DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT

FOR THE

TOWN OF RIVERHEAD COMPREHENSIVE PLAN

TOWN OF RIVERHEAD SUFFOLK COUNTY, NY

TOWN OF RIVERHEAD TOWN BOARD AND PLANNING BOARD

DAVID J. S. EMILITA, AICP

June 25, 2003

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SUFFOLK COUNTY, NEW YORK

Draft EIS Required By: Riverhead Town Board 200 Howell Avenue Riverhead, NY 11901

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INTRODUCTION

This document is the Generic Environmental Impact Statement (GEIS) prepared by the Town Board of the Town of Riverhead (the "Lead Agency") in connection with the update of the Town's Comprehensive Master Plan and amendments to the Town's Zoning Ordinance, Chapter 108 of the Town Code (the "Proposed Action"). The Town Board has made a determination that the Proposed Action had the potential to cause significant environmental impacts (i.e., a positive declaration), necessitating the preparation of a Draft GEIS in connection with the Proposed Action.

Involved agencies include:

- Riverhead Town Board
- Riverhead Planning Board

Interested agencies include the following agencies of the Town of Riverhead, all of which are located at 200 Howell Avenue, Riverhead, New York 11901:

- Riverhead Zoning Board of Appeals
- Riverhead Conservation Advisory Council
- Riverhead Architectural Review Board
- Riverhead Building Department Administrator
- Riverhead Community Development Department Director
- Riverhead Police Department Chief
- Riverhead Planning Department Director
- Riverhead Recreation Department Superintendent
- Riverhead Sanitation Department Director
- Riverhead Sewer Department Director
- Riverhead Engineering Department Director
- Riverhead Water District Superintendent
- Riverhead Highway Department Superintendent
- Riverhead Tax Assessor
- Riverhead Town Attorney
- Riverhead Town Clerk
- Riverhead Senior Programs Director

Other interested agencies include:

Riverhead Central School District 700 Osborne Avenue Riverhead, New York 11901

Shoreham-Wading River Central School District Shoreham High School Route 25A Shoreham, New York 11786

Laurel School District 475 Franklinville Road Laurel, New York 11948

Jamesport Fire Department Manor Lane Jamesport, New York 11901

Wading River Fire Department North Country Road Wading River, New York 11792

Manorville Fire Department 14 Silas Carter Avenue Manorville, New York 11949

Riverhead Fire Department 24 East Second Street Riverhead, New York 11901

Riverhead Volunteer Ambulance Corps 1111 Osborne Avenue Riverhead. New York 11901

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Joshua Y. Horton, Supervisor Town of Southold 53095 Route 25 P.O. Box 1179 Southold, New York 11971 Suffolk County Planning Commission H. Lee Dennison Building 100 Veterans Memorial Highway Hauppauge, NY 11788

Central Pine Barrens Joint Planning and Policy Commission 3525 Sunrise Highway, 2nd floor P.O. Box 587 Great River, New York 11739-0587

New York State Department of State Division of Coastal Resources 41 State Street Albany, New York 12231-0001

New York State Department of Environmental Conservation Region One Office SUNY Campus, Building 40 Stony Brook, New York 11790

New York State Department of Transportation Region Ten Office State Office Building 250 Veterans Memorial Highway Hauppauge, New York 11788

New York State Office of Parks, Recreation, and Historic Preservation Empire State Plaza Agency Building #1, 20th floor Albany, NY 12238

Long Island Farm Bureau 104 Edwards Avenue Calverton, NY 11933

North Fork Environmental Council 12700 Route 25 Mattituck, NY 11952

Long Island Pine Barrens Society 547 East Main Street Riverhead, NY 11901

EXECUTIVE SUMMARY OF THE GEIS

Description of the Proposed Action

The proposed action is the adoption by the Riverhead Town Board of the Comprehensive Plan for the Town of Riverhead and the regulations intended to implement the Plan in the form of amendments to Chapter 108 – Zoning – of the Town Code. The Proposed Action supports the Central Pine Barrens Comprehensive Land Use Plan, the Revitalization Strategy for Downtown Riverhead, and the Local Waterfront Revitalization Program. The Comprehensive Plan provides guidance for the Town to achieve the following broad goals:

- A revitalized downtown that is retooled for tourism, with unique cultural attractions, a bustling Main Street, protected historic buildings, and an expanded and improved waterfront park;
- Walkable hamlet centers that serve as centers for community life and provide day-to- day shopping and services for residents, as well as specialty shopping for tourists.
- Attractive residential neighborhoods clustered around downtown, the hamlet centers, and north of Sound Avenue;
- A thriving commercial corridor along Route 58, with reduced traffic congestion and an attractive visual quality;
- A dynamic office/industrial center in and around Enterprise Park at Calverton;
- Regional recreational and entertainment facilities at Enterprise Park at Calverton;
- A greenbelt of farmland and open space with a prosperous agricultural industry, where housing is clustered and open space permanently preserved;
- A system of parks and greenways that provide abundant recreational opportunities for all age groups;
- Improved access to waterfront areas for recreational purposes, including the Peconic River, Flanders Bay, the Great Peconic Bay, and Long Island Sound;
- Protected streambeds, wetlands, woodlands, bluffs, beaches, and other natural areas, including habitat areas for plant and animal species;
- A strong Town identity and heritage, with protected scenic vistas and beautifully restored and reused historic buildings;
- A reputation as a place that has the best of both the past and the present, and the best of both natural and built environments.

The Proposed Action sets forth specific policies for achieving these broad goals. Implementation of these policies require subsequent actions to be taken by the Town, chief among them are revisions to the Town Code. For the purposes of this environmental review, it is assumed that the Proposed Action, including the Town Code amendments will have been adopted. Impact assessment is then

made in comparison to the future baseline condition that would exist if the Proposed Action were not taken.

Summary of Existing Conditions, Future Baseline Conditions and Impacts of the Proposed Action

Despite rapid subdivision of vacant and agricultural land in recent years, almost forty percent of Riverhead's land area is still farmed. An additional twenty percent exists in recreation and open space. Riverhead remains far and away the most important agricultural town on Long Island. However, Riverhead attracts more than its share of residential growth. This growth counters the Town's efforts to preserve its farmland. Unless something is done, at full development the Town's population will reach over 51,000 as compared to 31,000 today. Overly large and scattered business districts threaten the future vitality of downtown and the Town's smaller hamlets.

The fully implemented Proposed Action will reduce the potential population of the Town to between roughly 40,000 and 42,000 people. Between 37,000 people and the full potential population may be expected in the planning horizon year of 2022 with the Plan in place. Large-scale and destination retail shopping will continue to be located along Route 58. Downtown will because more tourist and specialty business oriented. Cutting back on business and commercial strips will strengthen the hamlets. The density of new on-site development in the Agriculture A, Residence A and Residence C Districts will be halved. Development rights will be transferred to receiving areas north of Sound Avenue, near existing hamlets with appropriate infrastructure, and to commercial and industrial zoned areas.

The prime impact will be a reduction in the potential population in Riverhead's central farm belt, reducing the potential incompatibilities between farming and non-farm development. Density shifts will produce also shifts in traffic, but will also strengthen the business areas in position to serve this added growth. Improved land use design standards, administration procedures and techniques will produce a better quality development.

No new major roadways are proposed by the Plan. Improvements to Route 58 are proposed to increase its capacity and safety. Traffic will not be encouraged to use existing de facto by-pass routes. They are not proposed to continue as such. Non-vehicular circulation improvements and traffic calming measures are proposed. The Plan's recommendations will lighten the impact of future growth on the Town's school system and its parks and recreation facilities. Riverhead's natural resources, including wetlands and wildlife habitats, and scenic and historic assets will also benefit from the Plan.

Unavoidable Adverse Impacts

No significant adverse environmental impacts are expected as a result of the Proposed Action, therefore environmental impact mitigation measures proposed are limited to lessen local impacts associated with density shifts resulting from the transfer of development rights..

Alternatives to the Proposed Action

A major alternative in any environmental impact statement is the "No Action" or "Do Nothing" alternative. This alternative, or in other words, the future baseline, has been woven into the GEIS.

Another alternative is to reduce the base density further in Hydrogeologic Zone III of the Agricultural Overlay Zone to enable the Suffolk County Sanitary Code regulations to be met as currently interpreted by Health Services Department. Other alternatives and combinations of lot sizes and open space percentages to bring about Sanitary Code compliance were considered by the Town and are discussed in the Plan and the GEIS.

Irreversible and Irretrievable Commitments of Resources

The Proposed Action presents a comprehensive, detailed and far-reaching program of goals and strategies, policies and recommendations for Riverhead. As such, its adoption and implementation will result in an irreversible and irretrievable commitment of public, financial and human resources. A long-term commitment will be needed by the Town's decision-makers to ensure that the Plan's goals and objectives translate into its operating policies, practices and budgets.

Growth-Inducing Impacts

The Proposed Action is not one that can be characterized as growth inducing in the broad sense. That is to say that the Proposed Action reduces the relative growth inducement characteristics of Riverhead as compared to today or to the future baseline. At ultimate population the Town's population will be significantly lower than the future baseline with no action.

Effects on Energy Use and Conservation

Projected energy use is related to the amount and pattern of projected future development. Insofar as new residential development in Riverhead over the

course of full build-out is expected to add fewer housing units and residents than under the future baseline, the net effect upon energy use will be a comparable reduction in the expected increase.

Criteria For Site-specific Proposals

Important criteria under which future proposals should be assessed for environmental impacts are: farmland preservation; traffic generation; esthetics and scenic resource protection; natural resources protection; stormwater management; regulatory compliance; effect on community facilities and compatibility with other plans.

1. DESCRIPTION OF THE PROPOSED ACTION

1.1 Background of the Proposed Action

Comprehensive Master Plan of 1973

The most recent update of the Comprehensive Master Plan of the Town of Riverhead was completed in 1973. It set forth several planning goals based on a far different vision of Riverhead than exists today. An excerpt from page 3 of that Plan is as follows:

"...the Comprehensive Master Plan of 1973 is prepared as a means of guiding the Town of Riverhead in orderly growth from its present state to full development. Particular attention is given to the growth expected by 1985.

The general planning goal continues to project the Town of Riverhead as a community of residential neighborhoods with various housing densities supported by a substantial industrial and commercial economic base. It will emphasize a compatible relationship between community development and protection of the natural environment. The more detailed planning goals are as follows:

Environment

The fundamental character of the community should be established through the careful design and preservation of open space, including parklands and other public and semi-public lands, and private open space. The public policies and regulations to accomplish this will be particularly concerned with the wetlands, the Long Island Sound bluffs, wooded and other significant upland areas, natural drainage ways and the protection of the ground water table, and preservation of air quality. Further analysis of the water resource potential shall be called for in relation to compatible environmental and community requirements. Despite the general planning goal, farming is to be encouraged as a feature of the community as long as it proves feasible. **As farming phases out, consideration shall be given to planting of trees so that the land may have attractive qualities for residential or other development.** (emphasis added)

Population and Housing

Planning policies shall be based on a population objective of 25,000 persons by 1978 and between 32,750 and 44,000 persons by 1985. **The ultimate residential population of the Town of Riverhead continues to be set at 174,000.**" (emphasis added)

The 1973 Plan depended heavily on public infrastructure investment such as major highways and extensive sewerage. Little of that infrastructure was built. The Long Island Expressway terminated at Route 58. None of the major highway network proposed to criss-cross the Town was built. Farmland

preservation as a planning tool was not envisioned. Major sewer lines and treatment facilities were not constructed.

Existing Zoning Ordinance

The most recent comprehensive update of the Zoning Ordinance was adopted in 1970, with major amendments made subsequently. The existing Zoning Ordinance, sets forth seven residential districts, nine business districts, five industrial districts and six special purpose districts. Several of these districts are not mapped, but exist in the Ordinance as overlay districts.

Many of the zoning districts are traditional residential, business, commercial and industrial districts that have allowed areas of Riverhead to develop and mature successfully. Others have led to haphazard sprawl and incompatible development. As a whole, the ordinance reflects a land use policy that potentially would lead to enormous population increases in Riverhead, although not to the scale envisioned in the 1973 Plan. It is this recognition that has led the Town to prepare a totally new Comprehensive Plan pursuant to recently adopted State enabling legislation (Town Law 272-9). This will lead the Town to propose a comprehensive set of zoning amendments both to modernize the existing code and to implement the new plan.

1.2 Summary of the Updated Comprehensive Master Plan and the Amendments to the Zoning Ordinance

The proposed action is the adoption by the Riverhead Town Board of the Comprehensive Plan for the Town of Riverhead and the regulations intended to implement the Plan in the form of amendments to Chapter 108 – Zoning – of the Town Code. The Comprehensive Plan is innovative, intricate, and interwoven with strategies, policies and guidelines for the Town's future as expressed by its citizens and parties of interest during its development. Descriptive of the underlying awareness of the Town's position the Plan makes the following statement on page 2-1:

"Riverhead is already one of the most dynamic and exciting places on Long Island, and in the future, it will become a preeminent center for tourism, agriculture, business, shopping, recreation, and living on the East End. As in recent years, the Town will continue to experience growth and change in coming years. Economic development and environmental conservation should be balanced, to not only sustain expansion of Riverhead's strong economic base, but also promote livable communities, preserve farmland and agricultural activity, and protect it's natural, historic, and scenic resources."

In fulfilling its vision of the future the Plan seeks to provide guidance in order for the Town to achieve, in the words of the Plan:

- "A revitalized downtown that is retooled for tourism, with unique cultural attractions, a bustling Main Street, protected historic buildings, and an expanded and improved waterfront park;
- Walkable hamlet centers that serve as centers for community life and provide day-to- day shopping and services for residents, as well as specialty shopping for tourists.
- Attractive residential neighborhoods clustered around downtown, the hamlet centers, and north of Sound Avenue;
- A thriving commercial corridor along Route 58, with reduced traffic congestion and an attractive visual quality;
- A dynamic office/industrial center in and around Enterprise Park at Calverton;
- Regional recreational and entertainment facilities at Enterprise Park at Calverton;
- A greenbelt of farmland and open space with a prosperous agricultural industry, where housing is clustered and open space permanently preserved;
- A system of parks and greenways that provide abundant recreational opportunities for all age groups;
- Improved access to waterfront areas for recreational purposes, including the Peconic River, Flanders Bay, the Great Peconic Bay, and Long Island Sound;
- Protected streambeds, wetlands, woodlands, bluffs, beaches, and other natural areas, including habitat areas for plant and animal species;
- A strong Town identity and heritage, with protected scenic vistas and beautifully restored and reused historic buildings;
- A reputation as a place that has the best of both the past and the present, and the best of both natural and built environments."

The Comprehensive Plan (or simply "the Plan") is composed of eleven different elements, each dealing with a distinct topical area of the community. Each element contains goals, policies, guidelines and recommendations specific to that topic area. For example, the Proposed Land Use Plan in Chapter 2 of the Comprehensive Plan blends land use goals and recommendations together into a single, coherent plan for development and conversation, providing a picture of what the Town would be expected to look like in the future if the Plan is followed. The other ten elements of the Comprehensive Plan are as follows:

- Chapter 3: Agriculture Element
- Chapter 4: Natural Resources Conservation Element
- Chapter 5: Scenic and Historic Resources Preservation Element
- Chapter 6: Business Districts Element
- Chapter 7: Economic Development
- Chapter 8: Housing Element

- Chapter 9: Transportation Element
- Chapter 10: Utility Service Element
- Chapter 11: Parks and Recreation Element
- Chapter 12: Community Facilities Element

Plan Recommendations Summary - Land Use Plan and Zoning

The Land Use Plan is the centerpiece of the Comprehensive Plan. It synthesizes all of the goals and policies of the other ten elements into a single, coherent vision. It also forecasts and compares several "build-out" scenarios that would result from the zoning patterns and the proposed land use plan. A build-out estimate is useful because it indicates the future potential amount of housing units and, by extension, the saturation population or future potential population, which would exist when all available land is developed to the maximum extent in accordance with zoning patterns.

The Proposed Land Use Plan summarizes in map form many of the goals and policies in the Comprehensive Plan. The Comprehensive Plan and the Proposed Land Use Plan is authoritative and sets a precedent for future development because once it is adopted, it will become the Town's new zoning map. As such, it will directly influence future development patterns. All future subdivisions and site plans will then have to conform to the map and the new zoning designations included in the Plan.

Changes From The Current Zoning Map

Some parts of the Proposed Land Use Plan are consistent with the existing zoning patterns, while other parts are significantly different. In particular, several new zoning districts and overlay districts are being proposed. These new districts are intended to help implement proposals in the various chapters of the Comprehensive Plan, particularly Agriculture, Natural Resources Conservation, Business Districts, and Economic Development.

The table entitled "Proposed Zoning Districts" provides a list of the zoning districts recommended for inclusion into Chapter 108 of the Town Code. The table entitled "Existing Zoning Districts That Are Being Retained" lists the existing zoning districts that are being retained in the Proposed Land Use Plan, and the Table entitled "Existing Zoning Districts That Are Being Eliminated" shows current zoning districts that are proposed for elimination. Properties that are located in any of these eliminated zoning districts have been rezoned as shown in the Proposed Land Use Plan. In order to implement the goals and policies found throughout the Comprehensive Plan, many other properties have been rezoned as well. In particular, the Proposed Land Use Plan modifies existing zoning patterns and boundaries to bring about farmland and open,

prevent sprawl, and create well planned pedestrian and transportation-friendly communities.

Proposed Zoning Districts

As shown in the table below, most of the proposed zoning districts are commercial districts, which provide a new framework for development in downtown, along Route 58, and in the hamlet centers. A detailed description of each proposed zoning district is provided in Section 2 of the Plan. The Downtown Center (DC) zone is broken up into several sub-districts, each tailored to a distinct part of the downtown area. These sub-districts, each with subtle differences, are intended to carefully balance downtown land uses and development patterns, in a manner that fits into the historic and natural context of each area.

The other districts are suited to different types of commercial development: shopping centers (SC); small roadside commercial establishments like drive-through banks and gas stations (BC); major regional shopping centers (DRC); small country crossroads (HC); and historic village centers (YC). These zones are integrated along Route 58 and in the hamlet centers to best suit the localized market trends in these areas.

PROPOSED ZONING DISTRICTS

	FROF OSED ZONING DISTRICTS			
<u>Industrial</u>				
IR	Industrial/Recreational			
Commercial				
DC	Downtown Center			
DC-1	Main Street			
DC-2	Waterfront Transition			
DC-3	Office			
DC-4	Office/Residential			
DC-5	Residential			
HC	Hamlet Center			
VC	Village Center			
BC	Business Center			
SC	Shopping Center			
CRC	Commercial/Residential Campus			
DRC	Destination Retail Center			
RLC	Rural Corridor			
TRC	Tourism/Resort Campus			
Overlay Zones				
AOZ	Agricultural Overlay & Agricultural TDR Sending Overlay Zone			
ROZ	Agricultural TDR Receiving Overlay Zone			
HDROZ	High Density Residential Overlay Zone			

The new Industrial/Recreational (IR) zone is intended to provide a mix of commercial recreation uses and moderate-scale industrial development in the areas generally between Enterprise Park in Calverton and the terminus of the LIE. The current zoning encourages traditional industrial development. By permitting commercial recreation as well, the Town would provide an additional area for the development of recreational attractions that would appeal to tourists.

The two new overlay districts are intended to protect the Town's agricultural greenbelt and also implement the Transfer of Development Rights (TDR) program discussed in Chapter 3, the Agriculture Element. The Agriculture Overlay Zone (AOZ) uses two main strategies to preserve farmland: mandatory cluster development and the program known as transfer of development rights ("TDR"). By participating in the TDR program, a landowner in the AOZ could sell his or her property's development rights to another landowner in the Receiving Overlay Zone (ROZ) or to selected commercial and industrial zones, with the result that the site in the AOZ would be preserved as open space.

Existing Zoning Districts That Are Retained

As noted, some of the Town's existing zoning districts (i.e., those shown on the Town's current zoning map) are being retained and carried forward into the new Proposed Land Use Plan. Others are being eliminated. The districts that are being retained are listed in the table below. The reasons for keeping these districts are twofold:

- Many parts of Riverhead have already been developed according to the provisions of these districts. Eliminating or changing them would serve little purpose.
- Many of the regulations within these districts have generally worked well
 and should therefore be continued into the future. Changing the
 regulations in some of these areas could result in the creation of nonconforming buildings and lots, which could potentially complicate infill
 development, expansions, or alternations in already built-out areas.

At the same time, some of the provisions within these zones are being changed, where necessary and appropriate. For instance, pursuant to Chapter 3, the Agriculture Element, the minimum lot areas of the Agriculture A and Residence A, and certain Residence C Districts are being "upzoned" from 40,000-square foot to 80,000-square foot minimum lots for residential development. The existing 40,000 square foot density for residential development is out of character for a town seeking to retain a rural atmosphere. It is a suburban density, higher than in surrounding towns, and it is attracting development to Riverhead's

farmland belt. This is contrary to the overall thrust of the current planning effort for preservation of the farming industry. It will also add to the future overall number of people, traffic and other non-agricultural activity in agricultural areas, worsening the frictions that occur between farming and non-farming uses. It will also add to the fiscal burden of the Town overall and its school districts, generating higher numbers of people who will require more public services and more students attending the Riverhead school system. Retention of the existing zoning density in the Agriculture A and Residence A Districts is the principle factor in the future baseline condition's adverse impact on the Town as a whole.

The existing Districts retained in the Plan are as follows:

EXISTING ZONING DISTRICTS THAT ARE BEING RETAINED

Residential/Agriculture

A Agriculture RA Residence A RC Residence C RD Residence D

RRC Residence RC - Retirement Community

RROC Residence ROC - Redevelopment Community*

Industrial

PRP Planned Recreational Park
PIP Planned Industrial Park
IA Industrial A - Light Industry
IB Industrial B - General Industry

Recreational. Open Space & Conservation

OSC Open Space Conservation NRP Natural Resources Protection

RN Recreational

Overlay Zones

IROZ Industrial Receiving Overlay Zone*

PBOZ Pine Barrens Overlay Zone**

^{*}There are overaly zones. As such, they are not mapped on the Proposed Land Use Plan or the Town's Zoning Map, but added by the Town Board pursuant to rezoning procedures outlined in the Town's ZoningOrdinance.

^{**} Covers the area in the Town of Riverhead included within the Core Preservation Area of the Central Suffolk Pine Barrens.

Notably, the Residence RDC and the Industrial Receiving Overlay Zone are not shown on the Proposed Land Use Plan. This is not an oversight because these are overlay districts that may be added to the zoning map by the Town Board at its discretion. Since these districts serve important purposes identified by the Town in past years, they are being retained. In addition, the Pine Barrens Overlay Zone covers those parts of Riverhead located within the Core Preservation Area and the Compatible Growth Area of the Central Suffolk Pine Barrens. This area is depicted on the Proposed Land Use Plan.

Existing Zoning Districts that are Being Eliminated

Because the Proposed Land Use Plan includes a whole new set of commercial zoning districts, all of the old commercial zones and two commercial overlay zones are being eliminated. The Defense Institutional (DI) District, which covered the Naval Weapons Industrial Reserve Plant (NWIRP) site and open space uses north of this site, was eliminated in September of 1999 and rezoned for industrial, recreational and open space uses. The eliminated Districts are shown in the table below.

EXISTING ZONING DISTRICTS THAT ARE BEING ELIMINATED

<u>Industrial</u>

DI Defense Institutional (eliminated in September 1999)

Commercial

BA	Business A - Resort Business
BB	Business B - Shopping Center
BC	Business C - Neighborhood Business
BCR	Business CR - Rural Neighborhood Business
BD	Business D - General Business
BE	Business E - Highway Commercial Service
BG	Business G - Tourist Business
BPB	Business PB - Professional Service Building
OS	Office/Service
MRPO	Multifamily Residential Professional Office Zone

Proposed Land Use Designations

The new zoning districts are explained in detail in the Land Use Element of the Plan. Each district is summarized in a single table. Each table includes a purpose statement, a list of preferred land uses, and a description of "design concepts", which includes proposed regulations for building design, parking, landscaping, open space requirements, and other factors.

The zoning use districts adopted pursuant to public hearing will provide more detailed dimensional requirements and performance standards than outlined in the tables contained in the Plan. The "design concepts" discuss only the most critical regulations necessary to achieve the desired patterns of land use and development in each district. Brief descriptions of the purposes of the commercial districts and the industrial/recreational district are as follows:

Downtown Center (DC)

To make downtown the civic and cultural center of Riverhead, by providing a vital, high- density, mixed-use environment for shopping, eating out, cultural activities, entertainment, and professional services year-round.

Destination Retail Center (DRC)

To provide a location for large retail centers along Route 58 that attract customers from the East End, Long Island, and beyond, while linking development to open space protection along the Route 58 corridor and in Agricultural zones.

Shopping Center (SC)

To provide adequate locations for medium-size convenience shopping centers, mainly on Route 58, where residents can purchase daily necessities like groceries, in central locations that are accessible by car, transit, walking, and biking from adjacent residential neighborhoods.

Business Corridor (BC)

To allow for small, freestanding, roadside commercial uses, mainly along Route 58, between Destination Retail Centers and Shopping Centers.

Commercial/Residential Campus (CRC)

To provide locations for offices, which offer essential legal, medical, accounting, real estate, travel, and other services to Riverhead residents; to provide additional housing alternatives convenient to services and arterials.

Village Center (VC)

To make village commercial nodes into vibrant "Main Streets" with small shops, restaurants, and professional services and a traditional pattern of development and design in a compact, pedestrian-oriented setting.

Hamlet Center (HC)

To provide a small cluster of shops and professional services in a rural setting with a rural and residential character.

Rural Corridor (RLC)

To allow a very limited range of roadside shops and services in a rural setting along a corridor leading into Downtown, a Village Center, or a Hamlet Center (mainly along Route 25).

Tourism/Resort Campus (TRC)

To provide opportunities for overnight accommodations and recreational amenities in a campus setting surrounded by picturesque open space preserves.

Industrial/Recreational

To allow a mix of light industrial and commercial recreation uses in the area between Enterprise Park and the terminus of the Long Island Expressway.

High Density Residential Overlay District

To allow high-density residential use for sale or lease on appropriate parcels in order to provide for workforce housing.

Coordination With Other Plans

Preparation of the Comprehensive Plan was undertaken concurrently with two other planning efforts. These were the Downtown Revitalization Strategy and the Local Waterfront Revitalization Program (LWRP). Many of the recommendations of the Downtown Revitalization Strategy have been incorporated into the Comprehensive Plan and are thus an integral part of it. The LWRP is specific to the waterfront areas of Riverhead, with particular attention given to the issues of marine environmental protection, dredging and waterfront access in greater detail than in the Comprehensive Plan. Because the Plan and LWRP were prepared concurrently, background information was shared, policies and recommendation were coordinated, so that in the end the two plans would be consistent.

1.3 Public Purpose, Need, and Benefits

The central public purpose of the Proposed Action is twofold: (1) to establish the nature and level of potential development in the Town of Riverhead under current land use policies and zoning regulations (the future baseline condition); and (2) to make such changes as are necessary to current policies and regulations to ensure that all future potential development:

- Will be in keeping with the character of the Town;
- Will be developed in accordance with sound environmental planning and engineering principles and standards; and

• Will protect the public safety, health and welfare.

1.4 Implementation of the Comprehensive Plan

Implementation of the Comprehensive Plan, once approved, will be an incremental process. The first implementation step will be to update the Town's zoning regulations, Chapter 108 of the Town Code, to reflect all of the newly adopted goals and policies in the Comprehensive Plan. This is the linkage and consistency between the land use plan and the land use regulation that enables the Town to review and approve private development proposals with uniformity and effectiveness in conformity with state law.

Likewise the land use policies of the Plan are to be incorporated into Town government's day-to-day decision-making and administration. New development applications such as subdivisions and site plans will be required to comply with the Plan's policies as expressed in the Town's zoning and subdivision regulations.

The Comprehensive Plan also makes some physical recommendations for new, expanded, or improved public facilities, such as parks, streets, and streetscape improvements. It is up to the Town to act on these recommendations as the need and budgetary circumstances allow, however. The actions of implementing the Plan do have to be reviewed in the current context for potential adverse impacts. This GEIS will review the implementing recommendations of the Plan in this regard, identifying possible impacts, alternatives that achieve Plan objectives, measures to mitigate adverse impacts, and other elements listed in the Table of Contents.

2. ENVIRONMENTAL SETTING: EXISTING CONDITIONS AND FUTURE BASELINE CONDITIONS, AND PROBABLE IMPACTS OF THE PROPOSED ACTION

This section will describe the general environmental setting in Riverhead with respect to the topics in the Comprehensive Plan to be addressed in the GEIS. The basis for the text is the respective chapters of the Comprehensive Plan. Where the subject matter does not exist in the Comprehensive Plan, the data for this section has been gathered from other information sources, such as Suffolk County Planning Department reports and the SEEDS program.

Probable impacts of the Proposed Action reflect the expected environmental setting in the year 2022 with the Proposed Action in place as compared to the expected future baseline condition. Future baseline conditions will reflect the expected environmental setting likely to exist in the year 2022, without the Proposed Action in place. It would be illogical to assess probable impacts of the Proposed Action against today's environmental setting. Only the future baseline (existing zoning and other programs remaining in place) can be assessed against today's setting, to determine if the community desires current trends projected to the horizon year.

In Riverhead, this apparently is not the case, as the community has spoken out on many issues during the planning process seeking a better future than they perceive will develop if nothing is done. Therefore, the basic question to be considered is whether the Proposed Action really will be better than doing nothing. This section of the GEIS attempts to answer that question in a fairly structured way, topic by topic.

The reader should realize that <u>all</u> of the data that could conceivably be generated to answer this question has not been generated to date. This would become an endless task and render the proposal obsolete before every parameter was completely analyzed. This is the reason for a <u>generic</u> environmental impact statement. Much of the analysis is qualitative in nature. The march of time to the horizon year would render some data and projections completely wrong. Some data ranges are too short to be of much use for twenty-year planning. For example, school enrollment projections exist only out to 2009. Nevertheless, with careful assessment and review by the involved and interested agencies, probable impacts can be assessed, mitigation measures developed where necessary and alternatives and options explored. At that time, a final generic environmental impact statement can be prepared, and a findings statement adopted.

2.1 Land Use

Chapter 2 of the Comprehensive Plan is the land use element, and so it is the most basic element of the Plan. Its scope is so broad that the subject is actually covered in more detail in the rest of the Comprehensive Plan as well as in the rest of the GEIS. The Land Use section will begin as a general land use discussion and then cover agricultural use as a separate discussion, because of its importance to the Town.

2.1.1 General Land Use

The discussion of existing conditions and patterns of land use in the Town of Riverhead is based on the 1999 Existing Land Use Inventory— Eastern Suffolk County undertaken by the Suffolk County Department of Planning. In that same year the County Department of Planning conducted a study on land available for development. Both studies were published in 2000 and are summarized with relevance to Riverhead in this section of the GEIS. According to the 1999 County report, a discussion of land use trends based on previous land use studies would not be valid because of differing classification methodologies, dissimilar base maps, and acreage calculations. Therefore the existing land use discussion here will be more general than statistical with respect to land use trends that are occurring in the Town and the region, again based on the County reports and on the Sustainable East End Development Strategies (SEEDS) study.

The results of the existing land use inventory are portrayed on the map entitled Land Use in the Appendices and in the table below. The land use data are grouped by land use categories most useful for planning purposes as derived from the New York State Department of Equalization and Assessment assessor's manual. While not corresponding directly to existing or proposed zoning districts, which are the legal classifications of land use that are used to implement the Proposed Land Use Plan, this data does link the physical activity on the landscape with local assessor's records to the Plan's findings and recommendations.

Some principal findings of the land use analysis can be made. The predominant land use in Riverhead is of course agriculture. Interestingly, recreation and open space and vacant land rank second and third. It is this combination of land uses that provide Riverhead with its rural quality, sweeping views and attractiveness as a residential setting. A major thrust of the Comprehensive Plan is to preserve Riverhead's central belt of farmland, through several preservation methods, while also maintaining the farming industry.

In 1999, residential land uses taken together amounted to only 14% of the total land area in the Town. Residential land uses are of course concentrated in the traditional hamlet centers, but are increasingly found occurring in large random patches across the landscape. Commercial land uses are found in concentration in downtown Riverhead and on larger parcels along Route 58 and between Route 58 and Route 25 near the terminus of the Long Island Expressway. Most of the industrial land use classification in Riverhead is in Enterprise Park and in the Kroemer Avenue area. Small commercial/industrial nodes exist along upper East Main Street.

Land Use Acreage by Town for Riverhead -1999

Use Category	Acres	% of Total
Residential Low Density	2,094	4.8
Residential Medium Density	3,187	7.4
Residential High Density	761	1.8
Commercial	999	2.3
Industrial	3,661	8.5
Institutional	618	1.4
Recreation & Open Space	8,510	19.6
Agriculture	16,860	38.9
Vacant	4,139	9.6
Transportation	2,225	5.1
Utilities	157	0.4
Waste Handling	<u>86</u>	0.2
TOTAL	43,297	100.0

Source: Suffolk County Department of Planning

Based on the Proposed Land Use Plan, the next discussion presents Town-wide future build-out and saturation population estimates and compares them to a baseline residential build-out scenario that would be anticipated under the Town's existing zoning. In this topic, these discussions are interwoven because it provides ready comparisons of the essence of the Plan, what is likely to occur if the Town implements the Plan and what is likely to happen if it does not.

Future Baseline and the Effect of the Plan - General Land Use

Of utmost importance to land use planning is the total land that is developable, for it is this resource that will cast the future of Riverhead. Developable land is land classified as vacant or underutilized land with "transient" uses plus agricultural land with development rights intact. In 1999 developable land amounted to over 48% of the entire land area in Town. In addition to that

existing land so designated on the Land Use Map, all of the agriculturally used, vacant or residentially used and residentially zoned and subdividable parcels shown on the Land Available Map would be converted to residential use. This would result in what the GEIS has termed as "the future baseline", or in other terminology used in this type of analysis, the "No Action Alternative".

The table below was developed by the Riverhead Planning Department and shows that adoption of the Proposed Land Use Plan would reduce the anticipated build-out by about 4,000 to 5,000 housing units and would lower the saturation population of the Town by 10,000 to 11,000 year-round residents. The reduced-density zoning of the Agriculture A, Residence A, and Residence C districts is the primary factor contributing to this reduction.

Residential Build-out under Current Zoning & the Proposed Land Use Plan

	2000 U.S. Census	2003 Housing & Demographic Data ³	Current Zoning Build-out ³	Build-out under Proposed Land Use Plan³	
				No TDR	Full TDR ⁴
Total Housing					
Units	12,479	$14,323^{1}$	23,800	18,700	19,200
- Year-Round Units	11,314	13,034	21,658	17,017	17,472
- Year-Round Households²	10,749	12,382	20,575	16,166	16,598
Total Year-Round Population ²	27,680	30,956	51,438	40,415	41,496

^{1.} The total amount of housing units was calculated by adding 1,844 new privately owned estimated residential units, which were authorized by building permits from January 2000 through April 2003, to the 12,479 units reported by the 2000 U.S. Census.

Sources: Town of Riverhead Planning Department, 2003; Suffolk County planning Department, 2000; U.S. Census Bureau, 2000-2003; LIPA Long Island Population Survey, 2002.

The table also updates the 1999 Suffolk County Planning Department statistical analyses regarding saturation housing units and population. It shows a potential 9,477 additional dwelling units are possible at saturation under current zoning densities for a total of 23,800 dwelling units. This compares to 12,479 dwelling units existing in the year 2000 and 14,323 today. Thus an increase of 66% in the

^{2.} According to the LIPA 2002 Long Island Population Survey, November 2002, Riverhead had 11,223 year-round households and a total year-round population of 28,862.

^{3.} It was assumed that the percentages of seasonal housing units, year-round households, and average household size would be the same at saturation as it was in 2000.

^{4.} The "Full TDR" assumes that one-half of all transferred development rights will be residentially absorbed and the other half will be commercially absorbed.

number of dwelling units is possible if all the developable land in Riverhead were to actually be developed. This is of course a theoretical number, but it does dramatically illustrate the order of growth facing the Town. Later sections of the GEIS further discuss development at saturation for each land use topic.

In the column "Build-out under Proposed Land Use Plan," two build-out estimates are shown. One of the key recommendations of the Proposed Land Use Plan is to establish an Agricultural Overlay Zone (AOZ) that would result either in: (1) on-site cluster development based on 80,000 square foot lots; or (2) the transfer of development rights, where one development right equals 43,560 square feet of real property. The number on the left assumes that all landowners in the AOZ choose to build on-site and do not transfer their development rights. The number on the right assumes that all landowners in the AOZ would choose to transfer their development rights and fully participate in the TDR program.

The "Full TDR" scenario of the Proposed Land Use Plan results in a slightly higher build-out estimate than the "No TDR" scenario. This is because the Plan assumes that approximately 50 percent of the development rights would be translated into commercial floor area in Enterprise Park and the Town's business districts, and 50 percent of the development rights would be absorbed into the residential receiving areas. In general, a "Full TDR" build-out estimate would be higher than a "No-TDR" scenario because property owners in the AOZ would be granted a higher development yield calculation for TDR than they would otherwise by being permitted to build on-site within the AOZ.

The Plan is not dependent on the 50 percent assumption however. There is sufficient flexibility in the sending area/receiving area ratios to absorb the full capacity of development rights in the AOZ, so that a wide range of scenarios are achievable. The potential to convert residential development rights into commercial or industrial floor areas or recreational space in the Planned Industrial Park and Planned Recreational Park Districts, and into increased floor area in the Destination Retail and Commercial Residential Campus Districts provides excess capacity to absorb the full number of development rights.

The Plan further states that at an average annual growth rate of 2 percent, the Town would reach its saturation population, the future baseline, by about 2017 under the Proposed Land Use Plan. However, if the population growth rate slows down to 1 percent a year, which is more consistent with the County average annual growth rate of 0.7 percent, then Riverhead would not reach its saturation population until about 2033. In the year 2013, one decade after the completion of the Plan, expected population would fall in the range of approximately 34,200 persons at a 1 percent growth rate and 37,700 persons at a 2 percent growth rate.

Assuming that the Proposed Action is taken, the population in 2013 may even be somewhat less, depending on the amount of development rights that were transferred or purchased for preservation to that point. Recognizing the current (or soon to be current) population to be 30,956 people, the one-decade projected growth looks moderate.

Although, as stated, it is very difficult to project with precision the future rate at which development will occur in the Town due to cycles in the housing market currently stimulated by the relative ease of housing financing now at generational lows, and by land availability. It is relatively safe to assume that Riverhead will grow as rapidly, if not more so than any of the other four east end towns.

Regional conditions such as increasing developable land scarcity and traffic concerns on the South Fork, the relative remoteness to (further easterly location) of Southold and Shelter Island, beyond regional major highway access, all place Riverhead in the position of being the first east end town within a commutable distance of all of Suffolk and most of Nassau County. The Long Island Expressway pierces the Pine Barrens to reach the employment centers of central and western Long Island. Development has been forced to leapfrog the Core Preservation Area of the Central Pine Barrens in Brookhaven to the Compatible Growth Area and beyond, probably an unforeseen and unintended impact of the State legislation, into the farmlands of Riverhead. Also, as the Town develops its Enterprise Park industrial base and destination retail shopping along Route 58 and its diversifying downtown business district, it will also become more attractive as a place to live, shop and work.

Plan Recommendations Summary - General Land Use

The general land use recommendation in the Comprehensive Plan states "Adopt a land use plan for Riverhead that embodies the goals and policies of the Comprehensive Plan". It also states that the Town should adopt the Proposed Land Use Plan as the basis of Town's new zoning map and update the Town Code to include the zoning district recommendations of the land use element. Key principal recommendations are as follows:

 The Town's agricultural greenbelt should be preserved to the greatest extent possible, through the use of cluster subdivisions, transfer of development rights, purchase of development rights, and other preservation mechanisms.

- The zoning for business districts should be amended to better address various types of commercial demand and downtown revitalization efforts. Downtown zoning, as well, should be tailored to support the unique historic character of Main Street.
- Business district zoning along Route 58 should be expanded to allow "destination retail" uses at the western end of Route 58, while the zoning along other parts of the corridor should be amended to be less intensive. This will help create smaller, but more concentrated commercial nodes.
- The zoning of the hamlet centers should be amended to limit sprawl.
- A variety of recreational, business, light industrial, and open space uses should continue to be permitted in Enterprise Park at Calverton.
- A mix of light industrial and recreational uses should be permitted between Enterprise Park and the terminus of the Long Island Expressway.
- Higher-density housing should be concentrated around the downtown areas, hamlet centers and upon appropriate parcels in the vicinity of the proposed Destination Retail District. Under the TDR program, low- to moderate density housing should be also be permitted north of Sound Avenue, to take advantage of the unique housing demand in that area.

Probable Impacts - General Land Use

It bears repeating that the probable impacts of the Proposed Action reflect the expected environmental setting as of the year 2022 with the Proposed Action in place as compared to the future baseline condition (without the Proposed Action).

Under the Proposed Land Use Plan, the concentration and distribution of future development would be different from current Town zoning patterns. Under the "No-TDR" scenario, future development in the AOZ would be poly-nucleated (cluster subdivisions in nodes). Under the "Full TDR" scenario, the build-out of the AOZ would be theoretically ended, with corresponding increases in development north of Sound Avenue (see later discussion), in and around hamlet centers, in and around downtown, along Route 58, and in Enterprise Park.

Density Reductions and Transfers of Development Rights

All new as-of-right development in Residential A, Agriculture A and parts of the Residence C District will decrease in density by one-half from 40,000 square feet

per dwelling to 80,000 square feet per dwelling. This will affect 7,492 acres in the AOZ according to the data calculated by the Suffolk County Planning Department in the 2001 report on sending and receiving areas in Riverhead. The Town Planning Department calculates that today 5,030 acres of this land are actually developable. The density reduction in these districts of the AOZ will reduce ultimate build-out by some 4,000 to 5,000 dwellings and ultimate population by 10,000 to 11,000 people.

The AOZ - A TDR program is a central recommendation of the Plan. In the most extreme case, up to 5,030 dwellings (one per acre) can be transferred from the AOZ into the several receiving zones according to the Plan. They may wind up anywhere without some limits built into the process to prevent significant adverse impacts in the receiving zones.

It is recognized that not all potentially transferable development rights will actually be transferred. It is also recognized that some will be converted into commercial and industrial floor area. The Plan assumes that half of these rights will be so converted. As the section to follow on agricultural land use touches upon, some farmland owners will still prefer to develop the land they own, in whole or in part. Farmland development rights for transfer may originate from anywhere within the AOZ. The danger is that by a patchy and significantly incomplete application of the TDR technique, even when coupled with mandatory clustering of residential developments to preserve farmland, particular locations may look neither like cohesive residential neighborhoods nor like part of a farming region.

Therefore upon adoption of the Proposed Action, the Town Planning Department should embark on a "block study" program. This program would sketch out a logical configuration of development for each contiguous block of unprotected farmland, building upon already protected farmland within the block to arrive at a maximum contiguous farmland acreage with residential nodes comprised of residential clusters both adjacent to each other and to protected farmland or open space. This would put the Town in a pro-active position with respect to a TDR program in the real world.

North of Sound Avenue – Land available for development in this receiving area now totals 2,160 acres according to the Town Planning Department. Density reduction recommended by the Plan would lower the as-of-right increase in this receiving area from 1,728 dwellings (the future baseline) to 864 dwellings. (The future baseline density is the existing zoning density in the Residence A and Residence C Districts of 40,000 and 20,000 square feet of land area per dwelling respectively; the Proposed Action would reduce the base density in half in each district before receiving transferred development rights).

The maximum theoretical TDR shift into this receiving area (the "worst case" analysis) would add an additional 2,592 dwellings to the 864 dwellings for a total of 3,456 dwellings. This number results because the potential receiving area density is stated in the Plan not to exceed 20,000 square feet of land per dwelling. Since this area is in Hydrogeologic Zone VIII, it allows residential dwelling densities up to the equivalent of one dwelling per 20,000 square feet. Thus, a gross density of 1.6 dwellings per acre in this receiving zone would result. (Article 6 of the Suffolk County Sanitary Code would permit higher densities only with a sewage treatment facility. Sewage treatment in this receiving area is not proposed by the Plan or assumed in this analysis for this district. Individual projects may propose it in the future. Such proposals would be subject to SEQR review at that time).

The full increase of 2,592 dwellings over the future baseline represents a density shift from the AOZ to the south in the central farm belt to north of Sound Avenue. This increased density will be generally spread across this receiving area in Residence A and Residence C Districts at the theoretical maximum. However, it is likely that this theoretical maximum will not occur. Nevertheless, should it occur in the future it may create impacts in certain locations.

For example, commuting and shopping traffic to and from north of Sound Avenue to Route 58 and downtown Riverhead could be expected to congest at weekday peak hours and on Saturday mornings at intersections with Middle Road. The Roanoke Avenue and Osborn Avenue intersections with Middle Road will likely need safety and/or turning lane improvements. Church Lane, already used as a connector to Sound Avenue, would also see increased traffic. Its intersections with Phillips and Tuthills Lane will probably need improvements. The preservation of the Keyspan property makes traffic impacts further east unlikely. Northville Turnpike and CR 105 would continue to be major traffic movers with sufficient capacity to withstand this increase. The intersection of Northville Turnpike and Route 58 may need to be studied however. Sound Avenue improvements are already discussed in the Plan and later in the GEIS.

Riverhead Hamlet Receiving Area – Land available for development in this receiving area amounts to 249 acres. Density reduction in the Riverhead hamlet receiving area lowers the as-of-right level by only 15 dwellings as only 38 acres of Agricultural A exist in this area. Thus full TDR into the Agricultural A portion of this receiving area will add only 30 dwellings beyond the future baseline increase of 484 dwellings.

The Sewer District serves the Riverhead hamlet receiving area so it is possible for it to absorb more dwelling units and conversion to commercial floor space.

However, only receiving area residential market conditions, or converting AOZ residential development rights to downtown commercial floor area will be the ultimate determinants of how many AOZ development rights will be proposed for transfer. Even this being acknowledged, it is still not anticipated that this type of transfer would create significant adverse impacts in the Riverhead hamlet due to existing infrastructure investment.

EPCAL Industrial Receiving Area - Land available for development in this receiving area amounts to 920 acres. Residentially developable land in the industrial receiving area is miniscule, less than 30 acres. The industrially zoned developable land measures this receiving area's receiving capacity. It is this potential industrial expansion that can absorb 1,336 residential development rights from the AOZ. Few adverse impacts expected because of the significant infrastructure investment already in place, its location relative to the regional highway network and rail access.

Planned Recreational Park Receiving Area – Land available for development in this receiving area amounts to 1,273 acres. It has the potential to absorb 1,848 residential development rights from the AOZ. It shares the same locational characteristics as the industrial receiving area.

Aquebogue and Jamesport Receiving Areas - These receiving areas were not studied in the 2001 County Planning Department study, but figures from the Town Planning Department indicate that 720 developable acres exist and have the theoretical potential to absorb a similar number of development rights over the future baseline using the same analysis methodology as in north of Sound Avenue. The number of development rights arising from the Proposed Action as compared to the future baseline is probably no more than 500 in Aquebogue, and the balance in Jamesport, all north of Route 25. This level does not appear to create significant adverse impacts on these hamlet centers, and in fact may benefit the shopping, eating and recreational opportunities available in the hamlets, reducing the number of daily shopping trips to downtown and Route 58 or Mattituck.

Other land use recommendations will result in more compact development patterns. This overall condition in the horizon year will be more favorable than current trends extended to the future baseline. These general land use recommendations will result in a more acceptable future for Riverhead with a better quality of life for its residents. By encouraging compact development around downtown Riverhead and its hamlet centers, there will be greater opportunities for walking, biking, and transit, while reducing automobile-dependency in the future. Through preservation efforts in agricultural areas and more concentrated business district zoning on Routes 25, 58 and elsewhere, the

potential for sprawl is reduced. In general terms, no significant adverse general land use impacts are anticipated from the Proposed Action particularly in comparison to the future baseline.

2.1.2 Agricultural Land Use

The importance of Riverhead's farmland cannot be understated. Put into a regional perspective, an appreciation of this statement is apparent. In the 26 year period from 1968 to 1996, Suffolk County lost over 28 percent of its farmland acreage, averaging about 1,300 acres per year.

As shown in the table below, even though Riverhead has also lost farmland in this period, it has lost it at a slower rate while increasing its agricultural ranking in the County. In 1968, Riverhead had 30 percent of the County's farmland (19,550 acres). In 1996, despite an almost 10 percent drop in its agricultural acreage, Riverhead had 38 percent of tile County's farmland (17,662 acres). It did a better job of retaining its farmland than any other town in the County, except Shelter Island, whose increase in farmland is due to its own unique circumstances. The farmland acreage figures indicate that Riverhead has a critical role to play both in the protection of prime agricultural lands and to sustain the critical mass necessary for the farm economy to survive on eastern Long Island.

Suffolk County Change in Farmland Acreage, 1968-1996

			Change in Total Acres 1968-1996		
					Annual
Town	1968	1996	Number	Percent	Average
Babylon	370	7	-363	-98.1%	-13.0
Brookhaven	11,560	6,439	-5,121	-44.3%	-182.9
East Hampton	2,420	1,672	-748	-30.9%	-26.7
Huntington	4,170	1,294	-2,876	-69.0%	-102.7
Islip	640	136	-504	-78.8%	-18.0
Riverhead	19,550	17,662	-1,888	-9.7%	-67.4
Shelter Island	80	156	76	+ 95%	2.7
Smithtown	1,240	338	-902	-72.7%	-32.2
Southampton	12,450	8,617	3,833	-30.8%	-136.9
Southold	11,920	9,820	<u>-2,100</u>	<u>-17.6%</u>	<u>-75.0</u>
Suffolk County Total	64,400	46,141	-18,259	-28.4%	-652.1

Source: Suffolk County Planning Department.

The combination of strong economic growth in the period from 1968 to 1996, the growing scarcity of land, and the intense housing demand on Long Island over this period created pressure for new development. With a demonstrated conversion rate of 1,454 acres per year over the last ten years, Suffolk County farmland is shown to be under particular pressure to develop. That pressure is keenly felt in Riverhead.

The Plan's main vision for Riverhead's agricultural industry is that it will continue to play a leading role in the Town's economy and shape the Town's character and way of life. The Town should work with farmers and landowners to support farm business and promote farmland preservation, and the Town should do so in a manner that respects private property rights and ensures flexibility and choice in the use of farm property.

Future Baseline - Agricultural Land Use

The future baseline condition of agricultural land use can be readily seen as an extension of the present, a build-out of the present zoning map on land available for development. Conversion of farmland to residential development at a one acre per dwelling density across the broad farm belt between Sound Avenue and Route 25 east of Wading River and Calverton to the Southold Town line would continue. Dictated by market conditions, punctuated by the Town's purchase of development rights program, farmland acreage losses will likely continue at the historic rate of roughly 100 acres a year. Not just the strong housing market, but relatively strong economic growth on Long Island in spite of the current uncertain conditions, the scarcity of developable land elsewhere, particularly on the South Fork, and rising land values in relation to crop productivity all exert pressure on farmers to sell their land.

On the other hand, recent improvements in the Town and County's purchase of development rights programs have lessened the decline in farm acreage, and coupled with a continuing stream of Community Preservation Program transfer tax funds, the future of farming itself in Riverhead is not as bleak as it would otherwise be. But given the County's present difficult fiscal situation and whether the revenue stream from the transfer tax program will be sufficient alone to compete with dollars available from the development marketplace is very debatable. Such questions now give urgency to the planning efforts underway in Riverhead to deliver more and better tools to contend with development pressure from the market side of the land use equation.

Plan Recommendations Summary - Agricultural Land Use

Chapter 3, the Agricultural Element of the Plan, in conjunction with Chapter 7, the Economic Development Element, lays out strategies for preserving farmland and supporting the local agricultural industry. The strategies contained in these chapters are based on a detailed analysis and understanding of current trends in the agricultural industry, as well as extensive outreach to the Riverhead farming community.

There are three primary goals of the Comprehensive Plan with regard to agriculture. The focus of the agricultural element is in fact the first goal: how to preserve land in a way that minimizes any potentially negative impacts on land values. The other two goals are referenced in Chapter 3, but also addressed in other chapters. The second goal to promote the agricultural economy is specifically discussed in Chapter 7, the Economic Development Element. The third goal to promote rural character is addressed indirectly in all chapters and directly in Chapter 5, the Scenic and Historic Resources Preservation Element.

The three primary goals with regard to agriculture are listed below, and are to be achieved through a combination of zoning amendments, funding initiatives, and economic development strategies as more thoroughly discussed in the Plan, but highlighted in the discussion below on the eight supporting goals.

1. Protect the agricultural land base, while maintaining equity value for landowners.

The key to maintaining agriculture in Riverhead is the preservation of the agricultural land base. As the economics of farming evolve and the demographic makeup of the farming community changes, preservation of the current agricultural land base will sustain farming for future generations. If farmland is converted into residential, commercial, and industrial development, farming is no longer possible. Thus, preservation of the agricultural land base is the foundation upon which the Comprehensive Plan is based.

The agricultural land base of Riverhead is under considerable pressure for conversion over time to residences and golf courses. The Town and County purchase of development rights programs (PDRs) have been able to preserve a large fraction of the existing agriculturally zoned land to date. Compared with East End neighbors Southampton and East Hampton, fragmentation of Riverhead's agricultural land has been minimal so far, but development trends suggest that fragmentation may become more of an issue for the agricultural community in the near future. Given the high land values, there will be a limit to

the amount of land that can be preserved via purchase alone. A variety of regulatory, incentive-based, and funding strategies will be necessary.

Farmers and landowners are dependent upon the value of their land for long-term financial security. For this reason, it is not enough to strive for farmland preservation, but also to present landowners with a multitude of options that maintain the equity value of their land. Providing choice gives landowners an alternative to development as a way to realize financial gain.

2. Foster the local agricultural economy.

Although the Town cannot single-handedly support the agricultural economy, it can adopt policies that allow farmers the flexibility to market their goods in a variety of ways, financially benefit from the sale of development rights and easements, and allow necessary agricultural support businesses to remain in operation.

In order to support the local agricultural economy, the Town needs to adopt flexible zoning standards for farms and engage in a wide range of economic development activities. The issue of affordable housing for farm laborers is another related issue.

3. Maintain and preserve the rural character and heritage of Riverhead.

The character of Riverhead is defined by agriculture. Historically, Riverhead has been the center of Long Island agricultural production and today accounts for nearly 40 percent of Suffolk County's remaining farmland. The culture and character of the Town evolved around the industry of agriculture. Citizens and officials have spoken of the critical need to preserve the rural character of the Town of Riverhead.

The rural character of Riverhead is not just a visual nicety; it is an economic asset. Agro-tourism, for example, is able to thrive, because the rural scenery is so attractive to visitors. While many new residents move to Riverhead for its rural and scenic character, uncontrolled and leapfrog residential development threatens to fragment the agricultural landscape and put further pressure on farmland to be sold, subdivided, and developed. This could compromise the Town's unique qualities and thus limit the Town's future economic possibilities.

Supporting goals and policies are detailed in Chapter 3 of the Plan. They are both of the tried and true nature and contain innovative features as well. Some proposed policies will take time to digest and perfect. Others should be adopted even if the Proposed Action is not adopted in its entirety itself at the outset. These goals are now discussed in turn.

4. Reduce the amount of development in those areas of Riverhead where agricultural activity is currently concentrated.

In order to do this, as discussed in the Comprehensive Plan and in the GEIS introductory and summary section, the minimum lot size in the Agriculture A Residence A and Residence C zones is to be increased from 40,000-square foot to 80,000-square foot lots. To encourage further density reduction for farmland preservation, it is proposed to allow fast-track review for "Agriculture Opportunity Subdivisions," in which the density yield has been voluntarily reduced and the subdivision is laid out for large-lot development.

A landowner within the AOZ would have the option to choose either large-lot development with "fast track" approval or the standard subdivision review process for cluster development. A voluntary large-lot development project, the Agriculture Opportunity Subdivision, would be exempt from the clustering requirement, but would be required to have minimum lot sizes of 11 acres. Much of the procedural requirements for denser profit-driven subdivisions would be eliminated for an Agricultural Opportunity Subdivision. The Town should consider adding these subdivisions to its Type II SEQR list of actions.

5. Target farmland preservation efforts to Riverhead's agricultural greenbelt, which is the general area between Sound Avenue (on the north) and Route 25 and Middle Road (on the south).

The AOZ is to be based on the boundaries illustrated on the Proposed Land Use Plan. The AOZ creates incentives for landowners to keep their land in an agricultural use, while making development less appealing. This is done by increasing the regulations pertaining to development, while adding flexibility to the agriculture-related regulations.

Other policies recommended are to establish an AOZ Oversight Committee, which would serve in an advisory capacity to the Town Board. Because of the complexities involved with the cluster technique and the TDR program, the Town should endeavor to educate property owners about these new programs. The Town should consider a variety of outreach mechanisms in the years after the adoption of the Comprehensive Plan to keep it current.

6. In Riverhead's agricultural greenbelt, concentrate development into compact nodes, while preserving the surrounding open space for agricultural use.

For cluster development in the AOZ, the Plan recommends a significant portion of the original parcel to be protected as a permanent open space preserve. As a component of a cluster development ordinance, it is preferable to establish a minimum percentage of the tract to remain undeveloped. The Plan recognizes that a flexible policy has the ability to deal with wooded areas, poor soils, slopes and other landscape features.

The Town should exempt small, farmed parcels from the cluster requirement. Generally, the smallest farms are about 10 acres in size (minimum farmland parcel eligible for farmland tax assessment by Suffolk County). Since the primary intent of the cluster provision is to preserve farmable land areas, it would be unnecessary to force the requirement upon lots of less than about 15 acres in size. If the Town decided to exempt such lots, it should also address the potential problem of segmented subdivisions, where a large landholder might try to subdivide a big tract into 15-acre parcels that are then developed individually in a non-cluster fashion. If this cannot effectively be prevented, then the exemption should not be permitted.

Areas within the AOZ east of Roanoke Avenue are located in the County's Groundwater Management Zone IV, which allows individual septic systems on 20,000-square foot lots. In the AOZ west of Roanoke Avenue, 40,000-square foot lots are required for individual septic systems. Thus, in the western part of the AOZ, clustered lots of less than 40,000 square feet would generally not be large enough to have individual septic systems due to Sanitary Code restrictions.

Very limited non-agricultural use of the agricultural parcel in the AOZ should be allowed in the clustered subdivision as the primary intent is to preserve it as active agricultural land. Such land should be owned by or leased to a farmer for cultivation or pasture. Some compatible uses such as historic structures, sites for active recreation and walking and biking trails could be permitted however on the parts of the preserve not farmed.

Golf courses should not count toward the open space requirement in clustered subdivisions in the AOZ. Golf courses should not be permitted within the open space preserve, because they do not keep the land available for agricultural use. Although golf courses can be less polluting than agricultural uses (i.e., same or lower use of pesticides), the conversion of open space to golf courses virtually ensures that the land will be permanently removed from the available pool of farmable land. This would further reduce the ability of the agricultural industry to remain and prosper in Riverhead.

7. Transfer development rights out of Riverhead's agricultural greenbelt.

The boundaries of the TDR Sending and TDR Receiving zones should follow the boundaries illustrated on the Proposed Land Use Plan. Of course the two critical components of a TDR program are the sending and receiving zones which have been discussed above. As shown on the Proposed Land Use Plan, the TDR Sending Zone is the same land area as the AOZ. All of the TDR Sending and TDR Receiving zones are located within the Riverhead Central School District, avoiding any potential problem that might have been associated with the transfer of development rights across school boundaries.

The prices offered for development rights will be determined by the marketplace. Importantly, interest in TDR purchase (and thus price) is largely driven by real estate demand in the *receiving zone*. A TDR program is most successful in areas where the receiving zone has an extremely strong real estate market, where the profit potential from additional development is high. This is the main reason for which the TDR receiving zone has been concentrated in the area along Sound Avenue, which is expected to have a very high potential demand for residential development. The Route 58 corridor and Enterprise Park are also expected to be high-demand areas, where property owners would be willing to actively seek out development rights for the purpose of building additional commercial square footage.

TDR, in its ideal form, can operate entirely within the auspices of the private real estate market. That is, a willing TDR buyer with property would seek out a willing TDR seller. However, in many parts of the country, TDR programs have also made use of a public entity that functions as a TDR bank or clearinghouse. That is, the public entity purchases and holds on to development rights with the long-term intent of selling them off to a private property owner. Therefore, the Town can act as a "market maker" and a brokerage to facilitate the TDR process. The Plan recommends that the Town should establish a TDR bank or clearinghouse that can purchase, hold, and later resell development rights from the AOZ.

Again, it bears repeating that as an incentive for selling development rights, property owners in the AOZ should be provided with a higher development yield calculation for the purposes of the TDR than they would otherwise be permitted to build on-site. This would further encourage the transfer and utilization of TDR's. The number of *transferable* development rights would be equal to the total number of acres in the tract (one per 43,560 square feet). The number of *buildable* lots would be the number that could be accommodated on the site in a conventional subdivision of 80,000-square foot lots.

With clustering in the AOZ, these lots would be concentrated on 40 percent of the tract area on 30,000-square foot lots. To precisely determine the yield that would result from the 80,000 square foot lots, the Town should require that conceptual subdivision plats (yield maps) be done. A landowner would have the right to do a mix of development and transferring, provided that a portion of the site is preserved by a permanent deed restriction that reflects the size of any partial sale.

A formula for converting residential development rights from the AOZ into commercial floor area that can be used in TDR Receiving Zones with underlying commercial districts has been established at one development right per 1,500 square feet. Other conversions and incentives involve increasing height limits for office use on Route 58; increasing the floor area ratio and lot coverage in the Planned Industrial Park and Planned Recreational District; allow for higher residential height limits north of Sound Avenue; allow for higher densities in planned retirement communities; and allow increased lot coverage in the Destination Retail Center and Commercial/Residential Campus Districts. All of these measures will increase the viability of the TDR program.

8. Continue to use public funding to purchase development rights in Riverhead's agricultural greenbelt for the purpose of open space preservation.

The Town of Riverhead already has enacted a Town Purchase of Development Rights (PDR) program and cooperates with Suffolk County in the County PDR program. The Town Board should continue to pursue an aggressive program to acquire agricultural lands and open space and promote public and private conservation strategies. The Town should continue to explore a wide variety of local, State, County, foundation and non-profit funding sources that can be utilized for purchasing farmland or development rights for the purpose of permanent farmland preservation. The Town should also coordinate and pool resources with County and State agencies, private entities, and non-profit organizations for the purpose of purchasing development rights.

A local Installment Purchase Program would assist participation in the PDR program by spreading out the capital gains tax liability. Local property owners should be encouraged to consider voluntary donations of farmland to the Township, County, State or to a foundation or non-profit organization for the purpose of permanent farmland preservation.

Finally, areas from which development rights have been purchased, to ensure that they remain free of development and are being used for their intended purpose. Stewardship of the protected resource is essential for confidence in the program.

9. Help promote Riverhead's agricultural industry and products.

Regulatory techniques, used on their own, are not sufficient to protect the long-term future of agriculture in the Town of Riverhead. Therefore, it becomes increasingly important to couple regulatory tools with market and incentive based programs that work to preserve agriculture.

10. Reduce the potential for excessive golf course development in Riverhead's agricultural greenbelt, and ensure that golf courses are environmentally friendly.

Golf courses provide important open space and recreational values, which have proven to attract high-end residential development to the vicinity. This should be permitted but on a limited basis in the AOZ with increased development rights preserved.

Further, one of the main drawbacks of golf course development has been the potential for groundwater or surface water contamination resulting from intensive use of pesticides and herbicides. Golf courses are permitted within the AOZ, but a golf course is considered "development" rather than "open space" and thus does not count toward the open space requirement cluster development areas. However, limited golf course development in the AOZ that meet high standards for environmental quality can be allowed. Environmental policies and regulations intending to reduce the potential environmental impacts from golf courses are detailed in Chapter 4, the Natural Resources Conservation Element.

Excessive water use is another problem associated with golf courses. Golf course maintenance often requires daily irrigation, particularly in times of drought. County Health Department regulations should continue to be enforced to ensure that new golf courses are not exceeding daily water use limits. To strengthen these regulations, it is recommended that the Town adopt regulations requiring the use of Integrated Pest Management (IPM) techniques for course maintenance. In addition, the Town should endorse that require golf courses to limit water usage and to monitor water quality and the impacts from chemical applications upon water quality. Also, golf courses should be required to utilize stormwater Best Management Practices (BMPs) such as extended wet and dry detention ponds, wastewater recycling and reuse. Environmental standards related to golf courses are discussed in more detail in Chapter 4, the Natural Resources Conservation Element.

11. Protect the family farm.

The Town should consider allowing streamlined review for certain types of subdivisions on family farms. The Town should also consider allowing farm operations to have small secondary or accessory businesses, subject to certain restrictions, that can provide supplementary income for the farm operation.

Probable Impacts - Agricultural Land Use

Probable impacts of the Proposed Action on agricultural land uses would of course be positive. If all of the potential 5,030 development rights were transferred from the AOZ to elsewhere, today's prevailing environmental setting would also portray the full implementation of the Plan. But that will not happen. Some farmland owners will choose to develop clustered residential subdivisions at an 80,000 square foot per dwelling density, at full density or at less than full density. Some will choose the agricultural opportunity subdivision option. There inevitably will be some additional residential development within the AOZ.

From a broad perspective then, the Proposed Action will not have an adverse impact on agricultural land use. However, from a locational perspective, incomplete use of the TDR technique may produce less than an optimum development relationship between protected agricultural land and new residential development as described in the earlier discussion on general land use.

Possible results of a significantly incomplete TDR program may be visual incongruities, and local traffic congestion or safety related issues at farm road intersections or farm stand locations. This situation would not exist with a total TDR program, because in theory there would be no new residential development within the AOZ, so there would be no opportunity for these issues to arise. In the future baseline condition, theoretically all remaining farms would be developed, therefore residential development would predominate over farmland. The visual environment would approach suburbia, that is to say few long range or expansive farm vistas would remain, and fewer, or at least no new farm stands, would exist to create local traffic conflicts. Local street intersections would be "improved" to modern standards of capacity and safety maximization. The proactive block study technique would go far in ameliorating the potential effects of a significantly incomplete TDR program.

2.2 Water Resources

This section will address groundwater resources, surface waters and wetlands. With regard to future baseline conditions, the GEIS will note any significant impacts that are expected. Any potential impacts of development under the Proposed Action on groundwater and surface water quality will be examined. Whether the Proposed Action would affect possible sources of groundwater or surface water body pollution with respect to stormwater runoff, will also be examined.

In general, since less development is likely to result from the Proposed Action, there is expected to be an overall decrease in the demand for potable water and sewage treatment facilities as compared to the future baseline condition. Such impacts will be again be addressed at the site-specific project level.

Groundwater Resources - Hydrogeologic Zones

The groundwater beneath Long Island resides in three distinct aquifers that overlay one another at different levels. It is one of the region's most important natural resources, since it is the sole source of the region's drinking water. The three aquifers, in descending order of depth, are the Upper Pleistocene (or upper glacial), the Magothy, and the Lloyd Sand. These aquifers overlay one another and are composed primarily of sands and gravels. Most wells are driven into the top two layers, the Upper Pleistocene and the Magothy formations. Precipitation over the Central Pine Barrens recharges both these aquifers. The aquifers draw their entire recharge from precipitation, which averages about 42 inches annually. Recharge to the aquifer system under normal precipitation conditions is calculated to range from 22 to 26 inches per year, with recharge patterns reflecting precipitation patterns. Under present conditions of infiltration, groundwater recharge is over 15 billion gallons of water annually across the Town.

Almost all supplies of water for individual and municipal facilities in Riverhead are drawn from these aquifers by drilled or driven wells. Riverhead's climate and geology result in plentiful and easily obtainable groundwater throughout the town. However, as development has increased on Long Island, its groundwater has been threatened by pollution. Since this could threaten the Town's and the entire region's drinking water supply, various plans and regulations have been adopted to ensure that inappropriate development is not permitted to further degrade groundwater quality. Particular concern has focused on the primary recharge areas, where rainfall percolates deeply downward to replenish the aquifers. Within Riverhead, the Central Pine Barrens in particular overlie large parts of the primary recharge areas for the Town's

groundwater supply. Long Island's most critical areas have been designated "special groundwater protection areas" (SGPAs).

As a strategy to provide for regional wastewater management and ensure the protection of groundwater reservoirs, the Long Island Comprehensive Waste Treatment Management Plan, referred to as the 208 Plan, introduced the concept of hydrologic zones that are based upon differences in groundwater flow patterns and related water quality. The Long Island Regional Planning Board has defined eight specific hydrogeologic zones on Long Island. The eight zones fall into two broad categories: one includes the land areas that contribute deep recharge to the groundwater aquifers, while the other includes the land areas that contribute shallow recharge or transmit recharge to surface waters. Three of these zones exist within the boundaries of the Town of Riverhead. Zone III is within the first, more critical category. Zones IV, and VIII are within the second category.

Zone III is an area that has good quality groundwater in both the Upper Glacial and Magothy aquifers. This zone lies south of Sound Avenue and west of Roanoke Avenue and includes a major portion of the Pine Barrens. It is the most critical in terms of groundwater protection. This area is largely farmed, but it also contains Enterprise Park and major commercial developments. It also includes Calverton National Cemetery, and Camp Wauwapex.

<u>Zone IV</u> encompasses the entire area of Riverhead east of Roanoke Avenue. This zone is characterized by extensive farmlands with dense residential communities along the coastlines, including downtown Riverhead.

<u>Zone VIII</u> is located in north of Sound Avenue and west of Roanoke Avenue. A few farms remain, but this area contains many residential subdivisions and public open space and recreational holdings.

According to the SGPA Plan, the best water quality is found in relatively undeveloped, non-agricultural regions of the SGPA. That includes most of the western Riverhead portion of the SGPA in Zone III, the Central Pine Barrens.

Groundwater Resources - Central Pine Barrens

The Central Pine Barrens, as a largely undeveloped forest, helps maintain the water quality of the sole source aquifer that provides drinking water for more than 2.5 million residents on Long Island. Because the soils in the Pine Barrens area are so porous, they are very good at recharging the aquifer. Of course, while this feature makes the Central Pine Barrens an ideal area for groundwater recharge, it also makes the drinking water supply especially vulnerable to the

risk of pollution. Because the soils are so permeable, they are not as capable of filtering contaminants as well as some other soils. Thus, contaminants can enter, and in sufficient quantity, contaminate the aquifer system.

Groundwater Resources – the Regulatory Environment: Central Pine Barrens Comprehensive Land Use Plan

Because of the importance of the Central Pine Barrens, many important laws and policies were adopted at the County, State, and federal levels to protect it from the negative impacts of development throughout the 1970s and 1980s. These initiatives culminated in 1993, when the State adopted the Long Island Pine Barrens Protection Act. The act established a 5-member Central Pine Barrens Joint Planning and Policy Commission and mandated that the Commission prepare the *Central Pine Barrens Comprehensive Land Use Plan*. This plan was adopted in June 1995.

The Pine Barrens plan identifies two regions within the Central Pine Barrens — the Core Preservation Area and the Compatible Growth Area. The Core Preservation Area consists of 55,000 acres (4,720 in Riverhead), in which all new development is essentially prohibited, with limited expansion of existing agricultural uses being permitted. The southwestern corner of Riverhead, south of Swan Pond Road and west of Manorville Road, together with the Camp Wauwapex/Deep Hole Pond vicinity between Sound Avenue and State Route 25 lies within the Core Preservation Area.

The Compatible Growth Area consists of 47,500 acres (5,484 in Riverhead), in which appropriate patterns of compatible residential, commercial, agricultural, and industrial development are permitted. This area is in two segments. One is in the Wading River-Manorville Road area west of Camp Wauwapex and the other is the area encompassing Enterprise Park, Calverton National Cemetery and industrially zoned land in Calverton.

The plan includes a strategy for the public acquisition of private vacant property in the Core Preservation Area, with a goal of purchasing 75 percent of the remaining privately owned vacant land. To accomplish this, a transfer of development rights (TDR) program called the Pine Barrens Credit (PBC) Program has been created. Property owners in the Core Preservation Area may transfer the right to develop a parcel in the Core to another parcel outside the Core. As it implies, development compatible with the Plan is allowed in the Compatible Growth Area.

A principal goal of the Comprehensive Plan is to protect and preserve the ecological integrity of the Central Pine Barrens and the water quality of the

Town's sole source aquifer. This includes full support of the Central Pine Barrens Comprehensive Land Use Plan.

Groundwater Resources – the Regulatory Environment: Suffolk County Sanitary Code

As stated earlier, the Town of Riverhead is divided into hydrogeologic zones. The regulations of the Suffolk County Sanitary Code Article 6 dealing with realty subdivisions have differential effects according to the hydrogeologic zone within which a particular parcel of land may be located. This is because one consideration of the Sanitary Code is the nitrogen loading upon the aquifer in those areas that recharge existing or potential drinking water supplies. This varies by hydrogeologic zone. Because it regulates density of development in unsewered areas, the Sanitary Code sometimes has as much to do with regulating residential density as do the local zoning regulations.

This has relevance to Riverhead because all of its territory west of Roanoke Avenue and south of Sound Avenue lies in the more restrictive Zone III. In Zone III, a single-family residence with an on-site sanitary system but no public water, must have a lot size of a minimum of 40,000 square feet. Elsewhere in Riverhead outside of the sewer district, the minimum lot size may be 20,000 square feet per dwelling. This density is determined by the nitrogen loading permitted for the hydrogeologic zone by Article 6, which is designed to limit total nitrogen in groundwater from <u>all sources</u> to 4 mg/L in Zone III. These sources include sanitary systems, turf (golf courses and lawn grass), agriculture, and pet waste.

Further, according to the Department of Health Services, monitoring well data has shown that turf maintenance and agriculture add differing concentrations of nitrogen to groundwater recharge. According to the Department, golf courses show an average nitrogen concentration of approximately 4 mg/L and agricultural practices can exceed 6 mg/L. Thus it would appear that stand-alone golf courses just meet ground water the recharge standard, while agricultural practices exceed it.

The land use implication is that cluster development that is done to preserve farmland will not be approved by the Health Department at a nitrogen loading exceeding that permitted by Article 6 because of the additional nitrogen loading of the combined residential and agricultural uses on the parcel. Even when reducing the base residential density to 80,000 square feet per lot as is proposed in the Agricultural Element of the Comprehensive Plan for the Residence A District, although the number of sanitary systems is halved, the nitrogen loading is not halved because lawn size increases on each lot. If the lot size in the clustered residential portion of the development is reduced to 40,000 square feet per lot, 50% of the site is preserved and the standard of 4 mg/L in Zone III is

met. However if agriculture adds more nitrogen loading than reduced by lowering the residential density, the overall nitrogen load for the parcel would actually increase. Doing this however still results in exceeding the overall net 40,000 square foot density on the original tract in terms of nitrogen loading. Thus even at a base density of 80,000 square feet per dwelling, far less than 50% of the original site can be used for farming due to the nitrogen loading restriction in Zone III.

The Comprehensive Plan now recommends requiring 60 percent of the original parcel be preserved for farming in the AOZ. A cluster development plan conforming to the zoning density reduction proposed in the Comprehensive Plan would not be approved by the Health Department on a parcel in Zone III at a base density of 80,000 square feet per dwelling when it retained agricultural uses on the earlier recommendation of 70 percent of the parcel. This presented a practical difficulty in implementing this recommendation. The Town Engineer prepared a study and determined that retaining 60 percent in agricultural use and clustering the lots at 30,000 square feet each would achieve Health Services approvability. This subject will be taken up again in the section on alternatives to the Proposed Action.

Surface Water Resources

The surface waters of Long Island Sound and the Peconic Estuary are unique natural and scenic resources that are used for fishing and recreational activities like canoeing, kayaking, sailing, and swimming. Protection of these surface waters from contaminated runoff is critical for the protection of both the fishing and tourism industries. Surface water resources are important economic as well as recreational assets to the community. Local fishermen depend upon the water for their livelihood; fish and shellfish must be safe to eat and must occur in high enough abundance so that fish populations are sustainable. Because of the scenic beauty of the Town's water bodies, many of the waterfront areas in Riverhead attract water sports enthusiasts, as well as hikers, bikers, motorists, and tourists. Thus, from the point of view of the tourism industry, water bodies serve as attractions that draw potential customers. Residential property values are also tied to water resources and their quality. Coastal property is generally valued higher, because of the views.

Nutrient-poor, acidic water and gently sloping shores characterize coastal plain ponds. Most coastal plain ponds are not stream-fed, but are directly connected to groundwater. Pond water levels rise and fall with the water table, reflecting seasonal and annual rainfall patterns. As a result, a unique community of plants grows along the pond shores. Periods of both low and high water levels are essential for their survival. Calverton Ponds Preserve and the headwaters of the Peconic River contain one of the highest concentrations of rare and endangered

species in New York State, with more than 30 rare plants, including three that are globally threatened.

As a result of being connected to groundwater resources, coastal plain ponds and their associated plant and animal communities are extremely sensitive to fluctuations in water levels and to any physical or chemical change in the water, such as increased nutrient loads. Changes in ground and surface water level due to human activity such as building and development could alter the normal hydrological conditions of the ponds and thereby endanger these communities. Even development located at some distance from these ponds has the potential to alter groundwater conditions.

The Long Island Sound and the Peconic estuary system are the two most important surface water systems in the region. The Towns' Local Waterfront Revitalization Program (LWRP) contains plans and programs specific to these coastal water bodies.

Wetlands and Other Resources

Water bodies, particularly those fringed with freshwater and tidal wetlands, serve as critical habitat areas that support distinctive plant and animal populations. Tidal marshlands found along the Peconic Estuary, and along the north shore, perform important ecological functions. They filter water from upland areas, cleanse it of sediments, nutrients and other pollutants, and ultimately release cleaner and clearer water to larger bodies of water. Wetland plants and soils also act as natural buffers between the land and ocean, absorbing floodwaters and dissipating storm surges. These wetland areas help alleviate potential damage to valuable real estate from storm and flood damage. Finally, salt marsh grasses and other estuarine plants help to prevent erosion and stabilize the shoreline.

At the same time, while fresh and coastal water bodies and waterfront areas may be desirable economically and recreationally, they are often some of the most fragile areas from an environmental standpoint. Coastal bluffs found along the Long Island shoreline are also subject to wind and wave erosion due to their unconsolidated composition.

There are significant threats to Riverhead's natural resources, including tidal wetland areas and plant communities. These include displacement from filling; cutting of trees; spread and invasion of exotics; impacts from road runoff; alterations in hydrology; removal of downed wood; loss of surrounding forest integrity; increase in trails; impacts from development and building in surrounding landscape; impacts from recreational use; changes in vegetation due to fire suppression; impacts from residential development (septic tanks); impacts from fertilizer use, weeding, mowing; erosion; and changes in plant and animal

communities due to changes associated with stormwater runoff. Insensitive site planning, poor building design, or badly conceived planning efforts can compromise the beauty and integrity of these fragile and sensitive areas. Landscaping practices of both homeowners and businesses can put these waterfront areas at risk. Chemicals applied to field crops, golf courses, parkland, and athletic fields (i.e., herbicides, pesticides and fertilizers) can also harm a community's water resources.

Future Baseline - Water Resources

The future baseline condition, with due attention to SEQR procedures, is not expected to produce significant adverse impacts as a result of planned land use developments. Possible sources of adverse impacts from individual projects upon these resources are detailed in the paragraph above, but present-day regulations and management methods exist to prevent significant adverse impacts in the areas just described if they are diligently followed.

Plan Recommendations Summary - Water Resources

The Comprehensive Plan recommends improved water resource management and protection methods, as contained in Chapter 4. They are as follows:

- Protect and preserve the ecological integrity of Riverhead's Central Pine Barrens area and the water quality of Long Island's sole source aquifer.
- Protect the quality of ground water and surface waters throughout the Town.
- Limit risk of personal injury or property damage by addressing flooding concerns throughout the Town, but particularly along the Peconic River.
- Limit future increases in impervious surfaces and stormwater runoff.

Probable Impacts - Water Resources

The Proposed Action recommends overall reduced population levels and reduced densities from the future baseline conditions. Full implementation of the Comprehensive Plan's recommendations in the Agricultural Element with respect to cluster development in the AOZ appear to meet the nitrogen loading standards of the Suffolk County Department of Health Services. This will be further addressed later in Alternatives section of the GEIS. Clustering at full density in the AOZ, while preserving 70% of the original parcel in agriculture as recommended in the first draft of the Comprehensive Plan would not have

apparently met standards of the Suffolk County Sanitary Code. The GEIS section on alternatives will further discuss this point.

2.3 Air Quality

The Proposed Action is not expected to create air quality impacts and thus this topic will not be discussed, as stated in the Scoping Document.

2.4 Plants and Animals

The Natural Resources Conservation Element (Chapter 4) describes in detail the woodland, estuarine and other wildlife resource areas of the Town of Riverhead. The discussion below is distilled from that Chapter. In protecting plants and animals, the focus is often on individual species of plants and animals, those that are especially rare, endangered or at risk. However, it is also important to understand that these native species are part of a larger ecological framework, one that is often characterized as a community. The individual species are part of a larger, interrelated whole that involves complex relationships between many species and their surroundings. Plants and animals are woven together into a complex web of food, water, and shelter relationships. Thus, when a particular plant or animal is endangered or threatened, its broader habitat must be adequately protected from adverse impacts in order to ensure the continued existence of the species.

The natural environment of Riverhead includes a variety of unique and highly productive ecosystems, some aquatic and some terrestrial. These ecosystems support a diverse array of living species, including microscopic plants and animals, seaweed, fish and shellfish, crustaceans, birds, sea turtles, and marine mammals (associated with aquatic habitats), as well as trees, flowing plants, insects, amphibians and mammals (associated with terrestrial habitats).

Woodlands

The best known woodland area in eastern Long Island is the Central Pine Barrens region, which as noted, is composed of nearly 100,000 acres of Pitch Pine and Pine Oak forests. Ecologically, the Central Pine Barrens is a mosaic of regionally distinctive, and in some cases globally rare plant and animal communities. A low, flat forest on nutrient-poor, glacially deposited sandy soils, the Pine Barrens region includes a globally rare natural community of Dwarf Pine Barrens. Also found within the Pine Barrens area are Pitch Pine and Pine-Oak forests, Coastal Plain Ponds, marshes, and streams. The Core Preservation Area of the Central Pine Barrens is protected from nearly all future development,

due to its function as a sole-source aquifer recharge area. It also contains habitats for rare, threatened and endangered plant and animal species.

Another important woodland area is found along the shoreline of Long Island Sound in Riverhead. The moraine that forms the Long Island shoreline has a mix of rocky bluffs and sand hills, which extend roughly from Wading River to Northville. Within this stretch of escarpment, one of the most unique areas is found in the area of Baiting Hallow and Friar's Head. The bluffs and woodlands are known for their dwarf beech and maritime woodlands, considered by the NYS Natural Heritage Program to be globally rare. Other occurrences of dwarf beech forest have been found in Wildwood State Park sites about 2 to 3 miles east of Friar's Head.

Native Species

Native plants and animals are an essential part of the ecological, scenic, historic and economic fabric of the community. Protection of native plants and animals promotes ecological diversity, thereby ensuring the survival and sustainability of a wide range of plant and animal species. Native plants and animals are also important as educational and scientific resources. In addition, native plants and animals are part of the scenic and recreational amenities of a region; they provide opportunities for enjoying and observing nature and contribute to the community's unique identity. In many areas, agricultural and landscaping practices introduce "non-native, invasive" species that choke out the more fragile native species. While only a few such plants may be planted, wind, water, birds, or insects easily transfer their seeds to areas with little natural competition.

Riverhead is part of the Peconic Region, which encompasses the watershed of the Peconic Estuary and spans the area between the western edge of the Central Suffolk Pine Barrens to the tips of the North and South Forks. The Peconic Region provides habitat for one of the highest concentrations of rare plants and animals in the state. Of these, 21 species are globally rare. Additionally, the beaches in the Peconic Region provide habitat for two federally endangered shorebirds, the Piping Plover and the Roseate Tern.

Riverhead's estuarine environments including the Long Island Sound and Peconic systems, support unique communities of plants and animals specially adapted to life at the interface between land and water, and between salt water and fresh water. Many different habitat types are found in and around estuaries, including shallow open waters, freshwater and salt marshes, sandy beaches, mud and sand flats, rocky shores, oyster reefs, river deltas, tidal pools, sea grass and kelp beds, and wooded swamps. Estuaries are ecologically diverse and scenically varied environments. The LWRP contains a detailed analysis of these resources and plans and programs to protect them.

Other Significant Plant Communities

In addition to the plant and animal communities described above, there are several other significant native plant communities in Riverhead. These communities, which have been identified and tracked by the New York Natural Heritage Program, are contained in Chapter 4 of the Plan.

Future Baseline - Plants and Animals

Future baseline conditions will likely maintain the present circumstances with respect to planned land developments already subject to separate SEQR reviews. In general however, possible sources of adverse impacts are from development near sensitive habitats and resultant disturbance of vegetation and local hydrology due to poor construction management. Further, long-term impacts may be due to increased or inappropriate recreational usage of sensitive habitats, storm water runoff, or predation. Such impacts, while small in the individual case, have a tendency to produce cumulative effects if they occur in a limited area with a relative frequency. For example trespassing on a nature preserve, even on foot, will create a significant disturbance to some species. Of course the effects of off-road vehicles and skimobiles are even worse.

Present regulatory methods, including SEQR, exist to prevent significant adverse impacts on the wildlife resources of the Town of Riverhead. Implementation of existing plans and programs such as the Central Pine Barrens Land Use Management Plan and the Peconic Estuary Program will provide continuing resource protection within the respective areas of jurisdiction. However, if significant and cumulative adverse impacts on wildlife habitat are to be avoided in the future baseline condition with present regulatory controls in place, a very diligent review process must be maintained.

Plan Recommendations Summary – Plants and Animals

- Protect sensitive, unique and rare habitat areas, including wetlands.
- Preserve the bluffs and sand hills overlooking the Sound and the sensitive woodland and habitat areas found between Sound Avenue and the Sound.
- Continue protection of rare, threatened and endangered plant and animals species.
- Encourage the preservation and planting of native plants and avoid the planting of invasive plants.
- Support natural resource conservation and open space preservation efforts of private property owners, non-profit organizations and other public agencies.

• Increase public education regarding best management practices for natural resource conservation.

Probable Impacts - Plants and Animals

If the Comprehensive Plan recommendations above are implemented to the fullest extent practicable, it would be expected that conditions relative to the future baseline would be improved and that no significant or cumulative adverse impacts are expected as a result of the Proposed Action on the wildlife resources of Riverhead.

2.5 Historic Resources

Riverhead possesses a variety of important historic resources, ranging from expansive views of working agricultural landscapes; to scenic roadways like Sound Avenue; the historic structures and landscape of the Hallock Homestead; the scenic bluffs along Long Island Sound; historic hamlet centers like Jamesport, as well as the historic buildings and compact layout of downtown Riverhead. These resources and features reflect the richness and diversity of the East End's historic, cultural and natural landscape. They also contribute strongly to Riverhead's long-term economic vitality and business development due to their ability to attract visitors and tourists.

Chapter 5 of the Comprehensive Plan contains a general history of Riverhead. This is of course not a definitive collection of historic resources and information, but rather an indication of the kind of information available. In essence, these findings are intended to provide an indication of the status of present research and documentation and some directions for further research. Ongoing research and documentation of the Town's historic resources is essential if they are to be acknowledged and integrated into the Town's planning process. Such research and documentation may best be accomplished through volunteer efforts of interested individuals and organizations, or possibly through consultants. The chronological, thematic, and locational concepts outlined in this element can provide a framework for documentation efforts.

Landmarks Preservation Commission

For nearly 30 years, Riverhead has had a Landmarks Preservation Commission. The Commission may entertain applications designating a structure or place as a landmark, landmark site, or historic district, and can either approve or deny them. Town Board approval is also necessary for the location to be recorded as a landmark, landmark site, or historic district with the Building Department and

the Assessor's office. The Landmarks Commission is responsible for reviewing plans for moving and alteration, construction, alteration or repair, landscaping or demolition of designated structures or sites. The Commission must ensure that changes are visually consistent with historic materials and architectural styles.

Architectural Review Board

The Architectural Review Board (ARB) is responsible for reviewing certain commercial projects (i.e., those subject to site plan review) for the quality of their exterior design. ARB decisions are currently advisory. The ARB however has no specific design standards to follow in conducting its reviews.

Future Baseline - Historic Resources

Future baseline conditions are not expected to significantly adversely impact these resources with existing regulations and regulatory bodies, including the Landmarks Preservation Commission and Architectural Review Board, intact with a full complement of members supported by consultant specialists, if necessary.

Plan Recommendations Summary - Historic Resources

The Plan recommends improved historic resource protection methods, as contained in Chapter 5.

- Continue to identify and document historic resources in Riverhead, and promote public awareness of historic resources.
- Protect identified historic resources from destruction, neglect, or diminishment of character, and encourage the faithful restoration and adaptive reuse of historic structures.

Probable Impacts – Historic Resources

It is anticipated that no significant adverse impacts are likely as a result of the Proposed Action on the historic and archeological resources of Riverhead.

2.6 Aesthetic Resources

Because Riverhead's scenic character helps maintain the Town's economic vitality and overall quality-of-life, it is important to understand the factors that contribute to the scenic character. These include:

Natural Features. Riverhead has unique natural features that are visible from many locations and which contribute to the Town's character. Generally, these include its:

- Hills and Contours.
- Trees and Woodlands.
- Meadows.
- Shorelines, Rivers, Streams, Ponds, and Wetlands.
- Native Plants.

Agricultural Landscape.

Historic Structures and Sites.

Scenic Roads and Corridors.

Older homes, barns, and churches, whether found on individual sites or in small clusters.

Peconic River Waterfront

Future Baseline – Aesthetic Resources

Future baseline conditions without the Town implementing the improved policies, design guidelines and subdivision standards contained in the Plan may be expected to adversely impact the aesthetic resources of the Town. These resources are fragile and once lost, encroached upon or hidden from public view are difficult to restore.

Plan Recommendations Summary - Aesthetic Resources

Chapter 5 of the Comprehensive Plan also catalogues the scenic corridors and significant areas of aesthetic importance in Riverhead and recommends improved aesthetic controls and aesthetic resource protection methods, as follows:

- Protect farmlands, woodlands, grasslands, wetlands, riparian corridors, waterfront areas, geological features, old-grow trees, and other open space areas and natural features that contribute to Riverhead's scenic quality.
- Maintain and increase waterfront access and views.
- Protect the visual quality of scenic corridors throughout Riverhead, and work to improve the scenery along other roads.

Probable Impacts – Aesthetic Resources

Existing regulations and regulatory bodies such as the Landmarks Preservation Commission and Architectural Review Board require improved regulatory

guidelines and standards to improve review and protection of the Towns' visual resources. Thus it is expected that with these controls and methods in place together with professional assistance when necessary, no significant adverse impacts are expected as a result of the Proposed Action on the aesthetic resources of Riverhead.

2.7 Open Space, Parks and Recreation

Riverhead residents appreciate the Town's recreational facilities and open space areas and Chapter 11 of the Plan provides a detailed inventory of these facilities and evaluates the Town's park system. Riverhead has a variety of unique parks, recreational facilities, and beaches. Riverhead has been able to link together the network of wooded lanes, open space, and farmland that occupy large portions of the Town. As Riverhead experiences more development pressure, and as some of the remaining tracts of farmland are inevitably developed, expansion and enhancement of the park system will be critical to maintaining the Town's rural character and quality of life. Likewise, as these parcels are converted to development this task becomes more difficult and expensive. However, parks and protected open space are such an attractive amenity that they can bolster property values for nearby residences, prevent additional municipal cost burdens and over time pay for themselves.

Riverhead is fortunate to have not only Town parks and schoolyards, but also a variety of County and State parks, as well as several public golf courses and quasi-public camping and hunting facilities. In addition, a large portion of Enterprise Park at Calverton and adjacent areas are part of the Central Pine Barrens Core Preservation Area and provide a permanent open space area for residents to enjoy. An inventory of existing park and recreational sites is provided in Appendix G of the Comprehensive Plan.

The Plan states that Riverhead has more than 150 acres of Town-owned parks and recreational facilities. Stotzky Park is Riverhead's main park and recreational facility. Located in the downtown area, it has several tennis courts, baseball/softball fields, football/soccer fields, lawns, and picnic areas, as well as a new skate park. The Armory Building, located adjacent to Stotzky Park on Route 58, provides space for indoor basketball and tennis.

Evaluation of Park Needs - Amount of Parkland

Currently, Riverhead has a relatively large amount of parkland local population levels. If Town, County, and State parks and schoolyards are all taken into account, Riverhead has approximately 71.1 acres of parkland for each 1,000 residents as of the year 2000. Of course, by adding State and County parkland to

the totals also means that the population eligible to enjoy these facilities increases thusly.

The National Recreation and Park Association (NRPA) recommends that a municipality provide between 6.25 to 10.5 acres of parks per 1,000 residents. Riverhead is far above the minimum standard, meaning that it is providing residents with more than enough parkland. However, if Town parks and schoolyards alone are counted by subtracting out County and State parks, then Riverhead has only about 6.6 acres per 1,000 residents. This number is just barely above the minimum NRPA standard. Because most of the Town's active recreational facilities are located in the Town parks and schoolyards, there is a particular need for more of such facilities.

Park Location

Currently, parks are fairly well distributed throughout the Town. Stotzky Park, with the largest concentration of recreational facilities, is located in downtown. Wading River Community Park and South Jamesport Park provide similar facilities on a smaller scale; the former is located in the western half of town, and the latter in the eastern half. Town beaches are also well distributed. The Town's only community center, however, is located in the Jamesport hamlet center, and it is a long trip for residents in the western part of town. If a second community center is to be built, sites in the western part of town should be considered first.

Generally, schoolyards are also well distributed through Riverhead. The largest outdoor recreational facilities are found at the Pulaski Intermediate School, Riverhead Middle School, and Riverhead High School, and these sites are centrally located downtown. Two additional school sites, Riley and Wading River, are located in the western part of Town and serve the residents living in those areas. There is only one school site in the eastern part of Town, the Aquebogue School, whose small site provides a relatively limited schoolyard.

Park Type

Residents need a mix of community parks, schoolyard/neighborhood parks, and small pocket parks, each of which serves a different function. The table below suggests that Riverhead has an abundant number of community parks when it includes County and State parks, which are mostly dedicated to open space suited to passive recreation, such as biking, hiking, boating, swimming, and walking. According to the table, there seems to be a need for more neighborhood parks and pocket parks. As noted, however, there are many pocket parks that have been set aside as part of subdivisions or are maintained jointly by homeowners as private parks. For the future, the issue is not so much to ensure that enough pocket parks be provided, but that any pocket parks that are

provided be placed in the best locations and be well designed and well maintained.

Recreation Facility Needs

As noted, the evaluation of national standards suggests that Riverhead needs additional land for active recreation facilities. Few additional recreational facilities can be squeezed into Stotzky Park, without removing popular picnic areas, lawns, and trees. Having recognized this need already, the Town Board has designated a portion of Enterprise Park as a Public Park and Recreational Area, in order to augment the facilities at Stotzky Park. The Recreation Committee of the Town is planning to develop and plan for this 60-acre area.

Trails and Bikeways

Riverhead has little in the way of trails and bikeways. Trails and bikeways can connect neighborhood, Townwide, and regional parks with natural resource areas, creating a continuous network of parks and open space. They also provide a place for some of the most popular forms of exercise and recreation: walking, running, biking, rollerblading and skateboarding. The advantage of a park network is that most residents live within walking distance of a park, bolstering property values Townwide. Residents can then also use the trails and paths to reach recreational destinations like playing fields and beaches. Also, weather permitting, residents can use trails and bike paths for non-recreational trips, like the commute to work and shopping trips.

Greenways can potentially run along stream corridors. The Downtown Revitalization Strategy calls for an expansion of Grangebel Park, which would include additional trails and bikeways along the Peconic River waterfront. This greenway would run along the south side of West Main Street from downtown to area around Tanger Mall and the terminus of the Long Island Expressway. This area is considered a priority for the acquisition and preservation and open space, for the scenic value it provides along the Peconic River. In addition, as roads are expanded to accommodate additional traffic, there is the opportunity to use underutilized roadway shoulders for pedestrian and bicycle paths.

Waterfront Access

Public access to the waterfront is a major issue. Increasing development pressures along the shorelines of Town threatens to impede future access to the water and the waterfront by the general public. The Town can require developers to provide adequate public access points to the waterfront for the purpose of commerce, navigation, fishing, or even bathing. The LWRP will detail plans and programs dealing with that specific issue.

Future Baseline - Open Space, Parks and Recreation

As the population continues to increase, overcrowding will continued to worsen unless additional recreational facilities are built. Based on the buildout estimate in Chapter 2 under current zoning (the future baseline) the Town's total ultimate population is expected to reach about 51,000. If no additional parkland is added to the Town, population growth will reduce the ratio of total parkland per 1,000 residents from 71.1 to about 38.0. The ratio of Town parkland and schoolyards would be reduced from 6.6 to about 3.0, one-third of the minimum NRPA standard. This suggests that at buildout, the Town will still have an adequate amount of overall parkland to serve itself (and the region), but a deficient amount of Town parkland for its own residents.

To meet NRPA standards for Town parks, Riverhead will need to add another 180 to 400 acres of active parkland to meet NRPA standards to serve the future baseline population, over and above the Town park currently being planned for Enterprise Park. Some of this parkland may be provided by school districts in the form of school yards in conjunction with new school facilities. However, most of it would have to be provided by the Town. Fortunately, the Town has tax revenue from the Community Preservation Program and other funding sources available to purchase open space for the purposes of recreation.

Plan Recommendations Summary – Parts and Recreation

Chapter 11 contains many detailed recommendations for parks and recreation facilities. They can be summarized as follows:

- Provide adequate, well-maintained outdoor and indoor recreational facilities, including expanding Stotsky Park, a community park in Enterprise Park, more neighborhood parks and indoor facilities in Town and semi-public facilities.
- Promote small parks in residential developments.
- Establish a public greenway system with walking, bicycling and bridal trails and develop standards for trail design and maintenance;
- Prepare a greenway acquisition plan and coordinate greenways into subdivision design.
- Coordinate park development with open space preservation.
- Improve public access to parks and waterfront areas.
- Enhance funding mechanisms for parks.

Probable Impacts - Parks and Recreation

Implementing the proposed land use plan will lower saturation population to about 49,000. This would lower the park need according to NRPA standards to between 160 and 360 additional acres beyond what the Town already owns, to serve Town residents at that time. Thus the recommendations of the Comprehensive Plan are expected to decrease the amount of new parkland acquisition required to meet the build out population and the adverse impacts such as overuse, that the existing park and recreation facilities resources would experience under future baseline conditions.

Further, the Plan does recommend additional park planning efforts, improved land subdivision requirements, parkland development in existing and proposed public holdings and more efficient facility use listed above and as contained in Chapter 11 of the Plan. Thus no significant adverse impacts are expected as a result of the Proposed Action on the open space, parks and recreational facilities of Riverhead, especially when compared to the future baseline conditions.

2.8 Transportation

As industry, commerce, housing, and tourism grow in Riverhead, it is inevitable that demands on the transportation system will increase. As is the case on the rest of Long Island and indeed much of the country, auto travel is the mode of choice for an overwhelming majority of travelers, meaning that Riverhead's roadway system will feel the most immediate impacts of growing travel demands. Most auto traffic in Riverhead is currently concentrated along the Route 58 corridor and in the downtown area.

Riverhead experiences a great deal of both local and regional traffic. The Long Island Expressway (LIE or I-495) funnels into Route 58, meaning the eastbound traffic is forced to use either Route 58, Route 25, or the combination of Route 24 and Route 105 to reach points farther east on the North Fork. The Route 58 commercial corridor has been developing and will continue to grow into a destination shopping hub, and the North Fork is becoming a major regional tourist destination. These factors, combined with additional residential and commercial development Townwide, are expected to increase travel demand on all east-west corridors in Riverhead east of the LIE. Traffic is also likely to increase in the Calverton-Wading River area, due to the anticipated development of Enterprise Park at Calverton.

Transportation is a regional issue, and effective solutions require regional cooperation. Town-level transportation planning efforts must be coordinated

with the New York State Department of Transportation (NYSDOT), the Suffolk County Department of Public Works (SCDPW) and the New York Metropolitan Transportation Council (NYMTC). Transit agencies, particularly the Long Island Railroad (LIRR) and Suffolk County Transit, also play a key role in regional transportation issues, and the Town must work closely with those entities in the future.

NYMTC recently initiated the SEEDS study, which is intended to develop a consensus among East End towns and villages regarding future development patterns and transportation investments, with the aim to preserve the area's high quality of life. NYSDOT intends to provide as input to the SEEDS study the preliminary results of the North Fork Recreational Travel Needs Assessment (NFRTNA). The study area for the NFRTNA includes the eastern part of Riverhead, beginning at the terminus of the LIE. The preliminary recommendations resulting from this study have been assembled and are currently being reviewed by that body.

Roadway System

There are approximately 215 miles of roads in Riverhead, including 23 miles of State highways, 14 miles of County roads, and 178 miles of Town roadways. State highways include Route 25, which extends the entire length of the Town, and Route 25A, in western Riverhead. The three major County roads are: Route 43 (Northville Turnpike); Route 105 (Cross River Road); and Route 58 (Old Country Road). Route 54 (Hulse Landing Road), and Route 73 (Roanoke Avenue) account for nearly all of the remaining County road miles in the Town. A detailed description of the Town's transportation facilities and list of highway facilities is included in the appendices of the Comprehensive Plan.

Long Island Expressway (LIE)

The LIE terminates at Route 58 in Riverhead and is the primary route by which travelers from the west reach Riverhead and Southold. As originally conceived, the LIE was intended to terminate at Route 48 in Southold (Sound Avenue turns into Middle Road in Mattituck, at which point it is designated as County Route 48.) The NYSDOT has no current plan to extend the facility beyond its present terminus in Riverhead.

Strictly from a traffic engineering standpoint, the extension of the LIE to Route 48, as originally envisioned, would result in a significant benefit to adjacent surface streets. It would draw much of the through-traffic off of Route 25 and Route 58, and the current use of Sound Avenue and Middle Road as bypass routes would be reduced.

However, there are several good reasons for which an LIE extension is not being recommended as part of this Plan. First, while congestion along Route 58 is a serious problem, the through-traffic that uses Route 58 also brings potential customers into the area, who spend money in the stores and restaurants along the corridor. Diversion of through-traffic could actually harm the financial health of Riverhead's largest and most lucrative business district. Second, the LIE extension would cut through the hearth of Riverhead's agricultural belt, creating additional pressure for both commercial and residential development in an area that is already vulnerable to development. The Comprehensive Plan offers a number of alternative strategies for coping with anticipated traffic increases along Route 58 and other east-west routes.

State Route 25

Route 25 is a two-lane east-west highway that extends from Manhattan to Orient Point. Approximately 17.5 miles of Route 25 lie within Riverhead. The eastern and western portions of the Riverhead portion of Route 25 are relatively undeveloped, with the central portion running through the highly developed area of downtown Riverhead.

Traffic along the westernmost portion of Route 25 will increase as Enterprise Park is developed as Route 25 will provide access to the main entrance of Enterprise Park. The FEIS for Enterprise Park suggests widening of the entire roadway segment will eventually be needed. According to the NYSDOT, an increase in peak hour traffic volumes of only 1,000 vehicles would trigger the need to widen Route 25. Thus, widening would be required well before Enterprise Park is built out to its full potential.

Capacity deficiencies in the central portion of Route 25 are not apparent. That is, traffic flows relatively free of congestion. The Peconic River, which is included on the list of waterways protected by the Wild and Scenic Rivers Act, is in close proximity to the south of this section of Route 25. Since the Act prohibits nearly all types of development within 500 feet of a protected river, development opportunities along this part of Route 25 are extremely limited. Sources of future traffic increases would most likely lie outside the Route 25 corridor. A great deal of through-truck activity would be expected, due to existing industrial uses in the area between Route 25 and Route 58. Trucks also use Route 25 as an alternative to both Route 24 and Route 58.

In downtown Riverhead, Route 25 becomes Main Street and serves as the main traffic conduit. Many important cultural and civic institutions are located on or just off Main Street, including Town Hall, the Atlantis Aquarium, the Suffolk Theater, the Riverhead Free Library, the Suffolk County Historical Society, and the East End Arts Council. The County courts are located just north of Main

Street on Griffing Street. The downtown commercial core is found on Main Street as well, with ground-floor shops and restaurants lining the sidewalks.

Congestion regularly occurs along Route 25 in downtown due to friction from parking maneuvers, turning vehicles at intersections and driveways, and pedestrian and bicycle activity. Although some of these friction factors can be improved, major improvements in downtown traffic flow should not be expected. Road widening, intersection reconfiguration, or other fundamental alignment changes cannot be accomplished without significant disruption to downtown businesses, cultural facilities, parking, pedestrian activity, and the historic building fabric. Nevertheless, some friction factors, especially those related to parking can be reduced, helping to relieve some of the problem.

Travel time measurements taken along Route 58 and Route 25 between the LIE and Route 105 indicate that Route 25 has surprisingly become the faster of the two routes. The original bypass route, Route 58, has become congested to the point that it is now faster to travel on Route 25, the very facility the bypass was constructed to relieve. The solution lies in capacity improvements to Route 58, which would attract through-vehicles back to the appropriate facility.

The intersection having the highest levels of congestion and the lowest level of service in downtown Riverhead is the Main Street-Peconic Avenue-Roanoke Avenue intersection. As discussed in Chapter 6 of the Plan, the Business Districts Element, and the Downtown Revitalization Strategy, the Town is pursuing the concept of extending Court Street to Roanoke Avenue, which would allow many people (Court workers and visitors, weekend visitors, people passing through) to avoid that intersection. One-way streets, which have also been proposed to relieve traffic congestion, are however not recommended for downtown, because they tend to increase traffic speeds and degrade the pedestrian environment. This would hurt downtown shops, restaurants, and attractions, which rely on foot traffic for business.

The easterly portion of Route 25 between downtown and Route 58 rarely experiences congestion, except when Route 58 is congested and vehicles are spilling over onto alternate routes. Capacity improvements on Route 58 should result in decreased delays and faster travel times on that facility, which will in turn reduce the number of through-vehicles using Route 25. The small segment of Route 25 that links Route 58 to Route 105 inherits all of the traffic leaving Route 58 and headed east to the North Fork. Congestion on this segment typically resembles what can be found on Route 58. At the Route 105 intersection, some of the traffic (bound for Southold Town) goes north to Sound Avenue and east, while more local traffic continues east on Route 25 itself.

State Route 25A

Route 25A is a two-lane east-west highway that splits from Route 25 in western Long Island and then runs along most of the north shore. Route 25A rejoins Route 25 in Riverhead, near the planned entrance of Enterprise Park. About 2.75 miles of Route 25A lie within Riverhead.

County Route 43 (Northville Turnpike)

Northville Turnpike is a two-lane north-south roadway that runs from Roanoke Avenue in downtown Riverhead to Sound Avenue. Some traffic destined to the North Fork from downtown Riverhead and Route 58 uses Route 43 to reach Sound Avenue, and then follows it into Southold. Northbound vehicles on Route 105 destined for the North Fork use a short segment of Route 43 to reach Sound Avenue.

County Route 58

Route 58 is an east-west roadway that extends from the eastern terminus of the LIE to Route 25, a distance of about 4 miles. In most places, Route 58 is a two-lane roadway with a center lane dedicated for left-turn movements. In some locations, particularly the western section near the LIE and Tanger Mall, the roadway has been widened to four lanes with dedicated turning pockets.

Route 58 experiences a great deal more congestion nowadays than Route 25. Higher levels of congestion are attributable to a variety of factors: commercial development along Route 58, increasing tourism on the North Fork, increasing residential development in Riverhead and Southold, as well as national trends, such as increased vehicle ownership and vehicle miles traveled. That is, even if no development had occurred in Riverhead or Southold, traffic congestion still would have gotten worse, simply because people are using their cars more and more.

Through-traffic (i.e., unrelated to the commercial businesses) makes up a significant amount of the volumes along Route 58. NYSDOT's long-range transportation plan for Long Island reveals many of the motorists on Route 58 were destined to points in Southold, including the Cross Sound Ferry Terminal.

During peak periods, traffic volumes are high and travel speeds are low. Congestion is bad enough that drivers familiar with the area routinely use other roads as bypass routes. Middle Road and Sound Avenue have become the bypass routes of choice for many people, but neither road is itself very well suited for bypass traffic. Because these roads and intersections have not been designed to handle heavy traffic volumes, safety has degraded. Both roadways are lined with residential and agricultural uses that are being negatively impacted by high-volume, high-speed traffic.

Rather than diverting more traffic to these bypass routes, this Plan recommends expanding and improving Route 58, so as to better funnel traffic along that corridor. Capacity improvements along Route 58 would start to attract vehicles back from these bypass routes. Traffic calming on the bypass roads is also recommended in conjunction with improvements to Route 58.

For many years, the western end of Route 58 has been turning into a regional shopping destination, with the ongoing success of Tanger Mall and the recent development of the Riverhead Center. This activity is beginning to attract synergistic uses such as the Applebee's Restaurant. The newly proposed land use designations for the western end of Route 58 (see Chapter 2 of the Comprehensive Plan, Land Use Element) confirm this direction. As a result of new development, driveways are proliferating, most of which allow for both right and left turning movements. Allowing full turning movements creates more traffic friction.

County Route 73 (Roanoke Avenue)

Roanoke Avenue is a two-lane north south roadway that extends from Main Street to Sound Avenue. Roanoke Avenue intersects with Route 58 at a four-leg traffic circle that is extremely well known and loved by many in Riverhead. During peak times, considerable congestion occurs at the traffic signal. Traffic volumes along Roanoke Avenue are heavier north of Route 58 than south, partially reflecting the use of Roanoke Avenue as a bypass route to reach Middle Road and Sound Avenue.

County Route 105 (Cross River Drive)

A major north-south highway, Route 105 extends from County Route 104 in Southampton to Sound Avenue. It has four lanes from Route 104 to Union Avenue and two lanes from Union Avenue to Sound Avenue. The Riverhead stretch of Route 105 is about four miles long. It allows high-speed north-south movement and functions as a bypass to downtown Riverhead and Route 58. People traveling eastward on the LIE can, instead of taking Exit 72 onto Route 58, take Exit 71, follow State Route 24 eastward through Riverside in Southampton, and take Route 105 north to either Route 25 or Sound Avenue.

Sound Avenue

Sound Avenue is a two-lane east-west Town roadway that runs from Route 25A in Wading River to Route 25 in Southold. Although the existing right of way is 66 feet wide, the pavement is between 28 and 30 feet wide for most of its length. Approximately 14.5 miles of Sound Avenue lie within the Town of Riverhead. Sound Avenue as a two-lane roadway has a significant horizontal and vertical curvature along many segments, resulting in poor sight distance for stopping. The road is lined with old trees and historic homes, farms, and farm stands.

Shoulders are narrow or nonexistent and there are few sidewalks. Many agriculture-related businesses such as farm stands exist, some of which do not have well laid out driveways or parking lots. In some cases, the landscape features of the homes such as fences and plantings encroach on the Town right of way. Sound Avenue nevertheless is highly regarded by Town residents as a rural country road.

Currently, Sound Avenue experiences relatively light traffic volumes although some delays result from farm equipment using the road. In recent years, this road has experienced increases in traffic volume, partly as a bypass to reach County Route 48 in Southold, it is also used more and more as bypass for Route 58, and also because tourists increasingly use it as an alternative to Route 25. There have been a number of accidents recently on Sound Avenue, some involving seasonal agriculture workers walking or bicycling along the road.

Middle Road

Middle Road is a two-lane east-west Town roadway that extends about 4.75 miles from Service Road A (north of Route 25, located about 0.25 miles west of the LIE terminus) to Doctor's Path (north of Route 25). Existing traffic volumes are relatively low, but as noted, drivers familiar with Riverhead use Middle Road as a bypass route. Middle Road is slightly better from an engineering and aesthetic perspective than Sound Avenue. However, Middle Road has its current eastern terminus at Route 58, so traffic rejoins Route 58 west of Route 105, displacing but not resolving the traffic problem. Also, some of the roads that connect Middle Road with Route 58 (i.e., Mill Road and Osborn Avenue) have a northwest-southeast orientation, making the connection to Route 58 somewhat circuitous.

Swan Pond Road & River Road

Swan Pond Road is a 2.25-mile, two-lane, east-west roadway that runs from Wading River-Manorville Road to River Road. River Road is a 5-mile, two-lane, east-west roadway that extends from Old River Road to Route 25. Swan Pond Road intersects River Road south of Enterprise Park at Calverton. The two roads function as a single east-west corridor. In the FEIS for Enterprise Park, Swan Pond Road combined with River Road is referred to as "Grumman Boulevard". It is envisioned as a major connecting roadway between Enterprise Park and the LIE.

Wading River-Manorville Road

This two-lane, north-south roadway extends from River Road to North Country Road. All 4.0 miles of the road lie within Riverhead. Wading River-Manorville Road provides a connection between the Wading River and Route 25 hamlets and Enterprise Park. It also

provides access to local roads in Manorville, which connect to Exits 69 and 70 of the LIE.

Edward's Avenue

Edwards Avenue is a two-lane, north-south roadway that extends from the LIE to Silver Beach Lane. Approximately 4.0 miles of Edwards Avenue lies within Riverhead. Edwards Avenue is approximately 1.25 miles east of Enterprise Park. It is expected that a significant number of travelers will use Edwards Avenue to access new development. Due to increased traffic volume on the roadway, Edwards Avenue will need to be widened and the intersection of Edwards Avenue and Sound Avenue improved.

Doctor's Path

Doctor's Path is a two-lane north-south roadway that extends from Route 25 to Sound Avenue and is about 2.3 miles in length. At the Route 25 intersection, two other roadways converge as well — Route 58 and Middle Road. Four busy roadways, therefore, meet in very close proximity to each other. The odd geometric configuration of this intersection, combined with high traffic volumes, makes some lane changes and turning movements difficult. Improvements to the intersection have recently been completed.

Long Island Railroad

The Long Island Rail Road (LIRR), a subsidiary of the Metropolitan Transit Authority (MTA), provides passenger rail service from Riverhead to the rest of Suffolk County, Nassau County, Queens, Brooklyn, and Manhattan. At major transit hubs in Nassau County and the New York City area, LIRR passengers can transfer to Long Island buses, New York City buses, or the New York City subway. At Penn Station in midtown Manhattan, LIRR passengers can also transfer to NJ Transit and Amtrak.

Diesel trains operate between Ronkonkoma and either Yaphank, Riverhead, or Greenport. Persons traveling from the North Fork to destinations west of Ronkonkoma must transfer from the diesel trains to electric-powered trains at Ronkonkoma Station. Transfers are timed, such that trains bound for Penn Station in Manhattan, Flatbush Avenue in Brooklyn, and Long Island City and Hunterspoint Avenue in Queens are waiting for transferring patrons.

The only LIRR station in Riverhead is located in downtown on Railroad Street between Osborn Avenue and Griffing Avenue. The station building was recently renovated, and there are plans to improve access for buses, cars, bicycles, and pedestrians, making it a fully multi-modal transportation center. On weekdays, four westbound and three eastbound trains serve Riverhead. On weekends, two westbound and two eastbound trains provide service. Although several Suffolk

County Transit buses stop at the station, there is minimal coordination of train and bus schedules.

Transit Ridership Patterns

The LIRR is predominantly a commuter railroad. However, there are few commuters who take the train from Riverhead Station. Passenger counts indicate that only 18 passengers boarded westbound LIRR trains during the weekday morning peak at all the North Fork stations combined (Riverhead, Mattituck, Southold and Greenport), while more than 6,000 boarded at Ronkonkoma alone.

There are several reasons for the low levels of ridership. Riverhead's distance from New York City means that the Town has relatively fewer resident traveling into the city for work, compared to towns in Nassau County and western Suffolk County. Because of traffic and parking constraints in New York City, the people from Long Island who work there tend to rely on the train for the commute. Most Riverhead residents, in contrast, work in suburban locations in Suffolk County (96 percent in 1990). Most of these locations have relatively less traffic congestion and abundant, free parking, so most employed residents of Riverhead (76 percent in 1990) drive to work.

Another significant factor contributing to the low ridership level is the infrequent train service east of Ronkonkoma. Some residents of Riverhead and other East End towns, therefore, drive to Ronkonkoma Station and take the train from there.

Infrequent service not only dampens commuter use of Riverhead Station, but also tourist use. Most recreational trips to and from the North Fork currently are made by car. Recreational trips take place in both eastbound and westbound directions, that is, both to and from Riverhead. North Fork residents travel into New York City for day trips and long weekends, and the residents of New York City, Nassau County, and western Suffolk County travel out to the North Fork for recreational trips. Weekend service from Riverhead Station is limited and no additional summertime service is provided on the Greenport branch. Because train service is inconvenient, it is not extensively used for recreational trips.

Train Infrastructure Improvement Needs

If train service were to be increased to the North Fork, some critical infrastructure improvements would be necessary. The main line of the LIRR east of Ronkonkoma has only a single track. Passing sidings, where provided, are equipped with hand-thrown switches, instead of remote controlled switches found elsewhere on the system. In addition, there is no signal system, train control depends on verbal communication and written authorization between train crews and dispatchers. These situations combine to make it extremely

difficult to run more than one train at a time on the single-track portion of the railroad, especially in opposite directions.

The LIRR is planning improvements to the system, which include the planned implementation of a Communications Based Train Control (CBTC) signal system, which, if successful, will allow for much more efficient train movements. In addition, the railroad has plans to install power-operated switches, controlled from a central location.

In recent years, the success of Tanger Mall led to discussion of an idea for a new train station adjacent to the mall, but cost, projected ridership, system wide needs render building a new station near Tanger Mall not to be cost effective.

Suffolk County Transit System

Suffolk County Transit (SCT) has five bus routes in Riverhead. Suffolk County Accessible Transportation (SCAT) provides permanently or temporarily disabled passengers curb-to-curb public bus service to any location within 0.75 miles of a Suffolk County public bus route. SCAT also provides rides to the companions and personal care attendants of disabled passengers.

Bicycle and Pedestrian Facilities

Pedestrian and bicycle circulation in the Riverhead is limited by a lack of continuous and safe routes. Sidewalks are not provided in all residential neighborhoods or business districts. The location in Town with the most significant pedestrian traffic is the downtown area, where the sidewalks can be made more pedestrian-friendly. Chapter 6 of the Comprehensive Plan, the Business Districts Element, includes extensive recommendations for improving the pedestrian environment not only in downtown but also in all business districts.

Bicycle routes in Riverhead are few. The only official bicycle route is a two-mile, unpaved path in Wildwood State Park. Chapter 11 of the Plan, the Parks and Recreation Element, lays out strategies for expanding the bicycle network in Riverhead.

Air Travel

Riverhead Airpark, which serves mostly private planes, is the only functioning airport in Riverhead. It is located at the intersection of Sound Avenue and Route 105. Long Island MacArthur Airport (Islip) is the closest airport to Riverhead that provides passenger service.

Future Baseline - Transportation

Traffic levels at future baseline conditions will be significantly worse than present levels. While the Proposed Action's central thesis of population reduction will lessen the severity of the problem by that time, traffic levels will still increase by over 30 percent or more over present year-round levels at the horizon year of 2022 and by more than two-thirds at saturation.

Fundamental changes in the basic way people travel for employment purposes, which is to say by automobile, cannot reasonably expected or assumed by 2022. Multi-purpose daily trips, non-vehicular usage of road right-of-ways and improved transit can incrementally lessen the future baseline traffic levels at the horizon year however. Alternative fuel vehicle use will be greater than today and may even be a significant portion of the vehicles on the road, particularly those meant for commuting from point to point.

Traffic and associated infrastructure improvements, now uncoordinated, will increasingly require a comprehensive transportation/land use joint planning process to manage land development's effects on transportation systems. Highway projects, for example, the proposed capacity improvements to Routes 25 and 58, need to be coordinated with land use controls and access management. Other improvements such as improved rail and bus service will not come about unless supported by the implementation measures incorporated in the Plan. Finally, land use development regulations must be augmented to stimulate non-motorized travel throughout new residential developments for example, something advocated by the Plan, but not likely to come about without adoption of the Plan.

Plan Recommendations Summary – Transportation

Major recommendations of the Comprehensive Plan for improving circulation in the Town include the following:

- Improve Route 58 and Route 25 east of Route 58 to Route 105 into a fourlane roadway, with a raised landscaped median, and turn pockets at major intersections and entrances to major shopping centers.
- Widen the rotary at the intersection of Route 58 and Roanoke Avenue simultaneously with the Route 58 widening.
- Prior to undertaking the first two recommendations, study the feasibility off creating a one-way traffic system on Route 58/Route 25 from the LIE to Route 25 at Doctor's Path.
- Discourage through traffic on east-west Town roads.

- Improve the Town highway system's safety for automobiles, trucks, buses, pedestrians and bicyclists.
- Continue to support and encourage passenger and freight use of the Long Island Railroad and its Riverhead Station.
- Continue to support and encourage use of Suffolk County Transit buses.
- Encourage non-vehicular circulation both by bicycling and pedestrian in downtown and in the hamlets.
- Encourage and promote bicycling and bicycle and pedestrian safety Townwide with emphasis on the major east-west and north-south routes.
- Use traffic calming on roads used as bypass routes, in downtown, in hamlet centers, and in residential neighborhoods.
- Systematically regulate property access patterns, in order to reduce traffic friction and better coordinate land use and transportation planning.
- Preserve the character of the Town's scenic corridors.

Probable Impacts - Transportation

There will be projects that are proposed by the Plan, such as widening Route 58 to four lanes, and enlarging the traffic rotary at Roanoke Avenue, that will require project-specific environmental evaluations when preliminary designs are developed. This is a normal and expected outgrowth of a planning process that seeks to balance growth and service, and in seeking that balance requires physical changes to the environment.

Large-scale density shifts to north of Sound Avenue may result in local traffic impacts at the intersections discussed in the land use section. However, all matters considered, the non-structural measures contained in the Comprehensive Plan and the recommendations to improve non-vehicular circulation and safety, should not create any significant adverse impacts. Specific structural improvements will require environmental assessments as part of their preliminary design.

2.9 Energy

The Proposed Action is not expected to create or lead to a significant increase in energy consumption and thus energy impacts will not be further discussed, as stated in the Scoping Document.

2.10 Noise and Odor

Since the Proposed Action will not stimulate development projects that would be a source of significant noise or odor, these subjects will not be further discussed, as stated in the Scoping Document.

2.11 Public Health

The Proposed Action would not encourage or permit any use that would include or encourage health risks. Thus the Plan will not have a significant impact on public health, and this topic will not be discussed in the GEIS.

2.12 Growth and Character of Community and Neighborhood

Growth and community character are discussed in terms of population and housing makeup, community facilities that serve the population, and distinct neighborhoods or hamlets within the Town. The discussion will begin with population, blend in a discussion of housing and conclude with a discussion of the hamlets.

2.12.1 Population Characteristics

Demographic and Housing Trends

As stated in Chapter 8 of the Comprehensive Plan, Riverhead had 12,479 housing units in the year 2000. This was a significant increase from the 1990 census, when Riverhead had 10,801 housing units, representing an increase of nearly 16 percent. By way of comparison, Suffolk County as a whole grew at a slower rate of about 9 percent, making Riverhead stand out as one of the fastest-growing parts of the County for housing.

The table below details population and housing characteristics as taken from the US Census, 1990 and 2000. As shown in the table, the majority of households in Riverhead are owner-occupied. Historically, Riverhead has provided a home for moderate-income households, including everyone from teachers and firefighters (lower middle-income) to accountants and store managers (higher middle-income). In 1990, Riverhead's median housing value was about 5 percent *less* than the median housing value for the County as a whole. By comparison, the median housing value for Southampton was 18 percent *greater* than the County. Similarly, the median gross rent bracket for Riverhead was \$600 to \$750 per month, compared to \$750 to \$999 for the County as a whole.

Population and Housing Characteristics, 1990 and 2000

<u>1990</u>	<u>2000</u>	<u>Change</u>	<u>%</u>
23,011	27,680	4,669	20.3
5,224	6,372	1,148	22.0
4,728	5,107	379	8.0
38.7	40.6	1.9	4.9
0.53	0.64	0.11	20.3
340.1	409.2	69.0	20.3
10,801	12,479	1,678	15.5
8,736	10,749	2,013	23.0
6,824	8,288	1,464	21.5
1,912	2,461	549	28.7
1,334	1,165	-169	-12.7
2,065	1,730	-335	-16.2
2.55	2.50	05	-2.0
2,778	3,293	515	18.5
3,217	3,556	339	10.5
	23,011 5,224 4,728 38.7 0.53 340.1 10,801 8,736 6,824 1,912 1,334 2,065 2.55 2,778	23,011 27,680 5,224 6,372 4,728 5,107 38.7 40.6 0.53 0.64 340.1 409.2 10,801 12,479 8,736 10,749 6,824 8,288 1,912 2,461 1,334 1,165 2,065 1,730 2.55 2.50 2,778 3,293	23,011 27,680 4,669 5,224 6,372 1,148 4,728 5,107 379 38.7 40.6 1.9 0.53 0.64 0.11 340.1 409.2 69.0 10,801 12,479 1,678 8,736 10,749 2,013 6,824 8,288 1,464 1,912 2,461 549 1,334 1,165 -169 2,065 1,730 -335 2.55 2.50 05 2,778 3,293 515

Source: SEEDS Study

For various reasons, it is likely that Riverhead housing became somewhat less affordable to many residents in the last decade. The economic boom of the late 1990s increased the demand for housing, particularly among people working in the lucrative service industries based in western Suffolk County. The relatively short supply of land and housing on Long Island in combination with increased housing demand would have resulted in rising housing costs.

There remains a national trend toward the construction of larger single-family homes. Newly built homes nationwide are now typically 3,000 square feet or greater in size. Such homes tend to have higher values and sales prices. Riverhead has started to attract seasonal residents who have purchased or rent summer homes. This factor also contributed to the higher levels of housing demand. Over the course of the 1990s, housing values and prices increased sharply in nearby towns that already had a shortage of affordable housing, particularly Southampton and East Hampton. The continued popularity of those towns as beach resorts combined with their shrinking supply of vacant, buildable land were the primary reasons for this increase. Many people priced out of Southampton and East Hampton (both seasonal and year-round residents) have started looking to Riverhead as an alternative.

Although housing financing has become easier in the last few years, which has somewhat lessened the affordability problem, the long-term prospects for the Long Island economy are strong, which will keep demand high. The Town can

anticipate that housing affordability will continue to be a problem for the lower middle income groups, and those seeking starter homes as Riverhead continues to grow in popularity as a place to live.

Population and Household Composition

While the number of housing units grew by 15.5 percent between 1990 and 2000, the population grew by over 20 percent over the same period. This suggests that the households that have been moving into Town over the last decade are slightly larger than those that lived in Riverhead in 1990. Most new residential subdivisions and single-family homes are designed for and marketed to young families with children. The predominant development trend in Riverhead for many years has been single-family, for-sale housing in new subdivisions. Some rental housing development had also occurred, particularly in and around the downtown area. Many of the large, older homes in the downtown area have been divided into smaller rental units.

Households by Type in the Town of Riverhead, 2000

Family Households	Number of Households	Percent of Total
Married Couples, Children < 18	2,289	21%
Other Married Couples ¹	3,515	33%
Other	1,484	14%
Non-family Households		
Person Living Alone	2,839	26%
Other	622	6%
Total households	10,749	100%
Total household population ²	26,835	

^{1.} Includes married couples who have no children at all, or who have adult children (18 years old or older).

Sources: U.S. Census Bureau, Profile of General Demographic Characteristics, 2000.

Currently, the two largest age groups in Riverhead are children between 5 and 14 years old and adults between 35 and 54 years old, confirming that Riverhead is a popular place to live among couples with young children. The current age distribution in Riverhead is also partly reflective of the baby boom generation. In the future, as the baby boom generation enters retirement, the number of Riverhead residents in the middle-age range may drop, with a corresponding increase in the number of retired senior citizens. However, as baby boomers age, they may move out of Town in large numbers if they are unable to find age-appropriate housing, and they may be replaced by younger demographic

^{2.} Does not include people living in group quarters (845 people in 2000).

groups, i.e. families with young children, since the housing stock is suitable and the schools are well respected.

Consistent with the analysis of age groups, a large number of households in Riverhead are married couples with children, as shown in the table below. However, an even larger number of households consist of married couples without children, some of which are couples who have never had children, but most of which are "empty nesters" whose children have moved away. The category "Other Family Households" includes a wide variety of family arrangements: single or divorced parents with children, parents who live with their adult children, cohabitating extended families, and so on. In addition to "family" households (people related by blood or marriage), more than 30 percent of the households in Riverhead comprise "non-family" households. In particular, Riverhead has a large population of people who live alone, many of whom are widowed or single senior citizens.

On average, Riverhead has about 2.5 persons per household, which is lower than the average ratio at the County level. This rate is even lower than national rates, which have been declining for many years due to the fact that people are having fewer children and that divorces result in the division of one large household into two smaller ones. The low rate in Riverhead reflects the particularly high number of people living alone. When family households are examined separately, there are about 3.0 persons per household.

Population Projections

According to the discussion in the Plan, the U.S. Census reports that Riverhead's total year-round population grew by 20.3 percent (2 percent annually) as shown in the table entitled "Population and Housing Characteristics, 1990 and 2000". The Plan further states that at an average annual growth rate of 2 percent, the Town would reach its saturation population, the future baseline, by about 2017 under the Proposed Land Use Plan. However, if the population growth rate slows down to 1 percent a year, which is more consistent with the County average annual growth rate of 0.7 percent, then Riverhead would not reach its saturation population until about 2033. In the year 2013, one decade after the completion of the Plan, expected population would fall in the range of approximately 34,200 persons at a 1 percent growth rate and 37,700 persons at a 2 percent growth rate.

It is not the belief of this GEIS that Riverhead mirrors the County as a whole, for reasons previously discussed, it is unique in both the County and the East End. Particularly when projecting the future baseline, the availability of one-acre lots in the East End with quick highway access westward is present only in Riverhead. A 2 percent growth rate in that case may be too low. Also, growth

does not proceed in a straight line to saturation. More of an S-curve rate is typical. The Town is now probably in the most upward rising part of the S, to see growth flatten out asymptotically as saturation is approached.

Total Housing Units at Saturation

The total number of potential additional housing units under saturation development conditions was calculated in 1999 *Land Available for Development-Eastern Suffolk County* for each town in eastern Suffolk County. For the Comprehensive Plan, the Riverhead Planning Department has updated the 1999 and 2001 County studies as well as the first draft Comprehensive Plan document.

The number of housing units in eastern Suffolk County by town in 1990, 2,000, (and in April 2003 for Riverhead) and under saturation development conditions is shown in the next table. It shows that while Riverhead ranked third in the total number of housing units in eastern Suffolk County both in 1990 and in 2000, but that its growth in additional units to saturation under present zoning will be larger than any other east end town except Southampton. The total number of new housing units under present zoning will increase by 66% over that existing today, according to the Town Planning Department study.

Housing Units in 1990, 2000, (2003) and at Saturation, Eastern Suffolk County

Town	1990	2000	Additional Units at Saturation	Total At Saturation	% Change – 2000 to Saturation
E. Hampton	17,068	19,640	8,314	27,954	42
Riverhead	10,801	12,479	14,139	26,618	113
" 2003		14,323	9,477	23,800	66
Shelter Is.	2,148	2,370	1,862	4,232	79
Southampton	33,795	36,030	15,389	51,419	43
Southold	12,979	13,769	8,438	22,207	61
E. Suffolk	76,791	84,288	48,142	132,430	57

Sources: 1990& 2000 U .S. Census, Suffolk County Planning Department; Town of Riverhead Planning Department, June 2003.

The significant differences between the Riverhead figures for 2003 and the County figures for 2000 are explained by several factors. Since 1999 the Town and County have together purchased the development rights to several hundred acres of farmland. The Keyspan property in Jamesport has been purchased by the State of New York. In addition, over 1,800 building permits have been issued

by the Town for single-family dwellings that are now counted as existing dwellings, but in 1999 were only considered as future development on developable land.

Saturation Population

An analysis of the population potential at saturation was undertaken by the Suffolk County Department of Planning and published in June, 2001 in the report entitled *Saturation Population Analysis – Eastern Suffolk County*, and updated by the Riverhead Planning Department in 2003. Both studies calculated year round and seasonal dwelling units, and household size factors were then applied. The total year-round population under saturation development conditions in each town in eastern Suffolk County was then calculated. The results are even more startling in comparison to the housing unit analysis at saturation. The more up to date Town 2003 calculations reveal that population growth to saturation will be greater in Riverhead than in any town in eastern Suffolk except Southampton.

Year-Round Population in 1990, 2000 (2003) and at Saturation, Eastern Suffolk County

Town	1990	2000	Additional Population at	At Saturation (Future Baseline)	% Change – 2000 to Saturation
			Saturation		
East Hampton	16,132	19,719	9,467	29,186	48
Riverhead	23,011	27,680	32,270	59,950	117
" 2003		30,956	20,482	51,438	66
Shelter Island	2,263	2,228	1,884	4,112	85
Southampton	45,351	55,216	24,517	79,733	44
Southold	19,836	20,599	13,385	33,984	65
Eastern Suffolk	106,593	125,442	81,523	206,965	65

Source: Suffolk County Planning Department; Town of Riverhead Planning Department

This high proportion of growth in Riverhead is due principally to two factors. One factor is that so many development rights in Riverhead are potentially usable, over 9,500 at latest count. The second factor is that disproportionately fewer of Riverhead's total dwelling units are seasonal at about 9%. This compares to 34% and 35% in Southold and Southampton respectively and to 54% and 55% in Shelter Island and East Hampton respectively. County and Town calculations project this proportion until saturation. If this proportion were to rise by the encouragement of additional seasonal housing for example, then the

year round population would be proportionately less. But for projection purposes, this conservative method of projection is appropriate, and the figure of 51,000 people will be used as the Town's ultimate population at the future baseline condition.

2.12.2 Housing

Riverhead is primarily a community of homeowners, with a proportionately smaller rental population. While it is important to continue providing a mix of housing, both rental and ownership, it is the Town's feeling that homeownership should continue to be the predominant housing type in Riverhead. The Town's affordable housing initiatives to date, as discussed throughout the Plan, have strongly promoted homeownership.

"Workforce" Housing

Riverhead has been and continues to provide a significant number of moderatepriced housing. In some parts of Town, large, expensive homes are being built and marketed to higher income groups, but a significant amount of Riverhead's existing housing stock is affordable to a wide range of homeowners. The older neighborhoods in the vicinity of downtown have smaller homes on smaller parcels that generally sell or rent for lower prices. In addition, Riverhead has a significant amount of age-restricted housing that is affordable for senior citizens.

Maintaining and expanding the housing supply is necessary and desirable for a number of reasons. First, it helps provide greater housing opportunities for young adults and seniors, who typically seek out housing units with lower maintenance needs. The need for senior housing, in particular, is expected to increase in the near future, as baby boom parents become empty nesters and enter retirement. The number of first-time homebuyers, young singles or couples without children, is also expected to increase, as the children of baby boomers enter adulthood.

Second, "workforce" housing provides residential opportunities for moderateand low-income individuals and households. The term "low-income" does not refer to people who are living at or below the poverty line, but the "working class," or "blue and pink collar" workers, who despite their smaller paychecks, play an essential role in the local economy.

In addition to senior citizens, young adults, and the working class, there are people with special health or social service needs that require housing as well. These include people with developmental disabilities, the chronically ill, and homeless people. These groups are made up of individuals whose ability to earn income and pay rent may be limited. These individuals can greatly benefit from housing assistance, as it keeps them from becoming or staying homeless.

Because Riverhead provides a large degree of such housing relative to other East End towns, and because the Town has numerous workforce housing programs in place, the Comprehensive Plan is to ensure that the initiatives being undertaken are successful, cost-effective, and compatible with the community. In the future, as development pressures and housing costs are likely keep increasing, the Town should monitor the housing stock to make sure that people are still able to find housing that suits their needs.

Age-Restricted Housing

The majority of Riverhead's age-restricted housing is in the form of mobile home parks. In all, there are eleven mobile home parks for senior citizens, and they provide housing for seniors with a range of income levels. Seniors with more limited incomes are generally not able to afford mobile homes. John Wesley Village and Riverhead Landing apartments are age-restricted units that provide housing opportunities for individuals with low maximum income levels.

Town Initiatives in Support of Housing Opportunity

Over the last two decades, the Town of Riverhead has undertaken a variety of initiatives to provide and promote housing for its resident workforce. These initiatives have resulted in preservation and expansion of the moderate-priced housing stock. Workforce housing units can be built anywhere in the Town where housing is permitted under the zoning regulations, and many units have already been built. In June 2001, the Town approved a special permit for a long-planned project sponsored by LIHP to build 13 owner-occupied single-family housing units in the downtown area. Currently, the Riverhead Housing Corporation allocates Section 8 subsidies for about 150 housing units.

The Town has created the Residence Redevelopment Community (RDC) District to create opportunities for such housing. A floating zoning district allows multifamily residences "for moderate-/low-income persons or the handicapped, including social, health care, or other supportive services and facilities, to be owned and operated for such purposes". The RDC District is not currently designated anywhere on the Town's zoning map, but it can be designated by the Town Board.

The Town's Community Development Department offers a Home Improvement Program for low- and moderate-income households. Emergency home repairs or improvements necessary for the health and safety of the residents are eligible for funding under the program. The program also offers loans for handicapped access renovations.

Development Initiatives

Between 1989 and 1991, the Town undertook the development of 43 new, forsale, single-family homes for first-time homebuyers. In 1991, the Town sponsored the development of an AHC-subsidized project involving the construction of 120 new single-family homes for sale to moderate-income buyers.

On an ongoing basis, the Town purchases properties with CDBG funds for substantial rehabilitation and resale or new construction of affordable homes. The Town has also acquired three properties that were then donated to Habitat for Humanity for the construction of new homes and others that have been donated or sold to the LIHP.

The Town has also worked in partnership with a local non-profit group, Community Housing Innovations (CHI), to acquire, rehabilitate, and resell to first-time homebuyers homes that are in substandard condition. The result has been the successful completion, sale, and occupation of 20 rehabilitated homes. The work of CHI was also subsidized by federal and State grant funds. In early 2002, the Town received an award of \$150,000 from the State's Affordable Housing Corporation in support of the ongoing Home Improvement Program. These funds will be matched by CDBG funds to provide for a minimum of 20 to 30 rehabilitated homes.

Future Baseline – Housing

The Town would be expected to carry out its on-going housing program whether the Proposed Action is adopted or not. The future baseline condition might mean more people might reside in Riverhead to qualify for specific housing incentives, but it is difficult to estimate its significance.

Plan Recommendations Summary - Housing

Chapter 8 of the Comprehensive Plan deals with housing. Its goals can be summarized as follows:

- Continue to provide a variety of housing opportunities for all household income levels in Riverhead.
- Promote high-quality, well-maintained housing.
- Provide additional housing opportunities for senior citizens.
- Ensure that group homes are compatible with the surrounding neighborhoods.
- Provide additional housing and support services for the chronically ill and homeless.

• Utilize the high density residential overlay concept and density incentive technique to encourage workforce housing.

Probable Impacts – Housing

In achieving the housing goals and in particular the more detailed policies of the Plan regarding housing, it is concluded that there will be no significant adverse environmental impact versus the future baseline housing condition.

2.12.3 Community Facilities

Schools

The Town of Riverhead has three separate school districts, shown on Figure 12-1 of the Comprehensive Plan: (1) Riverhead Central School District (CSD), which occupies most of the Town; (2) the Shoreham-Wading River School District, in the Town's northwestern corner; and (3) the Laurel School District, which includes a narrow strip of land along the Town's eastern border with Southold. The CSD operates seven schools (five elementary schools, one middle school, and one high school). Four of the elementary schools are located in Riverhead and one in Southampton. Only one of the schools in the Shoreham-Wading River School District is located in Riverhead, on Manorville Road, just north of Route 25A. The Laurel School District has no school sites in Riverhead itself.

As Riverhead continues to grow in population, additional schools may be needed in all of the school districts. In particular, the CSD will be under the greatest pressure for school expansion, as the district includes large areas of open space that may be subdivided for residential development. Each school district monitors its own needs on a continuous basis, and each prepares its own budget and facility plans. The Town, therefore, is not the primary decision-maker with respect to future school facility expansions. However, in the context of the Comprehensive Plan, the Town can express preferences for the location of future school sites and can work with the districts to ensure that residents are being provided with adequate and appropriate facilities. Chapter 12 of the Plan details school facility analysis, current plans and programs of the respective school districts. The discussion below summarizes Chapter 12.

Riverhead Central School District

Additional classrooms are needed to accommodate population growth in the CSD between 2000 and 2009. Currently, many of the schools in the CSD are operating at or over capacity. The CSD relies on the use of portable units for

extra space at some of the school sites. Despite a number of expansion plans, many of the schools are still expected to be operating over capacity in 2009.

Projected School Capacity and Enrollment, 2009

	Planned Functional 2009 Capacity	Projected 2009 Enrollment	Enrollment vs. Capacity
Aquebogue Elementary (K-4)	595	414	70%
Phillips Elementary (K-4)	629	550	87%
Riley Elementary (K-4)	583	609	104%
Roanoke Elementary (K-4)	313	510	163%
Pulaski Intermediate (5-6)	575	797	139%
Riverhead Middle (7-8)	996	836	84%
Riverhead High (9-12)	1288	1755	136%

Source: Western Suffolk BOCES Office of School Planning & Research for the Riverhead Central School District, Long Range Planning Study, June 2000 - Final Report.

In the 2001-02 school year, the CSD reorganized the grades in order to use its space better and relieve some of the overcrowding problem. This change will help alleviate some of the current overload at the Pulaski and Middle schools, but it will not eliminate the need for additional school expansions by 2009.

Elementary Schools (K-4)

Expansions are being planned for three elementary schools: Aquebogue, Phillips, and Riley. These expansions will be able to accommodate large increases in student enrollment. Riley will still be expected to have a shortage of space in 2009 and will require two additional classrooms by that time. Although Aquebogue and Phillips Schools would have space to absorb some of the Riley overflow, those two schools are located far from the residential areas in the west side of the CSD and would require long bus or car rides for students. In the long run, the preferred option may be to build another addition to the building. Because the Riley School is located on a 15-acre site, it has plenty of room to accommodate such an addition.

Roanoke School, located in downtown Riverhead, is extremely cramped for space. By 2009, seven additional classrooms will be needed, and expansions will be required for the cafeteria, the library, and the gymnasium as well. The problem at the Roanoke School is that the existing site is too small to accommodate an addition. The Aquebogue School (located three miles to the east) could potentially absorb some of the overflow after current expansion plans

are completed. An alternative is to build another elementary school on a new site and to convert the Roanoke School building into Board of Education offices or some other civic or cultural use (such as a library, a museum, a performance space, a community center, or Town Hall offices). This idea is currently being considered by the Board of Education.

Intermediate School (5-6)

Enrollment at the Pulaski School is expected to increase rapidly, mainly because sixth grade classes have been moved there from the more cramped Riverhead Middle School. Although the Pulaski School will be able to absorb the increase fully at first, it will require an expansion before 2009 in order to accommodate the long-term enrollment increases. By 2009, five additional classrooms, an additional support room, and additional space in the cafeteria and library will be needed. The front and side yards of the school site could potentially be used to accommodate an expansion.

Middle School (7-8)

Riverhead Middle School is currently operating at capacity. The plan to move the sixth grade to Pulaski School was intended to reduce the overcrowding. However, now that the sixth grade is gone, Middle School enrollment for the remaining two grades is still expected to increase quickly. Additional space will probably not be needed before 2009, but may be necessary at some time thereafter. If and when additional space is required, the Middle School will need to look off-site, as its 10-acre site is already built out.

High School (9-12)

Riverhead High School will require a significant expansion by 2009, as enrollment is expected to exceed capacity by about 470 students. The high school will require an additional 13 classrooms, as well as an art room, a home/career room, and a music room. The six science rooms may also need to be expanded to handle slightly larger class sizes. Furthermore, additional space may eventually be needed for the gymnasium, the cafeteria, and the library. This represents the single largest expansion need for the CSD in the near future.

As with the Middle School, the high school site is almost entirely built out. The CSD is seriously considering a proposal to build a new high school in Enterprise Park at Calverton, allowing the existing high school to be used for the middle, intermediary and/or elementary school purposes.

Shoreham-Wading River School District

The Wading River Elementary School is located on Manorville Road on the north side of Route 25A. The school serves the entire northeastern corner of the Shoreham-Wading River School District, one of the fastest growing areas of Suffolk County. A school expansion may be necessary prior to 2010, in which case the site behind the school should be set aside as a potential expansion site.

Laurel School District

A very limited area in the eastern part of Riverhead is located in the Laurel School District. This area consists of a narrow strip of land east of Herricks Lane along the Southold border. The predominant land use in this area is agricultural, with a few clusters of residences along Herricks Lane, Route 25, and Peconic Bay Boulevard. No school sites are located in this part of Riverhead.

Future Baseline - Schools

At the present time, regarding the future baseline conditions or the Proposed Action at the horizon year, based upon anticipated changes in population, particularly those brought about by increasing residential development for families with school-age children, no discernible difference between either scenario can be seen with respect to school district planning efforts. The BOCES Report projects only to 2009, thirteen years short of the horizon year of 2022. It is not believed possible to extend this projection to 2022 with any degree of confidence, nor is it possible to project the differential build-out within the CSD under the future baseline versus the Proposed Action for 2009.

However, it is clear that the difference between the expected saturation population level of 51,438, and up to 41,500 under the Proposed Land Use Plan is quite significant. It is clear that additional classrooms at all levels will be needed at saturation under the future baseline versus the Proposed Action.

Plan Recommendations Summary - Schools

Chapter 12 of the Comprehensive Plan deals with community facilities including schools. Its recommendations can be summarized as follows:

- Provide adequate land for school expansion or new schools, while ensuring that school buildings fit into their surrounding neighborhoods.
- Generally, locate school expansions and new schools in downtown or hamlet centers, but also consider alternate locations that provide excellent educational or recreational opportunities for students.

Probable Impacts - Schools

In following the goals and detailed policies of the Plan for the school districts of Riverhead, it is concluded that there will be no significant adverse environmental impact from the Proposed Action versus the future baseline condition.

Libraries

The Riverhead Free Library is operated by a non-profit association, rather than a municipality or a school district. The Library has an agreement with the Riverhead Central School District (CSD), whereby the library provides services to the schools in exchange for a portion of the tax revenues raised by the district. Because the Library is an independent entity, the Town cannot make decisions regarding Library facilities and programs. However, the Comprehensive Plan can express preferences for future Library locations and can work with the Library to ensure that resident needs are being met.

In addition to the Riverhead Free Library, there are two other public libraries in Town. The Suffolk County Historical Society, located on West Main Street in downtown, maintains a library of historical documents and books. In addition, the Baiting Hollow Free Library serves as a small neighborhood facility for local residents. It is located on Sound Avenue.

Plan Recommendations Summary - Libraries

Chapter 12 of the Comprehensive Plan deals with community facilities including libraries. Its recommendations can be summarized as follows:

- Provide adequate library space.
- Continue to expand library services and programs.

Future Baseline & Probable Impact – Libraries

No significant difference can be found to exist in relative impacts between the future baseline and the Proposed Action. In following the recommendations and the more detailed policies of the Plan for the public libraries of Riverhead, it is also concluded that there will be no significant adverse environmental impact versus the future baseline condition.

Town Offices and Facilities

Riverhead has a relatively modern Town Hall, located just east of downtown on Howell Avenue. The Town Hall site houses all municipal offices except the Recreation Department, which is located in Stotzky Park. The Police Department and Justice Court are located on the same site as Town Hall, but in a separate building to the north of Town Hall.

Although Town Hall has served Riverhead's needs very well for many years, it is extremely cramped for space nowadays. Town Hall was converted from a commercial building in the early 1970s, when the Town's population was about 18,000 to 19,000 residents. As of the year 2003, the population had increased to about 30,956 residents. With more people living in Riverhead, Town services have been expanded, and the Town has had to hire more employees. Additional space will be needed in the future to accommodate additional service and staff needs, if the population grows to between 37,000 and 42,000 under the future baseline condition at the horizon year of 2022.

Town maintenance facilities (i.e., garages, storage facilities) are adequately serving Riverhead's needs. However, the Town may need to consider expanding its facilities and/or establishing additional sites as the population grows.

Plan Recommendations Summary - Town Offices and Facilities

Chapter 12 of the Comprehensive Plan deals with Town Offices and Facilities. Its recommendations can be summarized as follows:

- Consider a variety of options for increasing space for Town Hall offices, while ensuring that Town Hall remains in the downtown area.
- Ensure adequate space for Town maintenance facilities.

In following the recommendations and the more detailed policies of the Plan for Town of Riverhead's own offices and facilities, it is concluded that there will be no significant adverse environmental impact versus the future baseline condition.

Police

The Riverhead Police Department provides patrol and detective services throughout the entire Town. The Police headquarters has a relatively modern, 17,000-square foot facility, which was built in the 1980s. Despite being in a relatively new building, the Police Department is outgrowing its space because of increasing calls, and it needs additional room to accommodate new technological equipment and services. The Police Department has also taken on additional responsibilities, such as emergency management, that requires additional space and manpower.

In the past, as new development has occurred, police services have been impacted. When Tanger Mall was built, for example, the Town was left with a shortage of police officers to handle the shoplifting problems there. Also, increasing tourism in Riverhead has attracted larger numbers of seasonal residents and vacationers, which also result in more police calls. As the Town population and employment base continue to grow, additional police services will be needed.

Plan Recommendations Summary - Police

Chapter 12 of the Comprehensive Plan also deals with Town Police. Its recommendations can be summarized as follows:

- Continue to ensure the safety of Riverhead residents and employees by maintaining adequate response times and service levels.
- Ensure the safety of Riverhead residents and employees in case of terrorist attack or other form of violent attack.

The Town of Riverhead should be following these recommendations whether or not the Proposed Action is adopted. There will be no significant adverse environmental impact.

Fire

Riverhead is divided into four fire districts: Jamesport, Riverhead (central hamlet area), Wading River, and Manorville. Each district levies a fee on all properties within its boundaries and provides fire-fighting services to those properties. The Manorville District is based in the Town of Brookhaven, but includes the southwestern portion of Riverhead, including Enterprise Park.

New development will likely require additional fire-fighting staffing, equipment, technology and facilities. The Comprehensive Plan does not enumerate the specific needs of fire districts, because these needs are best determined by fire-fighting professionals on an ongoing basis. However, the Comprehensive Plan can plan ahead for any new fire stations that may be needed by identifying potential sites.

Jamesport

Currently, the Jamesport Fire District has a single station on Manor Lane, near the Jamesport hamlet center. The station was recently enlarged and has adequate equipment to serve the existing development in the district. The district also owns land for a future substation at the corner of Pier and Sound Avenues. Although there are no ready plans to build a substation, the substation is expected to be necessary in order to serve new residential development in the future. The substation would serve the northern half of the Fire District. The substation would also help avoid the traffic that interferes with response times from the headquarters, which is located near the busy intersection of Route 25 and Manor Lane.

Riverhead

The Riverhead Fire District serves the central part of Town, roughly from the east side of Enterprise Park to Jamesport. It includes downtown, Route 58, and Aquebogue, and it extends from the Southampton border to Long Island Sound. The headquarters is located in downtown, on Second Street, and three substations are located throughout the district. The district is currently planning to build a new training facility near the intersection of Cross River Drive and Northville Turnpike. The new facility would also potentially serve as the district's new headquarters. The existing headquarters in downtown is cramped for space, and engine access into and out of downtown is limited by heavy traffic and narrow street widths.

Wading River

The Wading River Fire District has its headquarters on North Country Road, near the Wading River hamlet center. A substation is located on Hulse Landing Road, next to Wildwood State Park. The district expanded the headquarters in 1987 to cope with past and anticipated development in the Wading River area, as well as growing district needs.

Manorville

The Manorville Fire District is based in the Manorville section of Brookhaven, near the southwestern corner of Riverhead. The district headquarters is located on Silas Carter Road, and another substation is located on Cranford Boulevard in Mastic. The part of the district that lies within Riverhead is primarily served from the headquarters. The district in recent years has experienced little development overall, since much of its land area lies in the Pine Barrens Core Preservation Area. Current equipment levels are generally adequate to serve existing land uses.

Enterprise Park lies within the district and is served by the Manorville headquarters and its future development may require additional facilities and equipment. Prior to the closing of the runways, the site was entirely served by its own government-run fire-fighting squad, as required by the Federal Aviation Administration (FAA). Currently, the Manorville district would have a 15-minute response time to the south entrance of the site and potentially 20 to 25 minutes to an individual building within the site. The Wading River Fire District covers the portion of Enterprise Park that fronts on Route 25.

Although having a fire substation at Enterprise Park could in theory provide better fire coverage, this is not necessarily true. With the volunteer districts of Manorville and Wading River, it is actually more practical to locate the fire station closer to the locations from which volunteers will be coming. Currently, there is no large pool of residents and/or employees in the Enterprise Park area who can serve as volunteers. A substation would actually require volunteers to travel a longer distances to the station in their individual cars, potentially resulting in no better a response time to the buildings in Enterprise Park.

Issues Affecting All Fire Districts

Roadway design and traffic can potentially reduce the response time of fire vehicles. Currently, Riverhead roadways are designed with a minimum right-of-way width of 50 feet and a pavement width of 30 to 35 feet, which is adequate to allow fire truck access. However, even though new streets may be wide enough, residential subdivisions often lack connecting through streets to other subdivisions. Also, street segments tend to be short and looping, and many streets dead-end into cul-de-sacs. These street patterns can impede fire truck access and reduce response times. Often, developers create circuitous and short streets intentionally, in order to keep through-traffic out of the neighborhood. However, there are a variety of other traffic-calming strategies that can be used to limit through-traffic and reduce traffic speeds without compromising emergency access. These are discussed in more detail in Chapter 9, the Transportation Element.

Adequate fire district staffing is expected to become an issue in Riverhead over the next 20 years. Currently, fire fighters in all districts are volunteers. As the population grows, volunteers may be more difficult to find because many current volunteers no longer work in Town, whether on farms, at home, or in local offices, but in employment centers outside Riverhead. Thus, many volunteers are not able to respond to emergency calls. Many current volunteers are older, long-time residents of Riverhead and have plans to retire in the next 10 to 20 years. Fewer volunteers offer their time, because of competing personal and professional commitments. Also, training requirements have increased, making it more difficult for volunteers to commit the minimum required time for both training and service.

Plan Recommendations Summary – Fire Districts

Chapter 12 of the Comprehensive Plan deals with the Fire Districts in Riverhead. Its recommendations can be summarized as follows:

Ensure that Enterprise Park has adequate fire fighting services.

- Maintain adequate response times and service levels.
- Ensure that fire fighting facilities fit into the surrounding areas.

In following the recommendations and the more detailed policies of the Plan for Town of Riverhead's fire districts, it is concluded that there will be no significant adverse environmental impact versus the future baseline condition.

Ambulance

The Riverhead Volunteer Ambulance Corps, Inc. (RVAC) is under contract with the Riverhead Ambulance District (RAD) to provide ambulance services to all areas in Town except Wading River, including most of Enterprise Park. The RAD is a special assessment district that collects a separate line-item tax from all properties in the district and does not obtain funding from the Town's general fund. In the Wading River area, the Wading River Fire Department provides emergency response services.

Suffolk County encourages ambulance districts to maintain response times of four to five minutes. A variety of factors influence response time. The factors that can be addressed in the Comprehensive Plan are (1) the location and size of facilities and (2) traffic and property access. The RVAC has response times of four to nine minutes, suggesting that there is room for improvement. Wading River — with ambulances at two different locations and a smaller district — has been able to maintain very short response times.

Riverhead Ambulance District

Emergency calls have increased every year since the RAD was founded in 1978, and much of this increase has resulted from the Town's ongoing population growth. Although young families moving into Riverhead place little demand on ambulance services, retirees and seniors place a large demand on these services. To keep up with needs, the Town built a small ambulance facility on Manor Road across from the Jamesport Firehouse in 1987 and then built the main ambulance facility on Osborn Avenue in 1989.

The main facility is already too small to meet the current level of calls, which reached nearly 2000 in 1999. However, building an expansion on the site may be difficult, because the property is oddly shaped and largely built out. As of December 2000, the RAD was considering purchasing sites for a new facility on Route 58, between Osborn Avenue and Mill Road, which would replace the Osborn Avenue facility.

The Jamesport facility may require expansion to meet the needs of new development. The land area of the Jamesport facility is sizeable and could accommodate an expansion of at least another bay and staff area. It is conceivable that a new facility could be necessary in the western part of town to better serve Enterprise Park, particularly if the current headquarters is not expanded or moved to a larger building. However, as noted in the discussion of fire districts (Section 12.6 of the Plan), the lack of volunteers living in Calverton would make a station location there inconvenient; response times would not necessarily improve.

Wading River EMS

Over the course of the 1990s, Wading River had increased in size from roughly 5,000 to 7,000 households, sharply increasing the need for emergency response services. The district's existing main facility and substation, each equipped with an ambulance, have been adequate to meet the growing needs of the area. In the future, however, additional facilities and equipment may be required.

Issues Affecting Both Ambulance Districts

For both the RAD and the Wading River EMS, traffic impedes response times. Ambulances struggle to pass through congested corridors and intersections, where cars have little or no room to pull over. Also, State law prohibits the use of lights and sirens in situations that are non-life-threatening, meaning that ambulances have to sit in traffic with other cars.

Three roads — Sound Avenue, Route 58, and Route 25 — create the most traffic problems for the RAD. In particular, congestion at the traffic circle on Route 58 makes access to Central Suffolk Hospital difficult. The Wading River ambulance team experiences delays on Route 25A as well. Also, circuitous streets, driveways, and parking lot entrances can be difficult or confusing to navigate in an emergency. Within buildings, narrow hallways and doors make the use of stretchers more difficult. These factors can all increase the amount of time that an ambulance takes to response to an emergency.

The Town's large senior population is expected to grow in the future, as the baby boom generation enters retirement. Senior housing increases the demand for ambulance service, as seniors are more prone to illness and injury. Also, seniors tend to increase the demand for non-emergency calls or "false alarms." To cope with increasing emergency and non-emergency calls, many ambulance corps have been charging for services rendered.

Both the RAD and the Wading River EMS are all-volunteer organizations. Paid positions may help create more stability and reliability in the emergency response services.

Plan Recommendations Summary - Ambulance Services

Chapter 12 of the Comprehensive Plan deals with the ambulance services in Riverhead. Its recommendations can be summarized as follows:

- Maintain adequate response times and service levels.
- Improve emergency access and ambulance circulation.
- Improve funding mechanisms for ambulance services and work to reduce the need to respond to non-emergency calls.

In following the recommendations and detailed policies of the Plan for Town of Riverhead's ambulance services, it is concluded that there will be no significant adverse environmental impact versus the future baseline condition.

Health and Mental Health and Other Social Services

Chapter 12 contains a detailed discussion of health, mental health and other social services such as youth services, senior citizens services and special needs populations in Riverhead. Its recommendations can be summarized as follows:

- Improve access of low-income households to free or affordable health and mental health services.
- Improve the Town's ability to address health and human services needs throughout the community.
- Increase child-care options and promote affordable child-care.
- Provide additional after-school activities for school-age children and promote youth educational and intervention programs.
- Continue to provide adequate household, meal and transportation services for senior citizens.
- Continue to support community living facilities and provide additional out patient or walk-in services for special needs populations.

The Town of Riverhead should be following these social services recommendations whether or not the Proposed Action's other proposals are adopted. With respect to the future baseline conditions or the Proposed Action, based upon anticipated increases in residential development for senior citizen housing, the demand for medical, emergency services and senior services will also increase. However, no discernible difference between either scenario at the

horizon year can be seen at this point. There will be no significant adverse environmental impact if these social services recommendations are implemented.

2.12.4 Neighborhood and Hamlet Character

Riverhead's "neighborhood character" is largely defined by the hamlet in which each neighborhood is located. Each hamlet in turn is composed of a small business district (the exception of course, being downtown Riverhead) surrounded by first a ring of older homes on small "village" quarter or third acre lots and then by a ring of somewhat larger subdivided former farm fields with lots on the order of one-half acre in size. The hamlet business districts provide essential and convenience shopping opportunities, local employment, dining and entertainment venues. At one time each hamlet also had its own elementary school but since the creation of the Riverhead Central School District several have been closed and sold off and have become almost unknown structures to those outside each hamlet.

Downtown Riverhead has distinctive historic buildings from the late 19th and early to mid-20th centuries. There are examples of various architectural styles, including Victorian, Neo-Classical, Georgian, Arts & Crafts, and Modern. Many of the buildings have fine masonry, woodwork, stained glass, and ironwork. The neighborhood north of Main Street also has a traditional layout, with a grid-iron street layout, small yards, front porches, and one or two stall garages in the rear yard. While some new subdivisions attempt to re-create a traditional atmosphere, downtown Riverhead provides the authentic older neighborhood with a truly historic scale and character.

Community input has however identified several neighborhood problems: increasing traffic; poor aesthetic quality of "strip" development, particularly along Route 58; and insufficient retail vitality in downtown and the hamlet centers. Sixteen (16) percent of the resident survey respondents said that "shopping" was one of the three best things about living in Riverhead (only "rural atmosphere," the "waterfront", and "open space" got higher percentages). However, 93 percent said that traffic on Route 58 was "poor" or "could be better", and 87 percent said that the appearance of Route 58 was "poor" or "could be better."

In coming years, the combination of population growth and tourism in both Riverhead and the North Fork will increase retail demand and stress the quality of local life. It is in the best interest of the Town's tax and jobs base to stay responsive to demand and accommodate new retail development. At the same time, unplanned and unattractive commercial development would only worsen Riverhead's current problems, putting at risk the Town's rural character.

Riverhead's population is expected to increase dramatically over the next 10 to 20 years (11,000 more people by 2022). As the Town's population grows, the pressure for local retail development will grow in kind. It will be important to contain and focus hamlet center retail growth within the core of each hamlet, so that the main hamlet roads do not become "mini 58's".

Route 58's success had several consequences for Riverhead. On the positive side, Route 58 absorbed much of the commercial sprawl that could otherwise have spread to the Town's rural and scenic corridors. On the negative side, Route 58 adversely affected conventional shopping in downtown Riverhead and to a degree some of the hamlet centers, replacing local Main Streets with strip malls.

Today, the commercially zoned sites along Route 58 are extensively developed, although retail demand continues to grow. As a result, nearly all non-commercially zoned parcels along Route 58 will eventually be targeted for commercial development through use variances or rezoning applications. Rather than allowing those parcels to convert in a haphazard fashion, a thoughtful, comprehensive rezoning could provide structure to the inevitable trend. Major retailers are less interested in sites beyond Route 58 because they are less centrally and prominently located and thus have a more limited market potential.

Specialty retailers, however, do gravitate to downtown Riverhead and the neighborhood hamlet centers. In these locations, space is less expensive, more eclectic, and therefore more suitable for entrepreneur-driven restaurants, boutiques, antique stores, and "mom and pop" businesses. Current zoning patterns are not well suited to such businesses, and in many cases, downtown and the hamlet centers are over-zoned for commercial development, further encouraging strip-style commercial sprawl. A rethinking of downtown and hamlet zoning can tailor development patterns to the types of businesses interested in locating there.

Although Chapter 6 of the Plan focuses on Riverhead's business districts and commercial retail development, because of each hamlet's dependence upon its business district, Chapter 6 also is the chapter in the Plan that provides guidance for hamlet growth and development policies. Chapter 6 contains several overall business district goals and then provides a detailed discussion for each hamlet. The next several pages will summarize those findings.

Plan Recommendations Summary - Neighborhood and Hamlet Character

Overall Goals

- Emphasize downtown as the civic, cultural, specialty shopping historic center of Riverhead.
- Emphasize destination retail in the Route 58/Tanger Mall area, as a way to absorb future retail demand, to provide needed services, and bolster the Town's tax base.
- Protect and enhance centers in Calverton, Jamesport, Aquebogue, Wading River, and along Route 25A.
- Protect and enhance the neighborhood center along Pulaski Street in Polish Town, and transform Upper East Main Street into a green, mixed-use corridor that provides a transition between downtown and Route 58.
- Maintain the rural image of the Town by carefully controlling development along the Route 25 corridor in the Calverton, Aquebogue, and Jamesport areas.

Downtown Riverhead

- Develop tourist and specialty shopping niches and a variety of tourist attractions.
- Expand and improve the waterfront park.
- Establish a land use framework, while preserving and promoting a finegrain mix of uses.
- Promote housing revitalization and artist housing.
- Preserve and enhance downtown's historic character.
- Preserve and promote traditional building layouts and development patterns, while allowing variety in building design.
- Promote pedestrian and bicycle access and circulation.
- Manage traffic circulation while maintaining auto access.
- Ensure adequate parking.
- Design parking lots that are walkable, attractive and integrated with downtown buildings.
- Enhance gateways and arrival points.

Route 58

- Promote a mix of comparison shopping and convenience shopping along Route 58 that continues to serve both local residents and a regional clientele.
- Promote improved architectural and site design, traffic circulation, and open space conservation along the Route 58 corridor.

Route 25A

- Promote neighborhood oriented retail, office and service development along Route 25A
- Create a pedestrian-friendly environment, and enhance the identity of the business district as a neighborhood center.
- Surround the business district with moderate density residential neighborhoods and ensure that commercial development is compatible with surrounding neighborhoods.

Wading River

- Keep Wading River a small, quaint hamlet center catering to local residents.
- Make the hamlet center more pedestrian friendly, and increase opportunities for enjoying the pond setting.

Calverton

- Promote a mix of convenience and comparison retail, as well as office space at the Calverton commercial areas near Fresh Pond Road.
- Design the hamlet center as a campus, with an internal off-street system of driveways, parking lots and sidewalks with pedestrian linkages to Enterprise Park and the adjacent residential neighborhoods.

Jamesport

- Promote tourism-oriented specialty shopping in the historic hamlet center near the South Jamesport Avenue intersection.
- Create a moderate density, neo-traditional residential neighborhood around the historic Jamesport hamlet center.
- Outside the historic hamlet center, concentrate convenience shopping at the Washington Avenue intersection, but strictly limit other commercial development along the rest of the Route 25 corridor, and maintain the rural character of the corridor.

Aquebogue

- Promote specialty shopping in the historic hamlet center near the Church Lane intersection.
- Outside the historic hamlet center, concentrate convenience shopping at the Edgar Avenue intersection, but strictly limit other commercial development along the rest of the Route 25 corridor, and maintain the rural character of the corridor.
- Make the historic hamlet center of Aquebogue into the neighborhood center for a surrounding moderate density, neo-traditional residential neighborhood.

Upper East Main Street

- Establish more concentrated nodes of commercial development along the corridor, reducing the appearance of sprawl.
- Reduce industrial zoning and promote moderate density residential development along the corridor and around the business districts.

Polish Town

- Strengthen the commercial node along Pulaski Street and the surrounding residential neighborhoods.
- Strengthen the physical connection between Polish Town and downtown.

Other Business-Zoned Hamlet Areas

 Reduce the potential for commercial sprawl outside downtown, Route 58 and the hamlet centers.

Future Baseline & Probable Impact - Neighborhood and Hamlet Character

The future baseline condition and probable impact of the Proposed Action on each hamlet can next be discussed together. Downtown will be taken up first and then each hamlet in turn.

Much has already been written about downtown Riverhead in the Downtown Revitalization Strategy document and in Chapter 6 of the Comprehensive Plan. Much of what these two documents recommend with respect to downtown specifically is already underway toward implementation. The future baseline with respect to downtown is not simply an extrapolation or straight build out of the existing zoning map. The Plan's other recommendations, for example small-lot and infill housing and accessory apartments, and for transportation and traffic circulation throughout the Town, are more likely to have an effect on downtown when compared to its future baseline without them. More local residential patrons, more pedestrian-friendly streets and bicycling facilities, and less regional through traffic would represent the impact of the Plan versus the future baseline condition in downtown.

Better designed, lighted and landscaped retail shopping on Route 58 and Route 25A would result with the Proposed Action. More attractive building scale, signage and materials and improved circulation within and between shopping and entrances to Route 58 itself would result under the Proposed Action. Reduction of commercial areas on Route 25A would curtail sprawl and unattractive commercial strips under the Proposed Action.

Under the Proposed action versus the future baseline condition, Wading River would enjoy a compatibly sized hamlet center. Better attention to pedestrian attractiveness and safety and building esthetics would result. The unique pond setting of the Wading River hamlet would be enhanced. Unnecessary business development would be encouraged to locate to Route 25A.

Calverton's hamlet business center would be limited to the area on Route 25 and Fresh Pond Road. A small-scale retail and office campus center with internal drives and walks would result, avoiding possible commercial strip development in the future baseline condition.

Jamesport would become more of a defined hamlet business center with a less permissive business strip along Route 25. A safer and more walkable streetscape, coordinated design and landscaping standards, façade improvements, parking behind stores and a bicycle-friendly environment would develop under the Proposed Action. Compact village residential neighborhoods receiving development rights would enhance the hamlet business center. Route 25 would remain relatively free of non-rural business development.

Aquebogue like Jamesport would remain a small fairly concentrated hamlet center with little additional non-farm businesses along Route 25. Business development would be limited to Church Lane-West Lane and Edgar Avenue on Route 25. A modest TDR receiving area would bolster the hamlet center.

Under the future baseline condition, Upper East Main Street would continue to be developed in a hodge-podge of auto-oriented businesses, office/institutional buildings and incompatible industrial uses. Unregulated, these will depress the neighborhood's value for quality moderately priced residential use. The Proposed Action would phase out incompatible industrial uses and improve the physical setting with sidewalks, lighting and landscaping enhancements.

The central neighborhood of Polish Town would benefit from more residential zoning and less commercial-industrial zoning in its center under the Proposed Action. It would become better linked to downtown by streetscape, sidewalk and crosswalk improvements as well as signage and a downtown center mixed use zoning district.

The Proposed Action would eliminate commercial zoning in Wading River East, Roanoke, Laurel and north of downtown, and Route 25 in Calverton, and replace it with residential or agricultural zoning, consistent with surrounding land uses and zoning. Under the future baseline, the development of these existing inappropriately located districts would create adverse effects as described in Chapter 6 of the Plan.

It has been shown that the Proposed Action will present better future development patterns in each hamlet compared to not adopting the Plan and its zoning recommendations. No adverse impacts are thus anticipated as a result of implementing the Proposed Action versus the future baseline on hamlet or neighborhood character.

3. MITIGATION

Agricultural Element – Land Use Regulations

Goal 3.6 urges a concentration of development into compact nodes, while preserving the surrounding open space for agricultural use in the agricultural greenbelt by means of cluster development (Policy 3.6A). Policy 3.6C considers exempting small parcels of less than 15 acres from the cluster requirement. The negative impacts of segmenting larger farms into smaller parcels that would become exempt after being subdivided into 15-acre parcels can be dealt with. It should be required that larger farms, capable of further division after the first division be either required to, 1) submit a cluster plan in the first instance; 2) submit a covenant or deed restriction prohibiting further re-subdivision or recombination with other land resulting in further subdivision for residential development; 3) placement of a conservation easement over the "excess" land; 4) donate or sell the development rights to the "excess" land. Together with the "fast-track" review for Agricultural Opportunity Subdivisions, this exemption from clustering would encourage the preservation of larger farmable parcels with a limited residential development option while mitigating the segmentation issue.

4. UNAVOIDABLE ADVERSE IMPACTS

It is not expected that any unavoidable significant adverse environmental would occur as a result of the Proposed Action. The Proposed Action would not increase the rate of agricultural land loss to development, nor would it cause the

future population of Riverhead to increase beyond the future baseline condition. It would not lead to increases in traffic volumes or congestion and would not cause impairment to the Town's environmental resources. It would not place additional burdens upon the Town's community facilities or parks and recreational amenities.

In general, the reverse would be true. The Proposed Action would decrease the levels of farmland conversion and population from the future baseline condition. It would improve traffic conditions and reduce the rate of increase in traffic generation over the next few decades.

In the receiving area north of Sound Avenue, development density would increase over the future baseline at the theoretical full use of TDR by some 1,728 dwelling units. While this may be viewed as an unavoidable impact, in totality it is not viewed as significant when compared to the 2,160 acres of developable land in this receiving area. There would be traffic impacts as discussed in the text, but it is believed that with local traffic safety improvements at the intersections noted, the impacts would be slight to moderate.

Finally, by reducing the ultimate potential population of Riverhead, the Proposed Action would decrease the future usage levels and demand for public services than would be the case in the future baseline condition.

5. ALTERNATIVES

No-Action (No-Adoption)

The No-Action alternative is essentially a "no-adopt" alternative. A "No Action" alternative to the Proposed Action is essentially the sum of future baseline conditions discussed in the each subject topic. No changes to the current trend lines take place and the existing land use and zoning patterns remain as they are. In this GEIS, this has been termed the future baseline condition. Throughout the GEIS, it has been made clear that this alternative is less satisfactory than the Proposed Action. It is not believed that the balancing required under SEQR can produce a findings statement that the No-Action Alternative is superior to the Proposed Action.

Program Alternatives - Introduction

Reasonable alternatives to the Proposed Action are required for examination in order to comply with the SEQR regulations. In the Riverhead planning process, reasonable alternatives in the GEIS include those that are meant to address issues raised in the consideration of the Plan's proposals. Others of course may arise in the public comment period.

Program Alternatives - Discussion

"The Zone III/AOZ Cluster Alternative"

In the discussion on water resources regulatory environment, a contradiction between an earlier Comprehensive Plan recommendation and the Suffolk County Sanitary Code Article 6 provisions in Hydrogeologic Zone III was raised. This involved areas with on-site sanitary systems but no public water, where the lot size must be a minimum of 40,000 square feet. This density determines the base nitrogen loading for Zone III (4 mg/L). The land use implication is that the Department of Health Services because of the additional nitrogen loading of the agricultural use will not approve cluster development done to preserve farmland at this dwelling unit density.

Even when reducing the base residential density to 80,000 square feet per lot as is proposed in the Agricultural Element of the Comprehensive Plan, the net density in the clustered residential portion of the development remains at 40,000 square feet per lot, when for example 50% of the original site is preserved for agriculture. Doing the cluster tighter however results in exceeding the overall net 40,000 square foot density on the residential portion of the original tract in terms of nitrogen loading. Thus even at a base density of 80,000 square feet per dwelling clustered down to 40,000 square foot lots, far less than 50% of the original site can be used for farming due to the nitrogen loading of the farmland.

Further, the first draft Comprehensive Plan recommended requiring 70% of the original parcel be preserved in the AOZ. A cluster development plan conforming to the zoning density reduction proposed in the Comprehensive Plan would not be approved by the Health Department at a base density of 80,000 square feet per dwelling due to the Plan's recommended retention of agricultural uses on the remaining 70% of the parcel at that density. A lower base density would be required to retain 70% of the original parcel in agriculture and 40,000 square feet per clustered lot in the AOZ. The Plan now recommends 60 percent preservation with 30,000 square foot lots on the remaining 40 percent of the parcel. This has

not been reviewed by the Department of Health Services but of course should be before becoming Town policy.

The difference in the nitrogen loading possible under the Comprehensive Plan's recommendations in the AOZ and the nitrogen loading limit in Hydrogeologic Zone III may also be met by one or a combination of other ways:

- Reduced the recommended zoning density reduction in Residence A in Zone III to a base density of lower than 80,000 square feet per dwelling.
- Require a mandatory transfer from Zone III to another hydrogeologic zone of the difference in nitrogen loading (density) needed to meet Zone III standards.
- Enable a voluntary density reduction by means of a conservation easement.
- Allow the use of alternative on-site septic systems to reduce nitrogen loading.
- Use less than the total of the resultant clustered open space for agricultural field crops to reduce its nitrogen loading.

It is recommended that a conference with the staff of the County Health Services Department staff be held to resolve this issue and determine a better policy with regard to agriculture in Zone III cluster developments and other uses such as golf and agriculture. This would also affect more towns than Riverhead that lie within Hydrogeologic Zone III.

6. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The Proposed Action presents a comprehensive, detailed and far-reaching program of goals and strategies, policies and recommendations for Riverhead. As such, its adoption and implementation will result in an irreversible and irretrievable commitment of public, financial and human resources. A long-term commitment will be needed by the Town's decision-makers to ensure that the Plan's goals and objectives translate into its operating policies, practices and budgets.

Irreversible and irretrievable commitments of resources in the private sector also include construction materials used in road, infrastructure and utility construction; materials used in the construction of the dwellings, business and

industrial structures and septic and sewerage collection systems; and in the water supply diverted from the rest of the public water supply system by consumptive use on the developed properties and recharge lost to the local aquifer.

One irreversible and irretrievable commitment of resources is the designation of the area north of Sound Avenue as a major receiving area. The 2,160 acres of land available for development in this area would be committed to residential development and development rights receiving from the AOZ. Against this commitment must be measured the potential savings of up to 5,030 acres of developable farmland. To the extent that all or a portion of additional farmland preserved is also irretrievably and irreversibly so, a reasonable balance of objectives has been achieved.

It must also be recognized that under the future baseline condition, this commitment of 2,160 acres of farmland to development would also be the case if no additional development rights were acquired in this receiving area. Conversion of its agricultural land to other uses such as golf courses under either the Proposed Action or the future baseline condition would also be viewed as an irreversible and irretrievable commitment of this resource as well.

In conclusion, the commitments of public and private resources to implement the recommendations of the Proposed Action will pay off in a future Riverhead whose farmland and farm industry have been protected; whose open spaces and natural resources have been preserved; whose parks and recreation facilities are among the best available; where there are many employment opportunities; where it is an attractive town to live, work and shop in. Those characteristics too, are irreversible when the Town's commitment is permanent.

7. GROWTH-INDUCING ASPECTS

The Proposed Action is not one that can be characterized as growth inducing in the broad sense. That is to say that the Proposed Action reduces the relative growth inducement characteristics of Riverhead as compared to today or to the future baseline. At ultimate population the Town's population will be much lower than the future baseline with no action.

Some local minor growth inducing impacts may be felt in the hamlets of Aquebogue and Jamesport when TDR occurs to increase hamlet population slightly over the future baseline. This may lead to some minor business expansion. However this is not thought of in a negative way, as local businesses would thus enjoy a somewhat larger patron base and existing businesses may be in a slightly better competitive position over time.

Local growth inducement is of course built into the transfer of development rights receiving areas. But with the limits that the Plan proposes, it is not felt that significant impacts will be felt over time. The net effect on the Town of the Proposed Action would better be characterized as growth-restraining rather than growth-inducing.

8. EFFECTS ON ENERGY USE AND CONSERVATION

Projected energy use is related to the amount and pattern of projected future development. Insofar as new residential development in Riverhead over the course of full build-out is expected to add fewer housing units and residents than under the future baseline, the net effect upon energy use will be a comparable reduction in the expected increase.

Also, because growth is shifted from broad areas of farmland and from commercial strips to more concentrated "nodes" of development, economy of energy facility installation and plant maintenance can be expected. Energy consumed in shopping and errand trips is also similarly conserved. Thus the Proposed Action will benefit short- and long-term levels of consumption of energy and the cost to deliver it and maintain the energy infrastructure. In conclusion, with respect to energy use and conservation, no adverse impacts are expected.

9. CRITERIA FOR FUTURE SITE-SPECIFIC PROPOSALS

Even though future development proposals comply with the recommendations of the Proposed Action and its implementing zoning regulations, State Environmental Review regulations still apply. Individual actions must be reviewed as to the environmental significance of the proposal, which then determines the level of environmental review that is necessary.

The Comprehensive Plan establishes a broad policy framework as well as specific recommendations that would implement it. Both public and private agencies can implement respective portions of the Comprehensive Plan. That is the essence of preparing and adopting a plan in the first place. Roles and processes are better defined. More acceptable site plans and subdivisions usually result immediately after the adoption of a new comprehensive plan and zoning/subdivision regulations. By observing and following the Plan's goals and recommendations, many inappropriate proposals never mature and rise to a public forum. This hidden benefit itself conserves the resources of the review agencies to concentrate on the more genuine and better thought out proposals, both public and private.

With the above discussion as a backdrop, the criteria listed below are suggested in determining the significance of future actions upon adoption of the Plan. They are not necessarily listed in the order of importance, but rank high as relative determinants of significance.

- 1. Farmland Preservation the relative preservation or loss of farmland versus the Plan's objectives, and project alternatives.
- 2.Traffic the amount of traffic generation, the ability of the local road system to absorb the added traffic without significant impact, success of the access management plan being presented, including shared access and shared parking.
- 3.Esthetic/Scenic Issues whether the proposed development is in keeping with the character of historic resource areas, and whether it preserves the scenic resources of Riverhead, particularly farm, open space and water views. An important corollary, where it applies, is the impact on Sound Avenue.
- 4.Natural Resources the project's impact on water bodies, wetlands, wildlife habitats, slopes and unique rare or threatened plant communities. Sensitive areas exist in Riverhead, particularly certain vegetative plant communities along the north shore bluffs.
- 5.Stormwater Management, Erosion and Sedimentation the inclusion of adequate provisions to address these issues and contain their impacts on the development site; retention of pre-development drainage characteristics.

- 6.Regulatory Compliance compliance with sanitary regulations and nitrogen loading related both to residential development, farmland preservation and permitted uses of the open space in a cluster development.
- 7.Effect on Community Facilities how the proposed development will impact public schools, emergency services and medical facilities.
- 8.Compatibility With Other Plans how the project relates to the Central Pine Barrens Land Use Management Plan, the Peconic Estuary Study, the Long Island Sound Study, other plans adopted by the Town of Riverhead.

If a proposed project appears to affect any of these parameters significantly, included in the project development presentation should be measures to mitigate adverse impacts, project alternatives and other suitable methods for the Lead Agency to consider.

APPENDIX A - MAPS AND PLANS

"Town of Riverhead - LAND USE" Suffolk County Department of Planning

"Town of Riverhead – LAND AVAILABLE" Suffolk County Department of Planning

"Town of Riverhead – Proposed Land Use Plan" Abeles Phillips Preiss & Shapiro, Inc.

[&]quot;Town of Riverhead Zoning Map"

APPENDIX B - LIST OF RESOURCE STUDIES AND DOCUMENTATION

"1999 Existing Land Use Inventory – Eastern Suffolk County" July 2000, Suffolk County Department of Planning, Hauppauge, NY

"1999 Land Available for Development – Eastern Suffolk County", October 2000, Suffolk County Department of Planning, Hauppauge, NY

"208 Areawide Waste Treatment Management Plan, 1976-78, Nassau-Suffolk Regional Planning Board, Hauppauge, NY

"2001 Land Available for Development – Sending/Receiving Areas – Town of Riverhead", February 2002, Suffolk County Department of Planning, Hauppauge, NY

"A Transferable Development Rights Program for Land Preservation", July 15, 2002, James C. Nicholas

"Comprehensive Master Plan - 1973", Riverhead Town Board and Planning Board, 1975

"Inventory and Analysis Report" (no date given) Sustainable East End Development Strategies (SEEDS), East End Transportation Council and the New York Metropolitan Transportation Council

Memorandum from Vincent A. Gaudiello, PE, Town Engineer to the Town of Riverhead Planning Board, June 5, 2003 entitled "Suffolk County Department of Health Services General Guidance Memorandum No. 17 Agricultural course Density

"Proposed Comprehensive Plan for the Town of Riverhead", July 2002, Abeles Phillips Preiss & Shapiro, New York, NY

"Saturation Population Analysis – Eastern Suffolk County", June 2001, Suffolk County Department of Planning, Hauppauge, NY

"Suffolk County Sanitary Code – Article 6", last revised June 28, 1995, Suffolk County Department of Health Services, Riverhead NY

General Guidance Memorandum #17, Agricultural and Golf Course Density, July 22, 2002, Suffolk County Department of Health Services, Division of Environmental Quality, Office of Wastewater Management, Hauppauge, NY

"The Long Island Comprehensive Special Groundwater Protection Area Plan", 1992, Long Island Regional Planning Board, Hauppauge, NY

APPENDIX C - SCOPING DOCUMENT