of plants, require very careful management, or both.

Class V soils are not likely to erode but have other limitations, impractical to remove, that limit their use largely to pasture, woodland, or wildlife habitat.

Class VI soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture, woodland, or wildlife habitat.

Class VII soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture, woodland, or wildlife habitat.

Class VIII soils and landforms have limitations that preclude their use for commercial plants and restrict their use to recreation, wildlife, water supply, or to aesthetic purposes. (No class VIII soils exist in Hunterdon County.)

Only the first four classes are well suited for receiving agricultural crops. All soils series found in Readington have at least one sub-group which can be used for crop production of some type.

The following is a listing of Prime Farmland Soils and Soils of Statewide Importance to Agriculture that are found in Hunterdon County. This list was prepared by the Hunterdon County Soil Conservation District.

Prime Farmland Soils

Symbol	Name
AnB	Annandale gravelly loam, 3 to 8 percent slopes
ApB	Annandale and Edneyville gravelly loams, 3 to 8 percent slopes
AtB	Athol gravelly loam, 2 to 6 percent slopes
BaB	Bedington shaly silt loam, 2 to 6 percent slopes
BdA	Birdsboro silt loam, 0 to 2 percent slopes
BdB	Birdsboro silt loam, 2 to 6 percent slopes
BuB	Bucks silt loam, 2 to 6 percent slopes
CaA	Califon loam, 0 to 3 percent slopes
CaB	Califon loam, 3 to 8 percent slopes
DuB	Duffield silt loam, 2 to 6 percent slopes
EdB	Edneyville gravely loam, 3 to 8 percent slopes
LaB	Lansdale loam, 0 to 6 percent slopes
LeB	Lawrenceville silt loam, 2 to 6 percent slopes
LgB	Legore gravelly loam, 2 to 6 percent slopes
MeB	Meckesville gravelly loam, 2 to 6 percent slopes
MoB	Mount Lucas silt loam, 0 to 6 percent slopes
NdB	Neshaminy gravelly loam, 2 to 6 percent slopes
NeB	Neshaminy silt loam, 2 to 6 percent slopes
NoB	Norton loam, 2 to 6 percent slopes
PbB	Pattenburg gravelly loam, 2 to 6 percent slopes
PcB	Pattenburg gravelly loam, moderately wet, 2 to 6 percent slopes
PeB	Penn shaly silt loam, 2 to 6 percent slopes
PfB	Penn-Bucks complex, 2 to 6 percent slopes
Pk	Pope fine sandy loam, high bottom
QkA	Quakertown silt loam, 0 to 2 percent slopes
QkB	Quakertown silt loam, 2 to 6 percent slopes
RbA	Raritan silt loam, 0 to 2 percent slopes
RbB	Raritan silt loam, 2 to 6 percent slopes
RcB	Readington silt loam, 2 to 6 percent slopes
RgB	Riverhead gravelly sandy loam, 2 to 6 percent slopes
TuB	Turbotville loam, 2 to 6 percent slopes
WaB	Washington loam, 2 to 6 percent slopes

Soils of Statewide Importance

Symbol	Name
AbA	Abbottstown silt loam, 0 to 2 percent slopes
AbB	Abbottstown silt loam, 2 to 6 percent slopes
AnC2	Annandale gravelly loam, 8 to 15 percent slopes, eroded
ApC	Annandale and Edneyville gravelly loams, 8 - 15 percent slopes
AtC2	Athol gravelly loam, 6 to 12 percent slopes, eroded
BaC2	Bedington shaly silt loam 6 to 12 percent slopes, eroded
BbB	Berks shaly loam, 2 to 6 percnet slopes

BdC2	Birdsboro silt loam, 6 to 12 percent slopes, eroded
BuC2	Bucks silt loam, 6 to 12 percent slopes, eroded
CdA	Chalfont silt loam, 0 to 2 percent slopes
CdB	Chalfont silt loam, 2 to 6 percent slopes
CdC2	Chalfont silt loam, 6 to 12 percent slopes, eroded
CgB	Chalfont-Quakertown silt loams, 0 to 6 percent slopes
DuC2	Duffield silt loam, 6 to 12 percent slopes, eroded
EdC2	Edneyville gravely loam, 8 to 15 percent slopes, eroded
HaB	Hazleton channery loam, 2 to 6 percent slopes
HaC2	Hazleton channery loam, 6 to 12 percent slopes, eroded
LaC2	Lansdale loam, 6 to 12 percent slopes, eroded
LbB	Lansdowne silt loam, 0 to 6 percent slopes
LeC2	Lawrenceville silt loam, 6 to 12 percent slopes, eroded
LgC	Legore gravelly loam, 6 to 12 percent slopes
LhB	Lehigh silt loam, 2 to 6 percent slopes
LhC2	Lehigh silt loam, 6 to 12 percent slopes, eroded
MeC2	Meckesville gravelly loam, 6 to 12 percent slopes, eroded
NeC2	Neshaminy silt loam, 6 to 12 percent slopes, eroded
NoC2	Norton loam, 6 to 12 percent slopes, eroded
PbC2	Pattenburg gravelly loam, 6 to 12 percent slopes, eroded
PeC2	Penn shaly silt loam, 6 to 12 percent slopes, eroded
PfC2	Penn-Bucks complex, 6 to 12 percent slopes, eroded
QkC2	Quakertown silt loam, 6 to 12 percent slopes, eroded
QlC2	Quakertown-Chalfont silt loams, 6 to 12 percent slopes, eroded
RcC2	Readington silt loam, 6 to 12 percent slopes, eroded
ReA	Reaville silt loam, 0 to 2 percent slopes
ReB	Reaville silt loam, 2 to 6 percent slopes
ReC2	Reaville silt loam, 6 to 12 percent slopes, eroded
WaC2	Washington loam, 6 to 12 percent slopes, eroded

CRITICAL AREAS

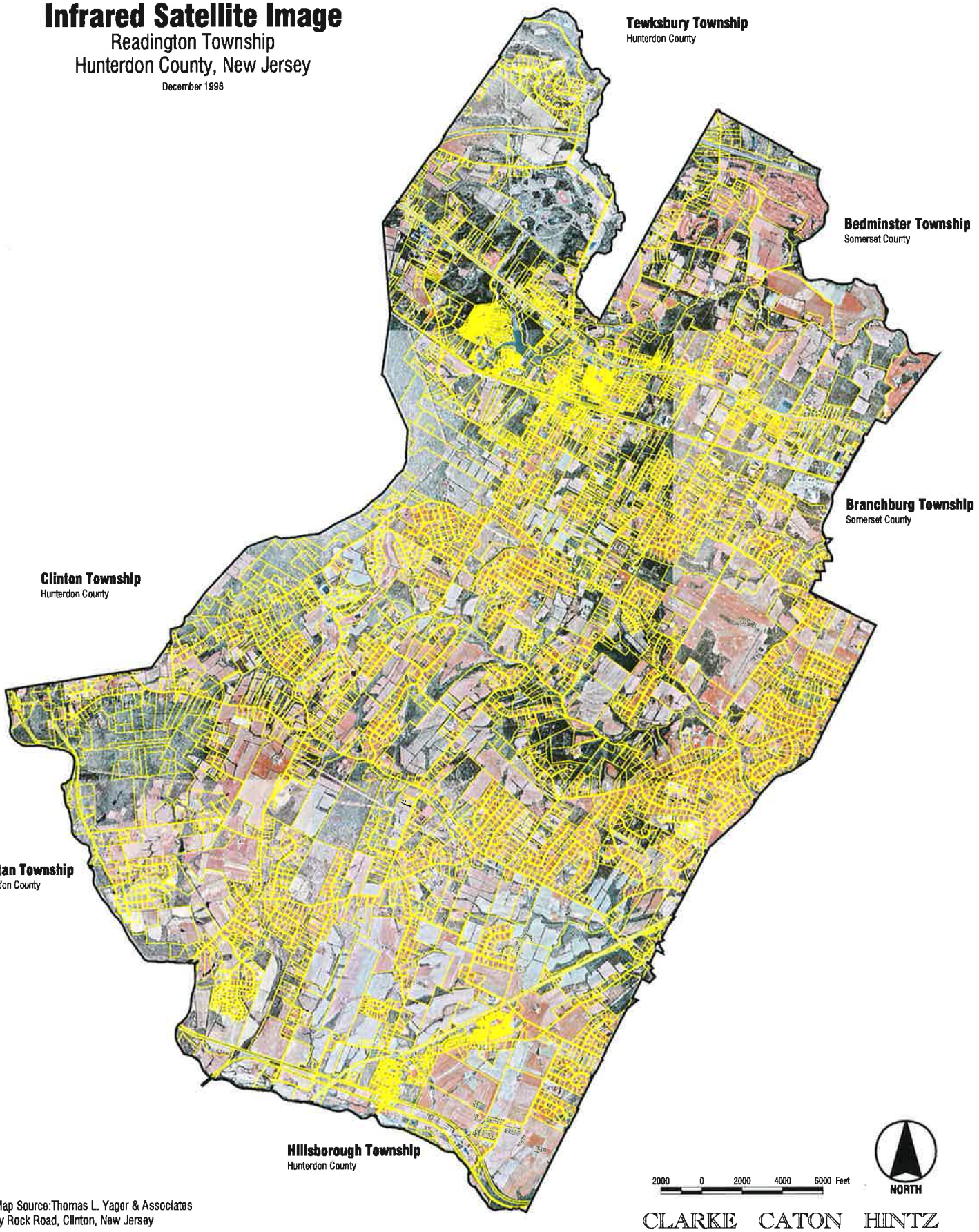
Steep slopes (15% or greater), flood hazard areas and wetlands are "critical environmental impact areas". It is important to identify and protect these sites, for they offer natural protection from soil erosion, excessive flooding, poor air quality and depletion of wildlife habitat. In addition to irreparably damaging these critical environments, developing these areas would be costly. Special and expensive septic systems, foundations and on-site improvements would have to be developed in order to allow building on such land.

In addition, although not specifically designated a "critical area" the Township has relatively little mature woodlands standing (see the Infrared Satellite Imaging Map of Readington Township). Any development in or near such woodlands should cluster building sites into non-woodland areas and preserve the woodlands as natural open space.

Infrared Satellite Image

Readington Township
Hunterdon County, New Jersey

December 1998



2000 0 2000 4000 6000 Feet

NORTH

Base Map Source: Thomas L. Yager & Associates
10 Gray Rock Road, Clinton, New Jersey

Infrared Image Source: NJDEP 1995/97 Color
Infrared Digital Imagery Series 3

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Only a small percentage (10%) of the Township has steep slope areas. Most of them occur around stream corridors and on Cushetunk Mountain. As indicated earlier these areas of steep slopes are high risk for septic systems since the effluent runs through the thin top layer of soil directly into nearby streams causing pollution of surface water. They also create problems for the construction of driveways and roads as well as being areas of high erosion potential, particularly where existing vegetation is disturbed. Steep slopes are mapped in Plate 7 of the 1990 Master Plan.

The flood hazard areas of the Township are defined as the combination of the flood plains and the adjacent flood fringe areas which, during inundation of the normal stream channel, helps to carry the excessive water. The Township drains primarily into the South Branch of the Raritan River. The southern two-thirds

drain through Pleasant Run and Holland Brook into the South Branch. The northern third uses the North Branch as its drainage basin being drained by the North and South Branch of Rockaway Creek, the Lamington River and Chambers Brook. These flood plains occupy approximately 322,094 acres (about 15%) of Township land, as depicted on Plate 8 of the 1990 Master Plan. In the past, all the Township's flood plains have experienced damage due to flooding, particularly those adjacent to the Rockaway Creek and the South Branch of the Raritan River. For this reason it is necessary to place controls on development in these areas. Development should be located on higher ground, well outside of these flood hazard areas to protect future residents from serious loss. Equally important is the preservation of the environmentally sensitive aquatic communities which exist in these stream corridor and flood hazard areas. These communities are often the first link in the food chain of the aquatic as well as other ecosystems. Control of development in these areas is also important in preserving the flood carrying capacity of the stream corridors.

Jurisdiction for the regulation of freshwater wetlands was passed from the U.S. Army Corps of Engineers to the New Jersey Department of Environmental Protection on July 1, 1988. Transitional buffer standards (after legal challenges from several quarters) were instituted on July 1, 1989. The final transfer from federal to state control of Section 404 permits, pertaining to the federal Clean Water Act, occurred in 1994, thereby completing New Jersey's assumption of wetlands protection. As part of this process, the New Jersey Department of Environmental Protection has developed wetlands mapping that more definitively identifies wetlands based on one of three markers (see Freshwater Wetlands Map of Readington Township). These identifiers of wetlands include: 1) the land at least periodically and predominantly supports hydrophytes (vegetation characteristically found in saturated soils); 2) the soil substrate is primarily un-drained, hydric soil characterized by at least long periods of oxygen

Freshwater Wetlands

Readington Township
Hunterdon County, New Jersey

November 1998

Base Map Source: Thomas L. Yager & Associates
10 Gray Rock Road, Clinton New Jersey
Source: Hunterdon County Planning Board

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starvation; and 3) the substrate is a non-soil and is saturated or covered by shallow water at some time during the growing season.

The New Jersey Department of Environmental Protection continues to use the U.S. Fish and Wildlife's Wetlands classification system. This consists of a hierarchical nomenclature encompassing a wide variety of wetlands' ecologies. Five systems are defined: Marine, Estuarine, Riverine, Lacustrine, and Palustrine. The Marine system consists of the open ocean and its associated coastline. The Estuarine system includes salt and brackish marshes and the brackish waters of coastal rivers and bays. These two classifications are saltwater wetlands. Freshwater wetlands and deep water habitats (water over 2 meters in depth) are either classified as river or stream based (Riverine); lake, reservoir or large pond wetlands (Lacustrine); or Palustrine encompassing marshes, swamps, bogs, and small ponds. Palustrine wetlands often encompass forested or scrub areas. Nearly all of the freshwater wetlands in Readington are Palustrine, with scattered Riverine types and one Lacustrine wetland at Cushetunk Lake.

The delineation of wetlands should not be considered conclusive from the mapping prepared by the NJ Department of Environmental Protection. Individual sites must be surveyed and flagged for wetlands as part of the development review process. Freshwater wetlands are considered environmentally sensitive lands and should not be developed. The Freshwater Wetlands Act (P.L. 1987, c. 156), placed all regulatory control of wetlands with NJ DEP. The Department has produced rules which supercede local control for limited filling on sites with wetlands, upland buffers of up to 150 feet adjacent to wetlands, and procedures for minor encroachments. In development of properties containing critical areas of steep slopes, wetland and flood hazard areas, it is recommended that a minimum standard of non-critical usable lot area be set by the township for each building lot. Development standards should be set to restrict and eliminate disturbance in all delineated critical areas.

AGRICULTURE

The importance of preserving farmland is a recognized public policy priority at the national, state and local levels. Congress declared farmland preservation of critical importance to the nation when it passed the 1996 Farm Bill, which authorized the USDA to establish a national Farmland Protection Program.

At the State level, New Jersey has maintained a vigilance for protecting farming for over 30 years, beginning with the 1964 Farmland Assessment Act, which has provided substantial property tax reductions for qualifying farmland ever since. The New Jersey Agricultural Retention and Development Act (1983) promoted

agriculture through the creation of County Agricultural Development Boards, the Municipally Approved Farmland Preservation (8 year) Program and the purchase of development rights. The Right to Farm Act (1982) established the State Agricultural Development Committee to support essential farming practices by recommending agricultural management practices and protecting farmers from over-regulation and nuisance suits.

The State has also made a significant contribution toward the preservation of agricultural land and activities through the Farmland Preservation Bond Act of 1981, which to date has retired the development rights to over 60,000 acres of farmland in New Jersey. The costs of this program have largely been born by the State with contributions by counties and municipalities.

The impacts of the loss of farmlands are well documented. When we lose farmland, we lose not only its primary value as the local source of food production but also the multiple values of the farmland as privately owned open space. Examples of these values include enhancement of our scenic and cultural landscape, importance as wildlife habitat, and the ability to provide groundwater recharge areas. In addition to these reasons one has to consider the benefit of protecting the opportunity, both for today and for the future, for agriculture to exist as a viable and beneficial industry in our state.

In order for New Jersey to sustain its ability to generate agricultural products for regional markets, a critical mass of production capacity and farmland has to be maintained in appropriate areas. For these reasons in the 1998 *Governor's Council on New Jersey Outdoors* established the goal of preserving 500,000 acres of farmland in the next 10 years. This goal has now been embraced by the Governor, the Legislature, the Department of Agriculture and the citizens of New Jersey by virtue of their overwhelming vote on November 3, 1998 to fund the farmland purchase program.

At the county level, Hunterdon is one of New Jersey's leading agricultural counties. Hunterdon was the first county to have its "Master Plan for Agriculture" certified by the State Agriculture Development Committee, providing for Agriculture Development Areas which would be eligible for state farmland preservation funding. The County plan called for "A strong commitment by the County to do all within its power to assure the survival of agriculture as a viable economic pursuit."

Hunterdon County, with 148,500 acres (over 232 square miles) of land devoted to agricultural or horticultural use, ranks second only to Burlington County in farmland assessed acreage among all New Jersey counties (see *Table V-2:*

Agricultural Soils

Readington Township
Hunterdon County, New Jersey

November 1998

Base Map Source:Thomas L. Yager & Associates
10 Gray Rock Road, Clinton, New Jersey

Information Source: NJDEP GIS Resource Data CD-ROM.
Series 1, Volume 3

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Farmland Assessed Acreage: Leading Counties in New Jersey). Hunterdon County continues to rank high among all New Jersey counties in the production of milk, corn, wheat, cattle, sheep, horses, and hay. Hunterdon also ranks second statewide in preservation efforts, with 40 farms totaling 5515 acres having received county or state funds for preservation (see *Table V-3: New Jersey Farmland Preservation Program – County & State-Owned Easements in the Top Six Counties as of October 30, 1998*).

Readington Township continues to figure prominently in Hunterdon County's farming heritage. As of 1998, 48% of Readington Township qualified for farmland assessment. With 14,558 acres farm assessed, Readington Township ranks third as to the number of acres of land devoted to agriculture among the 26 Hunterdon County municipalities (see *Table V-4, Leading Agricultural Municipalities in Hunterdon County - 1997*). Almost 10% of the Hunterdon County's farmland or 23 square miles are located in Readington Township. Additionally, Readington has an abundance of Prime Agricultural Soils and Soils of Statewide Importance (see Agricultural Soils map of Readington Township). With 1,960 acres of farmland subject to a permanent deed restriction, Readington ranks first in the County in preservation efforts (see Farmland Parcels map of Readington Township).

Table V-1: Farmland Assessed Acreage: Leading Counties In New Jersey

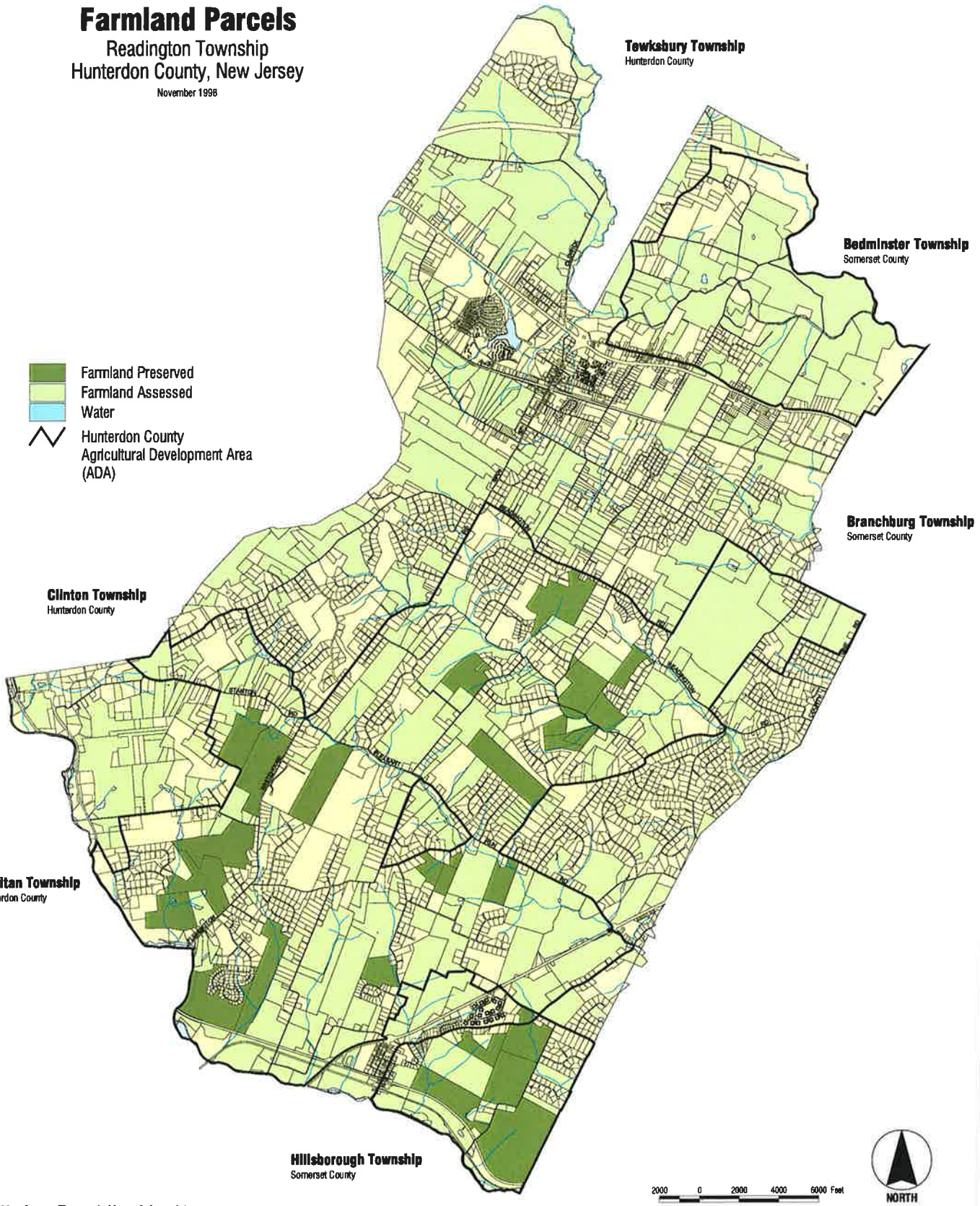
	1989	**1993**	**1997**
New Jersey, total	1229060	1223590	1238350
Counties			
Hunterdon	**156805**	**152143**	**148500**
Burlington	153524	159479	163162
Salem	132104	131451	127399
Sussex	121734	113059	119422
Warren	110945	115600	121468
Cumberland	89873	93583	100723
Gloucester	89118	86578	85266
Monmouth	80808	77472	72419

Source: Report of Data from FA-1 Forms, NJ Division of Taxation

Farmland Parcels

Readington Township
Hunterdon County, New Jersey

November 1998



Base Map Source:Thomas L. Yager & Associates
10 Gray Rock Road, Clinton, New Jersey

Information Source: NJDEP GIS Resource Data CD-ROM.
Series 1, Volume 3

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Table V-2: New Jersey Farmland Preservation Program
County & State-Owned Easements in the Top Six Counties
As of October 30, 1998

	No. of Permanently Preserved Farms	% of State Total	No. of Permanently Preserved Acres	% of State Total
NJ Total	**332**	**100%**	**50500**	**100%**
Burlington	55	17%	9489	19%
Cumberland	27	8%	4891	10%
Hunterdon	**40**	**12%**	**5515**	**11%**
Monmouth	33	10%	5104	10%
Salem	29	9%	6414	13%
Warren	22	7%	3843	8%

Source: New Jersey State Agricultural Committee

Table V- 4: Leading Agricultural Municipalities in Hunterdon County, 1997

Township	Farmland Assessed Acreage	Total Acres in Taxing District	% Farm Assessed in District
Alexandria	9971	18048	55%
Bethlehem	6947	13683	51%
Clinton	7510	21837	34%
Delaware	15798	23616	67%
East Amwell	12168	17792	68%
Franklin	10383	14912	70%
Holland	7530	14528	52%
Kingwood	15052	22784	66%
Lebanon	10460	20480	51%
Raritan	10843	24576	44%
Readington	**14558**	**30592**	**48%**
Tewksbury	11377	20352	56%
West Amwell	8587	14016	61%
Hunterdon Co.	148500	279680	53%

Source: Report of Data from FA-1 Forms, NJ Division of Taxation

Opportunities to preserve diminishing farmland should continue to be actively pursued. Hunterdon County is the second fastest growing county in the state, with a population growth rate of 23.4% between 1980 and 1990, which has been continuing through the 1990's. Readington's population increased at a comparable rate over the same ten years, to a population of 13,400 in 1990. Moreover, Readington has seen it's population growth through the latter part of the decade exceed projections made as recently as 1990. It is estimated that the population today is greater than 17,000. Building permits issued in the four-year

period from 1990 through 1993, inclusive, total 282. Building permits for the four-year period from 1994-1997, inclusive, totaled 808. With this accelerated growth comes the accelerated loss of valuable farmland.

This loss of farmland at both the Township and County levels is evident in *Table V-5: Farmland Assessment Profile for Readington Township and Hunterdon County*. The land devoted to agricultural use and assessed as farmland in Readington has diminished from 16,624 acres in 1981 to 13,841 acres in 1997 – a 16.7% decline. At the County level farmland has diminished from 162,429 acres in 1981 to 142,966 acres in 1997 – a 12% decline.

Table V-5: Farmland Assessment Profile for Readington Township and Hunterdon County

	Land Devoted to Agricultural Use (acres)		Land Not Devoted to Agricultural Use (acres)		Total Farm Acreage Approved FA-1 Forms		% Farm Acreage in Taxing District	
Year	Read.Twp.	Hunt.Co.	Read.Twp.	Hunt.Co.	Read.Twp.	Hunt.Co.	Read.Twp.	Hunt.Co.
1997	13841	142966	717	5534	14588	148500	48%	53%
1993	14306	146463	813	5680	15119	152143	49%	54%
1989	14344	149854	976	6951	15319	156805	50%	56%
1985	16145	162411	768	9205	16913	171616	55%	61%
1981	16624	162429	734	7778	17358	169391	57%	61%

Source: Report of Data from FA-1 Forms, NJ Division of Taxation

Consequently, over the past 16 years Readington Township has been losing farmland at a rate 40% higher than that of Hunterdon County. This is not surprising considering Readington's location at the eastern edge of the County and its convenient accessibility to the metropolitan areas to the east via I-78, NJ Route 22 and I-202. Residential Development pressure has been more pronounced in Readington than in most other Hunterdon County Municipalities.

It is also instructive to examine the changes over time in the land cover of farmland (see *Table 6: Land Cover on Farmland Assessed Lands in Readington Township and Hunterdon County*). Between 1981 and 1997 in Readington the rates of decline of farmland devoted to "Cropland-Harvested" and "Cropland-Pastured" (which comprise the most productive agricultural soils) was 27%, while the rate of decline of acreage devoted to "Permanent Pasture" and "Woodlands and Wetlands", (which are the least productive agricultural lands) was only 7.5%. The most productive agricultural lands were converted to non-agricultural use (presumably being developed) at a rate almost 4 times that of the

least productive agricultural lands. A similar trend, albeit less dramatic, is evident at the County level. This trend demonstrates an unfortunate truism about prime agricultural soils: they are good for both development and farming and are particularly susceptible to conversion from agricultural use where development must be served by on-site septic systems.

Table V-6: Land Cover on Farmland Assessed Lands in Readington Township and Hunterdon County (acres)

	Cropland Harvested		Cropland Pastured		Permanent Pasture		Woodlands and Wetlands		Total Land Devoted to Ag. Use	
Year	Read. Twp.	Hunt. Co.	Read. Twp.	Hunt.Co.	Read. Twp.	Hunt. Co.	Read. Twp.	Hunt. Co.	Read. Twp.	Hunt. Co.
1997	6745	69475	573	8140	2660	18720	3449	45372	13841	142966
1993	7129	71736	873	5680	2420	18802	3884	46842	14306	146463
1989	7512	75306	1027	9249	2421	20682	3384	44616	14344	149854
1985	8543	84016	875	9476	3018	21729	3709	47191	16145	162411
1981	8888	84747	1130	9900	2979	22685	3627	44834	16624	162429

Source: Report of Data from FA-1 Forms, NJ Division of Taxation

A more detailed profile of the use of agricultural lands is presented in *Table V-7: Agricultural Commodities in Readington and Hunterdon County.*

Table V-7: Agricultural Commodities in Readington Township and Hunterdon County

	1989		1993		1997	
Commodity	Readington	Hunt. Co.	Readington	Hunt. Co.	Readington	Hunt. Co.
Field Crops (acres)						
Barley	58	364	90	352	0	448
Corn, grain	573	9968	1099	14592	842	14512
Corn, silage	77	2590	79	2413	169	2215
Hay, alfalfa	1081	7398	326	5735	413	5448
Hay, other	2218	19838	2759	21473	3013	22651
Oats	188	1597	103	1844	184	933
Rye, grain	33	997	22	971	19	666
Sorghum	50	192	0	322	39	1010
Soybeans	692	8683	493	8141	513	6578
Wheat	297	3849	621	4955	501	5313
Other Field Crops	16	659	20	659	0	106
Rye Cover	29	317	0	139	0	164
Barley Cover	6	22	0	5	0	22
Oat Cover	17	109	2	11	0	0
Other Cover	132	581	3	541	0	61

Continued on Following Page

Fruit Crops (acres)						
Apples	10	393	14	355	15	347
Grapes	2	104	2	105	1	112
Peaches	18	290	20	234	6	211
Strawberries	4	37	4	36	9	34
Other Fruit	9	66	1	30	1	53
Ornamental						
Bedding Plants	4	40	6	60	7	163
Cut Flowers	11	18	11	31	13	22
Trees & Shrubs	224	1353	2566	1809	221	1516
Sod (cultivated)	0	411	9	328	3	376
Christmas Trees	123	1304	115	1540	137	1504
Other Ornamentals	6	181	15	131	5	43
Livestock (Avg. No.)						
Beef Cattle	434	5711	433	5921	395	5651
Dairy (mature)	301	3626	99	2632	4	1968
Dairy (young)	130	2444	108	2578	40	1876
Equine	528	4124	214	3128	457	3432
Sheep	1394	6323	905	5001	795	5210
Swine	450	2967	574	2579	303	1602
Bee Hives	122	628	87	531	35	431
Ducks	188	3404	180	1440	232	5501
Fur Animals	14	1270	64	1010	38	555
Goats	65	536	37	396	33	588
Chicken (meat)	745	8770	629	5529	785	5425
Chicken (eggs)	1277	11303	614	8925	645	10024
Turkey	170	773	301	2706	154	675
Other Livestock	1190	42501	599	73752	219	40237
Vegetable Crops (ac)						
Snap Beans	1	12	0	5	1	6
Sweet Corn	63	409	55	392	56	391
Cucumbers	0	8	0	2	1	10
Eggplant	1	4	0	1	1	13
Pumpkins	38	185	30	212	45	322
Tomatoes	3	96	17	89	7	87
Melons	19	36	1	8	1	20
Mixed & Other Veg.	15	117	25	105	8	188
Wood Products						
Fuel Wood (cords)	303	16059	261	5349	255	3602
Timber (Bd. Ft.)	61048	2839918	44281	1242477	1972	1798295
Govt. Program (acres)	1282	12168	687	4207	679	3063

Source: Commodity Reports, NJ Department of Agriculture

In addition, between 1981 and 1997 the average size of parcels assessed as farmland has been declining. In Readington Township the decline has been from 52 acres to 42.5 acres, or 18%. In Hunterdon County the decline has been less dramatic, from 45.6 acres to 42 acres, or 8% (see *Table V-8: Average Size of Farmland Assessed Parcels in Readington Township and Hunterdon County*). The decline in average parcel size indicates a disproportionate loss of the larger farm

parcels which are critical to maintaining a viable agricultural base. In this case the decline in size of farm parcels in Readington is more than twice the rate of decline throughout the County.

Table V-8: Average Size of Farmland Assessed Parcels in Readington Township and Hunterdon County (acres)

	No. of Approved FA-1 Forms		Total Farm Acreage Approved FA-1 Forms		Farmland Assessed Acres Per FA-1 Form	
Year	Read.Twp.	Hunt.Co.	Read.Twp.	Hunt.Co.	Read.Twp.	Hunt.Co.
1997	343	3532	14588	148500	42.53	42.04
1993	329	3564	15119	152143	45.95	42.69
1989	422	3830	15319	156805	36.30	40.94
1985	416	4484	16913	171616	40.66	38.27
1981	334	3718	17358	169391	51.97	45.56

Source: Report of Data from FA-1 Forms, NJ Division of Taxation

HISTORY OF FARMLAND PRESERVATION IN READINGTON

In 1978, Readington became the first township in New Jersey to hold an Open Space Referendum. A ballot question asking voters if they favored bonding in the amount of one million dollars for farmland and open space preservation passed by a wide margin. The Township went on, in 1979, to adopt an Open Space Master Plan. This plan included Agricultural, Conservation, and Recreation Plan Elements. The Agricultural Element identified areas where agriculture and farmland ought to be preserved by virtue of the existence of large contiguous areas of farmland, which also included high quality soils. This area is analogous to the current Agricultural Development Area and SDRP Rural Planning Areas. The 1979 Master Plan stated that "A successful Farmland Preservation Program would protect our remaining agricultural land and provide a permanent land base so that agriculture in Readington could remain viable in the future".

The Open Space Advisory Committee also prepared a report which summarized a variety of techniques available to implement this Master Plan. Of those techniques listed in that report, Readington went on to utilize the following: Purchase of Development Rights, Fee Simple Acquisitions, Agricultural Clustering, the Green Acres Program, and the Encouraging of Easement Donations. The parcels which have been preserved through each of the respective programs described below are so indicated on the Preserved Open Space map of Readington Township.

County Easement Purchase Program - Through this program, three farms for a total of 329 acres have been permanently preserved and received state and county funding. On five additional farms totaling 675 acres, Readington Township has purchased agricultural easements with municipal bonds. These easements now have final approval for state and county funding and the County will purchase these easements from Readington Township. With each farm, the County requires municipal matching funds. Readington stepped in and "pre-purchased" easements on all but two of these preserved farms. This support has enabled Readington to enjoy a much higher success rate with this program than that of other Townships.

State Fee Simple Program - The State of New Jersey has preserved two large dairy farms in Readington, totaling 458 acres, using this program. The farmers were encouraged to apply by the Township's Agricultural Advisory Committee. The Kanach farm and the Dobozynski Farms were purchased with 100% and 94% funds respectively, then sold at auction with an agricultural deed restriction. In both cases Readington simultaneously used Township funds to preserve neighboring farms, making the state effort more meaningful.

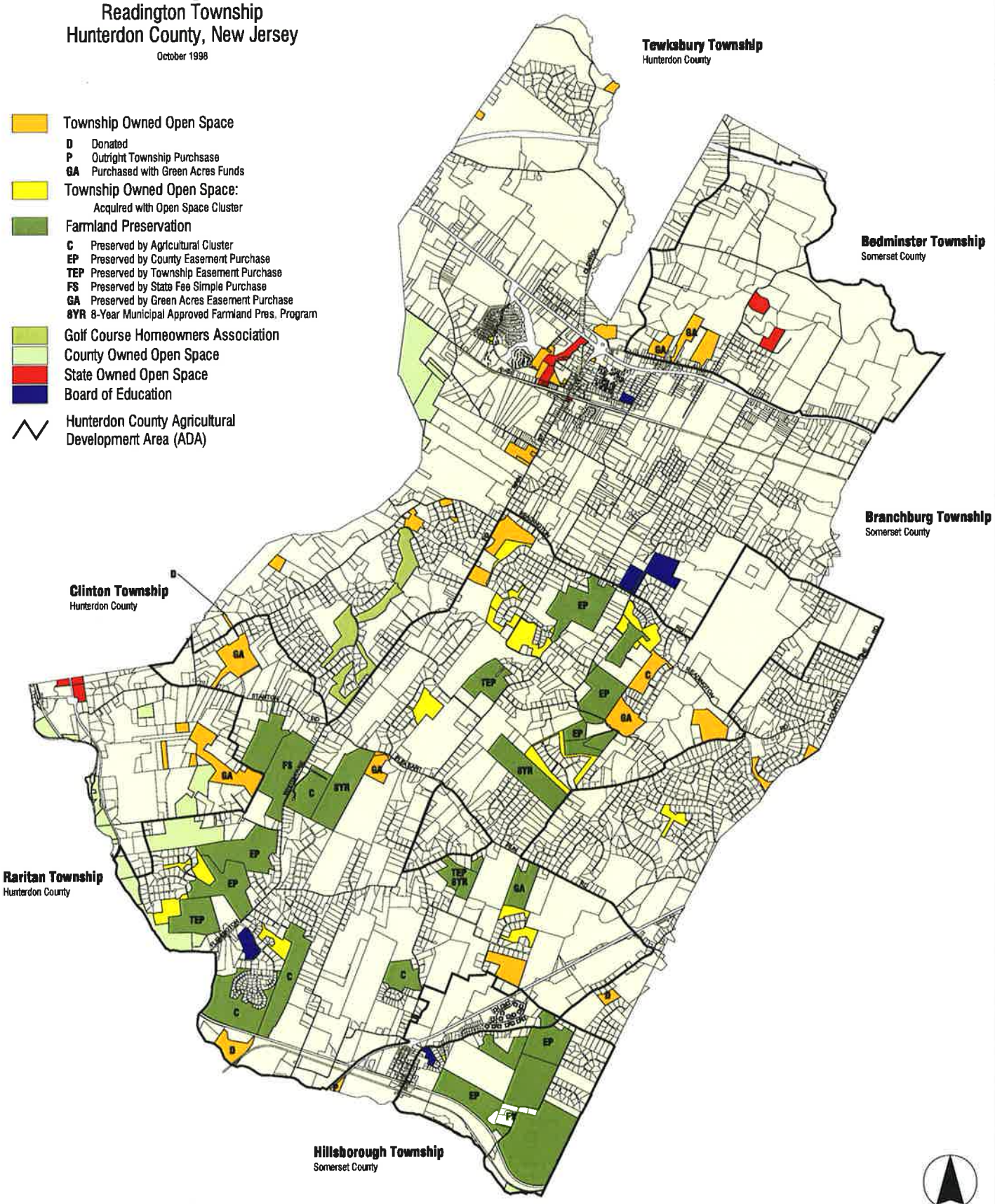
Township Easement Purchase/Option Program - In 1988, seven landowners in Readington wanted to sell their easements, but the County Program was too competitive. Readington responded by offering to pay for options on their easements. The amount paid was negotiated separately with each landowner and it reflected an appraised per acre value of their farmland preservation easement multiplied by an agreed upon number of acres. If the option was not to be exercised, then the option price was used to purchase the acreage. A total of 556 acres were optioned at a cost of over $2,000,000. The status of these seven farms after 10 years can be summarized as follows: Five of the optioned farms have now scored successfully in the County program and the option and easement purchase money has, or will, be returned to Readington's Farmland Preservation Fund. Readington is presently under contract to complete the easement purchase on one of the farms. Two of the farms were merged into one under common ownership, and the landowner has joined the 8-year program and continues to apply for the County program.

Eight Year Program - This program attracted 3 farms, totaling 292 acres. One 130-acre farm entered the program at the time of transfer of land holdings from one generation to another, as an element of estate planning. The farm has since been permanently preserved. A second (113-acres)

Preserved Open Space

Readington Township
Hunterdon County, New Jersey

October 1998



Base Map Source: Thomas L. Yager & Associates
10 Grey Rock Road, Clinton New Jersey
Source: Hunterdon County Planning Board

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joined to show commitment to farmland preservation and a third (52-acres), a nursery farm, joined to take advantage of soil conservation cost share grants.

Mandatory Agricultural Cluster Ordinance - Clustering has been mandatory in Readington's Agriculture Development Area for more than a decade. The Ordinance has varied from a requirement in the late 1980's to preserve 80% of a tract for agriculture to a requirement in force for a number of years to set aside 67% for agriculture and more recently a requirement for 50% of the land to stay in agriculture. The ordinance has resulted in 5 deed restricted farms totaling 385 acres. It is clearly not as effective, in its present form, at preserving a meaningful amount of farmland at the 50% set aside rate.

Green Acres Program - Readington has just purchased a 68-acre farm and a 61-acre farm in fee with the help of a Green Acres Planning Incentive Grant. These farms will continue to be farmed while they are made available to the public for passive recreation. In addition, Readington purchased the easements on a 49-acre farm with the help of the Trust for Public Lands and a Green Acres Grant. The Township is presently working to complete two additional Farmland Preservation Projects on small farms that abut major streams.

Easement Donation - Readington received a partial donation of easements from the Moore Family at the time of the preservation of their farm, which entitled them to a federal tax benefit.

Transfer of Development Rights - Use of this technique, although discussed frequently over the years, has not been used. It is being re-examined following the recent amendment to the Municipal Land Use Law which authorizes municipalities throughout New Jersey to permit the transfer of development rights between non-contiguous properties.

Of the 14,558 acres of land actively devoted to agriculture in the Township, approximately 9,430 acres are located in the Agriculture Development Area ADA) and SDRP Rural Planning Area. Approximately 22% of these 9,430 acres are protected by Farmland Preservation easements: 1,960 acres are subject to permanent easement and 132 acres are subject to an 8-year easement, for a total of 2,092 acres. In addition, the Township currently has four farms totaling 276 acres on which the permanent agricultural easements are either optioned or under contract.

GOALS AND POLICIES IN SUPPORT OF FARMLAND PRESERVATION

While Readington has a 20-year record of sustained preservation efforts, farmland preservation has wide support beyond the borders of the Township. Readington has, and continues, to incorporate the farmland preservation goals, policies and strategies of the county and state government as part of its Master Plan. These include the following:

Municipal Land Use Law 40:55D-2…

The intents and purposes of the Municipal Land Use Law clearly support farmland preservation:

c. To provide adequate light, air and open space;

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;

g. To provide for 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 meet the needs of all New Jersey residents;

i. To promote a desirable visual environment through creative development techniques and good civic design and arrangements;

j. To promote 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;

1998 Right to Farm Act Amendments

The 1998 amendments serve to strengthen the rights of farmers to continue farming in the face of future changes in municipal zoning and protect farms from nuisance complaints. The purposes of the Act include:

a. The retention of agricultural activities would serve the best interest of all citizens of this State by insuring the numerous social, economic and environmental benefits of the Garden State;

b. It is the express intention of this act to establish as the policy of this state the protection of commercial farm operations from nuisance action, where recognized methods and techniques of agricultural production are applied, while, at the same time, acknowledging the need to provide a proper balance between the varied and sometimes conflicting interests of all lawful activities in New Jersey.

c. It is necessary to establish a systematic and continuing effort to examine the effect of government regulation on the agricultural industry. (N.J.S.A.4:1C-2)

New Jersey Farmland Assessment Act

As indicated above, this 1964 Act aided in the retention of farmland by substantially reducing the tax burden on real property utilized for farming operations. It set the minimum acreage for farmland assessment purposes at five (5) acres. This effectively requires six (6) acres when a dwelling is also located on the lot, given that the house is typically considered to be occupying one acre.

The State Planning Act

The State Planning Act created the State Planning Commission and set the framework for the State Development and Redevelopment Plan (SDRP). The Act itself recommends the use of planning tools, such as clustering and purchase of development rights, to maintain agricultural uses and rural character.

...encourage development, redevelopment and economic growth in locations that are well situated with respect to present or anticipated public services and facilities, giving appropriate priority to the redevelopment, repair, rehabilitation or replacement of existing facilities and to discourage development where it may impair or destroy natural resources or environmental qualities that are vital to the health and well-being of the present and future citizens of the State. (N.J.S.A. 52:18A-196 (d)

...identify areas for growth, agriculture, open space conservation and other appropriate areas. (N.J.S.A. 52:18A-199 (a)

...coordinate planning activities and establish Statewide planning objectives in the following areas: land use, housing, transportation, natural resource conservation, agriculture and farmland retention, recreation... (N.J.S.A. 52:18A-200 (f)

State Development and Redevelopment Plan (SDRP)

The 1992 State Plan (SDRP) and 1997 Preliminary SDRP have designated the vast majority of the lands within the County-approved Agriculture Development Acre as either Planning Area 4A (Rural) or 4B (Rural/Environmentally Sensitive) (see the Resource Planning & Management Map of Readington Township). The most notable departure is along the northern side of NJ Route 22, from the Somerset County boundary west through the village of Whitehouse where existing farm operations and favorable soils extend relatively close to the highway and where the designated Planning Area is 2 (Suburban) due to the prevailing highway-oriented land use pattern and non-residential zoning of the highway frontage. Both documents contain specific policies that support the agricultural preservation objectives of Readington Township, including the following:

Rural Planning Area (PA4)

Enhance agricultural viability and rural character by guiding development and redevelopment into Centers. Ensure that the location, pattern and intensity of any development in the Environs maintains existing low-density development patterns that complement the rural character and landscape, and maintain large contiguous areas of open space. Any development in Planning Area 4 should be designed using creative land use and design techniques to ensure that it does not conflict with agricultural operations, does not exceed the capacity of natural and built systems and protects areas where past public investments in farmland preservation have been made.

Promote economic activities within Centers that complement and support the rural and agricultural communities and that provide diversity in the rural economy and opportunities for off-farm income and employment.

Minimize potential conflicts between agricultural practices and sensitive environmental resources.

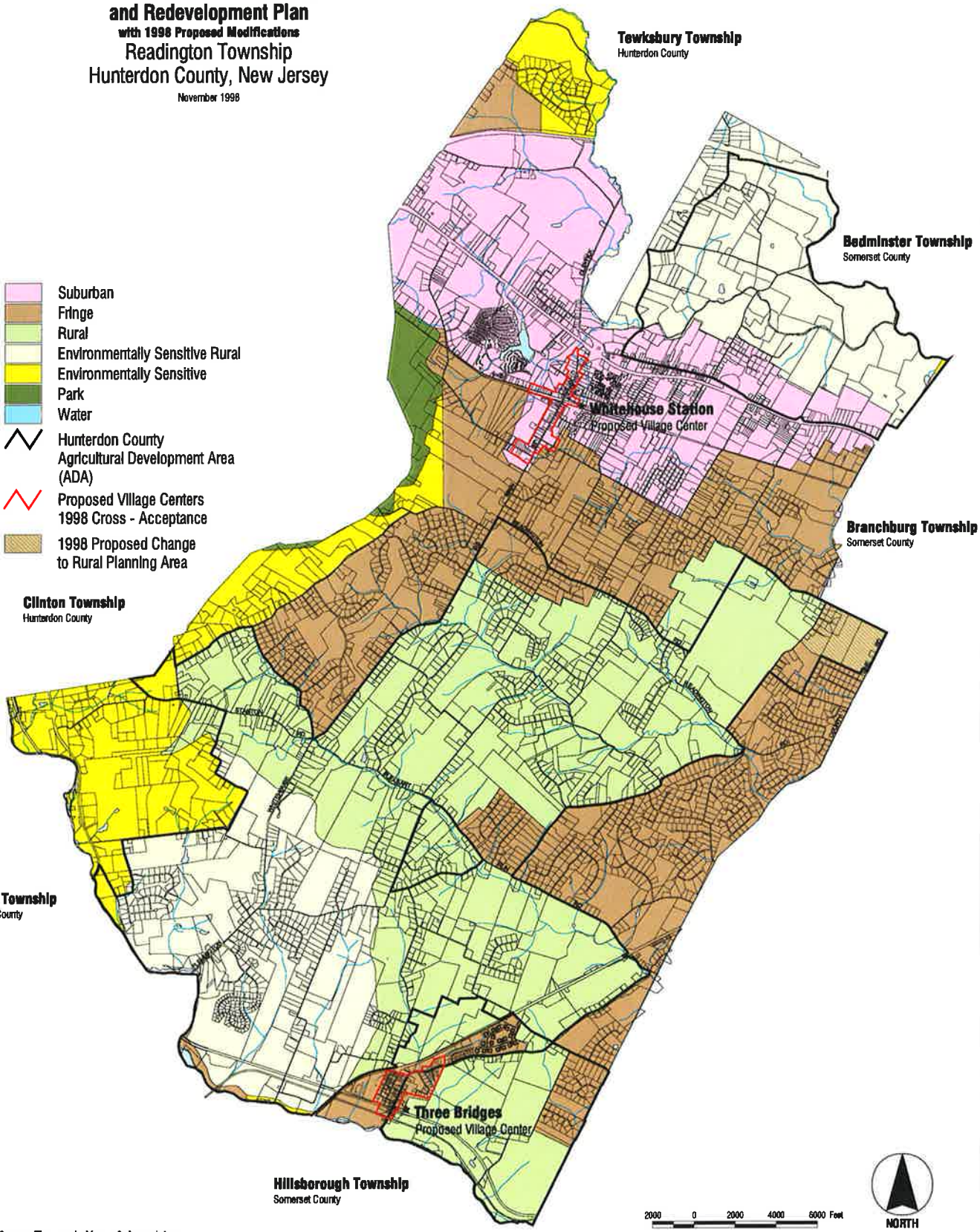
Resource Planning & Management Map

1992 New Jersey State Development and Redevelopment Plan

with 1998 Proposed Modifications

Readington Township
Hunterdon County, New Jersey

November 1998



Base Map Source:Thomas L. Yager & Associates
10 Gray Rock Road, Clinton, New Jersey

Information Source: NJDEP GIS Resource Data CD-ROM.
Series 1, Volume 3

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Give priority to Rural Planning Area for farmland preservation funding and agricultural incentive programs.

Provide active recreational opportunities through acquisition and development of parks in Centers and alternative recreational uses of farmland.

The State Plan recommends a pattern of development in Planning Area 4 that promotes a stronger rural economy in the future while meeting the immediate needs of rural residents.

...appropriate patterns of development in the Rural Planning Area would be considerably enhanced by a number of planning and mitigation tools. Such tools include clustering, capacity-based planning, timing and sequencing, privately coordinated multi-tract development, sliding-scale zoning, transfer of development rights programs, purchase of development rights programs, use assessment and "right-to-farm" laws. Such planning tools help to encourage land use patterns that ensure appropriate development and economic growth, while maintaining ongoing agricultural operations, land values and the rural character of this Planning Area.

With increasing development pressure, the lifestyle and environment that many have known for years in the Rural Planning Area is threatened. The costs associated with new development and the provision of infrastructure and services are borne by both new and existing residents and businesses. National and local studies indicate that preserved farmland requires less public dollars to service than developed lands. Other studies support the demand for rural tourism opportunities by suburban or urban residents. Fiscal responsibility mandates that serious attention be paid to planning the future of these rural areas.

The State Plan recommends protecting the rural character of the area by encouraging a pattern of development in Planning Area 4 that promotes a stronger rural economy in the future while meeting the immediate needs of rural residents, and two, by identifying and preserving farmland and other open lands, as well as promoting policies ... that can enhance the agricultural industry and maintain a rural environment.

Agriculture

Encourage creative land planning and design to accommodate future growth while avoiding conflict with agricultural uses.

Promote economic development that supports agriculture as an independent industry.

1998 Governor's Commission on New Jersey Outdoors

This report served as the basis for the statewide open space funding referendum this fall. The referendum, which will result in the funding of approximately $1.5 billion in open space acquisitions, passed by a two-thirds majority of New Jersey voters. It stated:

"The council recommends preserving 500,000 acres of farmland to assure the future of agricultural activities in the State."

Strategies for Managing Growth in Hunterdon County, 1998 draft

These recommendations, prepared by the Hunterdon County Growth Management Task Forces, support enhanced efforts to preserve farmland:

Municipalities should take a comprehensive approach to farmland preservation by participating in County and State programs and adopting an agricultural master plan sub-element, as well as land use policies and ordinances that support farmers and the agricultural industry.

Hunterdon County Agriculture Development Area

The Hunterdon County Agriculture Development Board sets forth criteria to define parcels for inclusion within the Agriculture Development Area (ADA). These criteria are designed to encourage the creation and preservation of large, contiguous tracts of farmland. Tax blocks with 61% or more of the land area in farmland assessment are targeted for inclusion. Conversely, tax blocks with 50% or more of the land area having received subdivision or site plan approval are generally not eligible for inclusion. Clustered subdivisions, where a significant portion of the desirable farmland is deed restricted may be included. The boundaries of the County approved ADA are delineated on many of the Township maps in this Conservation Plan Element. These maps demonstrate a close correspondence among agricultural soils, farmland assessed property,

preserved farmland, the ADA boundaries and the boundaries of Planning Areas 4 A, 4 B and 5 in the SDRP.

In addition to the goals and policies of the State and County, a recent decision in the case of *Kirby v. Township Committee of Bedminster Township* supports the preservation of farmland and capacity-based municipal zoning. In this unreported case, the plaintiff challenged the validity of an increase in the minimum residential lot size in 80% of the Township from approximately three to ten acres. The zoning change was upheld, in part, on Bedminster's reliance on the proposed change to (a) protect groundwater quality and (b) preserve farmland. In deciding the matter in favor of Bedminster, Judge Robert Guterl found that lot sizes of five to six acres are necessary for farmland assessment purposes and are legitimately related to protection of groundwater quality. He also found that lot sizes of five to six acres increase the feasibility of retaining small-scale farming and reduce the risk of conflicts with adjacent non-farm uses. These findings may serve as a reference in the determination of minimum lot sizes in Readington.

Current planning literature also speaks to the requirements and benefits of agricultural preservation. Randall Arendt's *Rural By Design*, (1994) is a comprehensive guide for planning to preserve rural or agricultural character. It contains successful examples of rural preservation efforts, as well as strategies and guidelines to effectuate such preservation (including a favorable profile of Readington's mandatory cluster ordinance). Arendt identifies communities that maintain strong commitments to farming, such as the Amish country in southeastern Pennsylvania, which have adopted very strict zoning densities as low as one dwelling for every 25 acres to preserve farmland. In *Rural By Design*, Arendt also offers a grim prognosis for those that do not take proactive responsibility for the preservation of agricultural open space:

> *In areas where serious agricultural or open space preservation is not politically or economically feasible, the only alternative is to allow low-density suburban sprawl to ooze over the countrysides, submerging traditional rural landscapes under a continuous covering of subdivisions, shopping centers, office complexes and industrial parks.*

ANALYSIS & RECOMMENDATIONS

The historical character of Readington Township is most prominently influenced by its agricultural traditions. There exists a strong body of state and county policies that supports agricultural preservation. Readington has been active and

successful in applying many techniques in order to preserve agricultural lands, and thus, its rural character over the past 20 years. The Township should continue to pursue programs and funds to assist in its preservation efforts.

However, increasing residential development pressures will undermine the effectiveness of these techniques in the future, potentially giving way to low-density sprawl. Although Readington has used the cluster development ordinance to preserve agricultural lands and open space since 1985, agricultural preservation efforts would be enhanced with an increase in the minimum lot size to make even the smallest permitted lot (in a conventional subdivision) eligible for farmland assessment. Additionally, preservation efforts would be further enhanced with an increase in the required open space area within cluster subdivisions. The result of such an increase in cluster provisions would be the creation of large, contiguous parcels that approach the size criteria (250 acres) for inclusion if the Hunterdon County Agricultural Development Area (ADA).

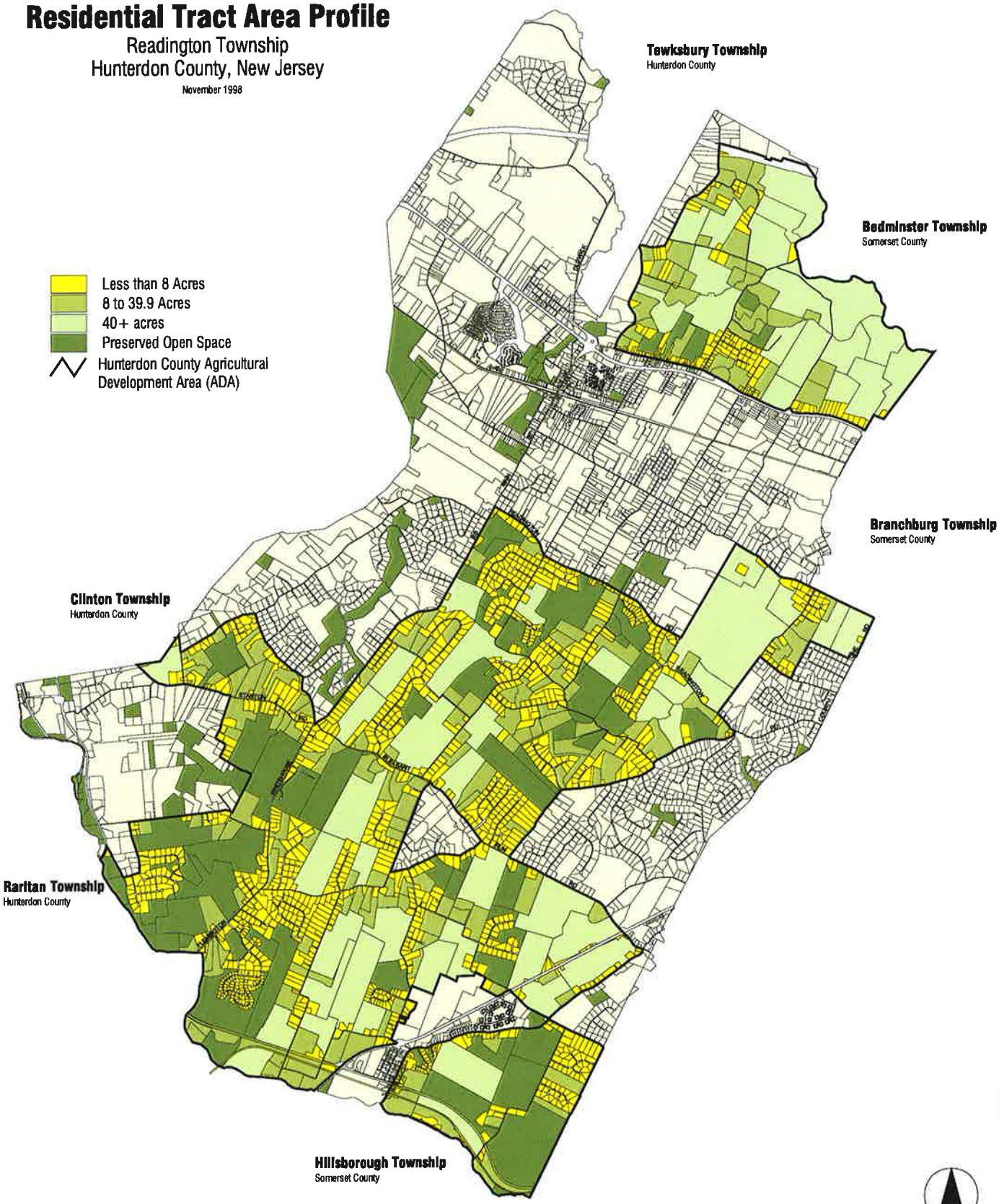
Based on this concept, a comparison was undertaken to determine the residential development capacity of the vacant land within the Township's ADA under existing zoning (3 acre lot minimum) and under a hypothetical 5/6 acre lot minimum zoning. The analysis assumed that minor subdivisions and major subdivisions of parcels under 40 acres in size would be designed conventionally to a 3 or, alternatively a 6 acre lot minimum standard and that major subdivisions of parcels 40 acres and larger would abide by the 1.5 acre lot cluster standards based on 3 acre or 5 acre lot minimum (see the Residential Tract Area Profile map for a depiction of the parcel size variation within the ADA).

The results are presented in *Table V-9: Residential Development Capacity within the Agriculture Development Area of Readington Township*. Under current zoning (Rural Residential) the theoretical residential development capacity within Readington's ADA is 2,320 units; under the alternative 5/6 acre zoning the projected development capacity would decrease by 995 units to 1,325 units, a reduction of 43%.

Conversely, open space which would be set aside for agricultural use in clustered subdivisions on parcels of 40 acres or more would increase from a projected 2,533 acres under current zoning to 3,546 acres under the alternative 5/6 acre zoning – an increase of 1,013 acres or 40%. If the underlying zoning basis for cluster subdivisions were increased form 3-acre lots to 5-acre lots the open space set aside could be increased from the current 50% to 70%.

Residential Tract Area Profile

Readington Township
Hunterdon County, New Jersey
November 1998



Base Map Source: Thomas L. Yager & Associates
10 Gray Rock Road, Clinton New Jersey
Source: Hunterdon County Planning Board

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Table V- 9: Residential Development Capacity within the Agriculture Development Area of Readington Township, NJ

Tract Size	Existing 3-Acre Zoning		Proposed 5-Acre Zoning	
	Dwelling Units	Open Space	Dwelling Units	Open Space
North ADA				
8-39.9 ac	187 units	NA	98 units	NA
40+ ac	453 units	781 ac	272 units	1093 ac
South ADA				
8-39.9 ac	664 units	NA	346 units	NA
40+ ac	1016 units	1752 ac	609 units	2453 ac
Total	**2320 units**	**2533 ac**	**1325 units**	**3546 ac**
Development Capacity Reduction with 5 Acre Lot Zoning: 995 units / 43%				
Open Space Increase with 5 Acre Lot Zoning: 1013 acres / 40%				

This increase in minimum residential lot size would bring the Township's zoning into closer conformance with the carrying capacity of the soils and would also significantly advance the Township's program to preserve agriculture as a viable economic land use. The new land use district is termed Agricultural Residential (AR).

It also represents a reasonable balancing of environmental and planning policy interests with the equity concerns of existing landowners. As a practical matter, subdivisions within the current Rural Residential district do not achieve a gross density close to 3 acres per lot. A host of factors, including the land required for access streets, detention basins, critical areas and inefficiencies of subdivision design reduce the gross density on typical subdivisions to between 4 and 5 acres per lot. Consequently, the erosion of development potential with the proposed rezoning is less significant than would appear from a simple comparison of the lot sizes.

Finally, the analysis set forth above addresses specifically the lands currently zoned Rural Residential within the Agriculture Development Area. Due to the scrutiny which the County Agriculture Development Board has already applied to the determination of the ADA boundaries, the policy basis for the new Agricultural Residential land use category is most compelling within that area. However, the remaining RR lands surrounding the Agricultural Residential category should be evaluated to determine whether the circumstances warrant extending the new land use beyond the ADA boundaries.

VIII. PARKS, RECREATION & OPEN SPACE

OPEN SPACE

Readington Township recognizes that preserving open space provides a number of very important benefits to the Township and its residents. Preservation of open space is important as a counterbalance to development and the prevention of suburban sprawl. It helps to buffer and protect the Township's historic and environmental resources. Open space corridors protect the quality of surface water resources, including local rivers and their tributaries. Open space helps to protect the ground water resources that most Township residents depend on for their drinking water. It protects unique wildlife and wildlife habitat. It acts as a buffer between agricultural lands and new development. Open space enhances the quality of life, and it provides recreational opportunities for the Township's growing population. Additionally, preservation of open space helps to preserve the rural character of the Township.

This Open Space section amends but does not replace the Parks, Recreation and Open Space Plan Element of Readington Township's 1990 Master Plan. The 1990 Plan contains information on the projected open space needs of the Township upon full development which, although outdated, are nonetheless useful benchmarks for long-term planning. The projected residential population of the Township at full build-out needs to be revised to take into consideration the diminished development capacity of the Agricultural Residential land use category. This revised population projection can then be applied to the standards of the National Recreation and Parks Administration (NRPA) to yield revised active open space planning targets.

HISTORY OF OPEN SPACE PRESERVATION IN READINGTON

Readington Township has a long history of planning for and acquiring lands for open space preservation. The Open Space Advisory Committee was created in 1978. On the advice of this committee, the Township held an open space referendum asking the voters if they were willing to spend $1,000,000 for preservation. The voters overwhelmingly approved the proposal and the committee wrote an Open Space Master Plan which included a report outlining various strategies for preserving open space. This plan was adopted by the Township in 1979. The Introduction of that report stated that " Traditional zoning and planning techniques in New Jersey result in complete development of all agricultural and open land... We, in Readington...can commit ourselves to a more sensible alternative. The community has an opportunity to balance development with the preservation of appropriate open spaces. ..."

Readington went on to utilize a number of the outlined strategies, primarily cluster zoning and land purchases, usually with the aid of Green Acres funding. In 1992 the Readington Township Environmental Commission surveyed Township resident's preferences for the preservation of open space. Eighty-three percent of those who responded gave high ratings for strong protection and aggressive preservation efforts. In November of 1992, an ad hoc Committee of the Environmental Commission - the Greenways Work Group- was formed from the representatives of the general public and members of the various boards and Committees. It was decided that the promotion of greenways (contiguous parcels of open space which create corridors of undeveloped land) should be used as a tool to balance new development, with the goal being the preservation of the Township's natural resources.

The Greenways Work Group noted that, as of 1992, much of the land that was owned by the Township was in small isolated parcels that provided neither recreation nor a sense of continuous openness to residents. They felt that a Greenways Plan should be developed which would address this issue and lead to the formation of Greenways Corridors, and a more comprehensive approach to Open Space preservation. In October 1993, the Greenways Work Group produced the " Readington Township Draft Greenways Plan" which was submitted to the Planning Board and to the Township Committee and was adopted as an addendum to the Master Plan.

In November of 1994, Township voters passed a referendum which set aside $.02 for every $100 of taxpayer money for the purchase of open space. Because there are many eligible properties in the Township, the Township Committee and the Greenways Work Group developed a system to identify and prioritize key properties for preservation. A report entitled "Readington Township Open Space Inventory and Recommendations for Preservation" dated October 1995 was produced and presented to the Planning Board and Township Committee. This report was attached to and adopted as a portion of the Township's 1996 Master Plan Reexamination Report.

Greenways Goals, as contained in the report of the Readington Township Greenways Work Group, include:

> *Maximize buffer areas along river and stream corridors, including the Lamington River, the Rockaway Creek, Chamber's Brook, Holland's Brook, the Pleasant Run, and the South Branch of the Raritan River.*
>
> *Protect and preserve historic districts and villages in the Township, including East Whitehouse, Readington, Stanton, Three Bridges and the Pleasant Run Historic District. Ensure the integrity of these areas through greenbelting.*

Protect and preserve remaining mature woodlands and steep slopes to augment protection of wetlands and floodplains in the Township.

Complement existing farmland preservation program, trying to link open areas and buffer agriculture from encroaching development.

Protect and preserve scenic vistas or other unique areas.

Create open space linkages between natural, cultural, and recreational resources and promote connections with other Township, county, and state open or preserved lands.

Provide opportunities for active and passive recreation where appropriate.

In October of 1996 Readington Township submitted an application for a Green Trust Planning Incentive Project Grant. The grant application summarized Readington's Greenways and Open Space Preservation Goals and included both a systems map and an "Action Plan" map that set priorities for implementation. This grant was awarded and, in 1997, Readington Township's open space planning and preservation efforts were recognized by the Hunterdon County Planning Design Award. Efforts in the two-year period from 1996 to 1998 have focused on the implementation of the plan with the successful completion of a number of projects, as well as significant progress on a number of others.

GOALS AND POLICIES IN SUPPORT OF OPEN SPACE PRESERVATION

Readington's 20-year record of open space preservation efforts is broadly supported by the goals, policies and strategies of county, state and federal governments. These include the following:

Municipal Land Use Law 40:55D-2...

The intents and purposes of the Municipal Land Use Law include provisions that support the preservation of open space:

c. *To provide adequate light, air and open space;*

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;

g. To provide for 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 meet the needs of all New Jersey residents;

i. To promote a desirable visual environment through creative development techniques and good civic design and arrangements;

j. To promote 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;

State Development and Redevelopment Plan (SDRP)

The 1992 State Plan (SDRP) and 1997 Preliminary SDRP contain specific policies that support open space preservation in Readington Township:

Rural Planning Area (PA4)

Enhance agricultural viability and rural character by guiding development and redevelopment into Centers. Ensure that the location, pattern and intensity of any development in the Environs maintains existing low-density development patterns that complement the rural character and landscape, and maintain large contiguous areas of open space. Any development in Planning Area 4 should be designed using creative land use and design techniques to ensure that it does not conflict with agricultural operations, does not exceed the capacity of natural and built systems and protects areas where past public investments in farmland preservation have been made.

Promote economic activities within Centers that complement and support the rural and agricultural communities and that provide diversity in the rural economy and opportunities for off-farm income and employment.

Minimize potential conflicts between agricultural practices and sensitive environmental resources.

Give priority to Rural Planning Area for farmland preservation funding and agricultural incentive programs.

Provide active recreational opportunities through acquisition and

development of parks in Centers and alternative recreational uses of farmland.

Open Space

Preserve the functional integrity of large contiguous tracts of forest, grasslands and other natural land to protect biological diversity.

Connect large contiguous tracts of forest, grasslands and other natural lands with stream and river corridors by corridors and green-ways so as to enhance their functional integrity for biological diversity.

Plan and design the preservation of recreational and open space land to maximize implementation of other Statewide Policies, including

environmental protection, while implementing recreational and open-space policies.

Through the cooperation of State, regional and local governments, prepare and implement a comprehensive, statewide plan for a network of open space corridors (greenways) and waterway corridors (blueways) that link recreational and open-space land by way of corridors, paths, river and stream corridors, migratory routes, hiking and biking trails, beaches, abandoned railroad rights-of-way, scenic trails and outlooks, historic areas and other resources and public open spaces.

Give priority to acquiring lands containing unique areas of recreational value, scenic value or environmental sensitivity throughout New Jersey, and lands needed to meet existing and future needs for resource-oriented recreational opportunities such as camping, boating, fishing, hiking and hunting.

Redevelopment programs should provide for the acquisition, development and maintenance of recreational and public open space that will assist in the creation of an attractive and desirable quality of life in the redevelopment area.
Promote and encourage the protection of privately owned tracts of open space, wetlands or forest lands through technical assistance, easement purchases, transfer of development rights and deed restriction programs at the State and local levels.

1998 Governor's Commission on New Jersey Outdoors

This report served as the basis for the statewide open space funding referendum this fall. The referendum, which will result in the funding of approximately $1.5 billion in open space acquisitions, passed by a two-thirds majority of New Jersey voters. The following findings and recommendations were included:

Open Space

People want to be able to visit beautiful, interesting, affordable, educational, and enjoyable parks and open spaces....; all manner of outdoor recreation pursuits, by all manner of able and disabled persons, are in demand and the supply is inadequate.

The Governor's Council agrees that more recreational areas are needed in all areas of New Jersey and recommends preserving 200,000 acres of open space for outdoor recreation.

Greenways

Greenways, or connecting pathways and waterways between open spaces, give the opportunity for people to travel longer distances among changing landscapes and habitat types...Wildlife need corridors too...It is not enough to preserve isolated parcels of unconnected open spaces. New Jersey's open spaces should be woven together to preserve the natural links upon which both plant and animal species rely.

The Council recommends that 200,000 acres of greenway linkages be created through preservation of open space or purchase of easements and rights-of-way throughout the state.

Strategies for Managing Growth in Hunterdon County, 1998 draft

These recommendations, prepared by the Hunterdon County Growth Management Task Forces, support enhanced efforts to preserve open space:

Summary of Rural Character and Environment Task Force

The continued preservation of open space and appropriate land development patterns are critical to the preservation of Hunterdon County's rural character. The task Force recommends a combination of open space zoning and open space planning efforts to help achieve these goals. New development must be designed to complement existing rural features rather than dominate them. Municipalities and the County should be more proactive and progressive in establishing open space programs.

Hunterdon County Park and Open Space Plan, 1972

This plan contains plans for the development of greenways within Readington along the Lamington River, Rockaway Creek, Holland Brook Pleasant Run, and the South Branch of the Raritan River. The open space and greenways goals of Readington are supported by these objectives.

OPEN SPACE PRESERVATION TECHNIQUES AND RESULTS

As of September 1998 Readington owns 921 acres of land for Open Space purposes (see Active Open Space map of Readington Township.) This was accomplished using the following proactive techniques:

Active Recreation Purchases

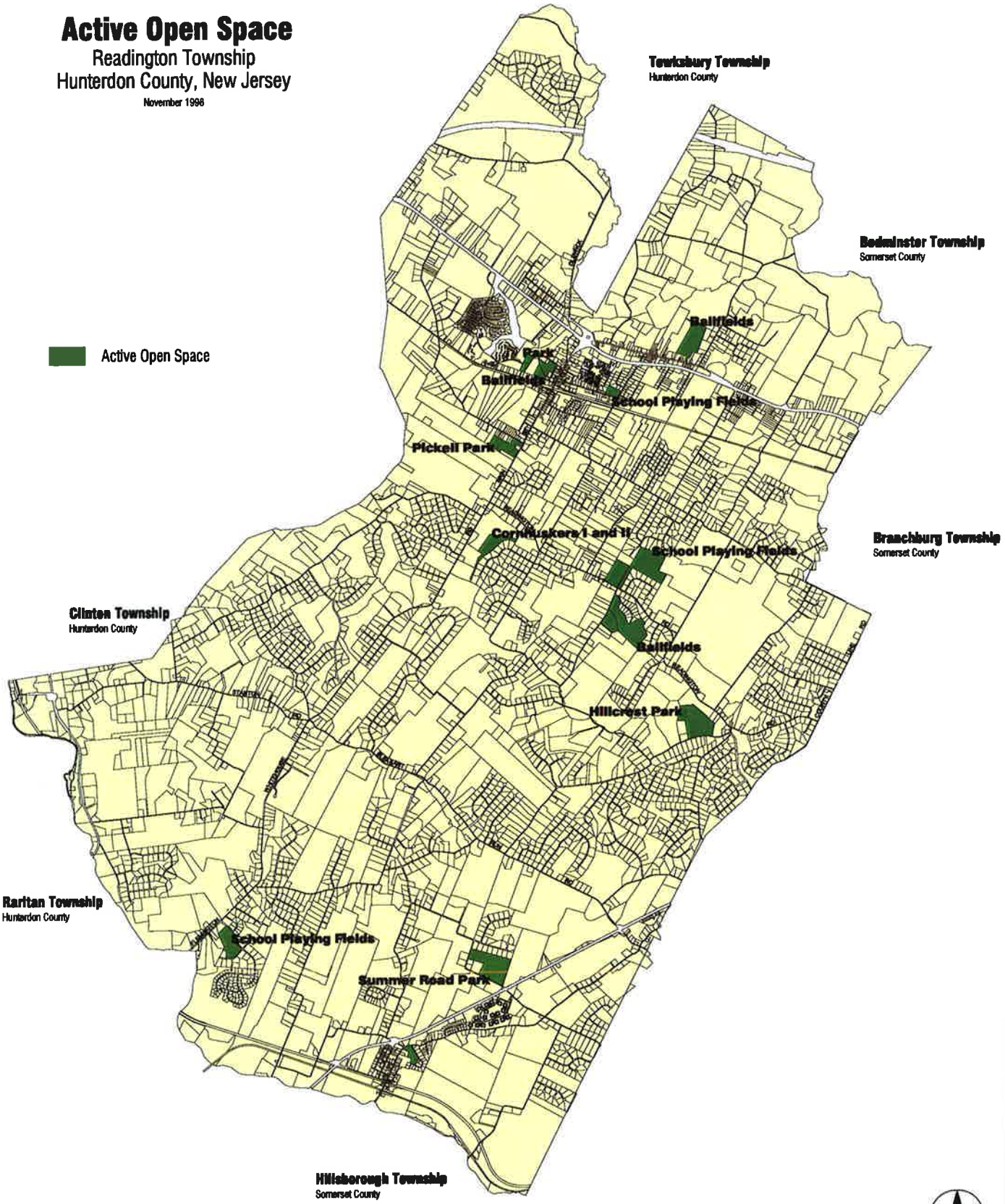
Readington made three land purchases for active recreation without the benefit of Green Acres Funds. Since siting of active recreation is often difficult because of neighborhood concerns and the need for level land for playing fields, Readington reacted quickly when appropriate pieces became available at a reasonable price. It presently has purchased three separate sites that total 121 acres designated specifically for active recreation. These are the approximately 20 acre Pickell Park, the 54 acre Hillcrest Park, and the 48 acre Summer Road Park.

Green Acres Grants

Readington has applied for and received 4 Green Acres grants. The four properties were selected to implement a portion of Readington's Open Space Plan. They total approximately 16 acres and are listed as follows:

Active Open Space

Readington Township
Hunterdon County, New Jersey
November 1998



Base Map Source: Thomas L. Yager & Associates
10 Gray Rock Road, Clinton New Jersey
Source: Hunterdon County Planning Board

CLARKE CATON HINTZ
A Professional Corporation
400 Sullivan Way, Trenton, New Jersey

Pleasant Run Natural Area - 25 acres on Pleasant Run Road, a wooded parcel that includes a section of the Pleasant Run.

The Maimone Tract - a 27 acre tract fronting on Old Highway in the village of East Whitehouse that includes significant frontage on the Rockaway Creek.

The Kolozynski Tract - also on Old Highway in the village of East Whitehouse, consisting of 20 acres and also including frontage on the Rockaway Creek.

The Dobozynski Farm Park - 94 acres on Woodschurch Road, which includes a portion of Round Mountain and is contiguous to County parkland.

Open Space Cluster Ordinance

Readington's open space cluster has resulted in just over 500 acres of land being donated to the Township, as part of the subdivision process. The majority of this land is held for conservation and passive recreation purposes. A 14 acre parcel near Readington School is being used for active recreation, with two baseball fields that have been constructed on it. Some of these open space parcels are being leased to area farmers to be used for agricultural purposes. Some are leased for hunting purposes where appropriate. A number of parcels have been left in their natural, undisturbed condition so as to contribute to the preservation of local wildlife habitat. When combined with other acquisitions, these parcels serve as an area that is available for passive recreation, (as components of larger Greenways) or in some instances as a buffer for preserved agricultural land. In the future it is anticipated that some open space parcels may serve as local parks, where appropriate.

State Green Acres Greenways Planning Incentive Grant

Readington Township was approved for a three million dollar Green Acres Grant for acquisition of Open Space under a special program, known as the Planning Incentive Program, in 1996. The basis of the successful application was the Open Space Plan presented in the Report of the Readington Township Greenways Work Group, dated October 1995. The Planning Incentive Grants are available only to municipalities that have a dedicated tax and an Open Space Plan. To date, Readington has

utilized this grant to preserve two properties totaling 129 acres. They include:

The Stickney Property - a 68 acre property on Stanton and Dreahook Roads that includes an historic house, built in 1760, presently being restored to serve as a Township museum. The open space provides protection for the headwaters of the Pleasant Run and helps to Greenbelt the historic village of Stanton.

The Lachenmayr Tract - a 61 acre property that has substantial frontage on the Holland Brook and is an important link in the Holland Brook Greenway. It also helps to buffer two preserved farms.

Two additional projects underway which will use the Planning Incentive Grant include:

The Burgher Farm - a 27 acre farm on Stanton Road which also helps to protect the headwaters of the Pleasant Run as well as the historic integrity
of Stanton by helping to form a greenbelt. In addition, it is planned that this property will help provide a linkage to the Stickney farm in the future.

The Lake Cushetunk Woods Community Walkway - The Township is acquiring 10 acres adjacent to the sizable Lake Cushetunk Woods Community. The primary purpose is to provide a path between the newly opened Stephen A. Mirota Senior Citizen apartment complex, a public park adjacent to Lake Cushetunk, and the village of Whitehouse Station. The open space is bordered on one side by the South Branch of the
Rockaway, providing stream corridor protection, and on another side by the Readington Junior Baseball playing fields.

Work with Private Land Trusts

The Trust for Public Land has received Green Acres Approval for a project known as "Readington Greenways" that will work to preserve land along the three major stream corridors. Readington will fund 50% of the cost. The Trust has presently completed one project on the Pleasant Run and is actively working on a second on the Holland Brook.

The Lane Farm - This completed project involves a 54 acre farm which straddles the Pleasant Run. It was divided into a 5 acre public portion and a 49 acre portion that is remaining in private ownership. The 5 acre public portion provides public access to the Pleasant Run and a connection to the Summer Road Park to the north. The 49 acre farm in private ownership is subject both to a conservation easement on the land and an historic easement on the old farmstead.

The Knocke Farm - A project currently in progress is the Knocke Farm, a 40 acre farm on Hillcrest Road. The plan is to subdivide 15 acres, which is adjacent to Hillcrest Park and which includes a section of the Holland Brook, from a 25 acre farm portion that will remain in private ownership but be subject to a conservation easement.

Outright Donations

Readington has accepted at least three outright donations of Open Space Land. Two of these are adjacent to the Raritan River and total 40 acres and one is a three-acre wood lot on Dreahook Road in the area of Cushetunk Mountain.

READINGTON'S GEOGRAPHIC SUB-AREAS

In order to facilitate an understanding of the diverse characteristics and open space needs of the Township, the 1995 Readington Greenways Plan broke the Township into a number of geographic regions. Each section of the Township has unique features and different Open Space Goals are identified for each section.

NORTHEAST CORNER LAMINGTON RIVER /ROCKAWAY CREEK WATERSHED AND THE VILLAGE OF EAST WHITEHORSE

This area is rich with historic features, such as Taylor's Mill, and the Village of East Whitehouse. In addition, it contains pristine stream corridors, such as the Lamington and Rockaway Rivers. Rolling farmland predominates in this area. Active designation of historic sites has been accomplished in several areas in this block.

Future success at preserving land along the Rockaway and the Lamington are especially critical because of the Township's desire to maintain the quality on these streams. The Township has been actively working with the Trust for Public Lands and landowners in this area to gain some public access to the Rockaway Creek north east of East Whitehouse. These efforts, and efforts to greenbelt the village of East Whitehouse are ongoing.

SOUTH BRANCH OF THE ROCKAWAY CREEK, CHAMBER'S BROOK, WHITEHOUSE STATION

There is a large concentration of population in the section of the Township bounded by Route 22 to the north, which includes the watershed areas of the South Branch of the Rockaway and the Chambers Brook. The South Branch of the Rockaway is designated as trout maintenance, so particular efforts should be made to protect the land adjacent to it. There are a number of large parcels adjacent to the Chambers Brook so the opportunity still exists to preserve land along it. In this area it would be worthwhile to preserve the opportunity for small neighborhood parks and localized wildlife and conservation areas.

CUSHETUNK MOUNTAIN

This area includes the entire side of Cushetunk Mountain and a significant block of farmland at the mountain's base in Block 25. It is bounded by the railroad to the north, Round Valley Reservoir Preserve to the west, Dreahook Road and Route 523 to the east and stretches south to Stanton.

The mountainous area is contiguous to both Cushetunk Mountain Preserve and the State lands known as Round Valley Reservoir. It contains a very significant, mature stand of unbroken woodland forest and environmentally sensitive steep slopes. The farmland is a block of more than 300 acres of prime soils and is contiguous to both the Cushetunk Mountain and to Round Valley Reservoir lands and to Pickell Park. It continues to be a priority for Readington Township to preserve as much land as possible on the side of Cushetunk Mountain. The 300 acre area of farmland at the foot of the mountain is a priority area for passive recreation because of it's proximity to the population center of Whitehouse Station and it's potential for creating a linkage between Pickell park and the Cushetunk Mountain preserve and the State lands of Round Valley.

HOLLAND BROOK

The Holland Brook Stream Corridor traverses the entire center of the Township from east to west. Its headwaters begin just east of Dreahook Road and run through the Village of Readington to the west. There has been a credible beginning towards creation of a Holland Brook Greenway. Preservation of land along this major stream corridor includes three open space parcels donated to the town as a result of cluster developments. It includes the preserved Wallendjack and Moore farms and the soon to be preserved Scanlon Farm. Green Acres acquisitions along the Brook are the Lachenmayr tract and will soon include the Knocke farm. In addition, the 54 acre active recreation site known as Hillcrest Park is included in this Greenway. The potential for continued preservation along the stream is great since the majority of the land along the stream remains undeveloped.

READINGTON VILLAGE

Readington Village is listed on the National Register of Historic Places. Although it sits just to the west and the north of large blocks of totally developed land, it maintains its traditional historic and rural character. This is due, in part, because it is buffered by the open space along the Holland Brook and by the open land associated with the Solberg Airport. The existence of the airport stabilizes over 700 acres of open space adjacent to Readington and thus serves as a greenbelt. It is a goal of Readington Township to maintain as much remaining land around Readington Village as possible in order to better protect this greenbelt.

ROUND MOUNTAIN

This area includes Round Mountain and the rolling farmland at its base. The mountain is rich with mature--100 year old and older--climax woodlands containing beech and other valuable varieties, and is ecologically fragile. It comprises one of the largest unbroken mature forests in the County. The tree and vegetative cover is necessary to protect steep slopes from erosion. The preservation of this area is under way via County and Township acquisition efforts, but these efforts must be stepped up or the opportunity to save this very significant area or it will be lost.

THE VILLAGE OF STANTON

This village is virtually unspoiled and is surrounded on all sides by beautiful vistas. It is one of the most scenic villages in Hunterdon County and is listed on the National Register of Historic Places. It contains mature woodlands, historic homes, and open tracts of land. State and Local preservation of the Dobozynski farm, the Stickney farm, and soon the Burgher Farm are important steps towards greenbelting Stanton, but there are a number of additional open parcels that are important to the village which should be preserved.

PLEASANT RUN CORRIDOR

This corridor is a prime area for preservation. It's integrity is maintained by large farmland parcels fronting on Pleasant Run Road. Four large parcels lie north and south of Pleasant Run Road between Route 523 and Barley Sheaf. Two of these parcels, the Bauer Farm and the Lane Farm have been preserved and the Hruebesh farm has been selected for preservation by the County farmland preservation program. The south side of Pleasant Run Road, between Locust Road and 202 contains approximately 800 acres of contiguous farmland, an unspoiled stream corridor, and one of the Township's nicest views. Preservation of the large parcels along this corridor should continue using a variety of preservation strategies. Public access to the creek should be obtained where possible.

THREE BRIDGES VILLAGE

Agriculture remains very viable in the Three Bridges area. This village is totally surrounded by large blocks of farmland to the north, east, and west and the South Branch of the Raritan River to the South. Preservation of a portion of the Burjan farm, the Mason farm and the Kanach farm have resulted in 575acres permanently deed restricted to agriculture. An additional farmland preservation project is underway. The need for active recreation opportunities in the area is being satisfied with the development of a 48 acre parcel on Summer Road not far away. A small neighborhood park within walking distance of the village has been an agreed on goal for many years but not yet realized.

SOUTH BRANCH OF THE RARITAN RIVER CORRIDOR

The South Branch of the Raritan River forms the Southern most boundary of our Township. State Green Acres efforts have resulted in public ownership of

almost all of the land adjacent to the river from Stanton Station to Dart's Mill. For the section of frontage that runs from Darts Mill to Route 202, Township efforts have resulted in the preservation of the Brokaw tract, with one section of this in Township ownership. From Route 202 to the Somerset County line, the river frontage is made up of small parcels sandwiched between the railroad and the river. There is no public access possible in this section at this time, with the exception of a nine acre parcel acquired by the County as part of the joint effort to preserve the 820 ace Sam Kanach Farm that straddled the Hunterdon - Somerset border. Renewed efforts should be made to preserve lands along this river, which is the major river corridor for the region. Also efforts should be continued to acquire public access to the river frontage.

RECOMMENDATIONS

The following techniques should be applied in order to continue proactive open space preservation in Readington:

OPEN SPACE CLUSTERING FOR MAJOR SUBDIVISIONS

The cluster ordinance can be used to effectively preserve large tracts of land in areas designated as desirable by the Open Space Plan. However, experience to date has shown that the cluster provisions in the RR zone are often not effective in preserving meaningful open space parcels. It can result in relatively small areas that meander around newly created lots and which don't contribute appreciably to implementing the Township's open space goals. The cluster provisions should perform more effectively within the lower density of the Agricultural Residential land use category. It is necessary to work with the developer at the time of Planning Board review to assure the proposed design is consistent with the open space goals.

FARMLAND PRESERVATION PROGRAM

Where appropriate, farmland preservation is an excellent method of contributing to open space preservation by preserving natural vistas and providing a buffer for other preserved areas. Farmland preservation results in larger parcels of appropriate size, location, and soil quality being dedicated to agricultural use.

PURCHASE OF LAND IN FEE

When land comes up for sale at a reasonable price, fee simple acquisition by the

Township should be considered. A larger portion of the parcel can be deed restricted for agriculture and resold into private ownership. The farmland preservation easement on a larger farm parcel would be held by the Township for resale to the Hunterdon County Agricultural Development Board, the farm which has been deed restricted to agriculture could be sold back into private ownership, and the smaller portion of the parcel in appropriate locations, for instance along a stream corridor, could be retained by the Township for conservation purposes or passive recreation purposes.

GREEN ACRES PROGRAM

Readington Township's three million dollar Planning Incentive Grant is already more than half utilized. When it is fully utilized, the payments on the $2,250,000, twenty year, 2% loan will be just under $150,000 per year. The Township's ability to fund acquisitions has been enhanced by using the Open Space Trust Fund to repay the Green Acres loan. The Open Space Trust Fund accrues at an annual rate of $340,000 per year. It would be wise for Readington to request an extension of Planning Incentive Grant funds in the near future. Green Acres funds can also be accessed by private non-profit land trusts on behalf of the Township. In the event this method of funding is used, Readington will have paid for the 50% matching funds with money from it's Open Space Trust Fund. The result for either method of purchase is Township owned land held for recreation or conservation purposes.

PURCHASE OF A CONSERVATION EASEMENT

In some instances, the purchase of an easement on some portion of a privately owned parcel in a key location is desirable, for instance, in an area that would be critical to a Greenway or would help to protect a stream or river corridor. This strategy would be particularly appropriate for small parcels that would not be eligible for major subdivisions or for farmland preservation.

PROTECTION OF ENVIRONMENTALLY SENSITIVE FEATURES BY REGULATION

Sensitive features include steep slopes, flood plain, wetlands, and state open waters. Township ordinances should be reviewed to determine if they are giving these environmentally sensitive features adequate protection. Where possible, the lands including these features should be subject to a conservation easement, either at the time they are included in an Open Space acquisition or inclusive of a parcel undergoing major subdivision.

DONATIONS TO THE MUNICIPALITY OR NON-PROFIT LAND TRUSTS

The opportunity exists to use charitable donations of easements, or property in fee, as tax deductions against federal income taxes. This may meet the financial needs of some Township land owners. It is necessary to educate potential landowners about this opportunity, and possibly provide technical assistance with the crafting of an easement or by paying for soft costs such as surveys.

OPEN SPACE INVENTORY

Block	Lot	Acreage	Ownership	Type	Zone	Road Frontage	Stream Corridor	Comments
2	7.01	3.23	Readington Twp.	PR	RR	Potterstown Rd.	N/A	Twp. Museum
3	2	6.25	Tewksbury	C	RR	Landlocked	Rockaway	
13	54	31.33	Readington Twp.	PR	RR	Old Route 28	N/A	Future School?
14	3.03	16.74	NJDEP	PR	RR	Landlocked	Rockaway	NJDEP
14	3.04	19.45	NJDEP	PR	RR	Lamington Rd.	Rockaway	NJDEP
14	21	19.71	Readington Twp.				N/A	Open Space
14	31	26.66	Readington Twp.				N/A	Open Space
21	1	0.18	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21	11	0.19	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21	12	0.18	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21	37	0.07	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21	38	0.10	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21	68	0.10	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21	69	0.13	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21	112	0.16	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21	1	0.18	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21	1	0.39	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21	3	0.16	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21	4	0.40	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21	6	0.30	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21	7	3.84	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Cushetunk Park
21.1	1	0.48	Homeowner's Association	D	PND	Cornelius Ln.	N/A	Cornelius Ln. Open Space
21.1	1	0.13	Homeowner's Association	D	PND	Cornelius Ln.	N/A	Cornelius Ln. Open Space
21.1	4	5.13	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21.1	6	0.19	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21.07	1	0.53	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space

21.1	34	0.39	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21.1	35	0.11	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21.1	73	0.48	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21.1	1	0.29	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21.1	20	0.23	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21.10	1	0.27	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21.11	1	1.11	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Van Horne Rd. Open Space
21.1	19	0.97	NJDEP	PR	VR	Landlocked	Rockaway	NJDEP
21.1	20	1.65	NJDEP	PR	VR	Nelson St.	Rockaway	NJDEP
21.1	24	0.01	NJDEP	PR	B	James St.	N/A	NJDEP
21.1	25	0.79	Readington Twp.	PR	B	James St.	N/A	Residence
21.1	27	0.61	Readington Twp.	PR	B	James St.	N/A	Building
21.1	34.01	9.31	NJDEP	PR	VR	Railroad Ave.	N/A	NJDEP
21.1	36	1.11	NJDEP	PR	VR	Railroad Ave.	N/A	NJDEP
21.1	38	0.53	NJDEP	PR	VR	Railroad Ave.	N/A	NJDEP
21.1	39	0.69	NJDEP	PR	VR	Railroad Ave.	N/A	NJDEP
21.1	40.01	0.51	NJDEP	PR	VR	Railroad Ave.	N/A	NJDEP
21.1	46.01	24.00	NJDEP	PR	VC	Route 22	Rockaway	NJDEP
21.1	47	0.41	NJDEP	PR	VC	Nelson St.	Rockaway	NJDEP
21.1	94	8.45	Whitehouse AA	AR	VR	Nelson & James Sts.	Rockaway	Park
21.12	34		To be dedicated to Readington	PR			N/A	
21.12	34.12		To be dedicated to Readington	PR				
21.13	1	3.63	Homeowner's Association	D	PND	Van Horne Rd.\Route 22	N/A	Rt. 22 Entrance Open Space
21.13	2	34.04	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Cushetunk Lake
21.13	3	9.58	Homeowner's Association	D	PND	Van Horne Rd.	N/A	Cushetunk Dam
22	40	23.65	Readington Twp. (Pending Appvl.)	D	PND	Main St.	N/A	Cushetunk Commons
22	58.01	1.18	NJDEP	PR	VR	NJ Transit	Rockaway	
25	2	110.00	Hunterdon Cty.	AR	SSR	Landlocked	N/A	Cushetunk Mt. Park
25	3.01	1.59	NJDEP	PR	SSR	NJ Transit	N/A	NJDEP
25	3.02	3.00	Readington Twp.	PR	SSR	?		
25	8	5.00	Hunterdon Cty.	AR	SSR	Landlocked	N/A	Cushetunk Mt. Park
25	9	8.60	Hunterdon Cty.	AR	SSR	Landlocked	N/A	Cushetunk Mt. Park
25	10	52.18	Hunterdon Cty.	AR	SSR	Landlocked	N/A	Cushetunk Mt. Park
25	11	25.00	Hunterdon Cty.	AR	SSR	Landlocked	N/A	Cushetunk Mt. Park

25	35	1.08	Readington Twp.	AR	VR	Route 523	N/A	Storage Building
25	35.01	21.49	Readington Twp.	AR	VR	Route 523	N/A	Municipal Bldg.
25	36	3.00	Readington Twp.	PR	RR	Route 523	N/A	Twp. Museum
30	2	0.03	NJDEP	PR	VC	Main St.	N/A	NJDEP
30	3	1.10	NJDEP	PR	VC	Main St.	N/A	Water Supply
30	4	0.02	NJDEP	PR	VC	Main St.	N/A	Building
31	10	0.20	Readington Twp.	PR	VC	Somerset St.	N/A	
31	40	0.30	Readington Twp.	PR	VR	Whitehouse Ave.	N/A	
34	1	0.99	Readington Twp.	PR	VR	Main St.	N/A	
35	14	6.80	Whitehouse Consolidated School	AR	VR	Whitehouse Ave.	N/A	School
43	30	0.42	Readington Twp.	PR	RR	Shade Ln.	N/A	
44	12	14.30	Readington Twp.	PR	SSR	Landlocked	N/A	
44	39	3.00	Readington Twp.	PR	SSR	Dreahook Rd.	N/A	
45	25.29	78.12	Homeowners' Assn.	D	RR	Clubhouse Drive	Holland's	Stanton Ridge Golf Course
45	25.59	19.22	Readington Twp.	D	RR	Rt. 523 & Clubhouse Dr.	N/A	Stanton Ridge Golf Course
45	28.9	15.68	Readington Twp.	D	RR	Dreahook Rd.	N/A	Open Space
45	28.99	7.57	Readington Twp.	D	RR	Dreahook Rd.	N/A	Open Space
45.02	28.902							Old Dump
46	5.07	16.72	Readington Twp.	D	RR	Route 523	N/A	Open Space
46	5.998	17.10	Readington Twp.	D	RR	Route 523	N/A	Open Space
46	5.998	17.10	Readington Twp. (Pending Final)	D	RR	Route 523	N/A	Cornhuskers II
46	5.999	21.74	Readington Twp.	D	RR	Militia Rd.	Holland's	Open Space
46	10.9	18.87	Readington Twp.	D	RR	Holland Brook Rd.	Holland's	Open Space
46	10.99	16.97	Readington Twp.	D	RR	Holland Brook Rd.	Holland's	Open Space
46	24.9	12.04	Readington Twp.	D	RR	Holland Brook Rd.	Holland's	Open Space
48	19.05	1.41	Readington Twp.	PR	RR	Readington Rd.	N/A	
48	20	22.00	Readington Bd. of Ed.	AR	RR	Readington Rd.	N/A	School
48	21.01	46.18	Readington Bd. of Ed.	PR	RR	Readington Rd.	N/A	New School
50	32.01	0.50	Readington Twp.	PR	RR	Springtown Rd.	N/A	
50	41	68.69	Readington Twp.				N/A	Open Space
51	21.28	46.81	Readington Twp.	D	RR	Clubhouse Drive	N/A	Stanton Ridge Golf Course
51	17	27.14	Readington Twp.	D	RR	Rt. 523 & Clubhouse Dr.	N/A	Stanton Ridge Golf Course
52	13.9	33.32	Readington Twp.	D	RR	Chamberlain Rd.	N/A	Open Space
53	7.9	47.89	Readington Twp.	D	RR	Holland Brook Rd.	N/A	Open Space

55	13.51	50.39	Readington Twp.				N/A	Open Space
55	23.03	51.52	Readington Twp.	AR	RR	Hillcrest Rd.	Holland's	Hillcrest Park
55	1.90	1.56	Readington Twp.				N/A	Open Space
55	1.91A	14.00	Readington Twp.	D	RR	Roosevelt Rd.	Holland's	Subdivision??
55	1.91B	45.91	Readington Twp.	D	RR	Heath Rd.	Holland's	Subdivision??
58	1	0.37	Hunterdon Cty.	PR	RR	NJ Transit	S.B. Raritan	S.B. Nature Preserve
58	4	0.90	Hunterdon Cty.	PR	RR	Landlocked	S.B. Raritan	S.B. Nature Preserve
58	101	1.58	Hunterdon Cty.	PR	RR	Stanton Rd.	S.B. Raritan	S.B. Nature Preserve
59	5	4.50	NJDOT	PR	RR	Route 31	S.B. Raritan	S.B. Nature Preserve
60	1	17.03	NJDOT	PR	RR	Route 31	S.B. Raritan	S.B. Nature Preserve
61	5.01	4.68	Hunterdon Cty.	PR	RR	Landlocked	S.B. Raritan	S.B. Nature Preserve
61	8	1.00	S. B. Watershed Assoc.	PR	RR	Route 31	S.B. Raritan	S.B. Nature Preserve
61	11	17.48	Hunterdon Cty.	PR	RR	Route 31	S.B. Raritan	S.B. Nature Preserve
61	12	10.83	Hunterdon Cty.	PR	RR	Route 31	S.B. Raritan	S.B. Nature Preserve
61	13	4.66	Hunterdon Cty.	PR	RR	Route 31	S.B. Raritan	S.B. Nature Preserve
61	14	2.85	Hunterdon Cty.	PR	RR	Route 31	S.B. Raritan	S.B. Nature Preserve
61	15	1.40	Hunterdon Cty.	PR	RR	Route 31	S.B. Raritan	S.B. Nature Preserve
61	18	0.30	State of NJ	PR	RR	Route 31	S.B. Raritan	State of NJ
61	102	1.33	Hunterdon Cty.	PR	RR	Stanton Rd.	S.B. Raritan	S.B. Nature Preserve
61	103	17.85	Hunterdon Cty.	PR	RR	Route 31	S.B. Raritan	S.B. Nature Preserve
63	14	55.31	Hunterdon Cty.	AR	SSR	Woodschurch Rd.	N/A	Deer Path Park
63	19	89.40	Readington Twp.	C	SSR	Woodschurch Rd.	N/A	Dobozynski Farm
63	24	10.27	Readington Twp.	PR	SSR	Landlocked	N/A	
63	27	6.73	Readington Twp.	PR	SSR	Landlocked	N/A	Woodlot
63	59	12.00	Hunterdon Cty.	PR	SSR	Landlocked	N/A	Park
63	64	8.00	Readington Twp.	C	SSR	Landlocked	N/A	Dobozynski Farm
64	41	24.00	Readington Twp.	PR	RR	Pleasant Run Rd.	Pleasant Run	Open Space
64	42	1.72	Readington Twp.	PR	RR	Pleasant Run Rd.	Pleasant Run	Open Space
66	25.9	45.64	Readington Twp.	D	RR	Hillcrest Rd.	N/A	Open Space
66	45.01	46.86						
68	3	4.00	Readington Twp.	D	RR	Brookview Rd.	Holland's	Open Space
68	4	6.37	Branchburg Twp.	PR	RR	Landlocked	N/A	
68	10	4.91	Readington Twp.	D	RR	Indian Run	Holland's	Open Space

68	13.44	2.81	Readington Twp.	D	RR	Brookview Rd.	Holland's	Open Space
70	42.9	20.13	Readington Twp.	D	RR	Delaware Rd.	N/A	Open Space
72	2	19.36	Hunterdon Cty.	PR	RR	Deer Path Rd.	S.B. Raritan	S.B. Nature Preserve
72	3.01	15.80	Hunterdon Cty.	PR	RR	Deer Path Rd.	S.B. Raritan	S.B. Nature Preserve
72	4.01	43.68	Hunterdon Cty.	PR	RR	Landlocked	S.B. Raritan	S.B. Nature Preserve
72	5.01	9.32	Hunterdon Cty.	PR	RR	Landlocked	S.B. Raritan	S.B. Nature Preserve
72	7	0.38	Hunterdon Cty.	PR	RR	Route 31	N/A	County Park
72	31	104.23	Hunterdon Cty.	AR	RR	Deer Path Rd.	S.B. Raritan	Deer Path Park
72	34.9	28.01	Readington Twp.	D	RR	Rowlands Rd.	S.B. Raritan	Open Space
72	36.9	19.83	Readington Twp.	D	RR	Rowlands Rd.	S.B. Raritan	Open Space
72	3&4	29.77	Readington Twp.	D	RR	Newell Rd.	S.B. Raritan	MRFS Open Space
73	9.01	23.25	Readington Bd. of Ed.	PR	RR	Ryerson Rd.	N/A	Future School
73	20.01	35.37	Readington Twp.	PR	RR	NJT & BR&W	S.B. Raritan	
73	20.02	0.45	Readington Twp.	PR	RR	NJT & BR&W	S.B. Raritan	
75	17.901	35.22	Readington Twp.	D	RR	Van Neste Rd.	Pleasant Run	Open Space
75	18	48.46	Readington Twp.	AR	RR	Summer Rd.	N/A	Future Park
75	29	0.30	Readington Twp.	PR	ROM -2	Craig Rd.	Pleasant Run	
75	1	0.60	Readington Twp.	C	RR	Pleasant Run Rd.	N/A	Traffic Island
75	32.03	5.078	Readington Twp.					Open Space
83	3	4.50	Readington Twp.	PR	RR	Route 202	S.B. Raritan	
93	37	1.39	Readington Twp.	D	RR	Brookside Pl.	N/A	Brookside House
93	61	8.50	Readington Bd. of Ed.	AR	PRN	Old York Rd.	N/A	Three Bridges School
94	12.02	0.20	Readington Twp.	C	RO	Route 202	N/A	
95	11.23	3.01	Readington Twp.	PR	PND	Route 202	N/A	Sr. Citizen Housing
95	18	1.84	Readington Twp.	PR	PND	Route 202	N/A	Sr. Citizen Housing
97	2.03	10.56	Readington Twp.	PR	RR	Landlocked	N/A	
98	8	10.64	Hunterdon County					Open Space
Farmland Preservation Easements								
46	22.01	22.05	Readington Twp.	A	RR	Cole Rd.	Holland's	Reno Farm
53	22	33.08	Readington Twp.	A	RR	Readington Rd.	N/A	Wade Farm

55	9	3.53	Hunterdon Cty.	A	RR	Pine Bank & Roosevelt Rds.	Holland's	Wallendjack Farm
55	12	92.50	Hunterdon Cty.	A	RR	Pine Bank & Roosevelt Rds.	Holland's	Wallendjack Farm
55	13	33.88	Readington Twp.	A	RR	Caspar Berger Rd.	Holland's	Lachenmayr Farm
62	4	93.92	State of NJ	A	RR	Rt. 523, Woodschurch, Stanton	N/A	Doyle Farm
62	7	130.51	State of NJ	A	RR	Rt. 523, Woodschurch, Stanton	N/A	Doyle Farm
64	8	52.72	(Pending Final Approval)	A	RR	Route 523	N/A	Spring Meadow Estates
64	44	26.61	Hunterdon Cty.	A	RR	Pleasant Run Rd.	Pleasant Run	Bauer Farm
64	44.01	50.00	Hunterdon Cty.	A	RR	Pleasant Run Rd.	Pleasant Run	Bauer Farm
64	44.02	50.00	Hunterdon Cty.	A	RR	Pleasant Run Rd.	Pleasant Run	Bauer Farm
66	24	113.40	Hunterdon Cty.	A	RR	Hillcrest Rd.	N/A	Allen Farm (8-Yr.)
66	45	46.86	Readington Twp.	A	RR	Pine Bank Rd.	Holland's	Moore Farm
66	45.01	21.11	Readington Twp.	A	RR	Pine Bank Rd.	Holland's	Moore Farm
66	48	10.00	Hunterdon Cty.	A	RR	Pine Bank & Roosevelt Rds.	Holland's	Wallendjack Farm
72	11	94	Readington Twp.	A	RR	Route 523	N/A	Schaeffer Farm
72	23	128.8	Hunterdon Cty.	A	RR	Rt. 523 & Woodschurch Rd.	N/A	Schaeffer Farm (8-Yr.)
73	17	134.00	Readington Twp.	A	RR	Ryerson & John Reading Rds.	Raritan	Brokaw Farm
73	26.01	120.50	Readington Twp.	A	RR	Hoffman & Stockton Rds.	N/A	Hrynyk Farm
74	26.01	50.45	Readington Twp.	A	RR	Lazy Brook Rd.	Lazy Brook	Lazy Brook Estates
75	32	49.4	Readington Twp.	A	RR			
75	35,38,40	52.00	Jones Farm(8-Year App. Pending)	A	RR	Locust Road	Pleasant Run	Jones Farm
93	13	74.16	Hunterdon Cty.	A	RR	Higginsville Rd.	S.B. Raritan	Burjan Farm
93	18	110.41	Kanach(Cty. Application Pending)	A	RR	Old York & Higginsville Rds.	N/A	Jeanne Kanach Farm
93	19	75.45	Mason(Cty. Application Pending)	A	RR	Old York Rd.	N/A	Mason Farm
93	20	48.91	Kanach(Cty. Application Pending)	A	RR	Old York & Higginsville Rds.	N/A	Jeanne Kanach Farm
93	29	29.04	Hunterdon Cty.	A	RR	Higginsville Rd.	S.B. Raritan	Burjan Farm
95	13	11.20	Mason(Cty. Application Pending)	A	RR	Old York Rd.	N/A	Mason Farm
98	3	226.00	Sam Kanach(State App. Pending)	A	RR	Higginsville Rd.	N/A	Sam Kanach Estate

Key:

AR Active Recreation Open Space
PR Passive Recreation Open Space
C Conservation Open Space
A Agricultural Open Space
D Developmental Open Space

Sources:

1. Readington Township 1996 Tax Duplicate and Tax Sheets revised through December 1995.
2. Readington Township Greenways Committee and Environmental Commission.
3. Readington Township Recreation and Open Space Inventory, September 30, 1993.
4. Readington Township Open Space Inventory and Recommendations for Preservation, October 23, 1995.
5. Readington Township Draft Greenways Plan, October 20, 1993.

XIII. PLANNING CONSISTENCY

Under the Municipal Land Use Law (MLUL), a municipal master plan must include a statement indicating the relationship of the municipal master plan to the master plans of contiguous municipalities, the master plan of the county in which the municipality is located, and the State Development and Redevelopment Plan. The statement below reviews the plans of contiguous municipalities, Hunterdon County and the State of New Jersey and discusses the consistency of these plans with the land uses proposed under Readington Township's Master Plan, as amended through November of 1998.

PLANS OF CONTIGUOUS MUNICIPALITIES

Readington is bounded to the north by Tewksbury Township, to the west by Clinton Township and to the west and south by Raritan Township. To the east of Readington, within Somerset County, are Bedminster Township and Branchburg Township. Hillsborough Township, also in Somerset County, borders Readington to the south and east. Land use designations, and related Master Plan policies for the municipalities surrounding Readington Township are summarized below (see surrounding zoning map of Readington Township):

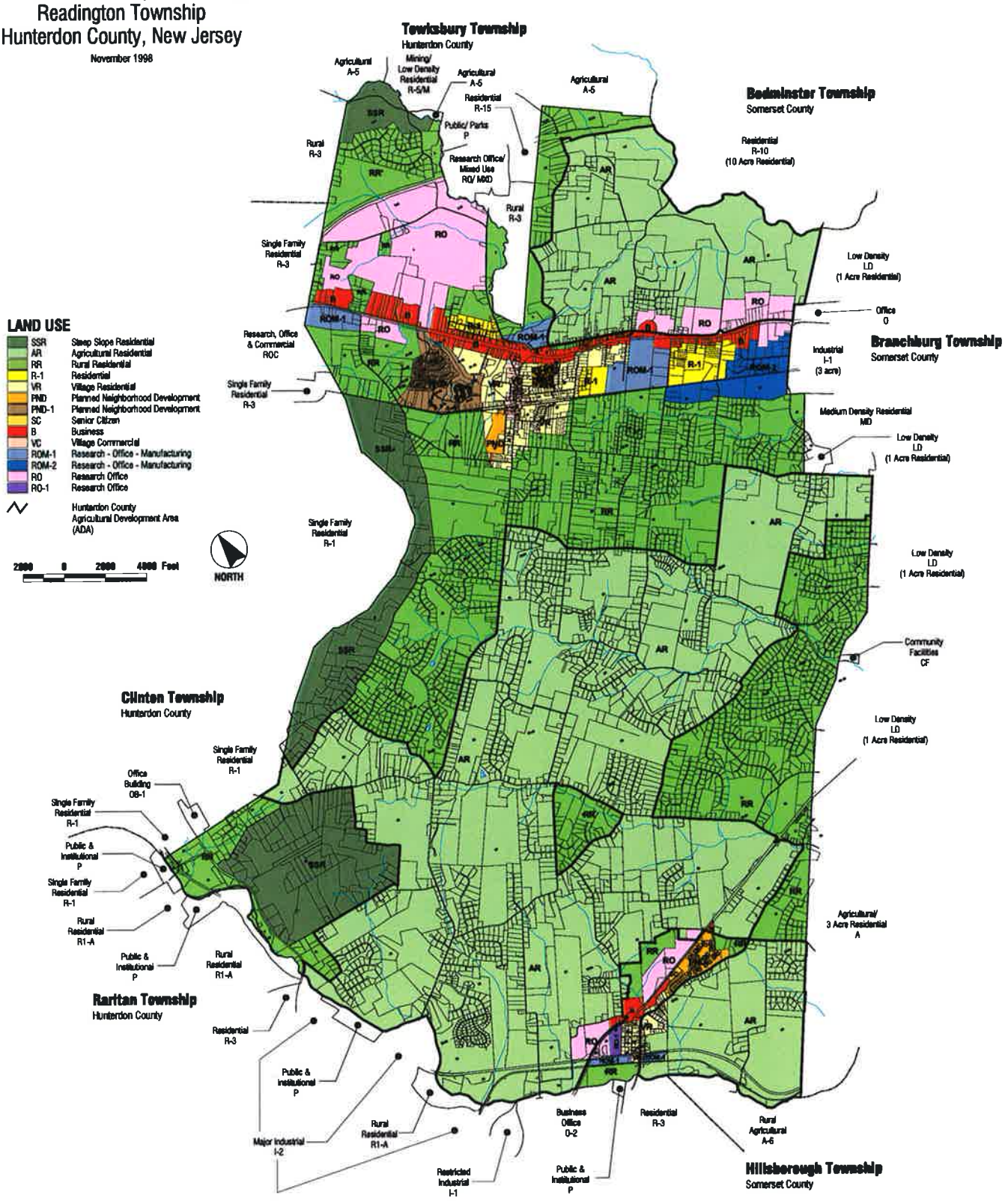
TEWKSBURY TOWNSHIP, HUNTERDON COUNTY

In Tewksbury Township, the R-3 Rural, A-5 Agricultural, R-5/M Mining/Low Density Residential, P Public/Parks, RO/MXD Research Office/Mixed Use, and R-1.5 Residential Districts border Readington Township's Rural Residential, Steep Slope Residential, and Research Office Districts along the northern border of the Township. The density in the R-3 Rural District is 0.3 units/acre (3 acre minimum lot size) and the density in the A-5 Agricultural and R-5/M Mining/Low Density Districts is 0.2 units/acre (5 acre minimum lot size) which is consistent with the densities found in Readington's Rural Residential and Steep Slope Residential Districts. The 1.5-acre minimum lot size in Tewksbury's R-1.5 Residential District permits a higher density than is permitted for Readington's Rural Residential District.

Surrounding Zoning

Readington Township
Hunterdon County, New Jersey

November 1998



Base Map Source: Thomas L. Yager & Associates
10 Gray Rock Road, Clinton, New Jersey

CLARKE CATON HINTZ
A Professional Corporation
400 Sullivan Way, Trenton, New Jersey

Tewksbury's 1994 Land Use Plan emphasizes the protection of important environmental resources and the protection and preservation of the cultural and historic resources of the Township. The Land Use Plan is also designed to meet the Township's fair share of the regional affordable housing obligation, encourage and support the continuation of agricultural activities and retain the rural and agricultural character of the Township.

CLINTON TOWNSHIP, HUNTERDON COUNTY

Clinton Township's R-1 Residence District adjoins the Rural Residential, Agricultural Residential, and Steep Slope Residential Districts along Readington Township's western border. North of the Steep Slope Residential District, Clinton's R-2 Residential District borders Readington's Rural Residential District, and Clinton's Research, Office & Commercial District adjoins the Rural Residential and Research, Office, and Manufacturing Districts. North of Route 22, Clinton Township's R-3 Residence District borders Readington's Rural Residential District. Under the Township's current zoning, the permitted density for the R-1 Residence District is 0.2 units/acre (5 acre minimum lot area for conventional development) and the permitted density in the R-2 and R-3 Residence Districts is 0.3 units per acre (2.75 acre minimum lot area for conventional development).

Clinton Township's 1991 Land Use Plan notes that a dominant theme in the Township's planning process has been the retention of the Township's rural, agricultural character. The conservation of natural resources and sensitive natural features has also been a continuing objective of the Township. The Land Use Plan recommends reducing residential densities in the Township's Rural Residential districts, including the R-1 and R-2 Residence Districts, in order to better protect groundwater quality and conserve the rural character of Clinton.

RARITAN TOWNSHIP, HUNTERDON COUNTY

To the southeast, Readington's Rural Residential and Agricultural Residential Districts are bordered by Raritan Township's Public and Institutional, R1-A Rural Residential, R-3 Residential, Major Industrial, Restricted Industrial, and Business Office Districts. North of Route 31,

the Public and Institutional District includes flood plain and wetlands areas along the South Branch of the Raritan River. Low-density residential areas, including the R-1 and R1-A Districts, are located immediately behind this open space corridor. The minimum lot size permitted in the R1-A District is approximately 2 acres. The Township recently increased the minimum lot size permitted in the R-1 zone from a 2.5-acre minimum to a 6-acre minimum lot size requirement. The R-1 zone constitutes approximately 20% of the land area of Raritan Township, and is located approximately 600 feet from the border with Readington.

Raritan's R-2 Rural Residential District is located between the Conrail lines, north of Route 202. The minimum lot size in this district is approximately 1.7 acres (75,000 sq. ft.). Adjacent to the border with Hillsborough Township is Raritan's R-3 Residential District, which allows development on lots approximately 1 acre (50,000 sq. ft.) in size.

Raritan Township's 1994 Master Plan discusses the rapid growth within the Township in recent decades and focuses on the management of future residential growth through techniques such as farmland preservation, larger minimum lot size, and limitation of the area served by sanitary sewers.

BEDMINSTER TOWNSHIP, SOMERSET COUNTY

The northeast corner of Readington is bordered by Bedminster Township's R-10 Rural Residential zoning district, which requires each new lot to be at least 10 acres and provides for a maximum residential development density of 1/10 unit per acre. Approximately 80 percent of Bedminster Township's land area is included in the R-10 Rural Residential zoning district.

Land Use and Management goals and objectives in Bedminster's Master Plan include preserving the rural character of the countryside, maintaining balance among various land uses, and establishing housing densities in rural areas at levels which do not exceed the carrying capacity of the natural and built environment.

BRANCHBURG TOWNSHIP, SOMERSET COUNTY

The southern one third of Branchburg Township's border with Readington Township is designated as Agricultural/3 Acre Residential District. This district adjoins Readington's Rural Residential and Agricultural Residential Districts. In the middle third of the border is Branchburg's Low-Density/1-Acre Residential District and a small Community Facilities District which also adjoins Readington's Rural Residential and Agricultural Residential Districts. In the northern third of its border with Readington, Branchburg's Medium-Density Residential District adjoins the Rural Residential and Agricultural Residential Districts, and Branchburg's Industrial (3 Acre) and Office Districts adjoin Readington's Research-Office-Manufacturing (ROM-2) and Research Office (RO) Districts. North of the RO District, Branchburg's Low-Density/1-Acre Residential District adjoins the Agricultural Residential District north to the Bedminster Township boundary.

One of the goals of the 1993 Land Use Plan is to preserve the rural character of Branchburg's undeveloped areas, and in particular, to encourage development which preserves the rural and agricultural character of the northern and southern areas of Branchburg. In the Agricultural/3 Acre Residential District, the plan encourages the use of larger lots and recommends that if lot sizes are increased from 3 acres to 5 through 10 acres, improvement standards such as road width, curbing and drainage requirements could be reduced. The Land Use Plan notes that remaining development within the Low Density District will take the form of infill development.

HILLSBOROUGH TOWNSHIP, SOMERSET COUNTY

Hillsborough Township's Rural Agricultural District borders the southeastern tip of Readington Township, adjacent to Readington's Rural Residential District. The minimum lot size within the Rural Agricultural District is three acres (corresponding to a permitted density of 0.3 units/acre).

As part of the Cross-Acceptance II process with the Office of State Planning and Somerset County Planning Board, Hillsborough Township has proposed revisions to the Resource Planning and Management Map of the 1992 State Development and Redevelopment Plan (SDRP). In the

vicinity of its border with Readington Township, Hillsborough Township has proposed changing land designated as Rural Planning Area (PA4) to Environmentally Sensitive Planning Areas (PA4B and PA5). According to the Township Planner, the Township is considering rezoning the areas proposed as PA4B and PA5 to a lower density than the 0.3 units/acre currently allowed under the Rural Agricultural District.

Hillsborough Township's Land Use Plan Element focuses on environmental constraints, and identifies Critical Areas within the Township which should not be developed because of physical limitations such as excessive slopes, severe wetness, and floodway and foundation problems. Flood-hazard areas and steep slope areas are specifically identified along the portion of the South Branch of the Raritan, where Hillsborough Township borders Readington Township. The portion of the South Branch adjacent to Readington is also identified as a Proposed Greenway corridor in Hillsborough Township's 1996 Greenways Plan.

SUMMARY OF COMPATIBILITY WITH MUNICIPAL MASTER PLANS

The six municipalities surrounding Readington Township provide for low-density residential development along the majority of the common boundary with Readington.

Areas on the Route 22 corridor in Clinton Township and Branchburg are designated for research, office, commercial and industrial uses, which are compatible with the Research-Office-Manufacturing District along Route 22 in Readington. However, a portion of Clinton's ROC District to the south of Route 22 borders Readington's Rural Residential District. Similarly there is small area of incompatibility along Route 31, where Clinton Township has provided for office development adjacent to the Rural Residential District in Readington.

Along Route 78, Tewksbury's Research, Office/Mixed Use (RO/MX) District generally borders Readington's Research Office District. However, a small portion of the RO/MX District borders Readington's Rural Residential District and a small portion of the Research Office District borders Tewksbury's R-3 Residential District. The Rockaway Creek, with associated flood plains, wetlands and steep slopes provides a natural buffer between these inconsistent land use designations.

Land use designations in Raritan Township that adjoin Readington's Rural Residential and Agricultural Residential Districts include Major Industrial, Restricted Industrial and Business Office Districts. The South Branch of the Raritan River with associated flood plains and wetlands along with the Lehigh Valley Railroad corridor provide a substantial buffer between the less compatible zones along this municipal boundary.

HUNTERDON COUNTY GROWTH MANAGEMENT PLAN

Hunterdon County's 1986 Growth Management Plan includes goals and objectives for land use development that focus on accommodating the diverse demands for future needs while retaining the rural and historic character and environmental quality of the County.

In the plan's Future Land Use Map, small towns are indicated in the vicinity of Three Bridges and Whitehouse Station. Public sewer and water are available in these areas and future development and infill consistent with the character of these towns is encouraged.

The northern third of the Township, along the Route 78 and Route 22 corridors, and an area within the southeastern portion of the Township along the Route 202 corridor are shown as Primary Management Areas in the County plan. Primary Management Areas are those portions of the county likely to have the greatest pressures for development.

The remaining areas of the Township are indicated as Rural Conservation Areas. The County Agricultural Development Areas are located within these conservation areas. Readington has planned for large lot residential development with cluster provisions in these areas which is consistent with the County plan.

STATE REDEVELOPMENT AND DEVELOPMENT PLAN

The New Jersey State Redevelopment and Development Plan (SDRP) was formulated to facilitate coordinated planning among state agencies and to efficiently allocate scarce state resources. The first SDRP was adopted on June 12, 1992. The SDRP established a Resource Planning and Management Structure with statewide mapping of growth management areas and concentrations of existing and proposed development called Planning Areas and Centers. The

SDRP delineates policy objectives for each Planning Area and Center to guide growth in appropriate places and contexts.

The State Redevelopment and Development Plan designates the following Planning Areas in Readington Township (see *Resource Planning and Management Map of Readington Township on page V-37*):

PLANNING AREA 2 – SUBURBAN PLANNING AREA

The land use intent in this area is to guide development into compact centers. This would also include retrofitting former single-use developments into mixed-use developments with local services and cultural amenities.

PLANNING AREA 3 – FRINGE PLANNING AREA

The purpose of Planning Area 3 is to phase development in concert with the construction of infrastructure in existing or new centers to accommodate modest population growth that might otherwise contribute to urban sprawl.

PLANNING AREA 4 – RURAL PLANNING AREA

Enhancing agricultural viability and rural character by guiding development and redevelopment into existing or proposed centers is the objective for Planning Area 4.

PLANNING AREA 4B – RURAL/ENVIRONMENTALLY SENSITIVE PLANNING AREA

Planning Area 4B is a sub-area of Planning Area 4 which identifies farmland that also contains valuable ecosystems or wildlife habitats. The policy objectives for this area follow those of Planning Area 5 – Environmentally Sensitive Lands, which are intended to protect environmentally sensitive features by guiding development into centers.

PLANNING AREA 5 – ENVIRONMENTALLY SENSITIVE PLANNING AREA

The Environmentally Sensitive Planning Area has large contiguous land areas with valuable ecosystems and wildlife habitats. Directing development from the environs to the Centers in Planning Area 5 will ensure that the environs remain in low-density uses, or recreational, cultural, or resource-extraction uses, or left undeveloped.

Land along the Route 22 corridor which falls within the sewer service area is designated as Planning Area 2 in the SDRP and Whitehouse Station is designated as an Existing Village within this Planning Area. The Township's Steep Slope Residential District adjacent to Clinton Township and portions of the Rural Residential District bordering Raritan and Bedminster Townships are designated as Planning Area 5 and Planning Area 4B under the SDRP. Remaining portions of the Township are designated as Planning Area 3 and Planning Area 4. The SDRP also designates Three Bridges an Existing Village, and Readington and Stanton are designated as Existing Hamlets. Land development strategies in Readington Township's Master Plan, including the concentration of high-density development around existing centers and clustering to preserve the natural landscape, largely support the SDRP policies.

1997 PRELIMINARY STATE REDEVELOPMENT AND DEVELOPMENT PLAN

The 1997 Preliminary State Redevelopment and Development Plan proposes revisions, that upon adoption, will replace the 1992 SDRP which is currently in effect. In October 1998, Hunterdon County issued Volume 1 of its Cross-Acceptance Report which reviews and assesses the 1997 Preliminary SDRP. The Cross-Acceptance Report includes Centers Proposals by Readington Township for the Village of Three Bridges and the Village of Whitehouse Station. These sites have been included as Existing Villages on the September 1998 Cross-Acceptance II mapping changes. Additionally, a small area along the Branchburg border, east of Solberg Road has been proposed to change from Planning Area 3 to Planning Area 4 on the September 1998 Cross-Acceptance II map.

The Hunterdon County Cross Acceptance Report discusses changes in agricultural operations in the County over the past several decades. Large-scale farming operations, such as dairies and field crops, are becoming less and less profitable as markets and support services move further away from the area. As the number of dairy and corn operations decline, the number of horticulture

operations, nurseries, vineyards and other specialty animal and plant farms have increased. Additionally, to compensate for the declining value of farm crops, farmers are turning towards recreational activities, agri-tourism and nonagricultural businesses to provide supplemental income.

The Cross-Acceptance report also notes the need for creative land use planning to help preserve farmland. The State's purchase of development rights program (PDR) has been very successful and has resulted in the preservation of 5,166 acres within the County to date. The Cross Acceptance report recommends that clustered development and TDR are appropriate for agricultural areas and would be more consistent with the State Plan than the conventional large lot zoning approach that has been popular in some parts of the County. However, the Report notes that due to the public's perception of the increases in net density of compact development, the problems associated with alternative wastewater systems, and the lack of attractive model developments, it is difficult to convince local officials and the general public of the advantages of these land use patterns. Readington Township's cluster ordinance and active farmland easement purchase efforts are consistent with the County's Cross Acceptance report.