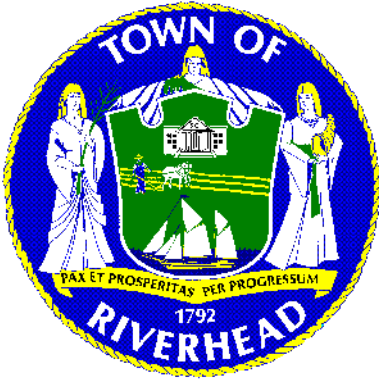
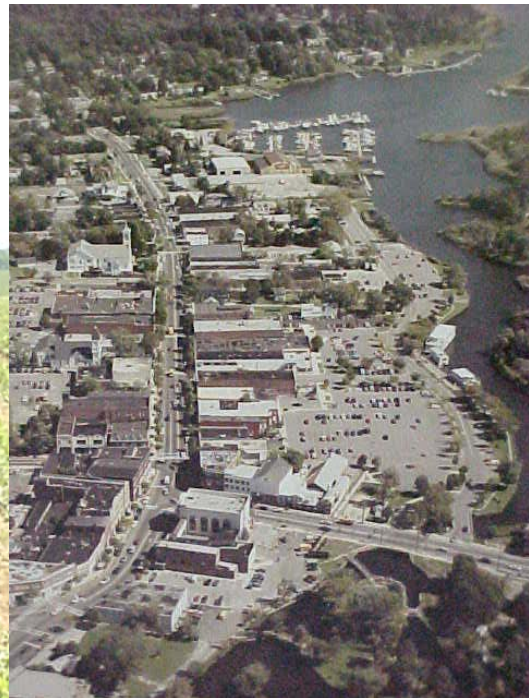




TOWN OF RIVERHEAD COMPREHENSIVE PLAN NOVEMBER 2003

PURSUANT TO SECTION 272-a OF THE TOWN LAW



Town of Riverhead Comprehensive Plan

November 2003

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1. Introduction

Riverhead is a community rich in natural, historic, and scenic resources that is experiencing powerful forces of change. Riverhead continues to be the most important agricultural community in Suffolk County and one of the most important in the State. Riverhead's unique landscape also includes waterfront areas on the Great Peconic Bay, Flanders Bay, and Long Island Sound; portions of the Central Pine Barrens and the scenic Peconic River; and distinctive bluffs and woodlands along the Sound. The Town has an historic Main Street and hamlet centers, like Jamesport and Aquebogue.

With change, there are both opportunities and risks. Enterprise Park at Calverton promises to attract new businesses and jobs. Increasing tourism is drawing more visitors into downtown, Jamesport hamlet, and the wine country, where they spend money on overnight accommodations, cultural events and attractions, meals, and specialty items like antiques and crafts. Retailers along Route 58 are drawing shoppers from the entire East End, as well as in the western part of Suffolk County.

At the same, local residents know the downsides of growth all too well: disappearing open space; increasing threats to natural resources; worsening traffic congestion; overburdened community facilities; proliferation of unattractive sprawl and strip development; and worst of all, a diminishment of the Town's unique countryside character that attracted so many residents in the first place.

Recognizing these opportunities and pressures, the Town Board, with the assistance of the Planning Board, embarked upon the preparation of this Comprehensive Plan in the late 1990s. Early on, the Town established a goal to develop a plan that fully takes into account the concerns of the community and strives for fair, balanced solutions to complex problems. Working with local consultants, the Town coupled extensive research and field work with a multifaceted community outreach process.

1.1 COMMUNITY OUTREACH PROCESS

For the purposes of the Comprehensive Plan, the Town's outreach process included everything from public workshops, to surveys, to interviews with key stakeholders. By using a variety of techniques, the Town was able to hear from a broad range of townspeople, including downtown business leaders, concerned residents, farmers, social service organizations, environmental advocacy groups, participants of Riverhead Vision 2020, and many others.

Although public outreach increased the time involved with preparing the Comprehensive Plan, it was time well spent. The outreach process was extremely effective in soliciting concerns, ideas, and opinions from the public. The comments that were obtained played *the* essential role in writing and rewriting the goals and policies in this document, ultimately resulting in a better plan for the community's future.

CITIZENS ADVISORY COMMITTEE

At the beginning of the Comprehensive Plan process, the Planning Board established and organized a Citizens Advisory Committee (CAC) to oversee the preparation of plan. The members of the CAC included local residents, property owners, businesspeople, representatives of neighborhood groups, members of Riverhead Vision 2020, and other representatives of the community. Serving in an advisory capacity to the Planning Board, the CAC was responsible for raising issues of concern and reviewing and commenting on first drafts of chapters in the plan as they were released. (CAC members are listed on the Acknowledgments page.)

Two rounds of CAC meetings were held, as discussed below. All CAC meetings were held in Town Hall, were open to the general public, and were noticed in local newspapers. Through the CAC meetings, anyone interested in the Town's future was invited to express his or her viewpoints.

Round One Workshops

The first series of CAC workshops was held in the spring and summer of 1999. During the very first workshop, facilitators from the firm of Abeles Phillips Preiss & Shapiro conducted a "SWOT" analysis. The acronym "SWOT" stands for Strengths, Weaknesses, Opportunities and Threats. The exercise was intended to identify those attributes of the Town that people liked or disliked (strengths and weaknesses) and those evolving trends that had the potential to positively or negatively impact the Town (opportunities and threats).

The session was an interactive, audience-based discussion of the whole Town. People called out ideas, and facilitators wrote them down on large sheets of paper. As the pages were filled, one by one, they were pinned up throughout the room. By the end of the session, the walls were literally papered with the issues, concerns, and ideas that were ultimately considered and explored in drafting the Comprehensive Plan. Members of the Planning Board and staff from the Town's Planning Department and the Community Development Department attended many of the meetings.

The SWOT analysis was just the beginning. What followed were 12 separate workshops, each focusing on a particular topic of concern. Like the SWOT analysis, the format of these subsequent workshops was interactive and audience-based, where people could call out ideas, and facilitators took notes. The discussion topics were as follows:

- Downtown
- Transportation
- Business Districts
- Parks and Recreation
- Natural Resources
- Waterfront
- Infrastructure
- Economic Development

- Agriculture
- Scenic and Historic Resources
- Community Facilities and Services
- Housing

Round Two Workshops

During the Round One workshops, two notions quickly became apparent. First, CAC members and the general public were most immediately concerned about downtown revitalization and agricultural land preservation. Second, CAC members wanted to be closely involved in the drafting of each element of the Comprehensive Plan. Thus, it was decided that first two steps of the Comprehensive Plan drafting would be to prepare (1) a Downtown Revitalization Strategy (portions of which would eventually be incorporated into the Plan) and (2) the Agriculture Element of the Comprehensive Plan. It was also decided that a second round of workshops would be necessary, so that CAC members would have an opportunity to review and comment on first drafts of the plan's elements.

The first workshops during Round Two were held in early 2000 for the purposes of reviewing and discussing the Downtown Revitalization Strategy. Based on comments received from the CAC meeting, the Strategy was revised and approved by the CAC in summer 2000, and subsequently adopted by the Planning Board. In summer and fall 2000, workshops were held on the first drafts of the Agriculture Element. Subsequently, between early 2001 and early 2002, the remaining Round Two workshops were held.

During each workshop, the Town's consultants presented one or more draft elements of the Comprehensive Plan. Multiple copies of the draft chapters as well as executive summaries were made available at the beginning of each meeting. Presentation-size maps and diagrams were prepared and used as the basis for discussion. Draft chapters and maps were also made available on the Town's web site, <www.riverheadli.com>. PowerPoint presentations were made for some of the chapters. Many of the Round Two workshops were videotaped and later aired on cable, helping to keep informed those members of the community who might not have been able to attend a workshop.

Throughout the Round Two workshops, members of the CAC and the general public were invited to pose questions, offer suggestions, proffer new ideas, point out omissions or corrections in the draft text, or make any other comments. Again, the consultants noted all the points raised during the workshops. Subsequent to the meetings, some individuals and organizations also submitted written letters and comments to the Town on the draft chapters.

Surveys and Interviews

While the CAC meetings were taking place, the Town was also busy conducting two additional outreach initiatives: surveys and interviews. Multi-page surveys were distributed to all households on the topic of the downtown area. The purpose of the survey was to assess shopping trends and understand concerns about the downtown area. The results of the survey were

instrumental in preparing the Downtown Revitalization Strategy, as well as the goals and policies related to downtown in this document. The survey also included an invitation for people to get involved in the CAC workshops.

Also, the Town's consultants conducted interviews with various public, private, and non-profit organizations in order to obtain their unique perspectives on the Town's needs. Among the organizations interviewed were:

- Atlantis Aquarium;
- Business Improvement District (BID) in downtown Riverhead;
- Merchants and property owners in downtown Riverhead;
- Merchants in Aquebogue, Jamesport, and Wading River;
- Parking District in downtown Riverhead;
- Riverhead Central School District;
- Riverhead Free Library;
- Riverhead Senior Center;
- Riverhead Vision 2020;
- Riverhead Volunteer Ambulance Corps;
- Social service providers;
- Suffolk County Department of Health Services, Riverhead Health Center;
- Suffolk County Department of Health;
- Suffolk County Historical Society;
- The proposed Science Center children's museum;
- The Town's four fire districts;
- Various Town departments, including Police, Engineering, Recreation, and Community Development

RIVERHEAD VISION 2020

Finally, the outreach process for the Comprehensive Plan was coordinated with Riverhead Vision 2020, an independent, grass roots initiative organized by resident (and CAC member) August Field with the purpose of developing a long-range vision for the Town's future.

The Vision 2020 process was composed of a series of "study circles" in which participants raised issues of concern and brainstormed new ideas. Among some of the recurrent themes discussed in those meetings were the need for growth, cultural traditions, the rural atmosphere of Riverhead, recreation needs for youth, and improved connections between business, civic, health and human service organizations. More than 200 people attended study circles in spring and summer 2000.

The process culminated in a Vision Fair in June 2000, where participants voted on potential actions for improving the Town's quality of life, particularly in the downtown area. Many of these recommendations were compatible with the proposals in the Downtown Revitalization Strategy, such as the improvement and expansion of Grangebél Park. In addition to August Field, other members of Riverhead Vision 2020 were active participants in the Town's CAC meetings. In this way, there was cross-fertilization between the two processes.

1.2 CONTENTS OF THE COMPREHENSIVE PLAN

The Comprehensive Plan is composed of eleven different elements, each dealing with a distinct topical area of the community. Each element contains goals and recommendations specific to that topic area. The Proposed Land Use Plan in Chapter 2 weaves together those goals and recommendations into a single, coherent plan for development and conservation, providing a snapshot of what the Town would be expected to look like in the future. The other ten elements of the plan are organized 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 Element
- Chapter 8: Housing Element
- Chapter 9: Transportation Element
- Chapter 10: Utility Service Element
- Chapter 11: Parks and Recreation Element
- Chapter 12: Community Facilities Element

The first drafts of many of these chapters included a detailed inventory and analysis of demographic data, economic and business trends, land use patterns, transportation infrastructure, public facilities and programs, and other background information. This information is presented in summary form in the elements listed above; the detailed inventory and analysis has been moved to the appendices. The reason for doing so was to make the plan more concise and easier to read.

1.3 RELATIONSHIP TO OTHER PLANS

Preparation of the Comprehensive Plan was undertaken concurrently with two other planning efforts: the Downtown Revitalization Strategy, which was completed in August 2000; and the Local Waterfront Revitalization Program (LWRP), which was being prepared as of October 2003.

The Downtown Revitalization Strategy provides a plan for "retooling" Main Street toward tourists and visitors, building off of the North Fork's emerging tourism market. The strategy was reviewed and approved by the CAC and subsequently adopted by the Town Board. Many of the recommendations in the Downtown Revitalization Strategy have been folded into Chapter 6, the Business Districts Element. Also, the Downtown Revitalization Strategy is hereby incorporated in full as part of the Comprehensive Plan, meaning that the recommendations in that document should be treated as Comprehensive Plan recommendations.

The LWRP provides specific recommendations with regard to the use of waterfront areas on Long Island Sound, the Great Peconic Bay, Flanders Bay, and the Peconic River. Particular attention is given to the issues of environmental protection, dredging, and waterfront access. Because the Comprehensive Plan and the LWRP were prepared concurrently, background information between the two planning efforts was shared, and policies and recommendations were coordinated, such that the two plans would not be at odds.

The Plan is also being sent in draft form to Suffolk County, neighboring towns, the Regional Plan Association, State and County transportation agencies, the Central Pine Barrens Commission, and other concerned and interested agencies and organizations. It is Riverhead's hope that the draft plan will be reviewed by those entities and that they will provide constructive comments. It is important that the Riverhead Comprehensive Plan be compatible with the plans of neighboring towns as well as State and County agencies.

1.4 IMPLEMENTATION OF THE COMPREHENSIVE PLAN

Implementation of the Comprehensive Plan will be an incremental process. When the Comprehensive Plan is completed, the Town's zoning ordinance will be updated over the course of the following 12 months to reflect all of the newly adopted goals and policies in this document. Then, as development proposals come forward from the private sector, those new projects will have to conform to the new zoning provisions. State and County agencies, when undertaking projects in Riverhead (e.g. roadway improvements) will be required to take the Comprehensive Plan into account.

This document was distributed to the public several times for feedback and comments. The Riverhead Town Board and Planning Board, along with the Riverhead Planning Department played pivotal roles in reviewing, editing, and revising the Comprehensive Plan. The two Boards critiqued and reworked the Comprehensive Plan in light of the commentary gathered at public hearings and correspondence submitted by various civic groups and landowners. Regular work sessions, open to the public, were held to evaluate all of the public input and feedback while taking into consideration accepted planning principles and practices. The Riverhead Planning Department was instrumental in advising and assisting the two Boards throughout the entire process.

Pursuant to Section 272-a and Section 239-m of the General Municipal Law, the Suffolk County Planning Department reviewed the interim version of the Comprehensive Plan submitted by the Riverhead Planning Board. The Suffolk County Planning Department issued a staff report

granting the conceptual approval of the Comprehensive Plan with comments on some of its goals and policies. In terms of regional and inter-town issues, the Department found that there was no direct conflict between the Comprehensive Plan and other regional plans, such as the Central Pine Barrens Plan, the Agriculture and Farmland Protection Plan, and the Suffolk County Sanitary Code. The final version of the Comprehensive Plan includes several of the recommendations made by the Suffolk County Planning Department.

Once the Comprehensive Plan is adopted by the Town Board, implementation will be relatively inexpensive and cost-effective. Because many aspects of the Comprehensive Plan would be implemented incrementally over time, those implementation tasks would be folded into the Town government's day-to-day administrative tasks. New development will be required to conform to the revised zoning provisions, as subdivision and site plan applications are submitted. Thus, implementation for the most part would cost no more than the normal costs that the Town already incurs for the purposes of administration. There would be a one-time cost involved with updating the Town's zoning regulations.

The Comprehensive Plan includes some recommendations for new, expanded, or improved public facilities, like parks, roads, or maintenance facilities. However, the Comprehensive Plan does not make budgetary decisions. The Town Board would have to decide whether and how much money to spend on implementing such public facility improvements when approving the Town's budget on an annual basis.

2. Land Use Element

2.1 VISION STATEMENT FOR RIVERHEAD'S FUTURE

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 Riverhead's natural, historic, and scenic resources. In the future, Riverhead should have the following characteristics:

- 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 Land Use Element 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 existing 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 population that would exist when all available land is developed to the maximum extent in accordance with zoning patterns.

2.2 THE PROPOSED LAND USE PLAN

The Proposed Land Use Plan, shown in Figure 2-1, summarizes in map form many of the goals and policies in the Comprehensive Plan. The Proposed Land Use Plan is an outgrowth of the Town's public outreach process. It was prepared in spring and summer 2002, after the completion of the Citizens Advisory Committee's (CAC) Round Two Workshops (see Chapter 1, the Introduction). The Round Two Workshops were sessions during which members of the CAC and the general public were able to review and comment on the first drafts of the other ten elements of the Plan. Following those workshops, the comments received were used to revise and refine those elements and, finally, to prepare this synthesizing element, which brings all of them together. In addition, the Riverhead Town Board amended the Proposed Land Use Plan to consider public comments on specific parcels where the proposed districts/uses were challenged. Several districts and land use patterns were also modified to streamline the sending and receiving areas of the Transfer of Development Rights (TDR) program and to take into account accepted planning principles.

The Proposed Land Use Plan sets a precedent for future development because once it is adopted it will become the basis and implementing authority for the Town's new zoning map. As such, it will directly influence future development patterns. All future subdivisions and site plans will have to conform to the map and the new zoning designations included in this Element.

CHANGES FROM THE TOWN'S CURRENT ZONING MAP

While some parts of the Proposed Land Use Plan are consistent with the existing zoning patterns, other parts are significantly different. In particular, several new commercial zoning districts are being proposed and a majority of the existing residential districts are being replaced with lower density residential districts. These new districts are intended to help implement proposals in the various elements of the Comprehensive Plan, particularly the Agriculture Element (Chapter 3), the Natural Resources Conservation Element (Chapter 4), the Business Districts Element (Chapter 6), and the Economic Development Element (Chapter 7).

Table 2-1 provides a list of the proposed zoning districts. Table 2-2 lists the existing zoning districts that are being retained in the Proposed Land Use Plan, and Table 2-3 shows the existing zoning districts that are being eliminated.

Figure 2-1: Proposed Land Use Plan

Back of Figure

In order to implement the goals and policies found throughout the Comprehensive Plan, many other properties are proposed to be rezoned as well. In particular, the Proposed Land Use Plan modifies existing zoning patterns and boundaries to bring about farmland and open space preservation, and create compact, well planned pedestrian and transportation-friendly communities.

Proposed Zoning Districts

As shown in Table 2-1, the proposed zoning districts consist of commercial and residential districts, as well as an Industrial/Residential (IR) district. The commercial districts 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 2.3. The Downtown Center (DC) zone is broken up into several subdistricts, each tailored to a distinct part of the downtown area. These subdistricts, 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 the 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 (VC). These zones are integrated along Route 58 and in the hamlet centers to best suit the localized market trends in these areas.

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 proposed residential districts reflect town-wide density reductions as well as the restructuring of the existing TDR program. As explained above, these measures are intended to reduce sprawl and development pressures, and create well-planned communities. The Residence A-80 (RA-80) and Residence A-40 (RA-40) districts, and certain parcels in the Residence AB-80 (RAB-80) district, are residential receiving areas that are designed to shift development potential away from Riverhead's farms and priority open space.

Table 2-1: Proposed Zoning Districts

Industrial

IR Industrial/Recreational

Commercial

DC	Downtown Center		
	DC-1 Main Street	DC-4	Office/Residential
	DC-2 Waterfront		Transition
	DC-3 Office	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		

Residential

RA-80	Residence A-80
RA-40	Residence A-40
RB-80	Residence B-80
RB-40	Residence B-40
RAB-80	Residence AB-80

Agriculture

APZ Agricultural Protection Zone

Institutional

IN Institutional

Overlay Zones

MFROZ Multifamily Residential Overlay Zone

As stated in Chapter 3, the Agriculture Element, the purpose of the TDR program is to receive development rights from parcels in the Agricultural Protection Zone (APZ) and certain parcels in the RAB-80 district (north of Sound Avenue). These areas have significant agricultural, open space, ecological values in the Town of Riverhead. For instance, by participating in the TDR program, a landowner in the APZ could sell his or her property's development rights to a landowner in the RA-80, RA-40, or certain parcels in the RAB-80 district, with the result that the farmland would be preserved as tillable open space. Parcels within the receiving districts (RA-80, RA-40, and RAB-80) would have the ability to double

as-of-right densities with transferred development rights. The advantage of embedding the TDR component into each district as opposed to creating a general overlay for all districts is that the TDR provisions can be tailored to each district. In this way, the TDR component can take into account the hamlet characteristics and development standards for each receiving area.

The RAB-80 district is located north of Sound Avenue between Wildwood State Park and the Southold Town line. Since parcels within the RAB-80 district have natural, scenic, agricultural, and open space values, as well as strong real estate market values and adequate infrastructure, the district is designed to send and receive development rights in the TDR program. While parcels in the RAB-80 district are expected to have a very high potential demand for residential development, an analysis of the land use in this district indicates that approximately one half of the unprotected, developable land is actively tilled farmland (excluding the KeySpan property – 600-3-1-2.2). For this reason, the RAB-80 district provides a landowner with the flexibility to send development rights and place an agriculture easement on the land, or receive development rights and double the as-of-right density on the land.

The Residence B-80 (RB-80) and Residence B-40 (RB-40) districts are traditional residential districts with two acre as-of-right yields that are not part of the TDR program. Parcels within these districts are expected to have a lower concentration of potential housing units than those in the TDR receiving areas.

The Institutional District (IN) includes parcels with community facilities, such as schools, parks, and fire departments, along with miscellaneous property owned by the Town of Riverhead.

The proposed overlay zone is intended to create compact and attractive future housing development for Riverhead. The Multifamily Residential Overlay Zone (MFROZ) allows for high-density residential use for sale or lease on appropriate sized parcels with frontage upon major thoroughfares and served by necessary infrastructure. The overlay zone shall be established on a floating zone basis where specific criteria must be met for parcels to qualify.

Existing Zoning Districts that are being retained

The districts that are being retained are listed in Table 2-2.

Table 2-2: Existing Zoning Districts that are Being Retained

Residential

RRC Residence RC - Retirement Community

RRDC Residence RDC - Redevelopment Community¹

Industrial

PRP Planned Recreational Park

PIP Planned Industrial Park

IA Industrial A - Light Industry

IB Industrial B - General Industry

Commercial

PB Business PB – Professional Service Building

MRPO Residence E – Multifamily Residential Professional Office Zone

BCR Business CR – Rural Neighborhood Business

Recreational, Open Space & Conservation

OSC Open Space Conservation

NRP Natural Resources Protection

RN Recreational

Overlay Zones

IROZ Industrial Receiving Overlay Zone¹

PBOZ Pine Barrens Overlay Zone²

1. These are overlay 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 zoning ordinance.

2. 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 Figure 2-1. This is not an oversight. These are overlay districts that may be added to the 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 Compatible Growth Area of the Central Suffolk Pine Barrens. This area is depicted on Figure 4-1: Aquifer and Groundwater Resources.

Existing Zoning Districts that are being eliminated

Properties that are located in any of the eliminated zoning districts below are designated by new zoning districts in Figure 2-1. As previously stated, the proposed commercial and residential districts would replace a majority of the existing zoning districts. Because the Proposed Land Use Plan includes a new set of commercial zoning districts, a majority 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 areas north of this site, was eliminated in September 1999 and rezoned for industrial, recreational, and open space uses.

The Proposed Land Use Plan sets forth a new set of residential districts that replaces several existing zoning use districts. The existing residential districts are being eliminated because of the town-wide upzoning and the restructuring of the TDR program. Specifically, certain existing residential districts with minimum lot sizes of 40,000 square feet and 20,000 square feet are being eliminated because their densities do not conform to the land preservation goals of the Comprehensive Plan.

Table 2-3: Existing Zoning Districts that are Being Eliminated

<u>Industrial</u>	
DI	Defense Institutional (eliminated in September 1999)
<u>Commercial</u>	
BA	Business A - Resort Business
BB	Business B - Shopping Center
BC	Business C - Neighborhood Business
BD	Business D - General Business
BE	Business E - Highway Commercial Service
BG	Business G - Tourist Business
OS	Office/Service
<u>Residential</u>	
RA	Residence A
RB	Residence B
RC	Residence C
RD	Residence D
<u>Agriculture</u>	
APZ	Agricultural Protection Zone

2.3 PROPOSED LAND USE DESIGNATIONS

The new zoning districts shown on Figure 2-1 and listed in Table 2-1 are explained in detail in this section. Each district is summarized in a single table, starting on the next page. 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 these tables. The "design concepts" discuss only the most critical regulations necessary to achieve the desired patterns of land use and development in each district.

Table 2-4: Downtown Center (DC)

Purpose: 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.

<i>Preferred Land Uses</i>	<i>Design Concepts</i>
<i>DC-1: Main Street</i> • Retail Stores, Personal Services • Indoor Public Market • Art Galleries • Restaurants, Cafes, Bars • Banquet Facilities • Live Entertainment • Theaters, Cinemas • Funeral Homes • Banks • Bed-and-Breakfasts, Inns • Offices (not on ground floor) • Museums, Libraries • Aquariums • Schools / Dormitories • Places of Worship • Parks and Playgrounds • Apartment buildings (not on ground floor) • Hotels (by special use permit of the Town Board)	<i>DC-1: Main Street</i> • Small stores clustered along a traditional "Main Street" • No minimum lot size • No front or side setbacks for buildings • Full lot coverage allowed • Tallest buildings in town • Sidewalk-oriented entrances, window displays and signs • Parking behind or beside buildings • Shared parking incentives (e.g., 20% reduction in required parking spaces) • Parking waivers with fees • Significant landscaping requirement in parking lot (e.g., 15% = 1.5 times existing regulation); landscaped planter or tree every 10-15 parking spaces, not just around the lot's edges • Height, coverage and/or floor area increases through transferred development rights
<i>DC-2: Waterfront</i> • Parks and Playgrounds • Marinas • Hotels (by special use permit of the Town Board) • Concession Stands	<i>DC-2: Waterfront</i> • Continuous waterfront walking paths/trails • Strict limits on impervious surfaces • High open space and landscaping requirements

Table 2-4: Downtown Center, continued

DC-3: Office <i>Preferred Land Uses</i> • Retail Stores, Personal Services • Restaurants, Bars, Cafes • Banquet Facilities • Art Galleries • Funeral Homes • Banks • Offices / Home Offices • Museums • Libraries • Schools • Places of Worship • Parks and Playgrounds • Apartment buildings / Townhouses • Live/work Space • Single-family Houses • Retirement housing • Residential Health Care • Hotels (by special use permit of Town Board) • Parking facilities	DC-3: Office <i>Design Concepts</i> • Compact lots • Relatively narrow front and side yards • Sidewalk-oriented entrances, window displays and signs • Parking behind or beside buildings, not in front • Shared parking incentives (e.g., 20% reduction in required parking spaces) • Parking waivers with fees • Significant landscaping requirement in parking lot (e.g., 15% = 1.5 times existing regulation); landscaped planter or tree every 10-15 parking spaces, not just around the lot's edges • Height, coverage and/or floor area increases through transferred development rights.
DC-4: Office/Residential Transition <i>Commercial</i> • Offices <i>Civic and Cultural</i> • Places of Worship • Public Offices • Parks and Playgrounds <i>Residential</i> • Cottage Accommodations • Apartment buildings • Live/work Space • Townhouses • Retirement housing • Residential Health Care • Home Offices	DC-4: Office/Residential Transition • Mix of housing and offices • Compact lots • Relatively narrow front and side yards • Front door faces the street • Front porches • Garages set back from front facade or placed in backyard • No parking in front yard • Height, coverage and/or floor area increases through transferred development rights
DC-5: Residential • Live/work Space • Single-family Houses • Two-family Houses • Townhouses • Cottage Accommodations • Apartment buildings • Retirement housing • Home Offices • Parks and Playgrounds	DC-5: Residential • Mix of housing types and sizes • Compact lots • Relatively narrow front and side yards • Front door faces the street • Front porches • Garages set back from front facade or placed in backyard • Multi-family restricted along Main Street • Height, coverage and/or floor area increases through transferred development rights

Table 2-5: Destination Retail Center (DRC)

Purpose: 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.

Preferred Land Uses	Design Concepts
Commercial • Outlet Centers • Shopping Centers (minimum 100,000 square feet) • Cinemas • Hotels • New Auto Dealerships	• Campus-like layouts • No strip development/freestanding businesses • Large minimum lot size • Significant open space requirement, located in front yard (e.g., 50% = double current Tanger Mall standard) • Low base FAR (e.g., 0.10 = 2/3 times current 0.15); higher as-of-right FAR inside Sewer District (e.g., 0.15 = one-half current 0.30); even higher FAR with purchase of Agriculture or Pine Barrens TDRs (e.g., 100% to 0.20 or 0.30 FAR) • Outfitted with sidewalks within one-quarter mile of Downtown Center, Village Center or Hamlet Center zones • Limited entrances from arterial • Aligned entrances from Route 58 simplifying and reducing traffic lights • Dense, vegetated buffering adjacent to residential uses and zones • Significant landscaping requirement in parking lot (e.g., 15% = 1.5 times existing regulation); landscaped planter or tree every 10-15 parking spaces, not just around the edges of the parking lot (not currently required)
Non-Commercial • Nursing homes • Life care	
Recreational • No golf courses or commercial recreational uses (allowed in IR zones west of LIE)	

Table 2-6: Shopping Center (SC)

Purpose: 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.

Preferred Land Uses	Design Concepts
Commercial - Shopping Centers (minimum 50,000 square feet) - Professional Office Campus - Health Spas/Clubs - Restaurants	- Large-scale and ancillary small-scale stores in shopping center layouts - Office buildings arranged in a campus-like layouts - Limited strip development/freestanding businesses - High minimum lot size - High open space requirement, located in front yard (e.g., 25%, same as Tanger Mall) - High landscaping requirement (e.g., 10%) in parking lot (not currently required) - Low base FAR (e.g., 0.15); higher FAR inside Sewer District (e.g., 0.20); further increases (e.g., by 50%) with purchase of Agriculture or Pine Barrens TDRs (to 0.225 or 0.30 FAR) - Aligned entrances from Route 58—simplifying and reducing traffic lights - Limited entrances from arterial - Dense, vegetated buffering adjacent to residential uses and zones and on frontage along arterial - Significant landscaping requirement in parking lot (e.g., 15% = 1.5 times existing regulation); landscaped planter or tree every 10-15 parking spaces, not just around the edges of the parking lot (not currently required)

Table 2-7: Business Center (BC)

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

<i>Preferred Land Uses</i>	<i>Design Concepts</i>
<i>Commercial</i> • Retail Stores • Personal Services • Restaurants • Cafes • Funeral Homes • Banks • Health Spas/Clubs • Offices • Car Washes, (by special use permit of the Town Board) • Drive-through Windows, as an accessory use • New Auto Dealerships • Recreational vehicle dealerships	• Freestanding businesses • Low minimum lot size • Low base FAR (e.g., 0.15); higher FAR inside Sewer District (e.g., 0.20); further increases (e.g., by 50%) with purchase of Agriculture or Pine Barrens TDRs (to 0.225 or 0.30 FAR) • Cross-access agreements, wherever possible • Consolidated entrances, wherever possible • Limited entrances from arterial • Aligned entrances from Route 58—simplifying and reducing traffic lights • Dense, vegetated buffering adjacent to residential uses and zones and on frontage along arterial • Shared parking incentives (e.g., 20% reduction in required parking spaces) • High landscaping requirement (e.g., 10%) in parking lot (not currently required)

Table 2-8: Business CR (Rural Neighborhood Business)

Purpose: To allow for limited commercial development adjacent to residential areas.

<i>Preferred Land Uses</i>	<i>Design Concepts</i>
<i>Commercial</i> • Retail Sales • Personal Service • Professional Offices • Restaurants • Professional Studios • Country Inns • Bed & Breakfasts <i>Prohibited Land Uses</i> • Large Retail Food Stores	• Low base FAR (0.15) • Significant front yard setbacks • Parking screened by buildings • Campus development on appropriate lots with pedestrian plazas

Table 2-9: Commercial/Residential Campus (CRC)

Purpose: 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.

<i>Preferred Land Uses</i>	<i>Design Concepts</i>
<i>Commercial</i> • Professional and Medical Arts Offices • Banks and/or Financial Institutions • Municipal Offices • Restaurants • Funeral Homes <i>Residential</i> • Single-family Residences • Two-family Residences <i>Civic and Cultural</i> • Schools • Public Offices • Museums • Art Galleries • Cultural and/or Community Centers • Civic Clubs • Places of Worship • Parks and Playgrounds	• Professional offices in a campus-style setting • High minimum lot size • High open space requirement, located in front yard (e.g., 25%, same as Tanger Mall) • Low base FAR (e.g., 0.15); higher FAR inside Sewer District (e.g., 0.20); further increase (e.g., by 50%) with purchase of Agriculture or Pine Barrens TDRs (e.g., to 0.225 or 0.30 FAR) • Limited and aligned entrances • Densely vegetated buffers (min 50 feet) adjacent to residential uses and zones and fronting roadway • High landscaping requirement in parking lot (e.g., 15% = 1.5 times existing regulation); landscaped planter every 10-15 parking spaces, not just around the edges of the parking lot (no provision, currently)

Table 2-10: Village Center (VC)

Purpose: 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.

Preferred Land Uses	Design Concepts
Commercial • Retail Stores • Indoor Public Markets • Art Galleries • Personal Services • Restaurants • Cafes • Banquet Facilities • Live Entertainment • Theater • Cinemas • Banks • Professional Offices • Art Galleries • Bed-and-breakfasts • Inns • Funeral Homes	Along Arterial • Small stores clustered along a traditional "Main Street" • Small minimum lot size (e.g., 5,000 sq.ft.) • No front or side setbacks for buildings • Full lot coverage • Sidewalk-oriented entrances, window displays and signs • Parking behind or beside buildings, not in front • Shared parking incentives • Parking waivers with fees and/or land dedication • Significant landscaping requirement in parking lot (e.g., 15% = 1.5 times existing regulation; landscaped planter or tree every 10-15 parking spaces, not just around the edges of the parking lot (not currently required))
Civic and Cultural • Museums • Libraries • Schools • Places of Worship • Parks and Playgrounds	Adjoining Residential Areas • Mix of housing types and sizes • Compact lots • Relatively narrow front and side yards • Front door faces the street • Front porches and stoops • Garages set back from front facade or placed in backyard
Adjoining Residential • Single-family Houses • Two-family Houses • Townhouses	In All Areas • Site-specific historic and design standards, as appropriate • Outfitted with sidewalks and accessible on foot • Pedestrian connections from retail to residential areas
Mixed Uses • Upper-floor offices and apartments in business districts • No ground-floor offices or apartments in business districts	

Table 2-11: Hamlet Center (HC)

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

<i>Preferred Land Uses</i>	<i>Design Concepts</i>
<i>Commercial</i> • Retail Stores • Art Galleries • Personal Services • Restaurants • Cafes • Banquet Facilities • Funeral Homes • Professional Offices • Bed-and-breakfasts	<i>Along Arterial</i> • Small stores clustered in a limited node in a rural setting • No minimum lot size • Front and side setbacks consistent with residential district • Sidewalk-oriented entrances, window displays and signs • Cross-access agreements, where possible • Consolidated entrances, wherever possible • Parking behind or beside buildings, not in front • Shared parking incentives upon the same parcel (e.g., 20% reduction in required parking spaces) • Parking waivers with fees and/or land dedication • High landscaping requirement in parking lot (e.g., 15%)
<i>Civic and Cultural</i> • Museums • Libraries • Schools • Places of Worship • Parks and Playgrounds	
<i>Adjoining Residential</i> • Single-family Houses • Two-family Houses	
<i>Mixed Uses</i> • Apartments Above Stores	<i>Adjoining Residential Areas</i> • Mix of housing types and sizes • Compact lots • Relatively narrow front and side yards • Front door faces the street • Front porches • Garages set back from front facade or placed in backyard
	<i>In All Areas</i> • Site-specific historic and design standards, as appropriate • Outfitted with sidewalks and accessible on foot • Pedestrian connections from retail to residential areas

Table 2-12: Rural Corridor (RLC)

Purpose: 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).

<i>Preferred Land Uses</i>	<i>Design Concepts</i>
Commercial • Antique Stores • Craft Stores • Farmstands • Nurseries • Agriculture Business Services • Professional Offices • Bed-and-breakfasts • Wine Tasting • Funeral Homes	• Small freestanding stores with wide yards and landscaped areas • Large minimum lot size (e.g., 50,000 sq.ft.) and limited building size (e.g., maximum FAR of 0.10) • Minimum 50-foot front setback • In case existing parcels are subdivided, require a 500-foot open space buffer from the edge of the roadway • Other yard and side setbacks consistent with residential district • Alternatively: RC is an overlay district with non-residential uses requiring 2 times the lot and setback requirements of underlying zone • Commercial buildings must conform with residential design character: pitched roof, small footprint (e.g., under 2,000 sq.ft.), front door facing street, plate glass window, etc. • Require landscaped planter every 10-15 parking spaces, not just around the edges of the parking lot; or required use of permeable parking lot surface • Cross-access agreements, where possible • Consolidated entrances, wherever possible • Outfitted with sidewalks within one-quarter mile of Downtown Center, Village Center or Hamlet Center zones • High (e.g., 25%) landscaping requirement in parking lot, and landscaping required along the street frontage
Civic and Cultural • Museums • Libraries • Schools • Places of Worship • Parks and playgrounds	
Residential • Single-family Houses • Two-family Houses	
Agriculture • Crop Cultivation • Animal Pastures	

Table 2-13: Tourism/Resort Campus (TRC)

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

<i>Preferred Land Uses</i>	<i>Design Concepts</i>
<i>Accommodations</i> • Hotel • Spa • Country Club	• Campus-style setting • High minimum lot size • Limit impervious surfaces • High open space requirement (e.g., 70%, same as AOZ) • Low base FAR (e.g., 0.15); not included in TDR receiving areas, in order to keep low-density. • Limited and aligned entrances • Densely vegetated buffers (min 50 feet) adjacent to residential uses and zones and fronting roadway • High landscaping requirement in parking lot; landscaped planter every 10-15 parking spaces, not just around the edges of the parking lot
<i>Recreational</i> • Parks and Playgrounds • Equestrian Facilities	
<i>Civic and Cultural</i> • Museums • Libraries	
<i>Commercial (accessory only)</i> • Banquet Hall • Retail Stores • Art Galleries • Restaurants • Cafes • Live Entertainment • Health Spas/Clubs • Bed & Breakfasts, by special use permit of the Town Board • Country Inns, by special use permit of the Town Board	

Table 2-14: Industrial/Recreational (IR)

Purpose: 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.

<i>Preferred Land Uses</i>	<i>Design Concepts</i>
<i>Industrial</i> • Offices • Warehouses • Light Manufacturing • Mechanical Contractor's Offices (e.g., construction, plumbing, etc.) • Wholesale • Outdoor storage as an accessory use	• Campus-like layouts • Large minimum lot size • Significant open space requirement (e.g., 25%) • Low base FAR (e.g., 0.20 = 1/2 what is permitted in the IA) • Dense, vegetated buffering adjacent to residential uses and zones • Significant landscaping requirement in parking lot (e.g., 15%); landscaped planter or tree every 10-15 parking spaces, not just around the edges of the parking lot (not currently required)
<i>Recreational</i> • Golf Courses • Parks and Playgrounds • Equestrian Facilities • Outdoor Theater (by special use permit of the Town Board) • Sports Arena (by special use permit of the Town Board) • Commercial Sports Facilities (by special use permit of the Town Board)	

Table 2-15: Agricultural Protection Zone (TDR Sending)

Purpose: To promote and sustain agricultural activity and farming, while protecting prime soils, which are among the most productive in New York State, through the Transfer of Development Rights (TDR); To allow low density residential development and homesteads within a scenic and bucolic setting; To promote agro-tourism and the local farming industry.

<i>Preferred Land Uses</i>	<i>Design Concepts</i>
• Agricultural Production • Single-family Dwellings • Golf Courses • Farm Stands • Riding Academies • Bed & Breakfasts	• Two acre yields (80,000 square feet) • Priority PDR area • TDR Sending provisions where one development right equals 43,560 square feet • Cluster Subdivision to create large agricultural lots

Table 2-16: Residence A-80 (TDR Receiving)

Purpose: To allow low density residential development and medium density residential development with transferred development rights.

<i>Preferred Land Uses</i>	<i>Design Concepts</i>
• Single-family Dwellings • Parks and Playgrounds (Non-commercial) • Daycare center or nursery school (by special use permit of the Town Board) • Home occupation, as accessory	• Two acre yields (80,000 square feet) • One acre yields (40,000 square feet) with transferred development rights

Table 2-17: Residence A-40 (TDR Receiving)

Purpose: To allow medium density residential development and medium to high density development with transferred development rights.

<i>Preferred Land Uses</i>	<i>Design Concepts</i>
• Single-family Dwellings • Parks and Playgrounds (Non-commercial) • Daycare center or nursery school (by special use permit of the Town Board)	• One acre yields (40,000 square feet) • 1/2 acre yields (20,000 square feet) with transferred development rights or with development of workforce housing

Table 2-18: Residence AB-80 (TDR Sending & Receiving)

Purpose: To allow low density residential development and medium density residential development with transferred development rights; To promote natural, scenic, agricultural, and open space values, as well as strong real estate market values and well-planned subdivisions; To allow for golf courses that are environmentally sound.

<i>Preferred Land Uses</i>	<i>Design Concepts</i>
• Agricultural Production • Single-family Dwellings • Golf Courses and Clubs, with customary accessory uses • Attached Condominiums • Farm Stands • Bed & Breakfasts • Country Inns	• Two acre yields (80,000 square feet) • One acre yields (40,000 square feet) with transferred development rights • Potential half acre yields (20,000 square feet) with transferred development rights on appropriate parcels

Table 2-19: Residence B-80

Purpose: To allow low density single-family residential development.

<i>Preferred Land Uses</i>	<i>Design Concepts</i>
• Single-family Dwellings • Parks and Playgrounds • Daycare centers or nursery schools, by special use permit of the Town Board • Home occupations	• Two acre yields (80,000 square feet) • Cluster Subdivision to conserve natural features and prime soils

Table 2-20: Residence B-40

Purpose: To allow medium density residential development within the downtown setting

<i>Preferred Land Uses</i>	<i>Design Concepts</i>
• Single-family Dwellings • Parks and Playgrounds • Daycare centers or nursery schools, by special use permit of the Town Board • Home occupations	• One acre yields (40,000 square feet)

Table 2-21: Multifamily Residential Overlay District

Purpose: To allow high-density residential development on appropriately sized parcels with frontage upon major thoroughfares and served by necessary infrastructure.

<i>Preferred Land Uses</i>	<i>Design Concepts</i>
• Multifamily Attached Dwelling Units	• Attached dwelling units • Private roadways and recreational areas • Access to necessary infrastructure • Maximum of five (5) units per acre with four (4) transferred development rights

2.4 RESIDENTIAL BUILD-OUT & SATURATION POPULATION SCENARIOS

Based on the Proposed Land Use Plan, this section 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. As shown in Table 2-14, adoption of the Proposed Land Use Plan would **reduce** the anticipated buildout by roughly 4,000 housing units and would **lower** the saturation population of the Town by over 8,000 year-round residents. As such, the "No TDR" scenario of the Proposed Land Use Plan would reduce the baseline residential build-out by 16 percent. The primary factor responsible for this reduction is the town-wide upzoning of the residential districts.

Table 2-14: Residential Build-out and Saturation Population Scenarios

	2000 U.S. Census	2003 Housing & Demographic Estimates ³	Build-out under Current Zoning ³	Build-out under Proposed Land Use Plan ³	
				No TDR	Full TDR ⁴
Total Housing Units	12,479	14,323 ¹	23,800	20,000	19,000
- Year-Round Units	11,314	13,034	21,658	18,200	17,290
- Year-Round Households ²	10,749	12,382	20,575	17,290	16,426
Total Year-Round Population ²	27,860	30,956	51,438	43,225	41,064

1. The total amount of housing units was calculated by adding 1,844 new privately-owned estimated residential units, which were authorized by building permit from January 2000 through April 2003, to the 12,479 units reported by the 2000 U.S. Census.
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 (2.5 persons per household) would be the same at saturation as they were in 2000.
4. The "Full TDR" scenario assumes that one-third of the transferred development rights would be residentially absorbed and two thirds would be commercially absorbed through height, coverage and floor area increases. Further, the "Full TDR" scenario assumes that one-half of the development rights in the Residence AB-80 district are sent and one-half of the rights are received on parcels in the district.

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

In the column "Buildout under Proposed Land Use Plan," two buildout estimates are shown. One of the key recommendations of the Plan is to establish an Agricultural Protection Zone (APZ) that would either result in: (1) on-site development based on 80,000-square foot lots; or (2) land preservation through the Transfer of Development Rights (TDR), where one (1) development right equals 43,560 square feet of real property. The number on the left assumes that all landowners in the APZ choose to build on-site and do not send their development rights. The number on the right assumes that all landowners in the APZ and one-half of the land area in the Residence AB-80 district (north of Sound Avenue) would send development rights and participate in the TDR program.

The "Full TDR" scenario results in a slightly lower build-out estimate than the "No TDR" scenario because it was assumed that 70 percent of the transferred development rights would be converted to commercial rights to allow additional height, coverage, and commercial floor area to be built. Policy 3.7A in Chapter 3, the Agriculture Element, delineates methods by which transferred development rights can be converted to increased commercial floor area.

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, all potential development in the APZ would be built out at lower yields and preferably be clustered to maximize the amount of farmland preservation. Under the "Full TDR" scenario, the build-out of the APZ would be further reduced, with corresponding residential density increases in and around the hamlet centers, in and around downtown, in certain areas north of Sound Avenue, along with commercial floor area, coverage, and height increases along Route 58 and in Enterprise Park with transferred development rights.

According to the U.S. Census, Riverhead's total year-round population grew 20.3 percent or 2.03 percent per year over the course of the 1990s, from 23,011 in 1990 to 27,680 in 2000. Based on a population of 27,860 in 2000 and at an annualized growth rate of 2 percent, the Town would reach its saturation population by no later than 2023 under the "No TDR" scenario. However, if the population growth rate slows down to 1 percent per year, which is more consistent with the County's average annual growth rate of 0.7 percent, then Riverhead would reach its saturation population by no later than 2043. In the year 2013, one decade after the completion of this Plan, saturation population would fall in the range of approximately 31,700 at a 1 percent growth rate and 36,000 at a 2 percent growth rate.

METHODOLOGY

The build-out and saturation population analysis consisted of three tasks: 1) geographical analysis of all land available for development by zoning classification; 2) calculation of the future potential housing units on the developable land; 3) calculation of the future potential households and saturation population. The following steps were taken to estimate future build-out and saturation population under current zoning, under the "No TDR" scenario, and under the "Full TDR" scenario:

1. Geographical Analysis of Land Available for Development

In order to locate developable land within the Town and project future development potential, Riverhead's land available for development GIS database was acquired from the Suffolk County Planning Department. All vacant, agriculturally used, underutilized and redevelopable parcels were inventoried in the County's GIS database according to existing zoning classifications. Since the GIS database was finalized in late 1999, the Riverhead Planning Department updated the database to remove any parcels that have been preserved through open space acquisition, residentially/commercially developed or approved for development through June 2003.

Once the GIS database was updated, all of the developable parcels were sorted and queried according to their zoning classifications, acreage, and location. The potential number of dwelling units that could be accommodated on the developable parcels was then calculated from the land available for development figures.

2. Calculation of Potential Housing Units and Residential Build-out

The number of potential housing units was calculated by multiplying the acreage of each developable parcel by a dwelling unit yield factor corresponding to its minimum lot area. The dwelling unit yield factor was derived by the Long Island Regional Planning Board to estimate the average amount of units per acre. The yield factor assumes a 20 percent reduction in lot area to account for the construction of roads and infrastructure, as well as the presence of natural constraints that reduce the buildable area of a parcel, such as wetlands or steep slopes. Thus, a 40,000 square-foot lot yields 0.8 units per acre. To the extent that the yield factor is a useful planning tool for build-out analysis, it is not a substitute for a subdivision yield map.

As Table 2-14 illustrates, the build-out estimate under current zoning involved adding the number of existing housing units (14,323) to the number of potential housing units (9,477), for a total build-out of 23,800 housing units. While the "No TDR" and "Full TDR" build-out scenarios were calculated in the same way as the build-out under current zoning, they each yielded a smaller number of potential housing units due to the upzoning of the residential and agriculture districts. The reduced build-out under the "No TDR" scenario yielded 20,000 housing units and the "Full TDR" scenario yielded 19,000 housing units.

3. Calculation of Future Potential Households and Saturation Population

The *Saturation Population Analysis, June 2001* report from the Suffolk County Planning Department was used to calculate the Town-wide saturation population. Several steps were taken to determine the saturation population under the current zoning build-out scenario, as well as under the "No TDR" and "Full TDR" Proposed Land Use Plan scenarios. For demonstration purposes, the build-out under current zoning scenario is shown below as an example.

- a) The amount of potential year-round housing units was calculated by subtracting the percentage of seasonal units from the total number of housing units. According to the U.S. Census, approximately 9 percent of all housing units were assumed to be seasonal in 2000. It was assumed that the percentage of seasonal housing would be the same at saturation as in 2000. Under this assumption, approximately 2,100 seasonal units and/or second homes were subtracted from the total build-out of 23,800 housing units to yield roughly 21,700 potential year-round housing units.
- b) The amount of potential households was calculated by subtracting the number of vacant housing units from the total number of year-round housing units. According to the U.S. Census, approximately 5 percent of all year-round housing units in Riverhead were assumed to be vacant or unoccupied in 2000. Thus, the 5 percent reduction in year-round units yielded approximately 20,600 potential households.
- c) The final step in determining the saturation population involved multiplying the average number of persons per household by the number of potential households. According to the U.S. Census, the average household size in Riverhead was 2.5 persons per household in 2000. Yet again, it was assumed that the average household size would be the same at saturation as it was in 2000. The final calculation yielded a saturation population of approximately 51,400 in the current zoning build-out scenario.

ASSUMPTIONS

The following assumptions were used to complete the buildout estimates:

- For the purposes of the acreage estimates, "vacant, developable" land was assumed to include all those parcels in the County's GIS database shown as "vacant" or "agricultural" in use. Permanently preserved agricultural parcels (i.e., from which development easements were purchased) were subtracted out.
- For vacant, developable parcels in single-family zoning districts, the minimum required lot area was used to determine the number of lots (and housing units) that could be built. Given the required lot size, the dwelling unit yield factor conversion table from the Long Island Regional Planning Board was used to determine the number of lots that could be carved out of each parcel.
- All underutilized or redevelopable residential parcels below the proposed minimum lot sizes of each district were excluded from the land available for development database.
- For the Proposed Land Use Plan, all areas within the APZ, RA-80, RB-80, RAB-80 districts would have base zoning of 80,000-square foot lots. For the current zoning map, a minimum lot size of 40,000 square feet was assumed for the Agriculture A and Residence A districts.
- As noted, within the APZ, development would be permitted on-site (yield based on 80,000-square foot lots) *or* the development rights could be transferred (yield based on 43,560-square foot lots).

- In the RAB-80 district, the base zoning would require a minimum lot area of 80,000 square feet. If development rights are purchased and transferred, the residential yield could be increased to a maximum of one (1) dwelling unit per 40,000 square feet for single family residential subdivisions and further increased to a maximum of one (1) dwelling unit per 20,000 square feet for attached units.
 - All parcels within the RAB-80 district lie within Suffolk County's Groundwater Management Zone IV or Zone VIII, which allow 20,000 square foot lots on septic. Thus, even though densities will be increased in these areas, septic will still be a viable means of wastewater disposal.
- It is assumed that most sites within the Commercial/Residence Campus zones would be developed with commercial uses. Only two 15-acre parcels in the Route 25A business district are anticipated to be developed with residential uses, because the surrounding existing residential and open space uses are conducive to residential development. In all other areas (i.e., commercial areas of Route 25A, East Main Street, and Route 58), commercial development would be expected.
- In the Residence RC and Commercial/Residence Campus zones, the base zoning regulates building size via floor area ratio (FAR) limitations. Based on the maximum possible building size, the potential number of residential units is determined by assuming that each dwelling unit would be approximately 1,000 square feet.
- In the Downtown Center zone, there are two vacant 5,000 square foot lots in the residential area north of Main Street and east of Roanoke Avenue. It is assumed that each lot would be developed with two housing units. These two units could be in the form either of a single-family home with an accessory unit, or a two-family home.
- In the "Full TDR" scenario, it was assumed that approximately 30 percent of the development rights would be transferred from the APZ to the RA-80 and RA-40, and certain parcels in the RAB-80 districts. The MFROZ overlay was assumed to absorb 1,030 development rights, based on the condition that 400 acres could be developed in various hamlets at a maximum of five units per acre with four transferred development rights. Further, the "Full TDR" scenario assumes that one-half of the development rights in the Residence AB-80 district are sent and one-half of the rights are received on parcels in the district. It was also assumed that 70 percent of the development rights would be converted to commercial rights to allow additional height, coverage, and commercial floor area to be built. Both residential development pressures would be reduced in the agricultural core and north of Sound Avenue.

2.5 GOALS & POLICIES

Goal 2.1: Adopt a land use plan for Riverhead that embodies the goals and policies of the Comprehensive Plan.

As discussed in Section 2.1, the Vision Statement for Riverhead's Future, the Comprehensive Plan provides growth management techniques to limit both residential and commercial

sprawl. Goals and policies stated throughout the plan have been devised to protect open space and farmland, while concentrating development into compact nodes.

Policy 2.1A: Adopt Figure 2-1 as the basis and implementing authority for the Town's new zoning map, and update the Town's zoning ordinance to include the new zoning districts shown on Figure 2-1 and described in this Element.

The Proposed Land Use Plan in Figure 2-1 embodies a number of key principals, as discussed throughout the various chapters of the Comprehensive Plan:

1. 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.
2. 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.
3. 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.
4. The zoning of the hamlet centers should be amended to limit sprawl.
5. A variety of recreational, business, light industrial and open space uses should continue to be permitted in Enterprise Park at Calverton.
6. A mix of light industrial and recreational uses should be permitted between Enterprise Park and the terminus of the Long Island Expressway.
7. 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 also be permitted north of Sound Avenue to take advantage of the unique housing demand in that area.

These refined development patterns foster a more sustainable and promising future for the Town of Riverhead. By encouraging compact development around downtown and the hamlet centers, the Plan provides 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, the potential for sprawl is reduced under the Plan.

3. Agriculture Element

3.1 VISION STATEMENT

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

Riverhead is known for its abundant farmland, lucrative farming activity, and attractive rural landscapes. A wide variety of agricultural products are grown and raised in Riverhead. Duck, fruit, and vegetable production provide foodstuffs for residents living throughout the region. Vineyards and wineries contribute to the reputable Long Island wine industry. Farm stands, pumpkin-picking, wine-tasting, and other activities provide agro-tourism opportunities for visitors.

At the same time, Riverhead's farmland resources are being depleted as a result of new development. Long Island's intense housing demand and limited land supply are creating pressure for conversion of farmland into new residential and commercial uses. Development is moving eastward from Brookhaven, leapfrogging over the Pine Barrens preservation area, and northward from Southampton, where land shortages and high prices are forcing prospective home-buyers to look elsewhere.

There are many good reasons to protect farmland and support agricultural activity in Riverhead. The farming industry provides jobs, creates local sales revenue, and creates a positive cash flow in terms of local property taxes. Building off the local tourist traffic, there is also a significant opportunity to develop agro-tourism, a growing vacation niche. Farming also contributes to the character and way of life of the Town, and public workshops have revealed that many residents would like to see the Town's rural character maintained.

This Element, in conjunction with Chapter 7, the Economic Development Element, lays out strategies for preserving farmland and supporting the local agricultural industry. These strategies 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. Appendix A contains background information related to current agricultural activity, farmland resources, and existing farmland preservation efforts.

3.2 SUMMARY OF BACKGROUND RESEARCH

Agriculture plays an important economic role in Suffolk County. The County has lead New York State historically in a variety of agricultural categories and continues to lead in the market value of agricultural products sold. In 1997, the reported total market value for crops in Suffolk County was \$160,784,000 — an average of \$276,993 per farm. Suffolk County leads all New York State counties with an average sales per farm figure of \$227,874 — almost three times the State average. This is particularly remarkable in light of the fact that in 1997, Suffolk County accounted for only 6 percent of total farmland New York State.¹

Throughout its history, farmers in Riverhead have grown a variety of crops, the best known of which are potatoes and cauliflower. Other important agricultural products have included flax for linen thread, grains (e.g. wheat and rye), corn and vegetables, and fruits and berries of all sorts. Between the 1890s and the 1960s, Suffolk County was the national capital for duck production.

¹ 1997 Census of Agriculture - County Data. USDA, National Agriculture Statistics Service. 1997.

In recent decades, the trend has been toward the production of more and more specialty crops, such as pumpkins, cabbage, beets, sprouts, broccoli, and spinach. Also, sod and greenhouse growing — which provide landscaping materials, garden plants, and cut flowers — have grown in tandem with the growing metropolitan population. Another growing part of Suffolk County's agricultural economy is the wine industry, which contributes \$30 million to the local economy.² Suffolk County has the largest premium wine industry of any county in the U.S. outside California.

The shift to specialty, high-value crops has the following implications for the future of farming in Riverhead:

- *Increasing Labor Requirements.* Generally, specialty crops are more labor intensive than products like potatoes or grains. Given the historically low unemployment rate and the relatively high cost of living on eastern Long Island, the lack of available labor may, at some point, represent a constraint to continued growth of specialty crop production. Currently, Riverhead farmers rely on migrant labor to meet their needs during busy seasons. The reliance on migrant labor may continue to grow.
- *Increasing Reliance on Technology.* Specialty crops create the need for more market information and new management techniques. Farmers will need to have the financial capital to invest in modern technologies.
- *Increasing Role of Agro-tourism.* Agro-tourism activities range from roadside stands and pick-your-own crops, to farm vacations, school field trips, riding lessons, hay rides, wine tasting, and farm tours. Agro-tourism provides an additional income opportunity for farmers, and it ties into the established East End tourism industry.
- *Increased Vertical Integration of Farm Operations.* Vertical integration includes processing, packaging and shipping, and/or on-site sales. By becoming vertically integrated, farms can realize greater economies of scale and become more cost-effective. Also, vertical integration is particularly well-suited to specialty crops, which typically are more susceptible to spoilage and require quick transport from the plant to the customer.
- *Need for New Approaches to Land Use Regulation.* Since agricultural activity will be increasingly reliant on adjunct uses (laborer housing, technology, tourism, processing, packaging), land use regulations and preservation programs should be designed with enough flexibility to allow related farm uses. Flexibility can help farms to remain competitive.

FARMLAND RESOURCES AND PRESERVATION EFFORTS

According to the Suffolk County Planning Department, the County's supply of farmland has been declining at a rate of about 1,300 acres per year. Yet, as the amount of farmland has declined in Suffolk County, the Town of Riverhead's share of agricultural land has increased, as shown in Table 3-1. In 1968, Riverhead had 30 percent of the County's farmland (19,550 acres). In 1996, despite a 9 percent drop in the its agricultural acreage, Riverhead had 38 percent of the County's

² Suffolk County Planning Department. www.co.suffolk.ny.us/planning.

farmland (17,662 acres). These figures indicate that Riverhead has a critical role to play in the protection of prime agricultural lands in eastern Long Island.

Table 3-1: Change in Farmland Acreage, 1968-1996

	1968	1996	Change in Total Acres 1968-1996		
			Number	Percent	Annual 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	- 2,100	- 17.6%	- 75.0
Suffolk County Total	64,400	46,141	-18,259	- 28.4%	-652.1

Source: Suffolk County Planning Department.

The combination of strong economic growth, the scarcity of land, and the intense housing demand on Long Island are creating pressure for new development. With a conversion rate of 1,454 acres per year over the last ten years, Suffolk County farmland is under particular pressure to develop. Changing agricultural trends, the decline of the family farm, increasing land values, and tax burdens are also exerting pressure on farmers to sell or develop their land.

Efforts to protect and sustain agriculture in eastern Long Island are evident at the State, County, and local levels. These efforts take effect at two levels – those programs that work *directly* to preserve or purchase agricultural lands, and those programs that work *indirectly* by supporting farmers and farming as an occupation and a way of life. For more information on the available preservation tools, see Appendix A.

An important cornerstone of the regional effort to preserve farmland is the 1996 *Suffolk County Agricultural Protection Plan*. Although the 1996 plan targeted 20,000 acres of farmland for preservation (through the purchase of development rights), it also indicated that there is not enough money to reach that goal. Nearly 7,000 acres of farmland development rights have been acquired Countywide, but the additional 13,000 acres will cost more than \$100 million to purchase. Because County resources are limited, Riverhead and other towns need to do their part to protect farmland, whether through local land use regulations or other methods.

AGRICULTURAL GROWTH POTENTIAL

If development pressures were not directly resulting in the loss of farmland, agricultural activity in Riverhead and throughout the East End would be expected to experience strong and long-term growth. The local agricultural industry has certain advantages that make the future economic outlook promising:

- Suffolk County has a ***natural comparative advantage*** in agriculture due to its relatively long growing season, fertile soils, and high percentage of sunshine.
- Suffolk County has a relatively ***high percentage of land in cropland***. Seventy-nine percent of Suffolk County's total farmland is used for crops, compared with sixty-two percent Statewide. This reflects the fact that local soil quality is particularly well-suited to certain field crops and fruit plants.
- Suffolk County farmers enjoy relatively ***high revenues from farming activities***. This has allowed a relatively high percentage of farmers, 70 percent, to continue to list farming as their principal occupation at a time when many other regions are experiencing a trend toward part-time farming. Suffolk County sales per farm in 1997 averaged \$276,993 and generated an average of over \$68,000 net cash return per farm.³
- ***Proximity to markets*** is another plus. There are 6.9 million people living in the four Long Island counties and 1.3 million in Suffolk County alone. Retail sales of food in Suffolk County were estimated at approximately \$2.6 billion in 1994.⁴
- Riverhead's agriculture is concentrated in ***product areas predicted to experience increasing demand*** on the urban fringe. Professional planners throughout the northeastern U.S., including New York State, recently predicted that future demand for agricultural products and services will increase for fresh and/or organic fruits and vegetables, greens, herbs, table grapes, wine, horses, bedding plants, cut flowers, turf/sod, animal boarding, breeding, and training, and wine tasting. All of these products and services are currently produced in Riverhead. In addition, planners anticipate increased demand for mushrooms, goat's meat and milk, lamb, local beef and pork, organic eggs and poultry, specialty cheese, veal, venison, farm retreats, tours and vacations, hay rides, school field trips, and mail-order or direct food delivery services. These represent areas that may provide further agricultural diversification and income opportunities for Riverhead's agricultural entrepreneurs.
- New and increased ***marketing and publicity efforts*** are working to support regional farms and a farming economy. These efforts include many of the State and County initiatives listed Appendix A, as well as efforts by the Long Island Tourism and Convention Commission, the Peconic Land Trust, and the Long Island Farm Bureau to help inform people of the diversity and availability of farm products in Suffolk County. To assist farmers in selling produce on Long Island, the Peconic Land Trust has sponsored the Long Island Community Markets

³ 1997 Census of Agriculture - County Data. USDA, National Agricultural Statistics Service. 1997.

⁴ Suffolk County Planning Department.

Program funded by both private and public funds including a grant from Suffolk County. Farmers markets are currently operating in a number of communities, including Riverhead.

- A willingness on the part of lawmakers to support agricultural preservation through a variety of means is reflected in recent *favorable changes to tax investment laws and State agriculture laws* that have fostered the expansion of horse farms in Suffolk County. Additional initiatives underway at the State level to address threats from property tax burdens include a bill to create circuit breaker tax credits for farmers, and Statewide property tax reform.

These factors suggest that farmland preservation would go a long way toward bolstering the local agricultural economy now and in the future.

3.3 GOALS & POLICIES

There are three overarching goals of the Comprehensive Plan with regard to agriculture: (1) preserving the agricultural land base, while maintaining equity value for agricultural landowners, (2) fostering the local agricultural economy, and (3) maintaining the rural character of the community. These goals can be achieved through a combination of zoning ordinance modifications, funding initiatives, and economic development strategies. For optimal effectiveness, a variety of tools are being proposed.

The focus of this Element is 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 throughout this chapter, 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.

OVERARCHING GOALS

Goal 3.1: 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 this Element 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 roughly 25 percent 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.

Goal 3.2: 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, as discussed in Chapter 7, the Economic Development Element. The issue of affordable housing for farm laborers is another related issue. It is addressed in Chapter 8, the Housing Element.

Goal 3.3: 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, unfettered residential development threatens to fragment the agricultural landscape and put further pressure on farmland to be sold, subdivided, and developed. As such, compromising the Town's rural character and scenic quality could limit the Town's future economic possibilities.

Goal 3.4: Reduce the amount of development in those areas of Riverhead where agricultural activity is currently concentrated.

Policy 3.4A: Adopt the reduced density agriculture and residential districts in Figure 2-1, the Proposed Land Use Plan.

Currently, the large agricultural areas of the Town are primarily zoned for residential development on 40,000 square foot lots (the Agriculture A and Residence A zones). These relatively high densities of development are out of character with the surrounding agricultural areas. Upzoning agricultural areas can help maintain the agricultural uses of Riverhead, by reducing the overall number of people, traffic, and other non-agricultural activity in predominantly agricultural areas. The Proposed Land Use Plan sets forth a new set of agriculture and residential districts that replace several existing zoning use districts. All parcels in the Agricultural Protection Zone (APZ), Residence A-80 (RA-80), Residence B-80 (RB-80), and Residence AB-80 (RAB-80) districts shall have an as-of-right density of 80,000 square feet. The remaining parcels located in and around Downtown Riverhead are proposed to be Residence A-40 (RA-40) and Residence B-40 (RB-40), with minimum lot sizes of 40,000 square-feet.

Policy 3.4B: 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 APZ and RAB-80 district would have the option to choose either large-lot development with “fast track” approval or the standard subdivision review process for cluster development (see Policy 3.6A). A voluntary large-lot development project — “Agriculture Opportunity Subdivision” — would be exempt from the clustering requirement, but would be required to have minimum lot sizes of 11 acres. A one-acre footprint on each lot would be reserved for a single-family residence, and the remaining ten acres around the housing would remain in private ownership but would be preserved by a perpetual conservation easement. The minimum lot size is based upon the minimum 10 acres of land in agricultural production required by the Suffolk County Assessor for a property to be assessed agricultural rather than residential taxes. These ten-acre sites would potentially still allow the opportunity for agricultural activity to continue to take place.

Currently, a typical major subdivision takes 9 to 12 months for approval. Large-lot development has fewer regulatory requirements and thus the time between application and approval can be cut in half. Much of the time in the conventional subdivision application process is associated with review by the Suffolk County Health Department (SCHD) with regard to septic systems. Since the SCHD reviews only those subdivisions with lot sizes of five acres or less, Agriculture Opportunity Subdivisions could skip this step. Similarly, the large-lot subdivision should not have to submit a sketch plan for review by the Planning Department. The first step would be to submit a preliminary plat to the Planning Board for approval. The final hearing on the preliminary plat would be waived. The Planning Board would be required to rule on the subdivision within 90 days of receiving the original application.

Goal 3.5: Target farmland preservation efforts to Riverhead's agricultural greenbelt, located between Sound Avenue and Route 25 and Middle Road, along with certain actively tilled farms north of Sound Avenue and south of Route 25 at Jamesport.

Policy 3.5A: Establish the Agricultural Protection Zone (APZ) based on the boundaries illustrated on the Proposed Land Use Plan (Figure 2-1).

Initiating the APZ is the first step that the Town should take to retain its agricultural landscape. The APZ 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.

Figure 2-1, the Proposed Land Use Plan, shows the proposed APZ boundaries, which includes most of the Town's active agricultural land.

Policy 3.5B: Designate the Farmland Preservation Committee as the APZ Oversight Committee, which would serve in an advisory capacity to the Town Board.

The APZ Oversight Committee would not be able to change the rules that apply to properties in the APZ, which could lead to unpredictability for landowners and developers. However, it would monitor preservation efforts in the APZ on an ongoing basis, including cluster development (see Policy 3.6A) and the TDR program (see Goal 3.7). The Oversight Committee would identify issues and concerns and bring those to the attention of the Town Board.

Policy 3.5C: Work with the APZ Oversight Committee to undertake a public education campaign about the APZ, focusing on cluster development provisions and the TDR program.

Because of the complexities involved with cluster development and the TDR program, the Town should attempt 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: making brochures available in Town Hall and the Riverhead Free Library; posting information on the Town's web site; and conducting educational seminars. Planning Department staff should be augmented and trained to provide information to landowners with respect to land subdivision within the APZ.

Goal 3.6: In Riverhead's agricultural greenbelt, concentrate development into compact nodes, while preserving the surrounding open space for agricultural use.

Policy 3.6A: Promote cluster development within the APZ.

Section 278 of the Town Law and Article XIX of the Riverhead Zoning Ordinance provide the authority to the Planning Board to create clustered lots in subdivision approval.

Through clustering, development would be concentrated on a portion of a site, while the remainder of the parcel would be preserved as open space and/or farmland. A deed restriction would prohibit development on the preserved area. The open space preserve could be held in either private ownership, by a homeowners association, a third party conservancy group or land trust, or by the Town.

Policy 3.6B: For cluster development in the APZ, attempt to protect a significant area of the original parcel.

As a component of a cluster development ordinance, it is preferable to preserve a reasonable percentage of the tract as undeveloped land. The Town of Southampton, for instance, uses a sliding scale that requires different percentages of prime agricultural soils to be preserved.

It is recognized that within the APZ, there are parcels that may not be suitable for agricultural cluster subdivision due to the existence of slopes, a high percentage of woodland cover, or poor agricultural soils. In order to provide for the orderly development of residential plats within the APZ, it is critical that the Planning Board have the flexibility to properly size and arrange both residential and agricultural lots. To this end, Article XIX of the Riverhead Zoning Ordinance should encourage agricultural cluster subdivision review within the APZ with a goal of preserving the prime agricultural soils upon the tract to the greatest extent practicable.

Policy 3.6C: Require that all subdivision applications in the APZ submit a proposed cluster plan together with a conventional subdivision layout plan and yield map.

Section 108-87 of the Riverhead Zoning Ordinance states that each applicant for a major subdivision shall submit at least one (1) proposed cluster plan with each major subdivision application. By requiring all subdivision applications in the APZ to present an alternative cluster plan, applicants would have the flexibility to optimize lot configuration and the opportunity to preserve prime agricultural soils, and environmentally sensitive or scenic areas.

At the time the Planning Board grants final approval to a subdivision plan, the Planning Board shall provide a written report decision stating its findings and conclusions with respect to the layout of the subdivision. The findings statement would justify and defend the final layout of a subdivision plan and explain the criteria that the Planning Board applied in coming to its decision. In this way, the findings statement would ensure that the Planning Board clarifies how it considers each alternative layout and renders a decision on an application.

Policy 3.6D: Establish development standards for clustered housing areas.

The Town zoning ordinance needs to include specific development standards pertaining to clustered subdivisions within the APZ. The intent is for the clustered area to maintain a low-density, suburban-rural character. Thus, the following standards are suggested for residential lots:

- Minimum lot size: 30,000 square feet.
- Minimum lot width: 175 feet.

- Maximum height: 35 feet.
- Maximum floor area ratio: 1 story house 9%, 2 story house 6%, 3 story house 4%
- Maximum building coverage: .12
- Maximum impervious (buildings and paved surfaces) coverage: 0.30 to 0.40

For some of the above standards, a range is provided. This does not mean that a range should be permitted in the zoning code, but that the Town should decide upon a single number within this range. In considering which numbers would be most appropriate, the Town should take into account current market trends, existing environmental conditions, visual quality, and so on.

Policy 3.6E: Through the subdivision review process, establish standards for the siting of house lots and agricultural parcels.

The siting of house lots and agricultural parcels is a critical consideration in the process of developing cluster subdivisions within the APZ as well as on parcels zoned RAB-80 north of Sound Avenue. Because each tract is different, with its own natural and built features, each site should be developed in a way that is tailored to its own conditions. That is, the arrangement of lots and open space on each site will be unique. The following is a checklist of items that serves as a guide for laying out the site:

- If possible, agricultural parcels should be coterminous with existing agricultural parcels, parcels stripped of development rights, or parks on adjacent properties. This would create larger pockets of open space and farmland, which are generally better suited to agricultural activity. Also, it would reduce the potential for farms to be located next to residential or commercial uses, which may complain about farm-related “nuisances,” such as odor, noise, or fugitive topsoil.
- The agricultural parcels divided from the tract should include as many of the site's natural, scenic, and historic resources as possible. Developed areas should be located in such a way that they avoid detracting from the integrity of those resources. These resources can be described as follows:

Natural Resources: prime agricultural soils, soils of Statewide importance, streams, ponds, wetlands, woodlands, habitat areas for special status species, and flood hazard areas.

Historic Resources: Structures such as farmhouses and barns, as well as sites such as cemeteries and areas with potential archaeological resources.

Scenic Resources: hills and contours, meadows, cultivated fields, vineyards and orchards, pastures, as well as any of the natural or historic resources mentioned above that contribute to the scenery. (See Chapter 5, the Scenic and Historic Preservation Element for a discussion of how existing scenic views can be taken in account in clustered subdivisions.)

- Housing should generally be concentrated in the least desirable agricultural areas in the form of a single node. However, the arrangement of natural, scenic, and historic resources on

some sites may be such that multiple nodes are preferable. Although multiple nodes should be permitted, no individual node should contain less than 30 percent of the total number of building lots on the tract. For example, if the cluster subdivision contains 50 lots in all, it would be possible to have three nodes on the property: two with 15 lots each and the third with 20 lots. This is intended to reduce the potential for the over-dispersal of housing throughout the tract, which defeats the original intent to create appropriate agricultural parcels.

Policy 3.6F: If County Health Department approvals are not expected to be forthcoming, work with the County to promote the conditional approval of the plat.

Areas within the APZ 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. Alternatively, areas west of Roanoke Avenue within the APZ are located in Groundwater Management Zone III, which allows for the installation of individual septic systems on 40,000-square foot lots.

Recent subdivision policy directives issued by the Suffolk County Department of Health Services would constrain the use of agricultural lots created via cluster subdivision within Groundwater Management Zone III. An analysis of this policy's affect on land subdivision assuming a minimum lot area of 80,000 square feet (yield) results in a maximum agricultural area of 60 percent of a tract with residential lot areas of a minimum of 32,000 square feet.

Policy 3.6G: Allow very limited use of agricultural parcels on a clustered subdivision.

The primary intent is for the parcels to serve as active agricultural land. That is, the land should be owned by or leased to a farmer for cultivation or pasture. In addition, the following compatible uses could be permitted:

- Historic structures predating the subdivision (i.e., farmhouses, barns) should be allowed to remain within the open space preserve, but with certain restrictions regarding their future use.
- Agriculture; homesteads; agro-tourism activities; retail sale of agricultural products.
- Accessory dwelling units.
- Home occupations, home professional offices; artist/craft studios; bed-and-breakfasts.
- Sites for active recreation (i.e., playing fields, lawns, picnic areas, playing courts, etc.), provided that they do not occupy more than 5 percent of the land area within the open space preserve.
- Walking and biking trails, provided that they do not interfere with agricultural activity.

Policy 3.6H: Do not allow golf courses to count toward open space in clustered subdivisions in the APZ.

Golf courses would not be permitted within the open space preserve portion of a clustered subdivision in the APZ, because they would prevent agricultural use of the preserve. Although golf courses can be less environmentally harmful 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, a major goal of both this Element and Chapter 7, the Economic Development Element.

Goal 3.7: Implement a Transfer of Development Rights (“TDR”) program to reduce development pressure on Riverhead’s APZ and certain parcels zoned RAB-80, north of Sound Avenue.

TDR is based on the premise that land ownership confers upon the owner a bundle of specific development rights, as shaped by municipal zoning regulations, state and federal environmental regulations, and other laws. By allowing the owner to separate those development rights from the land, and then allowing those rights to be transferred elsewhere, it is possible to conserve the underlying land as open space or agricultural land.

TDR is not the same thing as cluster development. Both TDR and clustering involve the shifting of development rights, but cluster development involves the re-organization of development yield *on the same property*, whereas TDR involves the transfer of rights *from one property to another*. TDR has the potential to create "win-win" situations for preservationists and property owners. Through TDR, significant land areas can be preserved in rural or open space areas, while property owners retain their equity value by being able to sell development rights to property owners in more urbanized areas.

Although the Town implemented TDR legislation in 1997, the program has never been used. In addition to refining the TDR legislation and ensuring the long-term funding of the Town PDR legislation, an installment purchase program is a valuable tool for the Town to use to preserve agriculture.

Policy 3.7A: Amend Chapter of the Riverhead Town Code to maximize the utility of the receiving area to accept rights and ensure the viability of development rights transfer.

The existing Town of Riverhead Zoning Ordinance, in general, and the Transfer of Development Rights legislation should be amended to provide for the following modifications.

- Assign development rights for real property within the sending area using an arithmetic rate of one (1) development right per 43,560 square feet of real property without the preparation of a conventional yield map. In order to avoid the creation of fractional development rights, the number of rights will be rounded down to the nearest whole number.

- Allow for heights of development on County Road 58 to a maximum of 50 feet at a rate of one (1) development right per 1,500 square feet of increased floor area.
- Repeal the as-of-right 50 foot maximum height within the Business D District and allow heights of up to 50 feet from the as-of-right 35 feet at a rate of one (1) development right per 1,500 square feet of increased floor area.
- Amend the Planned Recreational Park (PRP) district to provide for an as-of-right floor area ratio of ten percent (10%) with an ability to increase the FAR to a maximum of 15% at a rate of one (1) development right per 1,500 square feet of increased floor area.
- Amend the Planned Industrial Park (PIP) District to provide for an as-of-right floor area ratio of ten percent (10%) with an ability to increase the FAR to a maximum of 15% at a rate of one (1) development right per 1,500 square feet of increased floor area.
- Amend the Agricultural Lands Preservation Ordinance to allow the alienation of development rights purchased by Town funds and allow the deposit of such rights in the clearinghouse at a rate of .5 rights per acre of development rights purchased.
- Provide for receiving areas within a half-mile distance from the commercial centers of Aquebogue and Jamesport.
- Repeal the special permit provisions for one hundred percent coverage within the Business D District and require the purchase of development rights for increased building coverage at the rate of one (1) development right per 1,500 square feet of increased coverage.
- Allow the total area of impervious surfaces to be increased with the transfer of development rights at a conversion factor to be determined.
- Allow for heights of attached multi-family units approved north of Sound Avenue to increase to fifty (50) feet with the use of transferred development rights at a conversion factor to be determined.
- Provide for a residential TDR receiving overlay with performance standard criteria to allow high-density residential development on appropriately sized parcels with frontage upon major thoroughfares and served by necessary infrastructure. See Chapter 2, the Land Use Element, for more details.
- Require TDR on a one for one basis for yields greater than one (1) unit per acre within the retirement community overlay district.
- Require TDR to increase coverage within the Destination Retail Center (DRC) district from 10 percent to a maximum of 15 percent, at the rate of one (1) development right per 1,500 square feet of increased floor area.

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. However, parcels within the RAB-80 district north of Sound Avenue also have natural, scenic, agricultural, and open space values, along with strong real estate market values and adequate infrastructure. For this reason, the RAB-80 district gives landowners the flexibility to send and receive development rights in the TDR program. 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.

Policy 3.7B: Establish a TDR Bank or Clearinghouse that can purchase, hold, and later resell development rights from the APZ.

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.

Although the Town of Riverhead has had a TDR program since 1997, the program has never been used, and no development rights have been transferred from the agricultural sending areas to the receiving areas. The Town and the County have purchased and then retired development rights, but because the Town has not been authorized to act as a bank, it has not been able to resell those rights to property owners within the Town's receiving districts. By acting as a bank and selling off its accumulated development rights, there are several benefits:

- First, the Town can recuperate some of the costs of the initial purchase, reducing the long-term cost of open space preservation for taxpayers. The revenue from the sale should ideally be dedicated to toward the preservation of other open space tracts, functioning like a revolving fund. Alternatively, the revenue could be used to expand the Town's greenway system or improve Town parks.
- Second, the bank can help kick-start private-sector interest in the TDR program.
- Third, the Town can step in to purchase development rights from properties in the APZ that are at risk of development but for which there are no ready buyers. At a later time, when a property owner in the TDR Receiving area expresses interest in purchasing development rights, those rights can potentially be purchased from the Town.

- In the event that the Town borrows funds for purchases of development rights in the future, the Clearinghouse should be created and funded through borrowing.

Policy 3.7C: As an incentive for selling development rights, provide property owners in the APZ and RAB-80 district with a higher development yield calculation for the purposes of the TDR than they would otherwise be permitted to build on-site.

To further encourage the utilization of TDR, the development rights on a property will be determined in the following way. If the landowner decides to ***transfer***, the number of transferable development rights would be calculated by the Planning Board at a rate of one (1) development right per 43,560 square feet of land area, not including underwater land. If, however, the landowner decides to subdivide any portion of the property (partial transfer), the Planning Board would require the approval of a standard yield plan with a minimum lot area of 40,000 square feet and would assign one (1) development right per lot. In order to create lots for future filing with the Suffolk County Clerk and for building permit application, two (2) development rights would need to be retired for each building lot.

Further, a landowner within the APZ and RAB-80 district would also have the option of partial transfer and partial site development. But in no event shall the partial transfer yield more total lots or rights than could be achieved pursuant to the yield map requirements of 80,000 square-foot lots in the APZ. For instance, the owner of a 100-acre tract could petition the Planning Board to issue 100 TDR certificates pursuant to the zoning legislation. In the absence of TDR, the owner would be able subdivide the tract into 43 lots at minimum lot size of 80,000 square-feet. The 43 lots, at a two acre yield, would retire 86 TDR certificates, which are computed a ratio of one TDR certificate per acre. The 14 remaining TDR certificates, however, would be retired as well. As a result, since 43 lots represent the maximum yield on the parcel, all 100 TDR certificates would be retired to achieve on-site development.

The property appraisal would include transferable rights, even though they could not be developed on the site. The negative implication for the landowner is that he or she would be taxed on this appraisal, but it also means that the value could be borrowed against, giving the owner additional equity.

Policy 3.7D: Establish development standards for subdivisions in the residential receiving zones.

Subdivision standards in the receiving zones need to be adjusted from standard lot dimensional criteria in order to accommodate TDRs as certified by the Planning Board. The following adjustments should be made:

- Minimum lot size: 30,000 square feet.
- Minimum lot width: 175 feet.
- Maximum height: 35 feet.
- Maximum floor area ratio: 1 story house 9%, 2 story house 6%, 3 story house 4%

- Maximum building coverage: .12
- Maximum impervious (buildings and paved surfaces) coverage: 0.30 to 0.40

Goal 3.8: 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.

Policy 3.8A: Continue to use Town funding to acquire development rights from farmland and open space parcels.

The Town Board should continue to pursue an aggressive program to acquire agricultural lands and open space and promote public and private conservation strategies. This program should include extending funding for the Town's development rights acquisition program, and renewing and potentially increasing the open space bond financing program. With this dedicated reserve fund, the Town would have the ability to leverage significant County and State funds for land acquisition and private conservation efforts.

Despite the expense associated with such efforts, farmland acquisition and open space preservation benefit the character and identity of a community. Also, the long-term land values of privately owned properties adjacent to open space preserves may tend to be higher, resulting in higher tax revenue from these properties that would have otherwise not been anticipated. This would partially compensate for the expense of open space acquisition.

Generally, it is preferable for both the Town and landowners to purchase development rights, rather than land in fee simple. For land owners, the sale of development rights provides them with a cash outlay that can be used to finance farm operations or retire outstanding debts. Also, PDR effectively reduces the value of the land itself, resulting in a lower potential tax assessment, lower estate transfer taxes, or other tax benefits.⁵ Among other benefits, the farmer pays no closing costs and can continue to live in his house and farm the land.

There are three important benefits for the Town. First, the Town would pay less for the development rights than would be necessary for fee simple⁶, suggesting a more efficient use of taxpayer money. Second, the owner of the deed-restricted land still holds the title and is thus responsible for ongoing maintenance. Third, the property stays on the local tax roles, albeit at a

⁵ Connecticut Forest and Park Association, "Cultivating a Legacy: Farmland Preservation in Connecticut," *Connecticut Woodlands Magazine*, Spring/Summer 2001, reprinted at the web site of the Connecticut Farm Bureau, <www.cfba.org/fpc1>, visited March 4, 2002.

⁶ "Fee simple" is defined as the absolute ownership of land, giving the owner the sole authority to use and control the parcel. "Fee simple" is in contrast to an "easement", which is defined as a right or privilege that a party may have in another's land. For example, a "right of way" is a type of easement that allows a party to travel across a portion of another person's property.

lower assessed value. In this regard, in the drafting of the new zoning use district to regulate development within the APZ, the Town Board should design the relevant schedule of dimensional regulations in such a way as to ensure that appraised values of development rights to be purchased remain commensurate with the appraised value of development rights to be built.

Policy 3.8B: Increase Town funding available for the purchase of development rights, and to the greatest extent possible, use local funding to leverage County and State funding for the purpose of purchasing farmland or development rights.

The Town has developed a strong framework for the Purchase of Development Rights (PDR) program and uses County criteria to assess potential parcels for PDR. The partnership between the Town and Suffolk County is strong, as the two programs have led to the preservation of over 100 parcels amounting to 5,000 acres.

Continued local funding for the Town PDR program is of critical importance to the long-term success of the program in Riverhead. Currently, the PDR program is supported by a \$30 million bond to purchase agricultural and open space land and development rights, as well as the revenues from the Community Preservation Fund (CPF) 2 percent real estate transfer tax. These funds, however, do not cover the projected long-term needs of the program. The real estate transfer tax only affects improved properties over \$150,000 and unimproved properties over \$75,000, and therefore, does not generate the kinds of revenues generated by neighboring towns.

In the absence of more definitive and dedicated long-term funding, the Town has looked to State and federal programs for additional funding for open space and farmland acquisition. The State Clean Air and Water fund has provided funding, as has the County greenway program. However, the Town must find additional sources of funding to keep the PDR program as the primary local farmland preservation mechanism. The Town should consider placing additional bond issues before the voters for approval.

Policy 3.8C: 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.

Both the Town and the County have a Purchase of Development Rights (PDR) program in place. Thus far, the County has purchased 3,889 acres and the Town 1,103 acres. The Peconic Land Trust has worked closely with communities on the South Fork to leverage funding available for land acquisition and open space preservation. The Town should encourage those entities to continue allocating money toward this aim.

Policy 3.8D: Coordinate and pool resources with County and State agencies, private entities, and non-profit organizations for the purpose of purchasing development rights.

In order to achieve greater benefit from the Town's PDR program, the Town should coordinate its efforts with County, State, private, and non-profit groups. Town resources could be combined

with the resources of those entities on a case-by-case basis to create a large pool of funding, which can be used for farmland preservation. In particular, the Town should continue its strong partnership with the Peconic Land Trust to leverage funds for open space preservation.

Policy 3.8E: Reconsider criteria used to identify parcels for the purchase of development rights.

The County and the Town share the same criteria for identifying potential parcels for purchase. A result is that the Town and County may duplicate preservation efforts on the same properties, while other properties go unconsidered. The Town should reconsider its criteria and determine whether there might be ways to avoid duplication. The Town could focus its efforts on properties that the County is less willing to consider.

Policy 3.8F: Adopt a local Installment Purchase Program.

With recent passage of State enabling legislation for installment purchase programs, a new mechanism for leveraging funds is available to the Town. Through an Installment Purchase Program, the Town enters into an agreement with a landowner to purchase the property (fee simple or development rights) incrementally over time, paying interest and/or interest plus principal. The Town should consult with State officials to determine the best ways to structure the Installment Purchase Program.

An installment program benefits a property owner in several important ways:

- The landowner collects interest payments, which are exempt from income taxes. Semi-annual interest paid on the outstanding balance of the purchase price is exempt from federal, State, and local income tax (to the same extent as interest on the County's general obligation bonds).
- The landowner can defer taxes on capital gains. Pursuant to the Internal Revenue Code of 1986, property owners entering into installment purchase agreements for the sale of development rights may, in certain circumstances, defer recognition of capital gain until they actually receive the principal amount.
- Landowners can transfer the installment purchase agreement. The installment purchase agreement is a negotiable instrument, and property owners are permitted to securitize and sell their interests in installment purchase agreements at settlement or later.
- Because installment purchase agreements can be transferred, they offer flexibility in estate planning. They can be placed into marital trusts or used in connection with various estate-planning techniques. Additionally, separating the development rights from the land and making the agreement transferable allows the property owner's heirs to sell their interest in the agreement rather than in the land in order to pay estate taxes.
- A farmer may also receive a deduction from his taxable income equal to the difference between the value and the sale price of the development easements. The usefulness of this

deduction would be limited by the landowner's income, assuming that the landowner has outside income.

There are also several important advantages for the Town:

- The Town has a lower upfront cost associated with the purchase. That is, rather than having to gather all of the necessary funding in a lump sum at the start of the process, the Town can pay off the land purchase incrementally, as the money is raised through taxes or other means.
- Although payment is incremental, open space preservation is immediate.
- The Town may be able to purchase the land at a reduced cost. Because of the value of benefits offered over a 30-year period, a landowner may be willing to sell the land or the development rights at prices as low as 50 to 60 percent of appraised value.
- Because a smaller pot of money is necessary upfront, securing funding is simpler. That is, it can be raised locally through taxes or other mechanisms. There is no waiting for State or County approval of funding grants and no need for a big-ticket bond issue.

Policy 3.8G: Allow local property owners 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.

There may be some interest among property owners in donating all or a portion of their farmland properties, whether in fee simple or in the form of a development easement, to a public entity, a foundation or a non-profit organization. Property owners could potentially receive significant tax benefits from making such donations.

Policy 3.8H: Monitor areas from which development rights have been purchased, to ensure that they remain free of development.

Goal 3.9: 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. There are several incentive-based strategies that have been successfully used across the country in an attempt to preserve agriculture, the most successful of which are used in concert with aggressive regulatory techniques.

Policy 3.9A: Continue to allow and encourage farm-based retail sales, but improve enforcement to ensure that such retail outlets do not sell a higher-than-permitted amount of non-local goods.

There is a strong market for East End produce, fish, and game. This market is currently being tapped by those farmers who have erected permanent stores or temporary stands on their farms to sell their locally grown products, as permitted under the Town's zoning regulations. In focus groups and CAC meetings, some farmers expressed the concern that some farm-based stores and stands were selling a higher-than-permitted percentage of non-local products. By improving enforcement of farm-based sales, the Town could reduce what many farmers perceive to be unfair competition. In order to address such issues, the Town should promulgate legislation controlling the development and operation of farm stands.

Policy 3.9B: Sponsor a seasonal farmers' and baymen's market.

An improved indoor weekly farmers' market has been recommended in the downtown area (see Chapter 6, the Business Districts Element). In addition, the Town should study the feasibility of a seasonal farmers' and baymen's market that would take place in a larger location with better regional access. The location should provide adequate infrastructure to support local sales, such as parking, bathroom facilities, coolers and freezers, etc. Towards this end, the Town should identify the most viable area for this use and implement the necessary zoning amendments.

Policy 3.9C: Provide incentives and develop outreach tools to encourage East End farmers and fishers to participate in the seasonal farmers' and baymen's market.

As an incentive to farmers, the Town could offer market infrastructure (i.e., tables, canopies, electricity and water connections). Through brochures, advertisements, and the Town's website, Riverhead should promote the significant benefits of the market. In a study conducted by the *Farming Alternatives Program of Cornell University*, farmers' markets were found to provide rich entrepreneurial environments that help people develop homegrown businesses. Farmers' markets serve to transform an informal enterprise into a more formal business, allowing participants to gain important skills in understanding the needs of consumers, merchandising and display, and cooperating with others. Farmers' markets can also be a vehicle to help educate the non-farming majority about local agriculture and fisheries and other opportunities to support these industries. Farmers' markets could be a gathering point for farm and fishery tours and a source of information about agro-tourism.

Policy 3.9D: Promote Community Supported Agriculture.

Towns throughout the country have had success with Community Supported Agriculture, in which residents pay a subscription to a local farm, and in return, they receive fresh produce on a weekly basis.

Goal 3.10: Reduce the potential for excessive golf course development in Riverhead's agricultural greenbelt, and ensure that golf courses are environmentally friendly.

Policy 3.10A: Allow limited golf course development in the APZ.

Golf courses provide important open space and recreational values, which have been proven to attract high-end residential development either within or contiguous to the golf course parcel. This type of development should be allowed within the APZ, but regulated as follows.

- i) Existing courses – Regulated by an overlay zoning use district that would limit residential yields to 1.5 units per hole with the ability to increase residential yields to a maximum of 3.5 units per hole with the use of transferred development rights.
- ii) New courses – As new courses have no inherent residential development component, vacant parcels contiguous with such new courses should be designated receiving areas with an ability to accept one (1) development right per acre.

Policy 3.10B: Ensure that golf courses meet high standards for environmental quality.

Historically, 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.

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 programs that require golf courses to limit water usage, and to monitor water quality and the impacts of chemical applications on 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.

Goal 3.11: Protect the family farm.

Policy 3.11A: Consider allowing streamlined review for certain types of subdivisions on family farms.

Guidelines and specific criteria can be established to support continued farming while allowing subdivisions as a means to providing affordable housing for family members and farm workers.

Policy 3.11B: Work with family farmers to identify technical or financial information that may help improve the efficiency, productivity, or profitability of their farm operations.

There are successful examples around the country of how small-scale farmers have managed to thrive in an increasingly competitive industry dominated by large commercial farm operations. Building off State and County resources, the Town should identify success stories and compile a set of case studies or guidelines that can provide useful insights for Riverhead farmers.

Policy 3.11C: Consider allowing farm operations to have small secondary businesses, subject to certain restrictions, that can provide supplementary income for the farm operation.

Farmers can use small secondary businesses to supplement their income from agricultural production. For example, a farmer who has carpentry skills may choose to set up a woodworking shop in an underutilized portion of a barn. Such a "farm business" could be permitted subject to meeting certain regulations in order to ensure that the business is secondary to the farm use, compatible with the surrounding agricultural and residential areas, and not detrimental to the natural environment.

4. Natural Resources Conservation Element

4.1 VISION STATEMENT

The natural resources present in Riverhead today — including stream corridors and wetlands, the Central Pine Barrens region, and the aquifer that provides high quality water to the Town — are integral to Riverhead's long-term health, safety, and well-being, as well as its identity and economic vitality. As such, the ecological integrity of Riverhead's natural resources must be maintained and protected.

Riverhead occupies a unique place within the much admired landscape of eastern Long Island. Riverhead lies literally “at the head of a river” — the Peconic — which is Suffolk County’s largest. The Town also serves as the geographic bridge between the north and south forks of the East End, lying as it does at the juncture of these two landforms, and the Peconic River is the lynchpin of the juncture. The fact that the community derives its name from a major natural feature goes to show how much that natural environment shapes the Town's identity.

Riverhead is a coastal community, bounded by water on much of its perimeter. In addition to its waterfront along the Peconic Estuary system (which includes the Peconic River, Flanders Bay and the Great Peconic Bay), Riverhead is bounded to the north by Long Island Sound. Many of the shoreline and coastal areas in Riverhead are scenic — particularly the Sound waterfront, with its picturesque bluffs — and all of them have distinctive plant and animal communities. Finally, the Town is an agricultural community, where natural resources play an important role in the livelihood of residents, property owners, and businesspeople.

In all these ways, the natural environment shapes the way of life in Riverhead. Through the Comprehensive Plan, Riverhead has an opportunity to plan for new development in such a way that the natural environment can be better preserved. The condition and quality of natural resources not only affect public health and safety, but play a significant role in the local economy. The local agricultural economy, for example, relies upon the Town's water and soil resources for business. This Element discusses three major categories of natural resources:

- ***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). Other sensitive water resources include non-coastal surface waters, such as rivers, ponds and intermittent streams. Protection of surface water from contaminated runoff is critical for the protection of both the fishing and tourism industries. Less visible but equally critical are the underground water aquifers. Protection of aquifer recharge areas is essential to maintaining the thousands of wells, public and private, that the community depends upon for drinking water.
- ***Soils and Topography.*** The characteristics of soils and landforms determine those areas best suited for agricultural use. Many of the soil types in Riverhead are particularly well-suited to agriculture. (Chapter 3, the Agriculture Element, provides a more detailed discussion of farmland resources and farmland preservation strategies.) Also, by affecting whether septic systems can successfully be installed and used, soils may shape the type and density that development that can be accommodated. Topography is an important economic resource as well. The Town's rolling landscape and coastal bluffs contribute to the unique visual character of the community, attractive to residents and visitors alike. Erosion and flooding issues are also addressed in this chapter.
- ***Plant and Animal Communities.*** Found in woodlands, meadows, and freshwater and tidal wetlands, these communities are important for a number of reasons. Many of

them are rare or special; some provide food and habitat for other species; they contribute to Riverhead's natural heritage; and they perform important environmental and ecological functions. In particular, plants filter the water that flows into the region's aquifers and water bodies, removing pollutants and sediments, and their roots act as sponges to absorb the surge of excess water that comes with storms and flooding. In this way, plant communities can help reduce the potential for groundwater contamination and reduce the risks to life or property during a flood.

4.2 SUMMARY OF BACKGROUND RESEARCH

WATER RESOURCES

Water resources are important economic assets to the community. In Riverhead, 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.

At the same time, while water bodies and waterfront areas may be desirable economically, they are often some of the most fragile areas from an environmental standpoint. Human activity can easily upset the delicate environmental balance of those areas. 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.

Another important quality of the Town's water bodies is the unique plant and animal life found there. Water bodies, particularly freshwater and tidal wetlands, serve as critical habitat areas that support distinctive plant and animal populations.

Long Island Sound

Long Island Sound is approximately 110 miles long from east to west and is about 21 miles across at its widest point. More than 8 million people live within its watershed. According to research commissioned by the Long Island Sound Study (LISS), more than \$5 billion is generated annually in the regional economy from boating, commercial and sport fishing, swimming and beachgoing associated with the Sound.¹ The ability of the Sound to support

¹ See "References," at the end of this "Findings" section.

these activities depends on the quality of its waters, living resources and habitats – all of which are affected by the amount and type of development that occurs along the borders of the Sound and throughout its watershed. Communities, like Riverhead, along the north shore of Long Island are closely tied to the Sound and its overall health and visual character.

An Estuary of National Significance

Long Island Sound is an estuary,² a place where fresh and salt water mix. Like other estuaries, Long Island Sound is rich in fish, shellfish, and waterfowl. It provides feeding, breeding, nesting, and nursery areas for diverse animal and plant life and is an important component of the overall landscape and economy of the region.

Estuarine environments are among the most biologically rich on earth, creating more organic matter each year than comparably-sized areas of forest, grassland, or farmland. Estuaries provide habitat for more than 75 percent of America's commercial fish catch, and 80 to 90 percent of the recreational fish catch. Other benefits of estuaries include educational and recreational opportunities, provision of migratory habitat for birds, and provision of coastal wetland areas. Wetlands filter water from upland areas, serve as natural buffers between the land and ocean (absorbing floodwaters and dissipating storm surges), and help prevent erosion and stabilize the shoreline.

In 1987, as part of the National Estuary Program (NEP), Long Island Sound was designated an "Estuary of National Significance." Two years earlier, in 1985, the Sound's importance had been formally recognized by citizens and government through the formation of the Long Island Sound Study (LISS), a cooperative endeavor focused on analyzing and correcting the Sound's most pressing environmental problems.

As part of that effort, a group of stakeholders — known as the LISS Management Conference — first met in 1988 and has continued to work together collectively to implement the Comprehensive Conservation and Management Plan (CCMP) for the Sound that was released in 1994. The group of stakeholders working on this project includes citizens, environmental groups, businesses and industries, academic institutions and local, State, and federal agencies. Four threats to the Sound's water quality were identified by the LISS Management Conference group:

1. ***Low Dissolved Oxygen (Hypoxia)***. Just as people need oxygen to breathe, so do marine organisms. The oxygen used by marine organisms is "dissolved" in the water in which they live; when the level of dissolved oxygen falls below a certain

² An estuary is a partially enclosed body of water that is formed where freshwater from rivers and streams flows into the ocean. Estuaries are characterized by the mixing of freshwater and salty sea water. Although influenced by the tides, estuaries are protected from the full force of ocean waves, winds, and storms by reefs, barrier islands, or fingers of land, mud, or sand that define an estuary's seaward boundary.

point, the organisms become stressed. They may become ill, die, or move to more oxygen-rich waters, thus decreasing the health and vitality of the water body. One of the major contributing factors to low dissolved oxygen is the release of nitrogen from land-based sources, such as sewage treatment facilities, stormwater runoff, and agriculture. Nitrogen over-fertilizes the Sound, fueling the growth of algae, which ultimately sinks to the bottom and decays, depleting oxygen in the bottom waters.

2. ***Toxic Contaminants.*** Of the 55,000 chemicals in use today, many are toxic. In high concentrations, some of these substances can kill marine life. Others can have more subtle effects on behavior and reproduction, or may impact intricately balanced food webs. Additionally, toxic substances can accumulate at high levels in the tissue of marine organisms, creating a health risk for seafood consumers. Fortunately, pollution controls and changes in manufacturing trends have decreased the amount of contaminants discharged into the Sound, resulting in lower concentrations of contaminants in the surface sediments.
3. ***Pathogen Contamination.*** Disease-causing bacteria and viruses can enter the Sound from inadequately treated human sewage and animal waste (domestic or wild). People can become sick by swimming in waters contaminated by pathogens or by eating raw or partially cooked shellfish that contains pathogens. Some of the primary sources of the Sound's pathogens are overflowing sewer systems; malfunctioning septic systems or sewage treatment plants; and illegal connections to storm sewers. Another source is the discharge of sewage from boats.
4. ***Floatable Debris.***

These four items represent problems that are created primarily by human activity and/or development practices and impacts. Some of these conditions and their development-related impacts are described more fully in Appendix B.

Taxpayer dollars have been and will continue to be invested in the Sound to deal with contamination issues. New York State citizens have shown their support for efforts to protect and improve the quality of their natural resources through legislation such as the 1996 Clean Water/Clean Air Bond Act. The act included \$200 million for projects to address the priorities identified in the Long Island Sound CCMP, including the reduction of nitrogen releases. To date, \$83.2 million has been committed for projects to upgrade and improve sewage treatment plants, restore critical aquatic habitat, purchase open space and reduce non-point sources of pollution.

The Peconic Estuary

Many of the issues identified above for Long Island Sound are also of concern for the Peconic Estuary system, which extends from the mouth of the Peconic River out to the Atlantic Ocean and includes a portion of Block Island Sound. It also includes what is known as the “stormwater runoff-contributing watershed” and the “groundwater contributing area.”

Altogether, the system is composed of more than 100 distinct bays, harbors, embayments, and tributaries spanning more than 110,000 acres of land and 121,000 acres of surface water. It encompasses 340 miles of coastline.

Riverhead is at the western end of the estuary system, which includes Flanders Bay and the mouth of the Peconic River. The Peconic River supports a wide variety of plants and animals, both within its water and along its banks. The shores of the bay contain an 800-acre, undisturbed salt marsh complex, which is considered a rich marine ecosystem that serves as a nursery for a variety of marine life.

Although the Peconic Estuary system generally has high water quality, development in its watershed areas, wastewater effluent, and dirty stormwater continue to threaten water quality and other important resources associated with the estuary.³ Water quality in the western end of the system (mouth of the Peconic River and Flanders Bay, near Riverhead) is particularly vulnerable, because the waters there are poorly flushed compared to waters further east.

The Economic Value of the Peconic Estuary

As part of a project to help the Peconic Estuary Program and coastal managers determine priorities for managing and protecting the Peconic Estuary, the Department of Environmental and Natural Resource Economics at the University of Rhode Island has assessed the economic value of the Peconic Estuary. As part of that study, 29 estuarine-dependent economic sectors were identified. For the Peconic Bay, these included over 1,000 establishments that employ more than 7,000 people, pay wages in excess of \$117 million and have total annual revenues of over \$400 million. Overall estuarine-dependent economic activity accounted for about 20 percent of the local economy. Tourism and recreation establishments make up more than 80 percent of the estuarine-dependent economy.⁴

The Peconic Estuary Program

The Peconic Estuary is one of 28 estuaries in the National Estuary Program (NEP), administered by the U.S. Environmental Protection Agency (EPA), and was accepted into the program as an “Estuary of National Significance” in 1992. The Peconic Estuary Program

³ The National Estuary Program. *Coastlines: Information About Estuaries and Near Coastal Water* (August 1999, Issue 9.4). National Estuary Program, U.S. Environmental Protection Agency, 1999.

⁴ Grigalunas, Thomas A. and Jerry Diamantides. *The Peconic Estuary System: Perspective on Uses, Sector and Economic Impacts*. (February 1996; unpublished technical report submitted to the Peconic Estuary Program); Opaluch, James J.; Thomas A. Grigalunas, Jerry Diamantides, Marisa Mazzotta and Robert Johnston. *Recreational and Resource Economic Values for the Peconic Estuary System*. (February 1999; unpublished technical report submitted to the Peconic Estuary Program); The National Estuary Program. *Coastlines: Information About Estuaries and Near Coastal Water* (August 1999, Issue 9.4). National Estuary Program, U.S. Environmental Protection Agency, 1999.

(PEP) is part of the NEP and is sponsored by the EPA, the State's Department of Environmental Conservation (DEC), and the Suffolk County Department of Health Services (SCDHS). The SCDHS operates the program and provides day-to-day management, as well as technical and administrative support.

In 2001, a group of citizens, technical experts, and federal, State, and local officials — known as the PEP Management Conference — completed the Comprehensive Conservation and Management Plan (CCMP) designed to protect and preserve the Peconic Estuary system. The CCMP was endorsed by Governor Pataki in July 2001 and was forward to the EPA, with the hope that the federal agency would allocate funding to help implement the plan.⁵ On October 30, 2002, County Executive Robert Gaffney joined with representatives from state, local and federal government to approve the CCMP.⁶

In addition to pathogen contamination and toxic chemicals (two of the same issues affecting Long Island Sound), the CCMP also identified "brown tide" and "nutrient pollution" as serious issues in the estuary system. Also, as discussed in the subsection on plants and animals, the CCMP also expressed concern about ongoing threats to habitat areas and living resources.

Brown Tide

An algae bloom caused by a small and previously unknown species (*Aureococcus anophagefferens*), Brown Tide was first detected in June 1985 and has appeared and re-appeared sporadically since then. Its onset, duration, and cessation have been unpredictable. Although advances have been made regarding the identification and characterization of the brown tide organism and its growth needs, the causes of the brown tide are not known.

The impacts of the recurring Brown Tide blooms are widespread, having a serious effect on natural resources, the local economy, and the general aesthetic value of the estuary. Brown Tide has been particularly devastating to shellfish resources. The estuary's scallop harvest accounted for 28 percent of U.S. landings in 1982 with a dockside value of \$1.8 million dollars. By 1988, the scallop harvest had dropped from 150,000 to 500,000 pounds per year (pre-Brown Tide) to only 300 pounds per year (post-Brown Tide). By 1994, the scallop population had rebounded but was then hit with a brown tide in 1995 which caused significant scallop mortality again.⁷

⁵ "Governor Pataki Endorses Peconic Estuary Conservation Plan" Press Release, New York State, Office of the Governor, July 19, 2001, <www.state.ny.us/governor/press/year01/july19_01.htm>.

⁶ "Gaffney Signs the Peconic Estuary Plan" Press Release, Suffolk County, Office of the County Executive, October 30, 2002, <http://www.co.suffolk.ny.us/pressreleases.cfm?ID=822&dept=19>.

⁷ Peconic Estuary Program, Office of Ecology. *Draft Comprehensive Conservation and Management Plan – September 1999*. Suffolk County Department of Health Services, September 1999, Riverhead: New York.

In 1992, the SCDHS released the Brown Tide Comprehensive Assessment and Management Program Report (BTCAMP) in response to the Brown Tide problems. The BTCAMP study recommended that a host of pollution abatement strategies be pursued in the Peconic Bay area, including:

- Upgrading of the Riverhead Sewage Treatment plant;
- Stricter zoning;
- Restoration of wetlands and eelgrass beds;
- Stormwater runoff management;
- Boating and marina controls; and
- Further monitoring of water quality and the Brown Tide.

Nitrogen

Prior to the establishment of the Peconic Estuary Program, the ground and surface water quality of the Peconic Estuary and its surrounding watershed was studied in some depth. The primary emphasis at that time was on the western estuary, including the Peconic River and Flanders Bay — the area of the estuary bordered by the Town of Riverhead. At that time, significantly elevated nitrogen concentrations were found along the North Fork (typically 5 to 7 mg/liter). These elevations were attributed to agricultural and residential influences, resulting in part from the fertilizers used in these areas.

At that time, studies also found that groundwater in the Peconic River was of relatively high quality. This was attributed to that fact that much of that land draining into the river was at the time vacant, consisting primarily of undeveloped land, parkland, or nature preserves. As land in the Peconic River watershed becomes more highly developed, the river's water quality would tend to degrade, unless adequate land use planning and site design requirements are established. Careful attention is required not only to streamside development, but to any development projects Townwide that could impact groundwater resources.

Studies also revealed another area of concern, namely the need to control point source loading — most notably nitrogen — into the Peconic Estuary system from the municipal sewage treatment plant whose discharge location is at the mouth of the Peconic River. The PEP has adopted “no net increase” nitrogen loading recommendations for the tidal Peconic River and Flanders Bay. This nitrogen level “freeze” is being implemented through point source discharge permits for the three sewage treatment plants in the area.

AQUIFER AND GROUNDWATER RESOURCES

Central Pine Barrens

The Central Pine Barrens helps maintain the water quality of the sole source aquifer that provides drinking water for more than 2.5 million residents on Long Island. This aquifer is

regularly replenished by rainwater. Water percolates downward into the soil through a hydrological phenomenon known as “deep flow recharge.” Because the soils in the Pine Barrens area are so porous, they are very good at recharging the aquifer.

The Central Pine Barrens once covered approximately 250,000 acres in central Suffolk County. However, due to landscape changes wrought by development, the ability of portions of the original area to serve their original ecological function as aquifer recharge areas has been diminished or lost. As a result, the Central Pine Barrens area now consists of less than half its original area, covering approximately 100,000 acres of relatively undeveloped land.

The soil features that make the Central Pine Barrens an ideal area for groundwater recharge also make 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.

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 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 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. Figure 4-1 illustrates the boundaries of the Core Preservation and Compatible Growth Areas in Riverhead.

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 this end, 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 Pine Barrens region.

Groundwater Resources and Protection

Figure 4-1 depicts the Groundwater Management Zone (GMZ) system in Riverhead, as defined by Article 7 of the Suffolk County Sanitary Code. GMZs or hydrogeological zones correspond with the type of aquifer that lies beneath the surface, as well as the characteristics and groundwater quality in each zone. Zone III is a deep recharge area that extends to Sound Avenue on the north and Roanoke Avenue on the west. It includes the Core Preservation and Compatible Growth Areas of the Pine Barrens. A good portion of Zone III is undeveloped and contains high quality groundwater in the upper glacial, Magothy and Llyod aquifers. Zone IV extends east of Roanoke Avenue to the Southold town line and is characterized by shallow flow systems that discharge to streams and marine waters. Zone VIII is located west of Roanoke Avenue and extends north to the Long Island Sound from Sound Avenue. Groundwater in Zone VIII flows towards the Long Island Sound.⁸

Figure 4-1 also shows the Central Suffolk Special Groundwater Protection Area (SGPA) boundaries in Riverhead. Article 55, Sole Source Aquifer Protection, of the New York State Environmental Conservation Law seeks to protect designated sole source aquifers and prevent contamination of high quality groundwater. Article 55 sets forth an ambitious program of groundwater protection requirements, including the preparation of a comprehensive management plan. The requirements generally seek to limit development in the SGPA, to identify all known existing and potential point and non-point sources of groundwater degradation, and to develop specific watershed rules and regulations.

SOILS AND TOPOGRAPHY

Geological Formations

Over time, a variety of forces have shaped and continue to shape the landscape of Long Island. These forces have included the advance and retreat of glaciers thousands of years ago; the weathering action of rain that erodes the landscape over time; the movement of soil particles through the landscape by rivers and streams; and the shifting of landforms created by the movement of large water bodies, particularly those that are tidally influenced. The most prominent landforms in Suffolk County are:

- Two hilly ridges (called moraines) that extend in long strips from west to east;
- Two gently sloping outwash plains that fall to the south of each moraine;
- Eroded headlands found along the northwestern shore of the county;
- Barrier beaches of the south shore; and
- Tidal marshes.

⁸ The Long Island Comprehensive Special Groundwater Protection Area Plan. Long Island Regional Planning Board, 1992.

Figure 4-1

Back of Figure

The moraines and outwash plains were formed by the action of glaciers. The weathering effect of rainfall that has occurred over many hundreds, even thousands of years, has slowly eroded those hills and other upland features. Meanwhile, the barrier beach and tidal marshes have probably been formed in relatively shorter time frames by water movement and particle deposition, from streams, rivers, oceans, and bays. Elevation in the County ranges from almost 400 feet at West Hills to sea level.

Glacial Formations

The advance and retreat of glaciers played a primary role in forming the soils and landforms of Long Island. The Wisconsin stage, the last of four major glacial stages, produced Long Island Sound as well as many of the significant topographic features apparent on Long Island today. In Suffolk County and Riverhead, glacial landforms define the overall landscape character and correlate strongly to the existing soil associations.

During the earlier part of the Wisconsin stage, the glacier moved south across what is current-day Long Island. The glacier acted much like a bulldozer, pushing a complex mix of soil and glacial debris ahead of it. When the glacier retreated, the pile of debris was left behind, forming an extensive, irregular, hilly mound called a moraine. This moraine, known as the ***Ronkonkoma moraine*** extends in a long band from the Nassau County line (near Smithtown) to Montauk Point. Part of this moraine passes through Riverhead, along the southern edge of the town, in the area of course-textured, excessively drained soils just north of the Peconic River. This area corresponds to the Plymouth-Carver Rolling and Hilly soil association.

Following this period of glacial retreat, the glacier advanced one last time. However, with this final advance, the glacier did not advance as far south before beginning its retreat. Once again, the bulldozer effect of the glacier left behind a hilly pile of morainal debris. In Suffolk County, this second moraine — known as the ***Harbor Hill moraine*** — forms the northern shore of the county, extending in a long band from the western edge of the county all the way to Orient Point. In Riverhead, this morainal landform is found along the northern edge of the town, in the hilly strip that borders Long Island Sound. This area corresponds to the Carver-Plymouth-Riverhead soil association described below.

Each time the glacier reached its southern limit, it began to melt. As the glacier melted, streams flowed south away from the glacier and its morainal deposits. These “meltwater” streams carried large amounts of sand and gravel that were deposited in a more or less flat plain, forming broad, flat landscape features known as outwash plains. There are two outwash plains in Suffolk County:

- One outwash plain lies between the Ronkonkoma moraine and the Atlantic Ocean and forms the southern edge of the County.
- The other outwash plain lies between the Harbor Hill moraine and the Ronkonkoma moraine. In Riverhead, this outwash plain occupies the majority of the Town’s land area, extending from west to east in a broad band across the entire Town. This central landform, framed by the Harbor Hill moraine to the north and the Ronkonkoma

moraine to the south, forms the agricultural core of Riverhead. This area corresponds to the Haven-Riverhead soil association described below.

Riverhead Soils

There are several important soil associations and types found in Riverhead; these are described below. A soil association gives a general idea of the soils in an area and encompasses a distinctive pattern of soils, typically consisting of one or more major soils and at least one minor soil. The first three soil associations described below are key to understanding the geographic makeup of the Town. They cover the majority of the land area within Riverhead and occur in three bands parallel to Long Island Sound. The remaining are four soil types that are unique or especially fragile soil types covering a much smaller percentage of land area, found in pockets or narrow strips near the coastal edges.

- ***Carver Plymouth Riverhead Association (Harbor Hill Morainial Area — North Shore)***. “Deep, rolling, excessively drained to well-drained, coarse and moderately coarse textured soils.” Located mainly along the Sound. In the eastern part of the area covered by these soils, there are some sharp slopes. Many areas are currently wooded. The sandy texture and steep slopes make the soil poorly suited to farming. Slope is the dominant limitation to the use of these soils as building sites. Steep slopes are also more prone to erosion, particularly if construction, grading, or clearing are being conducted.
- ***Haven-Riverhead Association (Outwash Plain Area — Central Agricultural Zone)***. “Deep, nearly level to gently sloping, well-drained, medium-textured and moderately coarse textured soils.” These soils are located in a wide band across the central area of the Riverhead. Soils are typically level and have short, gentle slopes along shallow drainage ways. Some areas are pitted by steep-sided kettle holes. Most of the areas covered by this soil in Riverhead have been cleared, and a large part is being used for farmland. These soils are well-suited to agriculture, as they have moderate-high moisture capacities, and crops respond well to applications of lime and fertilizer. Because drainage is good in these soils, and they can be excavated with ease, this association also has excellent potential for housing developments and similar uses. In some places, the water table is high limiting development potential.
- ***Plymouth-Carver Association, Rolling and Hilly (Ronkonkoma Morainial Area — South)***. “Deep, excessively drained, coarse-textured soils.” Steep slopes, ranging from 8 to 35 percent. Soils of this association are coarse-textured and prone to drought. Permeability is rapid, and natural fertility is low to very low, making them ill-suited to farmland. Development is severely limited due to steep slopes. Some areas have high water tables, which also limit potential development. Rapid permeability has the potential to result in groundwater contamination. These soils are located in a narrow band along the southern edge of the Town, bordering the Peconic River and Flanders Bay.
- ***Beaches (Bc)***. Made up of sandy, gravelly, or cobbly areas that develop between dunes and escarpments and the line of water at mean sea level. The slope of beach

soils is nearly level in most areas but it is as much as 16 percent in some places on the Atlantic shore. All beaches along Long Island Sound are gravelly and cobbly. In most places, beaches on the bays are sandy, but varying amounts of gravel are mixed with the sand.

- ***Escarpments (Es)***. Escarpment soils are made up of bluffs that have slopes greater than 35 percent. In Riverhead, *Es* occurs along the north shore. With such steep slopes, there are highly subject to erosion. Except for a few scattered areas, soils are generally devoid of vegetation. Along the north shore of Long Island, the material in the escarpments is sand. Many escarpments have large boulders embedded in the soil, which roll to the beach as the escarpment erodes. Escarpments are used as habitat by some species of songbirds.
- ***Muck (Mu)***. Muck is made up of very poorly drained organic soils that have formed from partly decomposed or almost completely decomposed woody or herbaceous plants. Muck is made up of 16 to 48 inches of spongy, black or dark-reddish organic material over loose sand and gravel. The water table is at or near the surface most of the year. Muck areas are nearly level and occur in the bottom of closed depressions and along streambeds. In Riverhead, most areas are found along the Peconic River in depressions that are irregular in shape. Most of this land type is covered with woodland or marsh grass. It is best suited to habitat for wetland wildlife.
- ***Tidal Marsh (Tm)***. Tidal marsh soils are made up of wet areas that occur throughout the County around the borders of calmer embayments and tidal creeks. These level areas are not inundated by daily tide flow, but they are subject to flooding during abnormally high moon or storm tides. Tidal marsh soils have an organic mat on the surface that ranges from a few inches to several feet in thickness. The organic mat overlies pale-gray or white sand. In many places the profile of the marsh is made up of alternating layers of sand and organic material, that has developed as a result of sand being deposited on the organic mat during abnormally high storm tides. These very poorly drained areas are not suitable to any kind of farming. They are best suited to use as habitat for types of wildlife.

Capability Grouping System of Soils

Figure 4-2 illustrates the soil classes in Riverhead cataloged by the U.S. Department of Agriculture Soil Survey. The purpose of designating soil classes is to measure the suitability and limitations of soils when used for field crops. Soil classes are part of the capability grouping system, which orders soils three different levels: 1) classes; 2) subclasses; and 3) units. Soil classes are the part of the broadest level of the capability grouping system and range from Class I soils, which have few limitations that restrict their use, to Class VIII soils, which have many limitations that restrict their use. Table 4-1 below lists each soil type in Riverhead and its corresponding soil class.

Table 4.1: Riverhead Soil Classes and Types

<i>Class</i>	<i>Soil</i>
Class I	HaA – Haven loam, 0 – 2% slopes
Class II	HaB – Haven loam, 2 – 6% slopes He – Haven loam, thick surface layer MfA – Montauk fine sandy loam, 0 – 2% slopes MfB – Montauk fine sandy loam, 3 – 8% slopes PsA – Plymouth loamy sand, silty substratum, 0 – 3% slopes RdA – Riverhead sandy loam, 0 – 3% slopes RdB – Riverhead sandy loam, 3 – 8% slopes ScB – Scio silt loam, till substratum, 2 – 6% slopes SdA – Scio silt loam, sandy substratum, 0 – 2% slopes SdB – Scio silt loam, sandy substratum, 2 – 6% slopes Su – Sudbury sandy loam
Class III	De – Deerfield sand HaC – Haven loam, 6 – 12% slopes MfC – Montauk fine sandy loam, 8 – 15% slopes MnB – Montauk loamy sand, sandy variant, 3 – 8% slopes PIB – Plymouth loamy sand, 3 – 8% slopes PIC – Plymouth loamy sand, 8 – 15% slopes Ra – Raynham loam RdC – Riverhead sandy loam, 8 – 15% slopes Wd – Walpole sandy loam
Class IV	At – Atsion sand MnC – Montauk loamy sand, sandy variant 8 – 15% slopes PIC – Plymouth loamy sand, 8 – 15% slopes We – Wareham loamy sand
Class V	Bd – Berryland mucky sand
Class VI	–
Class VII	CpA – Carver & Plymouth sands, 0 – 3% slopes CpC – Carver & Plymouth sands, 3 – 15% slopes CpE – Carver & Plymouth sands, 15 – 35% slopes Mu – Muck PmB3 – Plymouth gravelly loamy sand, 3 – 8% slopes PmC3 – Plymouth gravelly loamy sand, 8 – 15% slopes
Class VIII	Bc – Beaches Du – Dune land Es – Escarpments Tm – Tidal marsh
Unclassified	CuB – Cut and fill land, gently sloping CuC – Cut and fill land, sloping Cue – Cut and fill land, steep Fd – Fill land, dredged material Gp – Gravel pits Ma – Made land Rc – Recharge Basin RhB – Riverhead & Haven soils, graded, 0 – 8% slopes Ur – Urban land

Figure 4-2: Soil Capability Classes

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WOODLANDS

The most well-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. The Central Pine Barrens is protected from nearly all future development, due to its function as a groundwater recharge area. The forest is considered a unique and rare habitat area for both 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. Along the upland of the escarpment lies the Coastal Oak Beech woodland, which is considered old growth. In certain areas along the escarpment are stands of dwarf beech considered globally rare by the New York Heritage Program of the New York State Department of Environmental Conservation.

In 1994, New York State Department of State, Division of Coastal Resources, stated: "portions of the Riverhead Bluffs around Friars Head are covered by a maritime beech forest, a unique plant community on the Sound considered by the NYS Natural Heritage Program to be globally rare. It is one of three known maritime beech forests in New York (and in size, the largest, by far), and one of three known along the east coast. The tree extent of the maritime beech forest is not known, but it may stretch beyond the immediate area of Friars Head." Other occurrences of dwarf beech forest have been found in Wildwood State Park and sites about 2 to 3 miles east of Friar's Head.

PLANTS AND ANIMALS

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 visualized 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, flowering plants, insects, amphibians and mammals (associated with terrestrial habitats).

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 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.

Native Species

Plants and animals that are “native,” or indigenous, to the region are considered particularly valuable. They are part of the region’s natural and environmental heritage, and they also contribute to the natural scenery, which appeals to not only nature enthusiasts, visitors, and tourists, but also local residents. Many residents moved to the East End from more urbanized areas to live closer to nature. 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, their seeds are easily transferred by wind, water, birds, or insects. One example is the popular landscaping plant Norway Maple (*Acer platanoides*), whose seeds quickly spread into natural areas and new plants end up taking over native plant and animal communities.

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.

Plants and Animals of the Estuaries

Riverhead’s estuarine environments — which include 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 salt marshes and submerged eelgrass beds found within estuary give food and shelter to commercially important fish and shellfish. Sea turtles, such as the Kemp-Ridley, seals, whales, and countless shorebirds also use the estuary for breeding or feeding grounds.

The productivity and variety of estuarine habitats results in abundant and diverse wildlife and plant communities. Shore birds, fish, crabs and lobsters, marine mammals, clams and other shellfish, marine worms, sea birds, and reptiles are just some of the animals that make their homes in and around estuaries. They provide important habitat, as well as spawning and nursery grounds, for fish (e.g., bay anchovy, Atlantic silverside, scup or porgy, summer

flounder or fluke, winter flounder, windowpane flounder, weakfish or grey sea trout, and tautog or blackfish) and shellfish (e.g., bay scallops, hard clams). These animals are linked to one another and to an assortment of specialized plants and microscopic organisms through complex food webs and other interactions.

As noted, both Long Island Sound and the Peconic Estuary are wrestling with the combined threats of hypoxia, toxic contamination, pathogen contamination, floatable debris, brown tide, nitrogen loading, and nutrient pollution. All of these are areas of concern for the plants and animals of the estuary systems.

Shellfish

Long Island Sound produces some of the best shellfish in the nation. Oysters are the dominant commercial shellfish. However, commercial and recreational shellfishers also harvest hard clams (or quahogs), soft-shell clams (or steamers), bay scallops, blue mussels, surf clams, and razor clams. At the end of the nineteenth century, oyster farming had developed into a major industry in the Sound. Today, after a period of decline, the Sound's oyster industry is once again one of the largest in the nation. The Sound's oysters are marketed nationally, and their high quality commands a premium price. The oyster is, by far, the most economically important shellfish harvested in Long Island Sound.

Lobster Landings

The American lobster is one of the most important and valuable seafood products harvested in New York. Long Island Sound's lobster fishery was the third largest in the country behind Maine and Massachusetts, earning a dockside value in New York alone of over \$29 million in 1998. However, the health of the Long Island Sound lobster industry is now in question. Lobster fishermen and dealers began reporting dead and dying lobsters in their gear in the western third of Long Island Sound in mid-September of 1999. Continuing through 1999 and 2000, the die-off was unprecedented in scope and catastrophic to the lobster fishery.

Scientists are unsure what is causing the lobsters to die in the western Sound, although all the dead lobsters had the same protozoan parasite called *Paramoeba*. Research is under way to determine whether changes in weather conditions (such as storms or average temperature fluctuations), pollutants in the water or sediments, hypoxia (lack of oxygen), dietary change, or management practices (such as dredging and pesticide applications) could have weakened the animals so that they became susceptible to diseases and parasites.

Estuarine and Coastal Birds

There are more than 125 species of birds, mainly waterfowl, water birds, and raptors that rely on the estuary systems of eastern Long Island for food and habitat. Bird populations in and near eastern Long Island vary seasonally. In winter, mergansers, scaups, scoters, mallards, black ducks, loons, cormorants, and Canada geese are found in large concentrations. Spring

brings the annual migration of a wide variety of plovers, terns, sandpipers, waterfowl, herons, egrets, and songbirds. During the summer months, birds are busy tending their nests and young. Fall, once again, brings masses of birds migrating along the coast to southern wintering grounds.

The Peconic Bay region is considered an “Important Birding Area” (IBA) by the New York State Audubon Society. An IBA is a site providing essential habitat to one or more species of breeding or non-breeding birds. The region is an important breeding area for American Oystercatchers; Piping Plovers; Common Terns; Least Terns; Black Skimmers. In addition, Ospreys nest in the Peconic Bay region and forage in the wetlands. The area is also important as a wintering and staging area for waterfowl, loons, and grebes, particularly Common Loons, Canadian Geese, American Black Duck, Scaup, Long-tailed Duck, and Red-breasted Mergansers.

The populations of Piping Plovers and Least Terns are lower now than in the past. Increasing development and recreational use of the species’ essential habitat — Long Island’s beaches — is the cause of their decline. Specific threats include:

- Loss of coastal habitat available for nesting and feeding, due to commercial, residential, and recreational development.
- Both eggs and the young birds are very well camouflaged, putting them in danger of being stepped on or otherwise disturbed by humans. Off-road vehicles pose a serious threat.
- Even innocent sunbathing can have its effects on the birds; if the beach is crowded with people, feeding is interrupted and young birds may not get the nourishment they need to survive. Those that do survive need to be strong enough for the long migration south.
- Dogs roaming unleashed disturb the birds. Cats prey on chicks and adults at night.
- Predation can be a major limiting factor on nesting success. Predators such as foxes, gulls, crows, raccoons, and skunks feed on eggs and young plover and tern chicks. Picnic waste attracts predators to the beach.

Eelgrass

Eelgrass is an aquatic plant that grows in shallow water generally less than 10 feet deep, and is found in temperate coastal bays and estuaries around the world. Eelgrass is important because it provides critical habitat for shellfish and finfish. Its long blades create an aquatic jungle that provides a hiding place for many juvenile fish. Without this nursery habitat, many young fish would not be able to escape from predators. It also performs other important functions within estuarine systems, including bottom stabilization and nutrient cycling. Eelgrass is very efficient at capturing nutrients from the water column and helps to reduce eutrophication (a buildup of nutrients). The roots stabilize the sediment and the plants themselves slow currents and allow suspended sediments to settle out — all of which helps

improve water quality. The Long Island Chapter of The Nature Conservancy highlighted the importance of eelgrass in 2000 by naming it “Species of the Year.”

In the Peconic Estuary, eelgrass is mostly found east of Shelter Island (anecdotal evidence suggests that eelgrass once existed in Flanders Bay), and eelgrass beds are currently declining in the Peconic Estuary. Exact causes are not known, but it is believed that the beds have been impacted by the effects of the brown tide and by poor water quality conditions including high levels of nitrogen and suspended sediment (which are often side effects of human development, building, and other activities). Other factors causing declines in eelgrass include eelgrass wasting disease, dredging and filling operations, and disturbance by power boats. Loss of eelgrass beds may eliminate other species by no longer providing them with specific habitat requirements.

Plants and Animals of the Central Pine Barrens

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 region contains an unusually high concentration of species that have officially been classified as endangered, rare, or subject to the protection of federal laws. Among the more important species inhabiting the Central Pine Barrens are the Tiger Salamander, the Red-Shouldered Hawk, the Northern Harrier, the Mud Turtle, the Common Nighthawk, and the Whip-poor-will. The area includes the last remaining viable grassland bird community on Long Island with breeding Upland Sandpipers, Vesper Sparrows, and Grasshopper Sparrows. Other characteristic pine barren species found in the Central Pine Barrens area include: Brown Thrashers, Blue-winged Warblers, Pine Warblers, Prairie Warblers and Field Sparrows.

Calverton Ponds Preserve

Contained within the Central Pine Barrens area, and located within the Towns of Riverhead, Brookhaven and Southampton is the Calverton Ponds Preserve, a 350-acre assemblage of Pine Barrens and coastal plain ponds that is one of the rarest and most fragile wetland ecosystems in New York State. The preserve is cooperatively owned and managed by The Nature Conservancy and Suffolk County Parks.

Coastal plain ponds are characterized by nutrient-poor, acidic water and gently sloping shores. 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. The ponds are home to several rare amphibians, fish and insects, including Tiger Salamanders and Banded Sunfish. White Cedar swamps are found in the vicinity of the Calverton Ponds Preserve.

In February of 1999, the New York State Department of State, Division of Coastal Resources Habitat, issued an ecological assessment of the waters, wetlands and uplands of the Peconic River Basin. The document assessed the ecosystem rarity, species vulnerability, human use, population levels and replacibility of the Peconic River with a focus upon the aforementioned Coastal Plain Pond Resource. In the overall assessment, the resource was deemed irreplaceable.

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.

Other Significant Plant Communities

In addition to the plant and animal species and 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 listed in Table 4.1. Potential threats to these communities include:

- Displacement from filling;
- Cutting of trees;
- Spread and invasion of non-native, invasive species;
- Impacts from road runoff;
- Alterations in hydrology;
- Removal of downed wood;
- Loss of surrounding forest integrity;
- Increase in trails;
- Impacts from development and building;
- Impacts from recreational use;
- Changes in vegetation due to fire suppression;
- Impacts from residential development (septic tanks);
- Impacts from fertilizer use, weeding, and mowing;
- Erosion and/or changes associated with stormwater runoff.

Table 4.1: Significant Plant Communities

<i>Community Name</i>	<i>Acres in Riverhead</i>
Maritime Beech Forest	97
Coastal Oak-Beech Forest	410
Coastal Plain Pond	3
Coastal Plain Pond Shore	162
Coastal Plain Poor Fen	10
Pine Barrens Shrub Swamp	26
Pitch Pine-Oak Forest	500

FLOODING AND EROSION

The coastal bluffs found along the Long Island shoreline are important barriers against erosion. 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 flood waters 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.

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.

Coastal Erosion Hazard Areas

Chapter 12 of the Riverhead Town Code was promulgated to protect and preserve the natural protective features such as dunes and bluffs of coastal areas, limit erosion, and ensure that erosion control structures are properly constructed. In Riverhead, these regulations apply to Long Island Sound shoreline.

There are two categories of regulated areas: Natural Protective Features and Structural Hazard Areas. "Natural Protective Features" (NPFs) include: the nearshore, beaches, bluffs,

primary dunes, and secondary dunes. “Structural Hazard Areas” (SHAs) are located landward of the NPFs and are found on shorelines that have a demonstrated long-term average annual recession rate of one foot per year or greater. The Town of Riverhead has not had any SHA demonstration made along its shorelines. Permits are required from the State’s Department of Environment Conservation (DEC) for development along sensitive shoreline areas subject to erosion.

According to the Federal Emergency Management Agency (FEMA), which publishes the Flood Insurance Rate Maps (FIRM) for land areas throughout the country, there are several critical flood hazard areas throughout Riverhead. Nearly all of these are found along the Peconic Estuary and Long Island Sound. More land areas along the Peconic are prone to floods, because those areas are relatively low lying. Areas along the Sound tend to be more buffered from flooding impacts, due to the presence of the bluffs. Major 100-year flood hazard areas include:

- Areas along Wading River, west of Sound Road, from the Wading River hamlet going north.
- Parts of the NYS Conservation Area and the Boy Scout Camp in Baiting Hollow.
- Portions of Iron Pier Beach and Park, as well as some of the adjacent residential areas and open spaces.
- Portions of the open space areas included in the Central Pine Barrens region located south and southwest of Enterprise Park in Calverton. These areas drain into the Peconic River.
- Most of the banks along the Peconic River are subject to flooding. The width of the flood hazard area varies greatly, from 50 feet in some areas to about 200 feet in others, to as much as 1,000 feet in a few spots. East of the LIE, the flood hazard area is contained south of both the LIRR rail line and Route 25. In downtown, Grangebél Park and the parking lots on the south side of Main Street are subject to flooding, and the buildings on the south side of Main Street could be impacted by floods. The portion of the Peconic east of the dam in Grangebél Park is influenced both by the coastal tides and the freshwater flow from upstream.
- Many of the beachhead areas and stream corridor along Flanders Bay and the Great Peconic Bay could be subject to flooding:
 - Large portions of Indian Island County Park and the County Golf Course;
 - Areas along Meetinghouse Creek, extending as far north as Route 25;
 - Areas along Reeves Creek, extending as far north as the LIRR;
 - A wetland area between Reeves Creek and Simmons Point, extending as far north as Route 25;
 - All of Simmons Point and Miamogue Lagoon;
 - All of Miamogue Point, including the residential area along South Jamesport Avenue south of Peconic Bay Boulevard;

- All of East Creek Marina and East Creek extending north past the LIRR tracks; and
- Portions of Browns Point, reaching north past Peconic Bay Boulevard.

4.3 GOALS & POLICIES

Goal 4.1: Protect and preserve the ecological integrity of Riverhead's Central Pine Barrens area and the water quality of Long Island's sole source aquifer.

The Central Pine Barrens area and its associated aquifer are among the most critical natural resource areas in the Town, from a public health point of view, because the aquifer provides drinking water to about 2.5 million people. In 1995, the *Central Pine Barrens Comprehensive Land Use Plan* was adopted by the State, Suffolk County, and the Town. The plan defines a series of interrelated areas, including a Core Preservation Area, a Compatible Growth Area, and Critical Resource Areas and is designed to ensure protection of the area's critical natural resources while directing development appropriately. This plan is essential to protecting natural resources that are critical to both Riverhead and the region for the long-term, and the Town should continue to abide by and support its directives.

Policy 4.1A: Continue to fully support and implement the Central Pine Barrens Comprehensive Land Use Plan, and abide by or exceed the development standards and guidelines in the plan.

Policy 4.1B: Continue to provide ample receiving zones for Pine Barrens Credits in Riverhead.

In Chapter 2, the Land Use Element, there are descriptions of several new commercial zoning districts, which would be applied to Route 58, downtown Riverhead, and the Town's hamlet centers. Many of these zoning districts would be eligible for floor area bonuses if they purchase Pine Barrens Credits.

Policy 4.1C: Cooperate with local non-profit organizations who are working to acquire and protect lands in the Central Pine Barrens area.

Policy 4.1D: Protect the Central Pine Barrens area from potential contamination (i.e., nutrient/nitrogen loading, toxic contamination) or altered hydrological patterns as a result of new development, business practices, or household practices in adjacent areas.

Goal 4.2: Protect the quality of ground water and surface waters throughout the Town.

Surface waters that warrant protection include Long Island Sound, the Peconic River, and the entire Peconic Estuary system, as well as the small inland wetlands and streams found throughout the Town.

Policy 4.2A: Strive to reduce potential contamination of surface waters by continuing to meet or exceed water resource protection standards established by the New York State Department of Environmental Conservation.

Policy 4.2B: Work cooperatively with all federal, State, and County agencies that may regulate the region's water resources.

Wetlands are regulated at both the federal and state level. The State's Department of Environmental Conservation regulates surface water resources, freshwater and tidal wetlands. In addition, the Suffolk County Department of Health Services and Water Authority work to protect water quality countywide.

Policy 4.2C: Communicate with and administratively support the efforts of The Nature Conservancy to protect sensitive, unique, and/or rare habitat areas.

Policy 4.2D: Work to limit new inputs of nitrogen, other nutrients, and toxic materials into surface waters emanating from developed areas and sewage treatment plants.

Sensitive landscape practices and appropriate stormwater management techniques can help limit the potential for contamination. The Town should encourage environmentally friendly landscaping practices and require appropriate stormwater management for new development. Sewage effluent should continue to be properly treated and disposed, so as to reduce the potential for contamination.

Policy 4.2E: Ensure that in all areas where wastewater is discharged to the ground (i.e., septic systems, constructed wetlands, and package treatments plants) are built with the appropriate densities and appropriately designed so as to prevent nitrogen contamination of groundwater or surface water.

Policy 4.2F: Improve enforcement of requirements for proper waste discharge from boats and houseboats.

Boating is a popular recreational attraction in Riverhead. Boats are required to discharge wastewater into the sewer connections available at Town docks. Municipal pump out stations are located at the East Creek marina and at the downtown municipal dock. To minimize the potential for boats improperly discharging their wastewater directly into the Sound or the

Peconic Estuary, the Town should pursue the acquisition of a marine pump-out vessel, enlisting the financial assistance of the State, County, or federal agencies, if possible.

Policy 4.2G: Determine whether flushing, dredging, and/or other improvements are needed for small water bodies adjacent to the Sound: Baiting Hallow, Iron Pier, Wading River.

Some participants of CAC meetings cited the need for improvement at these locations. Siltation and mosquitoes have been cited as problems at Baiting Hallow and Wading River, and dredging has been suggested as a possible solution to increase flushing. The Town should investigate the environmental merits of such actions and provide that administrative support commensurate with its findings.

Policy 4.2H: Require any future development proposals on key waterfront sites to be regulated by Planned Development District Zoning.

Planned Development District is a zoning technique whereby the landowner is required to develop and follow a detailed master plan for the site. The development of such a plan would allow the opportunity to plan out development and conservation on those sites in a sensible way, with the intent of protecting natural resources and scenic views and promoting waterfront access. Some of the uses suggested for key waterfront sites include water-dependent uses, boat basin, resort, public recreation, open space, public access, additional setbacks, bluffs, clearing.

Policy 4.2I: Determine whether dredging and/or other improvements may be needed at East Creek Marina or other docking facilities in Riverhead.

Policy 4.2J: Require golf courses to be designed in an environmentally friendly manner, such that the potential for contaminated run-off is reduced to a minimum.

The golf course industry has in and of itself taken steps to become far more environmentally friendly in recent years. The Town can require that golf course meet the high environmental standards that are being employed on courses throughout the country. Requirement should include the following:

- Golf course grading should be consistent with a stormwater management plan, and the grading should be designed to result in stormwater being collected and retained on-site. Collection ponds can provide stormwater management, flood control, and water supply for irrigation purposes, reducing the demand on off-tract water supplies.
- A water resource monitoring program should be provided, and it should be designed to minimize the use of off-tract surface water and groundwater resources while maximizing the use of stormwater retained on site.
- Water quality should be tested for nutrients, pesticides, and potential contaminants.

- Drought-tolerant turf and landscaping material should be used, and irrigation practices should be explained.
- An integrated pest management and turf management plan should be provided and should define the nature and use of the pesticides and other chemicals and fertilizers involved. Turf should absorb and filter fertilizers, pesticides, herbicides, and other pollutants to minimize contamination of streams and groundwater.
- New plantings should be native, non-invasive species, when possible.

Goal 4.3: Limit risk of personal injury or property damage by addressing flooding concerns throughout the Town, but particularly along the Peconic River.

Recognizing that portions of downtown Riverhead have historically suffered from flooding of the Peconic River, it is essential that steps be taken to limit the potential for flooding events.

Policy 4.3A: Develop regulations requiring that new development utilize state-of-the-art best management practices to better manage stormwater.

This strategy would help ensure that non-point stormwater runoff does not contribute unmitigated additional flow to the Peconic River.

Policy 4.3B: Implement impervious surface coverage limits to development Townwide, so as to limit the amount of stormwater runoff.

This policy is further articulated under Goal 4.11. Another option to be explored for Riverhead is the increased installation of detention basins for commercial sites, such that the stormwater is prevented from flowing directly into nearby streams and exacerbating floods. Also, detention ponds reduce the amount of pollutants that flow into surface waters, because some of the contaminants settle to the bottom of the detention pond itself.

Policy 4.3C: Limit new development and the addition of new impervious surfaces within flood hazard areas.

Because of the Peconic River's designation as a Scenic and Recreational River, State law strictly limits development along the immediate banks of the river. Also, as discussed in Chapter 11, the Park and Recreation Element, it is a goal of the Town to purchase land along the Peconic River waterfront for walking trails. These combined factors, in effect, will limit increases in impervious surfaces along the river's floodplain. Continued application and enforcement of Chapter 65 of the Riverhead Town Code will protect the floodplain resources of the Peconic Estuary.

Policy 4.3D: Explore the potential for retrofitting existing stormwater conveyance devices and structures so as to provide stormwater quantity and quality control.

Policy 4.3E: Continue working with the State to reduce property damage or personal injury for residents living in coastal flood hazard areas.

Goal 4.4: Conserve the bluffs and woodlands overlooking the Long Island Sound and the sensitive woodland and habitat areas found between Sound Avenue and the Sound.

The hilly bluffs along Long Island Sound are an important area of natural and scenic beauty. Moreover, the dwarf beech and maritime beech forests constitute a unique ecological area that is sensitive to development impacts. While development can continue to occur in this general area, it should be planned and designed in such a way as to conserve the bluffs and the woodlands, which make the area so unique and so valuable for low-density residential development.

An important component of Chapter 3, the Agriculture Element, is the preservation of the agricultural areas north and south of Sound Avenue, as well as south of Route 25 at Jamesport. The Element calls for the use of Transfer of Development Rights (TDR) to shift development from the agricultural greenbelt to areas north of Sound Avenue, as well as to the Town's hamlet areas, Enterprise Park, Route 58, and areas within and around downtown. This would result in a higher density of residential development than would be permitted within the APZ. The following recommendations are intended to limit the impacts of additional development in the subject area.

Policy 4.4A: Require new development to provide significant open space setbacks from Long Island Sound.

In development review, the Town should determine the appropriate width of the setback, based on a careful analysis of the extent of the woodland areas along the Sound, as well as existing lots sizes. The setback would prohibit any building from being erected within the stated distance from the waterfront.

In the case of a large-scale subdivision, the actual land area in the setback can be set aside as part of the subdivision's park or open space requirements. Alternatively, the land area could be included in private lots, but the setback would still apply. Thus, those lots would have to be large enough to accommodate the distance, such that no buildings would have to be built in the setback. Also, deed restrictions would have to be required for those lots, such that no structure could be built in that area.

Policy 4.4B: Establish woodland clearing limits for properties located along Long Island Sound.

Clearing limits would be a very effective means of conserving tree stands along the bluffs and within the Coastal Oak Beech woodland. These limits should be integrated into the zoning code. The Town could research clearing techniques that have been employed by other

communities throughout the country. The clearing limits should be targeted to areas along the shoreline, and they should be effective in providing contiguous forest cover (as opposed to individual tree protection).

Policy 4.4C: Establish Town-wide environmental performance standards that carefully regulate development along Long Island Sound.

In particular, environmental performance standards need to ensure that septic systems are so located and designed that they do not result in any detrimental environmental impacts on the bluffs, the woodlands or the Long Island Sound Estuary. Stormwater control is also a critical concern and should be addressed in the performance standards.

Policy 4.4D: Continue to require that new development along Long Island Sound be consistent with State and local coastal management policies.

The Town is currently preparing a Local Waterfront Revitalization Program to be integrated within the Town's Comprehensive Plan. The LWRP would result in the establishment of a local coastal commission and the establishment of coastal management policies for all sites along Riverhead's shorelines. This commission would review all development to determine compliance with these policies and generally evaluate any potential impacts of development proposals on the Sound and the shoreline.

Policy 4.4E: Ensure that the Local Waterfront Revitalization Program includes policies that will help protect the bluffs, woodlands, and the Long Island Sound Estuary.

Goal 4.5: Limit development on soils that are particularly well-suited to agricultural use.

The area lying between Sound Avenue and the Long Island Sound from Baiting Hollow East to Northville contains areas of prime agricultural soils that have been historically tilled. Although these soils are not targeted for preservation, such soils should be considered to the greatest extent practicable through cluster subdivision review while maintaining established clearing standards for Coastal Oak Beech woodlands. As stated in Chapter 2, the Land Use Element, the RAB-80 district would give landowners north of Sound Avenue the flexibility to send development rights in order to preserve farmland and priority open space.

Goal 4.6: Continue to protect rare and/or endangered plant and animal species and their habitat areas.

The best habitat areas for plant and animal species are concentrated in the Central Pine Barrens, along shoreline areas, along riverbeds and streambeds, and in woodland areas. These policies are intended to target such areas for conservation.

Policy 4.6A: Require open space setbacks along river and stream corridors.

Setbacks do not necessarily need to be established along the Peconic River, because development is strictly limited within 500 feet on either side of the riverbanks, under the State's Scenic and Recreational Rivers Act. Creek corridor buffers, however, should be required along creeks feeding the Peconic Bay Estuary.

Policy 4.6B: Require open space setbacks along Flanders Bay and the Great Peconic Bay.

The appropriate size of the setback needs to be determined by examining the size of existing lots, current development patterns, the extent of floodplains, and existing topography. Policy 4.4B calls for open space setbacks along Long Island Sound as well.

Goal 4.7: Encourage the preservation and planting of native plants and avoid the planting of invasive plants.

Policy 4.7A: Compile a list of resources where residents and developers can obtain information about native and invasive plants.

Potential sources include the Cornell Cooperative Extension, local landscaping businesses, local nurseries, the U.S. Department of Environmental Protection, the NYS Department of Environmental Conservation (DEC), the Invasive Plant Council of New York State, the Peconic Land Trust, and the North Fork Environmental Council. This information should be made available at Town Hall and the local libraries.

Policy 4.7B: Encourage developers to identify and protect existing native plants on properties that are subject to development or redevelopment.

Some participants in the CAC meetings suggested that all existing native plants be protected and preserved on undeveloped land. It would be onerous to require a land developer to document all such species, which could include anything from a wildflower to an old-growth tree, and could number in the hundreds. Even if full documentation were possible, the effort to protect all such plants already in the ground could complicate or prevent effective site planning.

Developers are already and will continue to be required to protect areas where such species are likely to be concentrated — wetlands, stream and creek corridors. Open space preservation helps protect native species that may already exist. Beyond these measures, the Town should encourage but not require developers to protect any native plants that they have on their sites. Making information available on native plants (see Policy 4.7A) would allow developers to recognize native species on their properties.

Policy 4.7C: Explore grant opportunities to fund the landscaping of Town-owned properties with non-invasive native plants.

Policy 4.7D: Continue to encourage County and State agencies to plant native species alongside roadways or in roadway medians when they have jurisdiction.

Policy 4.7E: Work with the Cornell Cooperative Extension and local non-profit and advocacy organizations to assess experiences with using native plant species in Riverhead.

Generally, native plants would be expected to thrive in their home environment, requiring less water and maintenance than non-native plants. However, such a study could highlight any problems or issues that arise with their use. It could help identify whether there are certain native species that take to the local soils and microclimate better than others. It could also help understand the conditions under which native species have the best success. The results of the study should be made available at Town Hall and the local libraries, and should be distributed to local landscaping and nursery businesses.

Goal 4.8: Support initiatives for natural resource conservation and open space preservation undertaken by private property owners, non-profit organizations, and other public agencies.

Policy 4.8A: In order to protect and preserve natural resources and open space, administratively support organizations like The Nature Conservancy, the Peconic Land Trust, the North Fork Environmental Council, and other legitimate not-for-profit environmental organizations.

In eastern Long Island, non-profit conservation organizations work with landowners to protect natural resources, scenic vistas, water quality, and productive farmland. They use a variety of preservation techniques, including: gifting, purchase of land or conservation easements, property leases or exchanges, and cooperative ventures with government agencies.

Policy 4.8B: Continue to employ conservation and scenic easement provisions to allow tax abatement for property owners.

In order to preserve priority natural and scenic resources, this provision would provide landowners with the ability to place a conservation or scenic easement on their properties in exchange for a reduction in tax valuation for that portion of the property under the easement.

Policy 4.8C: When appropriate, and on a case by case basis, structure the Town's preservation and conservation efforts such that they dovetail with the initiatives of federal, State, and County agencies.

Certain taxes paid by Riverhead residents help support federal, State, and County efforts for natural resource conservation. Riverhead should optimize the use of those tax dollars by ensuring that the Town's own initiatives build off of the efforts being undertaken in other levels of government. This creates a larger pool of resources for and greater momentum

behind conservation efforts, resulting in a greater potential preservation of environmentally sensitive lands.

Goal 4.9: Increase public education with regard to best practices for natural resource conservation.

On rare occasions, environmental degradation may result from catastrophic disasters (such as an oil spill, as a hypothetical example), but on a day to day basis, degradation can also result from the incremental actions of residents, businesses, and developers. Although these individual actions may be small and environmentally insignificant in and of themselves, their cumulative impacts may have serious environmental consequences that are widely felt throughout the Town or the region. The Town should endeavor to work with the Cornell Cooperative Extension, in order to educate the general public about ways to avoid environmental degradation through construction practices and day-to-date household and business activity.

Policy 4.9A: Work with the Cornell Cooperative Extension or similar academic institutions to prepare a best practices manual that instructs environmentally friendly techniques to residents, property owners, businesses, and developers. The manual would be used in construction, site planning and architectural design, landscaping, property maintenance, septic maintenance, disposal of hazardous materials, and other day-to-day practices.

With regard to site planning and landscaping, key issues to be addressed in the manual are stormwater management and landscaping materials, including the benefits of reduced hardscape, turf areas, and the impact of plant selections. The use of species native to the East End should be encouraged, and the use of invasive plants discouraged. Where appropriate, the manual should also discuss federal, State, and/or County laws and requirements (i.e., with regard to wetland protection or hazardous waste disposal). Also, steps to be taken in case of septic system malfunctions should be described. The information in the manual should also be made available on the Town's web site. The Town should consider whether there are any types of incentives that can be given to homeowners to encourage environmentally-friendly building and landscaping practices.

Policy 4.9B: Administratively support local non-profit organizations to develop and distribute information and to organize a public education campaign to educate property owners, homeowners, businesspeople, developers, and contractors about environmentally friendly practices.

By supporting non-profit organizations, the Town can build off of their knowledge, enthusiasm, manpower, and financing to distribute accurate information and reach more people. The public education campaign may include — but should not be limited to — the distribution of brochures, the sponsoring of public workshops, and the posting of information to the Town's web site. Organizations such as The Nature Conservancy and the Long Island chapter of the Wild Ones (a national organization dedicated to promoting environmentally

friendly landscaping) are examples of some of the types of groups with which the Town could work.

Policy 4.9C: Educate Town landscape workers about environmentally-friendly landscaping design and practices, and implement those techniques on Town properties.

Potential sites include Town Hall, Stotzky Park, the new Senior Center on Shade Tree Lane, and other parks. This initiative would help demonstrate the effectiveness and achievability of environmentally-friendly landscaping.

Policy 4.9D: Work with Sea Grant to make available a best practices manual that instructs boat owners and operators with regard to proper vessel discharge practices.

The appropriate legal requirements for vessel discharges should be outlined in the manual. Regulating agencies and resources for more information should be cited as well.

Goal 4.10: Increase the Town's administrative resources for working on natural resource conservation efforts.

Policy 4.10A: Provide the human resources necessary to help implement the goals and recommendations of this element.

A number of the recommendations of this element call upon the Town to utilize its resources to administratively support public agencies, academic institutions and not-for-profit environmental organizations in the implementation of conservation initiatives. Further, certain recommendations call Town efforts in the preparation of best management practice manuals and general public educational materials. As the responsibility of administrative and technical support to these ends will fall to the Town Planning Department, it is necessary to provide the Department with human and technical resources necessary to succeed in the implementation of the program contained herein. In order to achieve this goal, it is recommended that an additional staff person be provided to the Planning Department; that access to Geographic Information Systems (GIS) be provided in a user-friendly way; and that the time of the Environmental Planner position be readily available to Cornell Cooperative Extension and the Riverhead Conservation Advisory Council at the direction of the Planning Director.

Policy 4.10B: Improve enforcement of environmental regulations in Riverhead.

Improved enforcement capabilities are needed with regard to all environmental regulations contained in the Town Code of the Town of Riverhead. Currently, the Town is also expected to play a role in enforcing the provisions of the Wild and Scenic Rivers Act. In the future, a great deal of open space monitoring will be required as well, to ensure that open space set

asides in cluster subdivisions and open space setbacks along shoreline areas and streambeds are not being cleared, developed, or otherwise inappropriately used.

In order to meet these obligations, it is recommended that the Town employ an additional Code Enforcement Officer to work on the enforcement of environmental regulations and private covenant restrictions exclusively.

Goal 4.11: Limit future increases in impervious surfaces and stormwater runoff

This goal is intended to help reduce flood impacts, as well as surface water pollution. Increases in impervious surfaces results in increased water flow into storm drains, which dump into the Town's creeks and streams. Stormwater runoff may be polluted with a variety of contaminants, such as:

- Excess fertilizers, herbicides, and insecticides from agricultural lands, residential areas, and golf courses;
- Oil, grease, and rubber particles from cars and trucks, which are deposited on paved roadways and parking lots;
- Toxic chemicals from energy production and improper disposal of hazardous waste;
- Sediment from improperly managed construction sites, crop and forest lands, and eroding streambanks;
- Bacteria and nutrients from livestock, pet wastes, and faulty septic systems.⁹

Limiting stormwater runoff is particularly critical in Riverhead, as much of the Town drains into the environmentally sensitive Peconic Estuary.

Policy 4.11A: Establish maximum impervious coverage limits on all new development in Riverhead.

Policy 4.11B: Require detention basins for large-scale residential and commercial development.

Detention basins collect stormwater into a closed area, and stormwater is eventually evaporated and/or absorbed into the groundwater, rather than being discharged into the stormwater system. This helps prevent adverse impacts upon downstream resources.

Policy 4.11C: Review and revise the Town of Riverhead highway specifications, and off-street parking regulations to provide stormwater quantity and quality control.

The requirements to be reviewed include street design, curbs and gutters, parking ratios and lot design, setbacks and frontages, sidewalks, driveways, buffer systems, stormwater outfalls, and tree and land conservation.

⁹ U.S. Environmental Protection Agency, www.epa.gov/owow/nps/qa.html, visited July 18, 2002.

Goal 4.12: Protect properties from risk of damage and persons from risk of injury as a result of wildfires.

Policy 4.12A: Tap into the expertise of the Central Pine Barrens Wildfire Task Force to protect properties, residents, employees, and visitors from wildfires.

Due to a combination of human activity and dry weather conditions, the Central Pine Barrens region occasionally experiences wildfires. The Central Pine Barrens Commission has established a Wildfire Task Force, which prepared a Fire Management Plan in 1999. The Task Force has amassed a considerable repository of knowledge that can be used to protect Townspeople from wildfire impacts.

Policy 4.12B: Continue to enforce State building code requirements that are intended to help prevent and/or stop fires and to reduce the potential for damage as a results of fires.

Fire sprinklers, fire extinguishers, and use of fire-resistant materials are required for some types of development. These requirements help protect safety and reduce the potential for property damage.

5. Scenic and Historic Resources Preservation Element

5.1 VISION STATEMENT

Riverhead has a distinctive scenic and historic character, comprised of farmland, open space, historic hamlet centers (including downtown Riverhead), historic structures and sites, and unique natural resource areas such as the Pine Barrens. Because these resources play a key role in maintaining Riverhead as a desirable tourist destination and as an attractive place to live and work, these resources should be protected and carried forward into the Town's future, as development continues to occur.

Riverhead possesses a variety of important scenic and 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 South 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.

Though often treated separately, scenic and historic resources are in fact intertwined and best addressed jointly. Historic structures contribute to the visual quality of the community, and areas that are valued for their visual quality — such as hamlet areas, downtown centers, and agricultural zones — may be historically important as well. Because of this interrelationship, Riverhead's scenic and historic resources are considered here together in a single chapter. Elements of the scenic landscape are also discussed in Chapter 3, the Agriculture Element, and Chapter 4, the Natural Resources Conservation Element. Historic preservation in downtown and the hamlet centers is also discussed in Chapter 6, the Business Districts Element.

5.2 SUMMARY OF BACKGROUND RESEARCH

SCENIC 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:
 - *Hills and Contours.* The picturesque bluffs along Long Island Sound, for example, are part of the natural landscape and give a unique and special feeling to the northern part of Riverhead.
 - *Trees and Woodlands.* Areas such as the Pine Barrens and other wooded areas throughout the Town contribute to the feeling of open space. There are many old growth trees throughout Riverhead, including many notable stands along Sound Avenue.
 - *Meadows.* Some former farms lie fallow and have reverted into meadows. These tend to become reforested over time if left untouched.
 - *Shorelines, Rivers, Streams, Ponds, and Wetlands.* Major water bodies and their shorelines or banks serve as scenic vistas in and of themselves: Long Island Sound, Flanders Bay, the Great Peconic Bay, and the Peconic River.

Views of and access to water bodies are important in defining Riverhead as a coastal community.

- *Native Plants.* Also of importance are areas with significant expanses of native vegetation, which can be found in woodlands, wetlands, or meadows. Native plants are valuable not only from an ecological point of view but also as historic elements of the Town's landscape. Strategies for protecting and promoting native plants are discussed in Chapter 4, the Natural Resources Conservation Element.
- ***Agricultural Landscape.*** The agricultural landscape, characterized by cultivated fields, vineyards and orchards, pastures, and farm stands, is crisscrossed by a network of rural roads. The area where this scenic quality is predominant is in the central part of Riverhead and is still relatively intact. These agricultural views are integral to Riverhead's identity as a rural community and play an important role in attracting tourists who support a growing number of agriculture-associated retail businesses.
- ***Scenic Roads and Corridors.*** Many people experience the Town's rural and natural landscape from the Town's roads, whether they are traveling by car, by bus, on foot, or via bicycle. Also, people who hike or bike on off-road trails or who go canoeing or kayaking on the Peconic River experience the scenic qualities of those corridors.
- ***Historic Structures and Sites.*** Older homes, barns, and churches, whether found on individual sites or in small clusters, can contribute to scenic views, particularly in rural areas and along scenic corridors. For example, an historic home or church situated at a crossroads can endow that place with a special character. An old farmhouse, cemetery, or stone wall adds to the rural character of a farm as much as the presence of cultivated fields or grazing farm animals.

Peconic River Waterfront

The Peconic River is a major scenic feature in Riverhead's landscape. It contributes to the character of the Pine Barrens region as well as downtown Riverhead, and the Town's name and identity is closely tied to the Peconic. In the future, visual and physical access to the waterfront will continue to be important for Town residents. Under New York State's *Wild, Scenic, and Recreational Rivers Act*, the Peconic River is designated as "scenic" west of the Long Island Rail Road (LIRR) bridge, located west of the Long Island Expressway, and "recreational" between the LIRR bridge and the dam in Grangebel Park in downtown Riverhead. Most new development along the riverfront is strictly limited, but recreational trails and paths are permitted. This is generally consistent with the Town's long-term vision for the waterfront, both within and outside the downtown area.

HISTORIC RESOURCES

The Town of Riverhead possesses a wealth of historic resources. A detailed list of recognized historic structures and sites is included in Appendix C. This is 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.

General History of Riverhead

The history of the Town of Riverhead stretches from the life and times of the Corchoug Indians — before the arrival of the first white settlers to Long Island in 1640 — through the Revolution, the Civil War, and the suburbanization of the late 20th century.¹ The following paragraphs provide an overview of the historic trajectory.

Pre-1640: Indian Settlements

The Corchougs, one of thirteen Algonquin tribes inhabiting Long Island prior to white settlement, originally occupied the limits of the Town of Riverhead.² The Corchoug “villages [were found in] places now called Aquebogue, Cutchogue, Mattituck and Hashamomuk.”³ These locations at the head of the Peconic River allowed the Corchougs access to both fresh water and saltwater landings. The riverfront provided the Corchougs with ready access to food sources.

1640 to 1776: White Settlements, Land Divisions, and Early Farms and Mills

In the 1640s, white settlers from Massachusetts established a permanent settlement in Southampton.⁴ In 1649, settlers from Southold purchased the main portion of Riverhead from the Corchougs as part the "Aquebogue Purchase".⁵ By 1671, there was also a small settlement

1 The history of Riverhead during the Colonial period is fairly well documented through a number of secondary sources. However, there is a lack of secondary source information from the late 19th century to the present day. Those sources that exist are summarized below, providing a framework for further research into the significance of existing historic resources within the Town.

2 Hood, Peter. A History of North Sea Beach Colony.

3 The Bicentennial Book Committee. Riverhead Bicentennial Album.

4 Pelletreau, op. cit.

5 History of Suffolk County, New York, 1.

in Wading River.⁶ In 1680, the settlers of Wading River joined with a contingent from Southold to divide up the available land between their two settlements.⁷

Between the late 1600s and the time of the Revolutionary War, settlers established farms for both local consumption and trade. The first farmers in the Riverhead area grew grains for trade as well as fruits, vegetables, and livestock for local consumption. As farms were established, colonists laid out roads (including King's Highway from Southold to Wading River by 1710), and established a County jail, courthouse, and seat in Riverhead. The selection of Riverhead as the seat was a compromise between Southampton and Southold.

In conjunction with farming activity, Africans were imported as slave laborers. Slave labor in Suffolk County accounted for significant contributions to the agrarian and maritime economies. After the Revolutionary War, the State passed a series of laws that gradually emancipated New York slaves by 1827.⁸

Riverhead's location at the mouth of the Peconic River made it an ideal site for water-powered mills. Riverhead has the oldest flour milling establishment in the State of New York — the Hallett Brothers flour mill of 1696.⁹ By 1800, mills dotted the length of the river and included a number of sawmills, iron forges, fulling mills, and gristmills.

1776 – 1870: Town Incorporation and the Growth of the Agricultural Industry

In 1792, Riverhead separated from Southold and started to evolve into a Town in its own right with a distinct identity. Agriculture continued to be the mainstay of the local economy and way of life. Part of what fueled the growth of the agricultural industry was the expansion of the road network and the advent of the railroad. Beginning around 1800, three main roads were built along the length of Long Island: North Country Road along the north shore; South Country Road along the south shore beaches; and Middle Country Road. The first railroad line to run through Riverhead was the Greenport line in 1844.¹⁰ The primary freight carried by the railroad was agricultural products, and prior to 1875, the primary agricultural product transported on the railroad was the potato. Potato production began as early as the 1700's, but did not become a standard crop until the railroad facilitated transportation.

Long Island's shorelines are well-suited for building small sea-faring vessels, and the outfitting of ships became a thriving industry in the towns of Northport, Sag Harbor, Port Jefferson, and Greenport starting in the early 1800s. A small shipyard located near the public beach in Wading River built many of the produce sloops active along the Sound coast.

6 The Riverhead Story, 9.

7 Long Island, A history of Two Great counties, Nassau and Suffolk, 1949, 183-184.

8 Marcus, Grania, B., A Forgotten People: Discovering the Black Experience in Suffolk County (NY).

9 The Boroughs of Brooklyn and Queens, Counties of Nassau and Suffolk, Long Island 1609-1924, 727.

10 Kramer, Frederick, Long Island Rail Road.

Riverhead shipyards along the north bank of the Peconic built larger boats, many of which carried passengers to and from eastern Long Island.¹¹

In this period, Riverhead grew in terms of population and in the number of civic and cultural institutions. Some of the major landmarks built during this time frame include: the Female Seminary (1834), the First Methodist Church (1834), the First Congregational Church (1841), and the County Clerk's Office (1846).¹² By 1875, Riverhead had six churches, two grist mills, two moulding and planing mills, a paper mill, three hotels, twenty stores, a cigar factory, a wagon jack factory, an organ factory, many shops and offices, and a population of 1,600.

1870 to 1945: Thriving Agricultural Industry and a Small Town Character

Riverhead continued to grow into a thriving agricultural community in the late nineteenth and early twentieth centuries. In 1867, John W. Duryee of Mattituck introduced cauliflower to Suffolk County. Cauliflower production grew rapidly and eventually peaked in 1949 with 5,500 acres planted.¹³ In 1873, the first seven Peking Ducks were imported from China, and within twenty years, Long Island (Riverhead in particular) became the center of duck production in the U.S. By 1898, Riverhead boasted the world's largest duck farm.¹⁴ Duck production eventually reached its peak just after World War II, when there were approximately 788 duck farms in Suffolk County, raising two-thirds of all ducks produced in the U.S. Like the potato, the duck and cauliflower industries were able to build off the availability of railroad transportation.

The railroad also allowed farmers to grow and sell vegetables and fruits that required rapid transport to market, such as cabbage, beets, sprouts, and cranberries. Return shipments on the rail lines contained tubs of manure from New York City streets and stables for Long Island farmers to use as fertilizer. By about the 1920s, truck farming was on the rise as well. Trucks allowed even faster, more flexible transport of produce to market and freed farmers from railroad schedules and costs.

Another important industry on eastern Long Island in the second half of the nineteenth century was the cordwood business. Firewood was in great demand, not only in New York City, but all along the Hudson River. Much of the cutting was done during the winter months, hauled to the Wading River Landing by sled, and transferred to sloops.¹⁵ Ice was also in demand, for use in cooling perishables as well as making ice cream. The Peconic River, with

11 Wading River, founded in 1671.

12 The Boroughs of Brooklyn and Queens, Counties of Nassau and Suffolk, Long Island 1609-1924, 727.

13 Journey Through Time, 29.

14 Between Ocean and Empire: An Illustrated History of Long Island.

15 Wading River, founded in 1671.

its large quantity of clean, clear water was a great source of ice. Many icehouses were built near the millponds along the Peconic River. In 1886, the Suffolk County Ice Company built the largest icehouse on the Peconic River.¹⁶

With the enormous growth and industrialization of New York City after the Civil War, eastern Long Island, particularly the South Fork, started to become a popular summer destination for families eager to escape the city during the hottest months of the year. Tourism was facilitated by train service to the East End. It was at during the early 20th century that the Hamptons first became a well-known vacation destination for wealthy New Yorkers. As more and more people purchased personal automobiles, many seasonal residents and visitors eschewed the railroad and drove their cars instead.

1945 to Present: Suburbanization, North Fork Tourism, and their Impacts

Between World War II and the present day, Riverhead has remained the center of Long Island's agricultural industry. In the early 1990s, the Town had 20,000 acres in production. While potato, cauliflower, and duck production have declined, crops such as grapes, sod, and greenhouse growing, which require fewer acres but yield higher profits, have maintained Suffolk County as the leading agricultural producer in New York State.

Riverhead underwent an important transformation in the 1950s and 1960s with the construction of the Naval Weapons Industrial Reserve Plant (NWIRP) in Calverton. The NWIRP was a major employment center for many years until being closed by the federal government in 1995. The site is now being planned for development with a mix of office, industrial, recreational, hotel and related uses, which will add another component to the growing local economy.

Construction of the LIE made Riverhead easily accessible to the rest of the New York metropolitan region, further facilitating truck farming but also opening up the Town to new development pressures. Because the LIE made the Town so accessible, Riverhead also started changing into a fringe suburb of the job centers in Nassau County and western Suffolk County. Low-density subdivisions were built throughout the Town, particularly in the Wading River area and around downtown Riverhead, and strip-style shopping centers were constructed along Route 58. Downtown and the hamlet centers lost much of their pedestrian activity and commercial vitality.

In the 1980s and 1990s, the North Fork wine industry emerged and the East End started gaining both national and international recognition as an important wine-producing region. This trend not only added a new element to the agricultural industry, but also introduced the concept of agro-tourism to the East End. Following the model of Napa Valley, wine makers now offer wine tasting, tours, shops, and banquet facilities to attract tourists and visitors. In

16 The icehouse burned to the ground in 1922. Lapham, Elisabeth. *Echoes From the Past*, 7.

addition, many vacationers are being priced out of the exclusive Hamptons and exploring the North Fork as an alternative destination.

Within an increasing population and more tourist traffic, there has been increasing concern about the impacts of sprawl, such as the loss of open space, threats to the natural environment, worsening traffic congestion, and loss of the Town's rural character. With the preparation of this Comprehensive Plan, the Town has a unique opportunity to channel and direct the prevalent growth pressures in an appropriate way, so as to ensure that the Town maintains a high quality of life.

Inventory of Historic Resources

As noted earlier, the Town of Riverhead possesses a wealth of historic resources. The Town's Landmarks Preservation Committee has officially designated 36 buildings and sites as Riverhead Town Landmarks. In addition, five properties within the Town of Riverhead are currently listed on the National and State Register of Historic Places.

- Vail-Leavitt Music Hall, in downtown Riverhead
- Hallock Homestead, in Northville
- U.S. Post Office, in downtown Riverhead
- Suffolk County Historical Society building, in downtown Riverhead
- Lemuel B. Hallock Homestead (Red Barn Bed & Breakfast), in Northville

A database maintained by the State's Office of Parks, Recreation and Historic Preservation contains the Survey Listing of Historic Sites throughout the Town of Riverhead. These include houses, commercial and civic buildings, churches, farms, cemeteries, and other notable sites. Historic sites are concentrated in the hamlets of Wading River, Jamesport, and Aquebogue, as well as downtown Riverhead. The full listing, which can be found in Appendix C, can be summarized as follows:

- ***South Jamesport:*** approximately 25 houses; 1 prehistoric site; several other buildings and sites, including a schoolhouse and a store.
- ***Jamesport:*** approximately 46 houses; 2 cemeteries; 1 prehistoric site; a number of other buildings and sites, 8 farms and a camp meeting district with 15 cottages.
- ***Aquebogue:*** approximately 48 houses; 3 prehistoric sites; 1 cemetery; a number of other buildings, sites and structures including a windmill base, a post office and a former schoolhouse
- ***Northville:*** approximately 20 houses; 1 prehistoric site; 1 cemetery; a number of other buildings and sites, including a church and 2 schoolhouses;
- ***Manorville:*** approximately 6 houses; 1 prehistoric site; 1 historic site; several other structures and sites, including a "cranberry bogs district".

- **Wading River:** approximately 31 houses; 2 cemeteries; numerous other structures and sites, including 2 churches, 2 parsonages, an old post office, a school and the Wildwood State Park Survey District
- **Calverton:** approximately 19 houses, 2 prehistoric sites; a number of other structures and sites, including the site of a pickle factory, several farms, and a hotel/inn
- **Baiting Hollow:** approximately 19 houses; 1 prehistoric site; several other structures and sites, including several water towers, a church, a pond and a number of farms.
- **Riverhead:** approximately 210 houses; 2 prehistoric sites; 1 historic site; 1 cemetery; many other structures and sites, including a wide assortment of historic commercial and civic buildings and sites, churches, and farms.

Due to its location along the Peconic River and Flanders Bay, Riverhead was — in pre-colonial times — an attractive fishing, hunting, and gathering grounds for local Indians. Many archeological sites have been identified since the nineteenth century and are recorded in the State's Office of Parks, Recreation, and Historic Preservation.

LANDMARKS PRESERVATION COMMISSION

For nearly 30 years, Riverhead has had a Landmarks Preservation Commission, which is appointed by the Town Board and serves in an advisory capacity to that body. The Commission may entertain applications designating a structure or place as a landmark, landmark site, or historic district, and can either approve or deny applications. Town Board approval is also necessary for the place 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 the 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 appointed by the Town Board upon the recommendation of the Planning Director. It 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 body has no specific design standards to follow in conducting its reviews.

5.3 GOALS & POLICIES

Goal 5.1: Protect farmland, woodlands, grasslands, wetlands, riparian corridors, waterfront areas, geological features, old-growth trees, and other open space areas and natural features that contribute to Riverhead's scenic quality.

Policy 5.1A: Undertake a study to identify locations throughout Riverhead with significant views.

Policy 5.1B: Support and partner with local non-profit advocacy organizations to protect open space areas that contribute to Riverhead's scenic quality.

In eastern Long Island, organizations such as the Long Island Chapter of The Nature Conservancy and the Peconic Land Trust work with landowners to protect natural resources, scenic vistas, water quality, and productive farmland through various mechanisms. Since these organizations help maintain the scenic character and quality of life in Riverhead, the Town should cooperate with these organizations, facilitating their work wherever possible.

Policy 5.1C: Develop a scenic easement provision to allow a tax abatement (i.e., a tax credit) for property owners.

Easements are an effective tool for protecting scenic and natural resources. In order to preserve priority scenic and natural resources, the recording of 247 Conservation Easements on appropriate private parcels should be encouraged by the Town. This would provide the ability for landowners to place a scenic easement on their property voluntarily in exchange for a reduction in tax valuation for the property under easement.

Policy 5.1D: Coordinate scenic preservation initiatives with other community enhancement programs, including open space acquisition, natural resource conservation, park and recreation development, and business district improvement efforts.

Many policies throughout the Comprehensive Plan are intended to help preserve open space areas and natural features of the landscape. Farmland preservation efforts are discussed in detail in Chapter 3, the Agriculture Element. Additional policies for protecting natural features (such as the bluffs overlooking Long Island Sound) are expressed in Chapter 4, the Natural Resources Conservation Element. In Chapter 6, the Business Districts Element, the design standards and guidelines proposed for downtown, the hamlet centers, and Route 58 are intended to reduce the proliferation of unattractive strip-style commercial development. These initiatives should take into account the existence of scenic vistas, and should help protect such scenic vistas, wherever possible.

Policy 5.1E: Establish design guidelines and subdivision standards for cluster development, such that scenic views are protected to the greatest possible extent.

Cluster development, in and of itself, helps to preserve scenic views, by keeping large land areas undeveloped. However, scenic views can be further protected and enhanced through high-quality design, which can be encouraged through appropriate development and design standards.

A number of elements make up a scenic view, including such natural and agricultural features as woodlands, meadows, cultivated fields, vineyards and orchards, pastures, stone walls, streams, ponds, hills and contours, and wetlands. Historic farm buildings can also contribute to a scenic view. Notably, each individual site is different in terms its particular scenic characteristics. Also, it is important to recognize that not all the scenic elements of a site may be able to be preserved while still accommodating the development and meeting State and federal environmental requirements (particularly regarding wetland protection). Thus, development and design standards should be flexible enough to (1) deal with the unique qualities of different sites; and (2) not hamstring development. The main idea, in the end, is to make the resulting development seem like it fits comfortably into the landscape, respecting those elements that contribute to its scenic views. The allowing of increased heights of multi-family residential buildings (condominiums and homeowners associations) with transferred development rights would provide for scenic views and result in fewer disturbances of natural resources where applicable.

The preferred approach is to require the applicant of a cluster subdivision to submit a map that identifies those site characteristics that contribute to the vistas existing upon and from the property. The applicant must also demonstrate how the proposed subdivision plan takes those elements into account. That is, on some sites, the dominant landscape element may be a meadow, in which case the building lots may best be located within the wooded areas of the site. On another site, a grove of trees and a pond may be more dominant, suggesting that development outside the woodland would be preferred. As another example, on a site with sweeping views, clustering all lots into one location, out of sight, may be preferable. On a site with smaller, intermittent views, creating a few separate clusters may be better. The Town should prepare a series of guidelines instructing applicants as to what visual features should be considered in conducting their evaluation of the site and preparing their map. This effort should occur subsequent to the study proposed in Policy 5.1A of this section.

Policy 5.1F: Consider shifting responsibility for site plan review from the Town Board to the Planning Board.

The Planning Board as a body is particularly well-suited to the review of site plans. It is currently authorized to review land subdivision approvals only, with site plan review requiring a similar understanding of basic site design as well as State, County, and Town regulations. The Planning Board could also be well equipped to implement the more detailed design, parking, and landscaping requirements that will be added to the zoning code after the completion of the new Comprehensive Plan. Attention to such features is critical in order to

protect and enhance the visual quality of the Town's corridors and scenic views. Though this change is conceptually desirable, the policy must be logistically refined with regard to Planning Board and Planning Department time management issues.

Goal 5.2: Maintain and increase waterfront access and views.

Riverhead is a community in many ways defined by its proximity to significant water features. Access to and views of the water are important in determining and maintaining the Town's overall quality of life. Public access to and views of water currently exist at certain points throughout Riverhead. The Town should work to increase public access to and views of water even further. Recommendations for improved waterfront access are presented in Chapter 11, the Parks and Recreation Element.

Policy 5.2A: Undertake a study to identify locations throughout Riverhead with significant waterfront views.

Shoreline areas as well as stream corridors should be examined.

Policy 5.2B: Consider waterfront views when contemplating open space acquisition for preservation or recreation purposes.

Waterfront views are only one factor to consider in prioritizing open space preservation initiatives. The presence of farmland or natural resources, the need to provide critical linkages in the proposed greenway system (see Chapter 11, the Parks and Recreation Element), the imminence of a parcel's development, and the presence of a willing landowner are some of the other factors that should be considered.

Policy 5.2C: Support and facilitate the efforts of non-profit organizations like The Nature Conservancy and the Peconic Land Trust to acquire lands in coastal areas for the purpose of increasing public access to or views of water.

Specific areas that should be targeted for acquisition include South Jamesport and areas along the Peconic River. Waterfront acquisition can not only increase scenic quality, but help maintain the ecological integrity of fragile coastal areas as well, by decreasing the potential for development near the water's edge.

Goal 5.3: Continue to identify and document historic resources in Riverhead, and promote public awareness of historic resources.

The first step toward ensuring the long-term survival of the Town's historic assets is to identify and document those resources. Awareness of such resources by the public helps ingrain them into the Town's identity and help create interest in and enthusiasm for preservation.

Policy 5.3A: Update the comprehensive survey of historic resources in Riverhead.

Identified resources should include individual buildings, groups of buildings (such as a hamlet area), and sites and landscapes (e.g. cemeteries, archaeological sites) that are important to the historic character of the Town. Updating the comprehensive survey of historic resources and identifying historic districts may make the Town eligible for Certified Local Government (CLG) status through the State Historic Preservation Office. CLG status carries with it increased access to federal survey and planning funds, which are distributed annually. This updated survey will supplement the list of officially designated town landmarks maintained by the Landmarks Preservation Commission.

Policy 5.3B: Coordinate local research initiatives on historic resources with State and federal programs, as well as the initiatives of individual researchers, academic institutions, independent volunteer groups, and non-profit historical associations.

Information on local historic places may have already been compiled under the auspices of the National and State Registers. Historical scholars and architectural experts may be able to provide insights into local historical resources. The Suffolk County Historical Society and other organizations may also have valuable historical information.

Policy 5.3C: Develop an integrated public signage program that identifies and explains the scenic, historic, and natural resources of the Town.

Such signs should be located along scenic corridors, in front of or attached to historic structures, and posted in public areas within historic districts. These signs will allow residents and visitors to recognize, understand, and better appreciate the various points of historic, scenic, and natural interest throughout the Town.

Goal 5.4: Protect identified historic resources from destruction, neglect, or diminishment of character, and encourage the faithful restoration and adaptive reuse of historic structures.

Policy 5.4A: Building off of the comprehensive survey of historic resources (see Policy 5.3A), prepare a Town Register of Historic Places.

The comprehensive survey can be christened — in whole or in part — as the Town's Register of Historic Places. By using the State's documentation forms, the Town Register can be coordinated with the State's Register of Historic Places. Parameters for demolition and modification of properties listed on the Register should be developed.

Policy 5.4B: Coordinate review of building or demolition permits affecting historic structures on the Town Register of Historic Places with the Landmarks Preservation Committee.

A provision should be added to the Town Code that requires all sites on the comprehensive survey and the proposed Town Register of Historic Places to be coded in the Building and Tax Departments' databases. The Building Department should provide the Landmarks Preservation Commission with prompt notification of any building or demolition permits affecting structures listed on the Town Register. In addition, the Commission should be granted two months to review and advise on such applications.

Policy 5.4C: Strengthen the role of the Landmarks Preservation Commission by allowing that body to develop design standards for historic districts.

Currently, the Landmarks Preservation Commission only determines whether architectural styles of proposed development projects are consistent with historic styles. The Commission should also be allowed to examine and comment upon the proposed use, orientation, and location of structures, particularly proposals in an historic district. The proposed standards would have to be approved by the Town Board and then could be used by the Landmarks Preservation Commission to review proposed projects related to historic districts.

Policy 5.4D: Allow historic sites to obtain variances that protect their historic character.

Variances for land use, parking, bulk, and other requirements should be permitted for threatened historic and cultural landmarks. Also, continue to monitor State initiatives to update the Building Code to be more flexible toward historic structures.

Policy 5.4E: Establish subdivision and site planning guidelines and standards to protect scenic and historic resources when development is planned on scenic and historic properties or in historic districts.

Policy 5.4F: Provide tax abatement for the protection of any property designated as a Town landmark or part of a designated historic district.

This is a particularly effective strategy for commercial or mixed-use developments to encourage the protection of historic assets.

Policy 5.4G: Strengthen the role of the Architectural Review Board by implementing design guidelines and review standards.

During the CAC meeting, there was a suggestion that ARB decisions should be made binding rather than advisory, but others argued that binding decisions would create excessive unpredictability for applicants, wildly increasing costs and delays associated with development. The compromise reached during the CAC meeting was to keep the ARB

advisory, but to establish design guidelines and review standards in order to create continuity of building design on a hamlet basis. This would create more predictability for applicants, by clarifying what aspects of design the ARB should focus on and base its decisions upon. Different guidelines and standards specific to each district should be adopted. They should be developed through a public outreach process that solicits ideas from local businesses and residents. Guidelines should indicate which design elements are mandatory and which are advisory.

Policy 5.4H: Maintain required ARB review for development in Enterprise Park, as well as for large-scale single-family residential subdivisions and large-size single-family homes at the request of the Planning Board in land subdivision review.

Each large project greatly affects the character of the Town and individual neighborhoods. ARB review may be appropriate in such cases.

Policy 5.4I: Amend the Town's Landmarks Preservation code to bring it into conformity with the State's current model code.

By amending the Town's Landmarks Preservation code in light of the State's current model code, the Town would become more eligible to achieve Certified Local Government (CLG) status through the State Historic Preservation Office. As Policy 5.3A states, CLG status carries with it increased access to federal survey and planning funds, which are distributed annually.

Policy 5.4J: Expand historic districts throughout Riverhead.

The Town should designate historic parts of the hamlets of South Jamesport, Jamesport and Wading River, along with historic parts of downtown Riverhead and the areas immediately to its north, as official Town historic districts.

Goal 5.5: Protect the visual quality of scenic corridors throughout Riverhead, and work to improve the scenery along other roads.

Scenic corridors are roads, streams, trails, and other linear paths that are characterized by an exceptional visual quality along the sides of the corridor. Many factors may contribute to their visual quality: views of agricultural landscapes; forested tree cover; the presence of historical sites; vistas of bluffs, wetlands, water bodies, or other natural features; and so on. These corridors attract tourists and visitors, who enjoy driving, walking, biking, or traveling through Riverhead's scenic landscape. These corridors are the vantage points from which most people — residents and visitors alike — experience Riverhead's rural landscape.

Policy 5.5A: Identify scenic corridors.

The Town should identify scenic corridors in Riverhead through an interactive public outreach process. By way of illustration, the following corridors should be considered:

- Edwards Avenue
- Deep Hole Road
- Flanders Bay waterfront
- Fresh Pond Avenue
- Herricks Lane
- Horton Avenue
- Long Island Sound waterfront
- Manor Lane
- Northville Turnpike, north of Doctor's Path
- Osborne Avenue
- Peconic River corridor (West Main Street)
- Reeves Avenue
- Roanoke Avenue
- Route 25
- Sound Avenue
- South Jamesport Avenue
- Tuthills Lane
- Wading River-Manorville Road
- Greenway System (see Chapter 11, the Parks and Recreation Element)

Policy 5.5B: Develop a process for officially designating scenic corridors.

Scenic corridors should be officially designated, so that the Town could then regulate development in those corridors more closely, ensuring that new development would be in keeping with the scenic character. The Town Board should be responsible for designating scenic corridors, based on recommendations from the Planning Board or any other group deemed suitable by the Board.

Although Sound Avenue was designated as an historic corridor by the State in 1974, this designation — according to participants in the CAC meetings — has not actually resulted in concrete protections for the roadway. Scenic corridor designation for Sound Avenue, therefore, is critical. Moreover, all scenic corridors should be regulated carefully in order to ensure appropriate development and attention to the visual quality of roadside areas.

Policy 5.5C: Establish a framework for regulating new development along designated scenic corridors, such that new development is compatible with a corridor's character.

Designated Scenic Corridors should have certain minimum design standards associated with them. Topical areas that should be addressed include: roadway widening and traffic control, drainage, signage, utilities, and parking lots. The Planning Board would be responsible for implementing this new regulatory framework, as new development applications come forward. Structures used for agricultural purposes should be exempt from new design standards. Nothing shall be construed to limit agricultural uses permitted by the Town zoning code and by any applicable State or County regulation.

Policy 5.5D: Develop and adopt tailored standards for roadway widths and drainage systems along designated scenic roads.

Roadway standards, particularly the width of the road, are extremely important for scenic corridors. As business and traffic increases along scenic roads, so will pressure to widen the road beyond two lanes. While seemingly beneficial, such a change would have significantly negative impacts on the scenic character of the road. As an alternative to widening, less drastic improvements can be undertaken to improve traffic flow, such as turn pockets at congested intersections. The width of scenic roads should be limited to two traffic lanes (one lane in each direction), with a shoulder and/or bicycle lane on each side, resulting in a total curb-to-curb width of about 25 to 40 feet. Also, stormwater runoff from these roads should be handled through natural drainage systems via swales, as opposed to the traditional curb and gutter.

Policy 5.5E: Develop and adopt signage standards and guidelines for designated scenic corridors.

Specific signage standards for scenic corridors should be adopted to ensure that the number, height, material, lighting, and size of the signage is not detrimental to the visual quality of the road corridor. Guidelines should be more stringent than those currently outlined in the Town's zoning regulations (e.g. monument signs only, stricter size limitations, etc.).

Policy 5.5F: Prohibit on-street parking and adopt parking lot design standards along designated scenic roads.

On-street parking and the proliferation of parking lots along scenic corridors will be increasingly of concern as the number of public-oriented establishments such as farmstands, pick-your-own outlets, and wineries expands along designated scenic corridors. If not handled effectively, parking can become a safety hazard and detract from the scenic. On-street parking should be prohibited. Parking lot standards that limit access points should be implemented, and parking lots should be significantly set back from the road, such that the roadway frontage remains green. Also, paved surfaces should be kept to a minimum, and trees and other plantings should dot the parking lot.

Policy 5.5G: Coordinate with local utility companies to place utility lines underground along designated scenic corridors.

By coordinating schedules for repaving and line replacement, the undergrounding of overhead wires can be accomplished in a cost-effective manner. The wires can be placed in the road right-of-way either at the edge of the pavement or within the shoulder. The underground utility easement should be placed in such a manner as not to harm existing trees along the road corridor.

Policy 5.5H: Require all new development within 250 feet of any designated scenic corridor to be subject to architectural review and additional buffering requirements.

Current regulations require architectural review and extensive landscape buffering for *residential* development within 250 feet of either side of Sound Avenue, but not for other uses. Also, no other corridors are currently subject to this requirement. The current regulations should be expanded to include all new development along Sound Avenue, and then, once scenic corridors have been identified and designated, the requirement should be extended to those additional roadway corridors as well.

Policy 5.5I: Plant the proposed Route 58 median with native species that evoke the character of Riverhead and the East End.

Policy 5.5J: Maintain greenery alongside designated scenic corridors.

In case sites are subdivided, the Town's zoning and subdivision regulations should require a 250-foot to 500-foot buffer along the roadside, in order to preserve the visual quality.

6. Business Districts Element

6.1 VISION STATEMENT

Commercial retail development should be well planned on a site basis instead of sprawled along Riverhead's roads. Downtown and hamlet centers should be promoted as centers for specialty shopping and civic life, building on their historic and pedestrian character. Route 58 should absorb most of the demand for regional and destination retail uses and thus should continue to be a mainstay for generating jobs and tax revenue.

Riverhead's business districts provide essential shopping opportunities, employment, tax revenue, and entertainment venues. At the same time, in a focus group conducted in fall 1999, community members identified several problems: increasing traffic; poor aesthetic quality of "strip" development, particularly along Route 58; and insufficient retail vitality in downtown and the hamlet centers. The results of the focus group were consistent with the results of the residents surveys conducted the preceding summer. Sixteen (16) percent of the 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. 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. *The challenge is therefore how to accommodate new retail development, while still enhancing Riverhead's character and minimizing traffic congestion.*

6.2 SUMMARY OF BACKGROUND RESEARCH

Riverhead's population is expected to increase dramatically over the next 10 to 20 years, fueled by ongoing employment growth and housing shortages elsewhere in Suffolk County. As the population grows, the pressure for retail development will grow in kind.

Riverhead's retail sector also draws a regional and tourist/visitor clientele to achieve a net inflow of retail dollars. In 1998, Riverhead residents spent about \$138 million in non-gasoline products, but in the same year, Riverhead stores had retail sales in excess of \$310 million. Wealthy seasonal residents, tourists, and day-trippers account for part of the higher-than-expected sales figures. Riverhead also taps into the population of other towns, especially for comparison retail spending, such as clothing, appliances, and furniture. The population of five East End towns in the year 2000 was more than four times the population of Riverhead alone. For some residents in Southampton, Southold, and Brookhaven, Route 58 is their closest and largest shopping district. Tanger Mall taps into an even larger market, drawing people on excursion shopping trips from Nassau County and New York City.

Over the last four decades, Route 58 has had the location and visibility to attract retailers, the land to accommodate commercial development, and the road capacity to absorb the increases in traffic. Route 58 is Riverhead's largest and most important commercial center, providing essential convenience shopping (grocery stores, drug stores, hardware stores), comparison shopping (Tanger Mall), auto sales, gas stations and auto repair centers, restaurants, personal and professional services, and agricultural products and supplies. In the resident survey conducted in summer 1999, 68 percent of the respondents usually go to Route 58 for

groceries, and 52 percent usually go there for quick errand shopping. Also, 46 percent said that Tanger Mall was their primary destination for clothing and furnishings.

Route 58's success had several consequences for Riverhead. On the positive side, Route 58 absorbed all the commercial sprawl that would otherwise have spread to the Town's rural and scenic corridors. On the negative side, the commercial development of Route 58 had adverse impacts upon downtown Riverhead and hamlet centers.

Today, the commercially zoned sites along Route 58 are nearly all 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. Most 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, gravitate to downtown and the 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.

DOWNTOWN

For several years, the Town has been working to shift the focus of downtown from convenience and comparison shopping to entertainment, tourism, and cultural activities. This market niche is ideally suited to downtown, as it builds off the area's attractive walking environment and historic character, in addition to the attractions and events.

Cultural Attractions

The new Atlantis Aquarium is a tourist anchor that attracts thousands of visitors. Other attractions include Leavitt Music Hall, the East End Arts Council, the Suffolk County Historical Society (museum), the Long Island Railroad Museum, and the Peconic River waterfront. The Country Fair, the Polish Fair, the Blues Festival, the Summer Concert Series, the Halloween Festival, and the Community Mosaic are major annual events. Many of these are sponsored by downtown's Business Improvement District (BID). There have been various initiatives to provide even more cultural attractions in downtown Riverhead, from the restoration of the Suffolk Theater, to the creation of a Long Island Science Center and children's museum.

Historic Character

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 gridded streets, small yards, front porches, and garages in the rear. Ironically, Riverhead offers the historic architecture and layout that are being replicated in "neo-traditional" neighborhoods (at great expense) in places like *Celebration, Florida* and *Kentlands, Maryland*. While such new subdivisions can attempt to re-create a traditional atmosphere, downtown Riverhead provides an authentic older neighborhood with a truly historic scale and character. In focus groups, participants identified the historic quality of downtown as one of Riverhead's key strengths.

Waterfront

In those same focus groups, residents and business leaders concurred that the Peconic River waterfront is one of downtown's greatest assets. Downtown is particularly unique, because it is stretched out along the length of the waterfront. Most Main Streets dead-end there, as in Port Jefferson. Thus, there are frequent views of the river all along Main Street, and *all* of downtown has a close physical relationship with the water.

The waterfront is a major recreational destination. The recently built boardwalk provides an attractive place to stroll, from Peconic Avenue to the new Aquarium. The boardwalk and the waterfront provide an attractive backdrop for the summertime concert series, the Community Mosaic, the Blues Festival, and other events. Also, the Riverhead boardwalk has the only sewer-docks on the East End of Long Island, providing a great opportunity for commercial, residential, and recreational boats to dock in downtown Riverhead. Outside of downtown, people use the river for kayaking, canoeing, and fishing.

Mixed Use

Downtown is not just a commercial retail center, but a complete neighborhood with a mix of housing, shops, offices, and civic and cultural institutions. The largest concentration of housing in the downtown area is the residential neighborhood located east of Roanoke Avenue and north of Main Street. Offices are clustered primarily in the area around the County Courthouse, with another cluster located on East Main Street, between the Aquarium and Town Hall. Many older residences in downtown Riverhead have been converted into small offices and beautifully restored. Many of the shops along Main Street have second or third floors with office space or apartments.

Walking Environment

Downtown already has many of the elements of a successful walking environment: historic buildings with unique facades; an attractive waterfront and boardwalk; brick pavers; antique lighting; street trees; and decorative directional signs. Nevertheless, some aspects of downtown impede pedestrian activity and should be fixed. Currently, streetscape treatments do not extend into the Office/Courts District, and they do not reach as far as the new Aquarium. Pedestrians often avoid places that are vacant or nondescript, including vacant storefronts and ground-floor offices. They may also be reluctant to walk past vacant lots or large parking lots, particularly at night, and they may stop walking along a commercial street with gaps between buildings or shops.

Traffic and Streets

The downtown street pattern has a unique blend of a grid pattern and cross-cutting through streets, like Main Street and Roanoke Avenue. While the through streets funnel more traffic and experience the worst congestion, the street grid diffuses traffic onto side streets and puts traffic pressure on the residential uses there. Downtown has experienced more traffic as a result of the Aquarium opening. The area in front of the Aquarium and along Main Street has the worst congestion. Without directional signage that diverts motorists, most Aquarium visitors probably drive up to the front of the building, realize there is no parking, and then drive back to a parking lot. This double-back movement pushes some of the congestion onto the local side streets.

Parking

Downtown Riverhead has a virtually ideal configuration of parking lots. Small lots are interspersed throughout the downtown area, providing most business and cultural facilities with convenient parking and helping to disperse traffic. The existing parking configuration is also valuable from an urban design perspective. Having the parking to the rear of Main Street buildings allows buildings to be located up to the sidewalk and street, creating an attractive walking environment along Main Street.

Downtown is expected to experience ever-greater demands on its parking supply, with buildout of currently planned projects and retail space. However, according to the Downtown Revitalization Strategy, neither weekday nor weekend parking demand is expected to exceed the total number of parking spaces in the downtown area, including on-street and off-street spaces. If it is determined that additional parking will be required in the downtown area, small parking lots should be added in the Office/Courts District. In that location, they can serve several uses — from the Courthouse, to the Library, to the transportation center, to downtown attractions. A shuttle could link these parking lots to the Aquarium, but ideally, some people will walk, patronizing local shops and restaurants along the way.

The downtown Parking District was created in order to establish and operate public parking lots in the downtown area. Property owners in the district are not required to provide on-site

parking, but are entitled to use the Parking District lots for all their parking needs. Downtown property owners pay taxes into the District for maintenance and operation. There is a combination of two-hour and unlimited time parking spaces in the Parking District lots. A parking attendant circulates throughout downtown and issues summonses if cars exceed their time limit. The parking attendant oversees the two-hour limited spaces, as well as on-street parking spaces. This system functions similar to parking meters and encourages some turnover in the on-street spaces, which allows more customers to park right in front of the stores.

ROUTE 58

In focus groups, community members made clear that they would prefer to concentrate future commercial strip development along Route 58, since it has already been transformed into a commercial corridor, and to limit development in other locations, which are still small in size and quaint in character. Yet as successful as Route 58 has been from a *commercial* perspective, it suffers from traffic congestion and poor aesthetics, and these issues need to be addressed before additional development is allowed there.

Drivers on Route 58 experience significant delays, particularly during the summer months, because tourists bound for the North Fork take the last exit off the LIE and use Route 58 to reach the North Fork. As traffic conditions have worsened on Route 58, more and more people have been using Middle Road and Sound Avenue as bypass routes. As evidence of the increasing traffic, speeding and car accidents increased on Middle Road over the course of the 1990s, according to the Town Engineer.¹ The Town should discourage use of Middle Road and Sound Avenue as bypass routes, in order to preserve the rural and residential character of those corridors and should continue to funnel most heavy traffic along Route 58. This issue is discussed further in Chapter 9, the Transportation Element.

During focus groups, community members expressed their dislike for the "strip" aesthetics of Route 58. The multi-lane roadway is flanked by single-story shopping centers, fast-food restaurants, gas stations and auto repair shops, and familiar "prototype" buildings (like the Pizza Hut and the Waldbaum's). Many parking lots are vast in size and inadequately landscaped. Large, sometimes garish, freestanding signs dominate the streetscape. The roadway is extremely unfriendly and potentially dangerous for pedestrians and bicyclists. Design improvements to Route 58 make sense not only from an aesthetic point of view, but also from an economic standpoint; they can help increase consumer interest and bolster property values.

¹ Interviewed by APPS, Inc., November 13, 2000.

ROUTE 25A

Route 25A in the Wading River area has some of the characteristics of a commercial shopping strip: national chain stores (King Kullen; CVS), large parking lots, and free-standing signs. However, Route 25A does not have the appearance of being overly built up, like Route 58. In addition to the large chain stores, there are several small and medium-size retailers, eateries, country stores, and offices along both Route 25A and Wading River-Manorville Road. The business district is relatively small in size and surrounded by open space, farmland, and low-density residential neighborhoods.

In the 1990s, with increasing population, tourism, and through-traffic, Wading River started to experience more pressure for commercial development. In 2002, a McDonald's fast-food restaurant was built on the sight at the southwest corner of the Wading River-Manorville Road intersection, and the King Kullen shopping center underwent a major expansion. Because the newly expanded center will absorb most of the local demand for grocery store and drug store shopping, the other smaller parcels along Route 25A will tend to be developed as small stand-alone businesses, such as banks, fast-food restaurants, convenience stores, gas stations, and auto repair shops. As these sites are developed, Route 25A will look more and more like Route 58, unless development standards and design guidelines are established to encourage a more neighborhood-sensitive look.

WADING RIVER

The Wading River hamlet is a charming country crossroads with a few small shops and offices. It is tucked away in a rolling, forested landscape beside a series of small ponds in the midst of a quiet residential neighborhood, halfway between Route 25A and Wading River beach. Although the district is nearly built out to its maximum commercial zoning, an expansion of the commercial zoning is not desirable, because it would only undermine the historic and natural setting.

Wading River has been fortunate in that the design of most new buildings has been consistent with the older, historic structures. However, a few buildings have been built with wide front setbacks and contemporary styles that contrast the hamlet's traditional character. Design guidelines should be established to encourage traditional building dimensions, cornice lines, windows, entrances, and facade materials and details. Due to the hamlet's small size, traffic and parking have not become major issues. However, some sidewalk and landscaping improvements can be implemented to make the center even more pedestrian-friendly.

CALVERTON

The Calverton business district — on Route 25, near the intersection of Fresh Pond Road — is currently little more than a commercially zoned area. One successful commercial project has been built in the area — Calverton Commons — which is attractively designed around a central parking court and has lush landscaping along its street frontage. There are some other small businesses, eateries, and farmstands along the northern side of Route 25 that are well-

known by locals. In the future, residential development in the surrounding area and development of the Enterprise Park at Calverton will increase the demand for some convenience shopping, specialty shopping, personal services, and restaurants. Because a great deal of land in this hamlet center still remains vacant, it can provide an outlet for commercial retail development, as growth continues to occur.

JAMESPORT

The Jamesport hamlet center is clustered around the intersection of Route 25 and South Jamesport Avenue. The historic buildings, the antique shops and restaurants, the green and the gazebo, the historic church on the corner of Manor Lane, and the Community Center create a warm village ambiance. Jamesport is fortunate to be located at the eastern end of Riverhead, near the wine country and the recreational attractions of the North Fork. The combination of the countryside atmosphere and the unique location give Jamesport the potential to become the gateway to the North Fork wine country, capturing tourists traveling westward along Route 25.

Because the Jamesport area is overzoned for commercial development, it runs the risk of attracting commercial sprawl. A smaller land area, combined with "village" design standards, would promote a more compact pattern of development in keeping with the historic hamlet center, while still providing enough room for growth. West of the hamlet center, the farm stands, country stores, and other limited retail permitted by the Town's old zoning complement the rural character of the area and should continue to be allowed.

Residential development and tourism are adding more and more traffic to Route 25. Jamesport needs to remain auto-accessible, because tourists and shoppers will primarily arrive by car, and traffic jams could scare potential customers away. Nevertheless, a pedestrian- and bicycle-friendly environment is critical to the success of the hamlet center as a retail and restaurant destination. A multi-faceted strategy of partial traffic diversion, traffic calming, road and signal improvements, and limited roadway improvements outside the hamlet center would make traffic more manageable while not compromising the pedestrian environment.

AQUEBOGUE

Aquebogue does not have the strong hamlet identity that Jamesport has. Instead, it has two very small commercial clusters: an older center at the intersection of Route 25 and West Lane around the historic church, and the more contemporary commercial development near the intersection of Route 25 and Edgar Avenue, in the vicinity of the Aquebogue Elementary School. Other small businesses — as well as residences, farms, wetlands, and open space — fill in the rest of the business district. Because of its dispersed commercial development and its lack of a strong center, Aquebogue does not have the feel of a single, cohesive business district.

Although the adjacent residential subdivisions provide a potential customer base, Aquebogue will continue to have a hard time competing with Route 58 (about one mile west) and Jamesport (about one mile east) for commercial development. Competition from Route 58 suggests that the area zoned for commercial development around the Aquebogue Elementary School is larger than necessary to serve as a convenience center. At the same time, competition from Jamesport suggests that there will be little demand for specialty shopping near the intersection of West Lane, the older hamlet center of Aquebogue. The commercial zoning in the hamlet center should generally be scaled back to reduce the risk of sprawl.

UPPER EAST MAIN STREET

Upper East Main Street, which connects downtown to the Route 58 corridor, is lined with a mix of commercial and industrial uses. Yet Upper East Main Street is unlike either Route 58 or downtown. Whereas Route 58 is a commercial strip and downtown is a traditional center, Upper East Main Street is a hodgepodge of land uses: houses, office campuses, converted offices, automotive uses, industrial sites, institutions (like Town Hall), and apartment complexes. The appearance of the streetscape is as random as the land uses. Lot sizes vary from large office and industrial sites to very narrow sites with auto repair garages. Some front setbacks are given over to parking and storage, and many parts of the sidewalk are in disrepair. Office and apartment campuses are set back from the street behind trees and lawns.

While commercial and residential development is viable along Upper East Main Street, industrial zoning is questionable, since most future industrial development is expected to gravitate toward large lots in Enterprise Park and the vicinity. Commercial development on Upper East Main Street should be focused in a few concentrated nodes rather than in a long linear fashion, in order to avoid the sprawling strip style of Route 58. Such development patterns would be more compatible with the residential surroundings and provide a smoother transition between downtown and Route 58.

POLISH TOWN

The shops and restaurants along Pulaski Street that make up Polish Town are unique and charming. Walking along the street, a visitor can browse through wonderful food stores with imported goods and freshly baked breads. There are several well-known restaurants. Food and craft shops sell traditional Polish products, and Polish-speaking offices provide services to the community. Like downtown, Pulaski Street has small stores that are clustered along the sidewalk. Historic lamps, flower pots, and display windows create an attractive place to walk on a summer evening.

Polish Town has an active and enthusiastic group of property owners and merchants, bound by their common heritage, who work together to improve the neighborhood. For example, they installed the "Polish Town" signs that can be seen on either end of the Pulaski Street commercial area. In 2000, they also installed trees along the street as part of a grass-roots beautification project. The Pulaski Street area works very well, although the existing zoning

could be fine-tuned to ensure that new development is consistent with the traditional pattern of buildings. Also, the zoning could prohibit auto-oriented development — like service stations, auto repair and sales, and boat repair and sales — that, if built, would start to undo the traditional “Main Street” ambiance.

OTHER BUSINESS-ZONED AREAS

Most of Riverhead's other business-zoned areas — Wading River East, Roanoke, Laurel, and Route 25 in Calverton — are composed mostly of vacant sites, agricultural land, or open space. The few freestanding commercial establishments that have been built are few and far between. These areas do not have enough businesses or demand potential to function or grow into whole districts. While existing businesses should be allowed to stay, these districts would preferably be eliminated in order to prevent commercial sprawl. In the area north of downtown, commercial zoning covers areas that are mostly residential in use, and thus, rezoning to residential would be more appropriate.

6.3 GOALS & POLICIES

In the future, if retail development is concentrated in downtown, the hamlet centers, and on Route 58, and reduced elsewhere, it will generate higher value, greater satisfaction, and a larger consumer draw. In downtown, the challenge is to retool Main Street for tourism, while protecting and enhancing the historic building fabric and managing traffic and parking demands. On Route 58, the challenge is to ensure that new development does not replicate the problems associated with older strip development, and instead “gives back to the community” by protecting open space and trees, improving the design of commercial buildings, signs, and parking lots, and maintaining lush greenery along the roadway. Elsewhere, the challenge is to develop hamlet centers that are more concentrated in size and have the complementary cultural amenities and tourist attractions needed to succeed as specialty shopping centers.

OVERALL GOALS

A new hierarchy of retail zones, as well as area-specific planning, land use and design strategies, are needed to address these challenges. The new retail zones are presented and explained in Chapter 2, the Land Use Element, which includes a Proposed Land Use Plan for the entire Town. Each new zone has its own permitted land uses and design concepts. The new zones are loosely based on existing commercial zones, but they go much farther, requiring hamlet centers to have village-style development, linking commercial development along Route 58 to open space conservation, improving the aesthetics of commercial development, and better limiting commercial sprawl along rural corridors. Zoning, however, as a uniform tool, cannot address some of the unique traffic and aesthetic issues in each business district. Design strategies, parking and traffic management tools, economic development approaches, and public investments are needed as well.

Overarching goals for the Town's business districts are listed and explained below. Additional goals and policies specific to each business district are then presented. A map accompanies the discussion of each business district and demonstrates how the new zoning framework would be applied, as well as the how other planning strategies might be implemented. These maps are consistent with the Proposed Land Use Plan and the new zoning framework presented in Chapter 2, the Land Use Element.

Goal 6.1: Emphasize downtown as the civic, cultural, specialty shopping and historic center of Riverhead.

Downtown should be bolstered as a regional tourism center. A mix of cultural, retail, civic, park, tourism, office, entertainment, and residential uses should be promoted, in order to create a dynamic, 7-day a week, 4-seasons destination. Design standards in downtown should promote an historic, compact, pedestrian-oriented, high-amenity environment.

Goal 6.2: 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.

The Route 58/Tanger Mall area should (like downtown) continue to serve local residents as well as a regional clientele. Achieving high-quality and high-value development would bolster the Town's tax base. It can also support efforts to employ Transfer of Development Rights (TDR) to preserve agricultural land and open space. Design standards in the Route 58/Tanger Mall area should be respectful of the Town's rural character, by creating commercial development buffered and defined by landscaping and open space.

Goal 6.3: Protect and enhance hamlet centers in Calverton, Jamesport, Aquebogue, Wading River, and along Route 25A.

Smaller business districts should be enhanced through infill and adjoining development. They should portray a mix of commercial and civic uses, a traditional town layout, village greens, and other features that create hamlet centers, not just retail centers. Design standards in these areas should promote a "Main Street" environment (Jamesport and Aquebogue), a county crossroads environment (Calverton and Wading River), or a community shopping environment (Route 25A). Except in Wading River, adjacent land should be targeted for "traditional neighborhood design" housing development, featuring street arrangements and higher densities than allowed elsewhere. Hamlet centers should be designated TDR receiving areas, to further preserve agricultural land and open space.

Goal 6.4: 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.

Both Polish Town and Upper East Main Street are closely related to the downtown area, both physically and economically, yet each has its own unique identity and commercial mix. The new zoning provisions, combined with various other improvements, should help strengthen and commercially improve their link to downtown. At the same time, those elements that lend a unique character to each place should be built up. In Polish Town, these elements are the Polish ethnic heritage and pride, as well as the "village" ambiance. Along Upper East Main Street, these elements include the greenery, the campus-style setting of existing industrial, office, and apartment sites, and the pockets of small-scale residential and commercial buildings.

Goal 6.5: Maintain the rural image of the Town by carefully controlling development along the Route 25 corridor in the Calverton, Aquebogue, and Jamesport areas.

Commercial development should be very strictly limited outside the business districts. Along portions of Route 25, commercial development should generally be prohibited, except for a handful of uses that would be compatible with the agricultural setting. Design standards should be adopted for such uses in order to better reflect the rural image of the Town. Elsewhere, the temptation to accommodate retail and commercial development along the Town's arterials and at its crossroads should be resisted. Exceptions are accessory farm uses, home occupations, and accessory retail establishments in Enterprise Park, and small-scale, agriculture-compatible uses like craft stores and farm stands.

GOALS & POLICIES FOR DOWNTOWN

Vision: Building on its historic character and its waterfront location, downtown Riverhead should have major civic and cultural attractions and specialty- and entertainment- oriented shopping along Main Street.

Table 6-1: Summary of Policies for Downtown

<i>Proposed Zoning</i>	<i>Improvements and Investments</i>
- Downtown Center (DC) should be the zoning throughout the downtown area, but DC has subzones that distinguish between different parts of downtown - DC-1: Main Street - DC-2: Waterfront - DC-3: Office (primarily in the vicinity of the County Courthouse) - DC-4: Office/Residential Transition (between the Courthouse area and the residential neighborhood east of Roanoke Avenue) - DC-5: Residential (residential neighborhood)	- Develop retail market niches that will make downtown more appealing to tourists, including specialty food markets, restaurants, antique and furniture stores, music stores, and eclectic specialty stores - Promote the development or expansion of cultural and entertainment attractions and events - Promote the arts and artist housing - Establish an indoor, year-round regional farmers' market - Require developers to meet high design and landscaping standards for all new and rehabilitated buildings and signs - Improve landscaping, sidewalks, crosswalks, lighting and facades along Main Street - Expand and improve the waterfront park - Create public plazas in front of the train station and Courthouse - Improve sidewalk connections between the train station, the Courthouse area, and Main Street. - Preserve historic buildings and encourage adaptive reuse - Continue to provide parking in small, dispersed lots throughout the downtown area - Additional surface and deck parking in the center of blocks in the area near the Courthouse - No parking garage - No one-way streets - No intersection reconfigurations

Goal 6.6: Develop tourist and specialty shopping niches and a variety of tourist attractions.

Market niches are groups of stores or products that attract a certain type of customer. Currently, downtown Riverhead provides a mix of convenience and specialty shopping that caters to local residents, downtown employees, and shoppers seeking specialty items (e.g., antique furniture). As part of a shift toward to tourism and entertainment, the Town should work to further develop market niches and attractions that appeal to tourists, while still maintaining shops that serve local residents and workers.

Policy 6.6A: Promote specialty food markets and restaurants.

- ***Specifically, pursue an indoor public market or specialty supermarket on the north side of Main Street.***
- ***Pursue specialty or ethnic food markets.***
- ***Encourage outdoor dining.***

Specialty food markets and restaurants can provide lunch and dinner opportunities for downtown visitors. While Route 58 has fast-food restaurants, downtown can provide a more attractive dining atmosphere for tourists throughout the entire summer and particularly on weekends; they would also serve local employees during the week. A range of markets and restaurants should be provided. Some visitors would like to buy sandwiches and snacks and eat outdoors, perhaps by the waterfront. Others would prefer to eat at a sit-down restaurant. Outdoor dining would give restaurant patrons the option of eating inside or outside. Outdoor dining creates activity along the street and takes advantage of the warm summer weather. While Main Street sidewalks may be too narrow in many spots to accommodate sidewalk seating, outdoor tables and chairs could be set up to the rear of buildings in or on alleyways.

An indoor public market can provide not only a variety of unique foods, but also an exciting activity center. Currently, downtown has an outdoor farmer's market during summer, which has achieved moderate success. The indoor public market would also feature local growers, but would be different for several reasons: (1) it could be open all year, since it would be indoors; and (2) it could be designed not to compete directly with farm stands. Part of the reason why the outdoor farmer's market has not been as successful as others is that it provides many of the same products as popular farm stands along rural roads. The indoor public market should provide fewer vegetables and fruits and more "high-end" products like wine, duck, fish, cheese, and grapes. It could also feature products from other parts of New York (i.e., the Hudson Valley) and New England, not just from the local area. If retained, the outdoor farmers market could be staged next to the indoor public market.

A location on the north side of Main Street is preferable for the indoor market, because it can have front and back entrances, one on Main Street and a second one on the rear parking lot. In the summer months, an expanded public market could spill out into the parking lot. An indoor public market would need a sponsor to sign the lease and manage the space. The

Figure 6-1: Downtown

Back of Figure

sponsor would function like the manager of a shopping mall, who operates the space and leases stalls to individual vendors. A private-sector sponsor would be best, because they would have a profit incentive and the management expertise to make the public market work.

A specialty supermarket could provide an alternative to the public market and would eliminate the need for a sponsor or manager. While a conventional grocery store in downtown could probably not compete with supermarkets on Route 58, downtown could have specialty or ethnic food markets that require less space than a supermarket and provide unique items difficult to find elsewhere. Similar stores — bakeries, wine shops, organic food markets, other ethnic markets — could be very successful.

Policy 6.6B: Promote stores and restaurants oriented to children and families.

The Aquarium, the Historical Society, and the Science Center are major child and family destinations. Toy stores, child-friendly music stores, family restaurants, and children's programs at the Arts Council or the Library would build off of this emerging "children" theme and encourage families to spend the entire day in downtown Riverhead. The Aquarium visit lasts one to two hours, and these ancillary activities could help lengthen their stay and encourage families to patronize stores and restaurants.

Policy 6.6C: Promote antique stores and other specialty retail shops.

Policy 6.6D: Promote music stores and develop music programs for both adults and children.

With the annual Summer Concert Series and the Blues Festival, and the potential for using the Suffolk Theater and the Vail-Levitt Music Hall as performance spaces, downtown is becoming known as a center for music. Music stores and programs in conjunction with local elementary schools (i.e., music and dance lessons) could help develop music as a specialty niche.

Policy 6.6E: Preserve eclectic specialty stores and convenience shopping.

While attracting new tourist-oriented uses, existing eclectic stores in the downtown area ought to be retained to the extent practical. Stores like the camera shop, the uniform store, and Ben Franklin do not belong to any particular specialty niche, but they do provide a variety of interesting products that draw customers from a large trade area. This variety of products is an asset to the downtown. New shops and restaurants should be steered toward vacant storefronts and infill sites, so that existing shops remain in place.

Convenience shopping serves some local residents and downtown employees. While convenience shopping cannot be the focus of the downtown retail mix due to competition from Route 58, there can and should be shops and services that meet the everyday needs of the people who are in or pass by downtown every day. These include dry cleaners, delis, stationery stores, and other similar enterprises.

Policy 6.6F: Support the development and growth of downtown attractions and foster development of the arts.

Downtown attractions like the Aquarium, the East End Arts Council, and the Historical Society attract potential customers to Main Street shops and restaurants. Downtown is better off having a wide variety of attractions rather than a single major destination. The more downtown has to offer, the more likely visitors are to spend the entire day, and the more likely they are to make return trips. Having a variety of small attractions also encourages people to walk throughout downtown between destinations and to patronize shops along the way. The Town should support the efforts of existing attractions to offer new exhibits, programs, and events, and it should work to develop additional attractions, as discussed in Chapter 7, the Economic Development Element.

Development of the arts ought to be a focus of Town efforts, because of the widespread interest and patronage of the arts on the East End. With the presence of the East End Arts Council, the success of the Blues Festival and the summertime concert series, and the contemplated reopening of the Suffolk Theater, downtown already has the elements of an artistic center. In addition, the Town has authorized the commitment of resources to the Riverhead Incubator for the Arts (RIFTA), a performing arts and fine arts center that has helped to sustain the redevelopment of Downtown Riverhead as an arts district. To build on this strong basis, the Town could undertake the following tasks:

- Provide technical and financial assistance for artists who are seeking housing, studios, and gallery space;
- Pursue shops that cater to artists (such as music stores, art supply shops, film stores, etc.);
- Commission public art installations, providing work for local artists and making Riverhead identifiable as an artistic center to the occasional visitor;
- In conjunction with the BID, the East End Arts Council, RIFTA, the Suffolk Theater, and the Vail-Levitt Music Hall, sponsor additional art festivals, music performances, and craft shows to showcase local artists and draw tourists;
- Encourage local restaurants, shops, and cafes to display the art of local artists; and
- Encourage the East End Arts Council to remain open on summer weekends and sponsor weekend programs, particularly for young children.

Policy 6.6G: Encourage coordinated marketing and programming for downtown destinations, in order to promote longer visits.

Coordinated marketing could include ticket packaging, such as unified one-day passes to the Aquarium, the Historical Museum, the Arts Center, and the Railroad Museum. Similarly, programming could be coordinated between different venues. For instance, picking up on the Aquarium's aquatic theme, the Historical Society could offer a whaling exhibit and the Library could offer related readings. Local shops and restaurants could build off the Blues

Festival by providing "piano bar" performances and dinner and lunch specials. This would help extend the Blues Festival into the late evening hours.

By providing a set of activities that last an entire day, downtown Riverhead can draw families from a much larger trade area. People are generally willing to endure two-way travel times that are about half as long as the length of the visit. If a family can plan on a six-hour visit, they would be willing to travel from as far away as an hour and a half in one direction. People who stay the whole day will spend more money in local shops and restaurants, as they filter between attractions.

Policy 6.6H: Provide retailers and other businesses with incentives to locate in downtown Riverhead.

Tax abatement is already in place in the downtown area to encourage renovation and improvement of the building stock. Abatement applies to the increase in taxes that would result from an investment in real property within the Business Improvement District. This program has been extensively marketed to current and prospective owners to encourage investment. This program is called the Commercial and Industrial Tax Incentive Program and is a 10-year program, with the abatement beginning at 100% and reducing to 0% at year 10. Additionally, the Town of Riverhead in June 2003, with the support of the County of Suffolk and the State of New York Empire Development Corporation, approved the expansion of the Empire Development Zone (EDZ) at Calverton to include 61 acres of Downtown Riverhead. The EDZ designation provides economic incentives and assistance to retailers and other businesses with the aim of promoting private investment, business development, and job creation in economically struggling areas. These programs should be continued, and the Town should explore and develop other incentives that can help attract businesses to the downtown area.

Goal 6.7: Expand and improve the waterfront park.

The existing boardwalk and park along the Peconic River serve as major recreational attractions, where people can stroll, relax, and picnic. It also provides space for circulation between parking lots and downtown destinations.

Policy 6.7A: Expand the waterfront park west to the Court Street bridge and establish a continuous waterfront trail.

Pedestrian and bicycle trails should be extended through the waterfront park, so that there is a continuous riverfront trail. The waterfront park should eventually connect to a trail that runs westward along the Peconic River as part of the Town's greenway system (see Chapter 11, the Parks and Recreation Element). The waterfront trail can be designed as an interpretive walk, with signs that describe the natural habitat, the fish and bird species, and the history of the waterfront. An expanded waterfront park with better Main Street connections would also provide a physical linkage between most of downtown's destinations.

Expansion of the park would require the Town to purchase properties (or portions thereof) located along the waterfront. A portion of the Community Preservation Fund (CPF) has already been set aside for purchasing land for parks and open space. The Town should make a commitment to use this fund for buying waterfront property along the Peconic River.

Policy 6.7B: Work with the Town of Southampton to expand park uses and protect open space on the south side of the Peconic River.

The south side of the Peconic River is located within the Town of Southampton but exerts a strong influence on the functioning and image of downtown Riverhead. The south of side the river, like the north side, could contain pedestrian and bicycle trails, as well as recreational concessions, consistent with the Southampton Comprehensive Plan.

Policy 6.7C: Establish areas for recreational concessions and consider installing public restroom facilities in the park.

Recreational concessions and uses could be situated in the park, and at the gateways into downtown, on Peconic Avenue, East Main Street, and West Main Street. These include canoe and paddleboat rentals, bed-and-breakfasts, fishing supply stores, etc. Also, a theme children's playground could be added to the park, building off the Aquarium as a children's attraction. Public restrooms should be installed only if there is a plan for maintenance, operation, and security, and only if funding sources are provided.

Policy 6.7D: Preserve and enhance pedestrian and view corridors between Main Street and the Peconic River.

Some parts of the waterfront are difficult to see from West Main Street, because trees, undergrowth, and buildings block the views. As properties are procured for park expansion, the Town should redesign the enlarged park to create and preserve view corridors and pedestrian connections from Main Street. In the center of downtown, alleyways and streets provide views of the water and access to the parking lots behind Main Street, but some do not lead all the way down to the waterfront. Landscaping, walkways, and lighting should be redesigned so that there are safe, direct, and visible connections between the waterfront and Main Street. River "identifiers" or beacons (i.e., banners, public artwork) could be placed along the waterfront to call attention to the water's edge.

Policy 6.7E: Limit polluted runoff from draining into the Peconic River.

Parking lot surfaces collect particulate matter, oil, salt, and dirt from automobiles, and during heavy rains, the pollutants bubble to the surface and contaminate the surface water runoff. There is a natural grade from Main Street to the waterfront, so contaminated surface water would tend to flow into the river. Trees, shrubs, and grass can help trap water and limit runoff. Adding additional landscaped areas to the parking lots can therefore prevent contaminants from flowing into the river. This may mean that surface pollutants will collect

in soils, but as with the water, the low levels of pollutant would not be expected to create significant contamination.

Goal 6.8: Establish a land use framework, while preserving and promoting a fine-grain mix of uses.

Keeping a mix of uses will help maintain the variety and vitality of downtown Riverhead. At the same time, establishing a more ordered land use framework can group together compatible uses and minimize conflicts between adjacent land uses. Figure 6-1 shows the proposed zoning framework.

Policy 6.8A: Encourage ground-floor retail along Main Street, with apartments and offices on the upper floors.

Mixed-use buildings encourage local walking trips, because office and residential uses are integrated into the downtown shopping area.

Policy 6.8B: Encourage cultural attractions to expand into adjacent buildings or lots.

Cultural attractions are arranged in a linear fashion along Main Street and the waterfront. In the future, there may be interest or pressure to expand the activities and programs offered. In order to keep these uses in downtown, the Town should work with cultural attractions to provide opportunities to expand into adjacent sites.

Policy 6.8C: Maintain the pattern of small, dispersed parking lots, and ensure that any new parking lots are built according to the same pattern.

Small, scattered parking lots provide convenient access to buildings throughout the downtown area and help disperse traffic.

Policy 6.8D: Encourage the development of mixed-use buildings on infill sites throughout the downtown area.

Along Main Street and side streets, there are vacant lots that should be targeted for infill development. Infill development will help create a continuous street frontage. As part of the zoning ordinance update, the Town should adopt mixed-use requirements or incentives for new buildings along Main Street.

Policy 6.8E: Concentrate office uses in the Office/Court District.

Offices are already and should continue to be concentrated in the vicinity of the County Court building. Offices typically have higher real estate value than retail and residential buildings, and could potentially create pressure for site assemblage, conversion of storefront space, and

demolition or conversion of houses. While conversion of some houses and above-store space is desirable, conversion of ground-floor storefronts to office uses are not, and not all residential areas ought to be opened up to office conversion. The area for single-purpose conventional office buildings ought to be limited in order to prevent pressure for demolition and/or speculation on Main Street or in the adjoining residential area.

Policy 6.8F: In the Office/Court District, create large parking lots in the center of the blocks, and line the edges of the blocks with office, retail and institutional buildings.

This strategy provides adequate space for desperately needed parking, while still maintaining a consistent street wall. This approach mimics the existing pattern of parking lots and buildings along Main Street and thus creates a consistent character throughout the downtown area. Specifically, Court Street is targeted for infill office development along the street, with parking behind the buildings on both sides. The area between Court Street and the LIRR station could be cleared for additional parking lots, providing convenient parking for not only the station, but also the Library, the Historical Society, and the Courts.

Policy 6.8G: Create a mixed office and residential district on either side of the residential neighborhood located north of Main Street, where residential-to-office conversions would be allowed.

This would provide a transition between the more intensively used Office/Court district and the relatively quiet residential neighborhood east of Roanoke Avenue. Residential uses located on Third Street are marginal and negatively impacted from railroad noise; they ought to be reconfigured and redeveloped. Closing Third Street and consolidating several lots would create a larger, more buildable development parcel. Office uses are preferred for the site, because of the adjacent noise impacts, but residential uses could be permitted with the appropriate setbacks and buffers.

Policy 6.8H: In the residential area north of Main Street, establish a residential zone that prohibits stand-alone commercial uses, while allowing home occupations and artist studios and galleries.

The neighborhood is under pressure for conversion to office uses and parking lots, and this policy would help protect the historic housing stock. A limited area around the edges of the residential area would allow office conversions. Within the neighborhood itself, home occupations would be permitted, subject to performance standards, and artists would be allowed to set up studios and galleries, either in spare rooms or in detached ancillary buildings. These commercial uses would be permitted only as an ancillary use to a residence.

Policy 6.8I: As part of the zoning ordinance update, establish setback, buffer, landscaping, and other standards that minimize land use impacts while maintaining mixed uses.

In any location where two different land uses are located next to one another, there may be off-site negative impacts. For example, morning deliveries to businesses could generate noise that disturbs adjacent or upper-floor residences. In less dense suburban locations, these impacts can be avoided through setbacks and buffers, but in downtown Riverhead, there are other strategies more appropriate to the compact, mixed-use setting. One option is to restrict the hours of operation of businesses (e.g., opening and closing times, truck delivery hours, etc.).

Goal 6.9: Promote housing revitalization and artist housing.

Policy 6.9A: Work with the Business Improvement District to make housing available to visual and performance artists in the downtown area, and provide incentives for landlords to lease space to artists.

Consistent with efforts to promote the arts in downtown, the Town should work with the BID to develop a marketing scheme that aims to attract artists to downtown Riverhead. The strategy should take into account the needs of artists and their families and should provide technical assistance to artists who are looking for housing. Because artists may have minimal or inconsistent sources of income, they may require assistance in renting and buying homes.

Similarly, the Town should provide incentives for landlords to lease space to artists. For landlords with artist tenants, real estate taxes could be frozen for the first five years and then undergo a five-year graduated return to the proper level, thereby adding immunity to the affects of inflation. Another option is encourage landlords and artists to develop renovation agreements, where artists would pay a lower rent in exchange for renovations on their living space. Many artists seek flexible space that they can improve and upgrade to suit their own needs and artistic expression.

Policy 6.9B: Expand the boundaries of the downtown Arts District, to include the entire downtown area and allow greater flexibility in artist housing, studios, and galleries.

In 1997, the Town passed the "Riverhead Arts District Law," which permitted studios, galleries, and ancillary artist housing in a portion of the downtown area. Based on experience in other cities, artists generally choose their place of residence first, and the presence of a studio space is a secondary factor. Therefore, in addition to permitting studios, galleries, and ancillary artist housing, the regulations should be amended to allow ancillary studios or galleries and retail sales of art in appropriately sized housing units. Performance standards could limit the hours of heavy studio work (i.e., welding), require buffering or screening, or impose other regulations to minimize impacts on adjacent uses.

Policy 6.9C: Expand the definition of an "artist" to include persons practicing any of the applied arts, and eliminate Town Board approval of artist certification.

Currently, the "Riverhead Arts District Law" defines an artist as "a person who is regularly engaged in the fine arts... or in the performing or creative arts... or in the composition of music on a professional basis." This definition excludes any person involved in the applied arts, such as pottery-making, jewelry-making, or graphic design. The applied arts would be equally appropriate in the Arts District and should be added to the definition.

Town Board approval of artist certification creates an unnecessary level of bureaucracy to the artist certification process and potentially discourages artists from coming into Town. Town staff can more quickly and easily certify artists. The zoning ordinance should be revised to provide a more workable definition of "artist" to be applied by staff.

Policy 6.9D: Allow home occupations in the downtown area, on condition of meeting stringent performance standards, sign regulations, and locational requirements.

Chapter 7, the Economic Development Element, provides a detailed discussion of ways to provide, promote, and regulate home occupations.

Policy 6.9E: Provide property tax incentives for housing rehabilitation.

Residential development currently does not have the opportunity to take advantage of tax incentives offered to commercial development in the downtown area. Commercial development can abate taxes for ten years for investments in excess of \$50,000.

Goal 6.10: Preserve and enhance downtown's historic character.

Policy 6.10A: Identify historically significant sites and buildings, and implement historic preservation regulations as part of the zoning code update.

Consistent with Chapter 5, the Scenic and Historic Resources Preservation Element, the Town should complete a survey to identify sites and buildings in the downtown area that have local historical value. These buildings shall be subject to special regulations, in order to protect the buildings from demolition, and to ensure that alterations are consistent with the character of the original building. The Main Street area should be strongly considered for designation as an historic district.

Policy 6.10B: Provide opportunities for relocating historic houses in downtown Riverhead.

The Town should establish a program for relocating historic homes from other locations to infill sites in downtown. Specifically, houses abutting the railroad or along the river could be relocated to infill sites to create a more suitable setback from the tracks or implement the proposed riverside park.

Policy 6.10C: Seek and provide financial incentives for historic preservation.

Such incentives are discussed in greater detail in Chapter 5, the Scenic and Historic Resources Preservation Element. Further, the Town should pursue those intergovernmental arrangements necessary to provide for relaxed building construction standards for the renovation and use of older buildings within the downtown.

Goal 6.11: Preserve and promote traditional building layouts and development patterns, while allowing variety in building design.

New buildings built in the downtown area should have a design that is consistent with older downtown buildings. This is not to say that all buildings should have a specific style, such as Victorian or Arts & Crafts. On the contrary, downtowns should have buildings that represent a variety of architectural styles, because that mix gives downtown an eclectic and refreshing character. Promoting "traditional" building layouts means that buildings should be compact and oriented to pedestrians, but modern-looking buildings can achieve that layout just as well as older-looking buildings.

Policy 6.11A: Establish maximum setbacks and requirements for pedestrian-oriented design.

Excessive setbacks create gaps in the street wall and reduce the walkability of streets. Traditional residential setbacks in the downtown area are about five to fifteen feet, and along Main Street, buildings are built right up to the property line. In the zoning ordinance, buildings should be required to build up to the line that is comparable to the setbacks of other downtown buildings. In addition, the main entrance of each building should be encouraged to be oriented to the street, rather than the parking lot. Similarly, the zoning ordinance should encourage buildings along the Peconic River to provide for dual entrances, such that entrances are oriented to both the street and the waterfront. This would promote activity along the Peconic River while maintaining the traditional store fronts on Main Street. In residential areas, garages can be required to be setback behind the rest of the house, so that auto access is secondary to pedestrian access.

Policy 6.11B: Encourage ground-floor retail along Main Street.

Retail should be the preferred use on the ground-floor along Main Street. Retail stores create a visually stimulating, active storefront, whereas offices and residential uses draw less activity. Maintaining a solid strip of retail on the ground floor encourages pedestrians to keep walking along the street.

Policy 6.11C: Establish detailed downtown design standards.

Design standards can ensure that new buildings have the bare minimum elements of well-designed buildings, such as minimum window area and appropriate exterior materials. Standards can also be established to ensure that building additions or alterations are consistent with the original design.

Policy 6.11D: Prohibit auto-oriented land uses in the downtown area.

Auto-oriented uses like drive-throughs, gas stations, car dealerships, car rental agencies, and auto repair shops should be prohibited in downtown. This ensures that any future infill development is consistent with the pedestrian orientation of older downtown buildings.

Policy 6.11E: Ensure that sign regulations are pedestrian-oriented and compatible with the downtown character, but continue to allow variety in signage design.

Sign regulations ought to establish appropriate limits on the size and type of signs allowed in the downtown area. Billboards, roof signs, or other large signs ought to be prohibited. Similarly, specific types of illuminated signs (i.e., internally illuminated signs, flashing signs) ought to be prohibited or strictly limited. However, a wide variety of signs should still be permitted, in order to give downtown a vibrant and eclectic character. Awning signs, wall signs, signs hanging over the sidewalk, some neon signs, and banners can all be permitted. Limitations on size, materials, height, and location should be imposed.

Policy 6.11F: Establish minimum and maximum residential lot sizes that resemble existing lots in the downtown area.

The smallest residential lot size allowed under the current zoning is 20,000 square feet, about a half-acre. Most existing residential lots in the downtown area, however, are 6,000 to 10,000 square feet, about one-eighth to one-quarter acre. Residential zoning regulations should allow single-family residential lots that are compatible in size with existing development. This would help maintain the compact scale and traditional ambiance of the neighborhood. Zero lot line development should be permitted.

Policy 6.11G: Establish parking standards that take into account the traditional buildings and space constraints.

Property owners outside the Parking District are required to provide their own parking spaces. In some cases, parking requirements may be excessive or overly restrictive, particularly for those sites where on-street parking or public parking lots are available. For instance, housing being converted to offices has sometimes been required to install more parking spaces than they have room for in the front and rear yards. The zoning ordinance update should include shared parking provisions, updated parking standards that are tailored to the downtown context, and provisions regarding the design of small parking lots.

Goal 6.12: Promote pedestrian and bicycle access and circulation.

Policy 6.12A: Implement continuous streetscape and façade improvements.

Along most of Main Street, the Town has already implemented a series of streetscape improvements that included brick pavers and antique street lamps; but this streetscape treatment does not yet extend as far as the new Aquarium or into the Office/Court district. Continuous, consistent streetscape improvements can help weave together the different downtown zones and expand the perceived walkable area of downtown.

Façade improvements could also help bolster the image of downtown and encourage pedestrian activity. The Town should establish a façade improvement program that provides a mixture of grants and tax incentives to encourage façade cleaning, door and window replacement and repair, enlarged windows, compliance with the Americans with Disabilities Act, and installation of awnings and planters. Wherever there are vacant lots or parking lots along downtown streets, decorative fencing, landscaping, trees, low walls, or benches should be added in order to mask the empty space and preserve the continuity of the frontage.

Policy 6.12B: Build pedestrian walkways between Main Street and the waterfront.

Sidewalks leading down from Main Street do not all reach the waterfront. The Town should work with the Parking District to build continuous landscaped walkways, with the consultation of a landscape architect.

Policy 6.12C: Establish crosswalks and sidewalk bulbs at certain key intersections, and improve pedestrian safety at the Peconic-Roanoke-Main Street intersection.

Crosswalks are critical for pedestrian circulation and are necessary at certain major intersections in downtown. Also, sidewalk "bulbs" (a.k.a. "neckdowns") at certain crosswalks can reduce the length of the walk across the street, increasing safety. Crosswalks that are decorated with pavers or cement can enhance the special quality of the place. Pedestrian improvements are particularly necessary at the Peconic-Roanoke-Main Street intersection, which experiences heavy traffic congestion. The offset intersection has poor visibility, with cars often speeding around blind corners, and pedestrian crosswalks have been obscured. An "all stop" crosswalk can be installed there to allow all pedestrians to cross through the intersection at once.

Policy 6.12D: Work with the Business Improvement District and downtown property owners to consider collecting fees for the purpose of undertaking streetscape improvements.

Sidewalk, crosswalk, curb, and drainage improvements could be funded in this way. The same concept is currently employed by the Parking District.

Policy 6.12E: Keep all existing connections across the LIRR tracks.

Street connections allow for pedestrian circulation. In places like downtown Riverhead, where there is a variegated grid pattern of streets, pedestrian circulation is particularly convenient. Closing any of the streets across the LIRR tracks would impede pedestrian circulation, and cut off residents immediately north of the tracks from the downtown area. The Town should work with the LIRR to ensure that all existing street crossings are retained.

Policy 6.12F: Work with the Parking District to install bicycle racks in Parking District lots. Require property owners outside the Parking District to provide bicycle racks on-site.

The absence of bicycle parking can be a deterrent to bike riding. If bike racks are present, people who might otherwise drive their cars could ride their bikes instead and be assured a safe place to lock their bicycle.

Goal 6.13: Manage traffic circulation while maintaining auto access.

Maintaining auto access to downtown is critical to its success. Most tourists and visitors will arrive by car and will need to enter and exit downtown quickly and easily. Traffic difficulties in the downtown area could keep visitors from making a return trip. At the same time, traffic circulation needs to be properly managed, so that pedestrian and bicycle circulation is not compromised.

Policy 6.13A: Maintain two-way streets and prohibit street closures.

Proposals for one-way streets or street closures would detract from the vitality of Main Street. One-way streets would impede access into downtown and would create high-speed traffic thoroughfares unfriendly to pedestrians. Two-way streets would maintain auto access and still accommodate pedestrian activity. Street closures tend to sap life from traditional commercial districts.

Policy 6.13B: Relieve congestion on Main Street and at the Peconic-Roanoke- Main Street intersection by installing directional signs that divert cars into parking lots before they reach the core Main Street area.

Motorists have a tendency to drive up to a building to look for the closest parking, and then double back when they don't find an available space. Diversion signs can reduce this tendency and help keep traffic off of Main Street. If traffic conditions worsen on Main Street and at the Peconic-Roanoke-Main Street intersection, the driveway leading east from Peconic Avenue into the parking lots along the riverfront should be converted into a regular roadway. The road already functions as a bypass route for Main Street. Converting the driveway into a roadway would provide an easier and more apparent way to reach the Aquarium. It would also improve access to the parking lots.

Policy 6.13C: Increase opportunities for reaching downtown Riverhead by train.

As discussed in Chapter 9, the Transportation Element, the Town should work with the LIRR to increase train service to downtown Riverhead. Excursion trips can provide coordinated ticketing and access to a variety of downtown (and other Riverhead) attractions and events. Also, the Town should work with the LIRR to provide additional weekend service to Riverhead during the summer months.

Goal 6.14: Expand the facilities of the Riverhead Parking District.

Adequate parking is critical to the success of downtown Riverhead as a tourist destination. Some destinations in downtown have different peak parking periods, so parking used for one attraction can be used for another attraction at another time. Nevertheless, a parking shortage may occur during peak summer weekends until a shared parking arrangement or other actions are established. Further, parking district facilities should be expanded to ensure adequate parking for patrons, visitors, and residents. Possible sites include:

- Parking lot on the south side of 129-1-21 on Mc Dermott Avenue;
- The decked parking located north of the old Woolworth building.

Policy 6.14A: Assess the parking impacts created by Phase I of the Aquarium.

To understand the parking needs that can be expected under full buildout of the Aquarium, the Town should study the parking impacts created by Phase I of the Aquarium. The study should focus on demand during summer months, when demand is greatest, and it should examine the changes in parking needs over the course of a typical summer weekday and weekend day. The study should also examine the needs for bus parking, where Aquarium visitors are parking, and how far they are willing to walk.

Policy 6.14B: Consider expanding the Parking District boundaries to include all downtown shops, offices, and attractions.

Currently, there are major downtown destinations — including the County Courthouse, the train station, the Railroad Museum, the Library, and the office complex on East Main Street — that lie outside the District. Some of these destinations, like the Courts, already have parking demand that spills over into Parking District lots, meaning that they make use of the parking lots without contributing to the tax revenue. Incorporating these major destinations into the Parking District would ensure that all downtown parking users are contributing equitably to parking maintenance and monitoring. Expansion of the Parking District would allow visitors to use all downtown parking lots, while ensuring that all the lots are monitored and maintained. This strategy could be used to implement the parking deck proposed for the Court parking lot, as discussed later in this section.

Policy 6.14C: Work with the Parking District to pursue shared parking agreements.

As an alternative to expanding the Parking District, there are several large parking lots outside the Parking District that can be used for shared parking. In particular, the parking lot behind the County Courthouse building and the lot for the East Main Street office center are not used during weekends and evenings, when courts and offices are closed. The Aquarium and other cultural attractions experience the greatest parking demand during weekends, and the Suffolk Theater and the Vail-Levitt Music Hall would experience the greatest demand during evenings. There are enough parking spaces in these and other private parking lots to accommodate much of the parking demand for the entire downtown area.

Policy 6.14D: Redesign the configuration of on-street parking on all downtown streets, in order to maximize the supply of on-street parking.

Downtown already has several hundred on-street parking spaces. Additional spaces could be added to the street by making simple adjustments. For example, bus stops could be co-located with fire hydrants, so fewer spaces are lost to such uses. The Town should work with a landscape architect to undertake a comprehensive, detailed redesign of on-street parking and parking lot configuration and design.

Policy 6.14E: If new parking lots are necessary, build them in the Office/Court district and near the train station.

There is currently a large vacant lot at the corner of Roanoke and Railroad Avenues that could easily be converted to surface parking. Also, there are marginal buildings and uses adjacent to the LIRR station that could also be converted to parking lots. Parking lots in this area would serve multiple functions. It would provide daytime parking for Court employees. It would provide spillover parking for the Library and downtown events. It would provide parking for the Historical Society, which currently lacks parking. Finally, it would serve as an interceptor for motorists on their way to the Aquarium, most of whom are expected to come from areas to the west.

Policy 6.14F: Explore the establishment of a privately operated shuttle that runs back and forth along Main Street between the Office/Court district parking lots and the Atlantis Aquarium on weekends.

A summer weekend shuttle service could link the Office/Court district lots with the Aquarium. A weekday shuttle could run on an expanded route, connecting the train station, the Library, Town Hall, and points along Main Street. Studies have shown that people are generally willing to wait no more than nine minutes for a shuttle. The proposed shuttle could run every five to eight minutes for truly convenient service. Assuming that a single loop takes 15 minutes, accounting for pick-up, travel time, and drop-off, the shuttle service would require two or three continually circulating buses in order to maintain five- to eight-minute headways (or wait time).

The proposed privately operated shuttles would be similar to those that were employed by Tanger Mall. During the week, the same shuttle could be used to meet rail travelers whose destinations are either the County offices in Southampton or Tanger Mall.

Policy 6.14G: If a parking garage is necessary, build a recessed parking deck behind the County Court buildings.

While most shoppers and tourists shy away from using a parking garage, employees are usually more willing to park there. The County Courts currently generate a large employee-based parking demand. The Court parking is always full during a work day, and Court-related parking spills over into the adjacent Parking District lots. Building a parking deck behind the County Courts would help alleviate this highly concentrated demand. On weekends, the lots could serve double-duty as parking for the Aquarium and other downtown destinations.

A parking garage, if built, should also be limited in size and visually hidden from downtown streetscapes. An elevated parking deck built behind the County Court building would be hidden behind the large Court building itself. The design of the deck could alternatively take advantage of the slope, so that the lower portion is level with West Main Street and partially submerged, and the upper portion appears like a surface parking lot from Court Street.

Policy 6.14H: Require downtown attractions to provide adequate bus drop-off areas and facilities, and ensure that Parking District lots have space for bus parking.

Downtown attractions such as the Aquarium, the proposed Science Center, and the Historical Society attract school field trips. Bus drop-off areas are required to ensure child safety and keep pulled-over buses out of traffic lanes along Main Street. The Aquarium is already outfitted with a bus drop-off area in front, and other attractions can be required to build similar facilities.

Parking District lots ought to be designed so as to accommodate buses. The Town should designate a remote central bus parking area for buses that are idle during field trips. In addition, buses ought to be able to negotiate curves in the circulation lanes, and they should be able to park across two face-to-face parking spaces, as buses are roughly twice as long as normal-sized cars. Thus, some head-to-head spaces should not be obstructed by landscaping or wheel stops.

Policy 6.14I: Allow the Parking District to review and submit comments on proposed projects in the downtown area.

New development in downtown would potentially increase parking demand in Parking District lots and reduce parking availability for existing shops, offices, and attractions. As new projects are proposed, the Town should request that the Parking District review the project proposals and submit written comments. The comments would then be taken into account in the normal decision-making procedures for the project.

Policy 6.14J: Ensure that adequate handicapped parking is provided.

Such spaces should be located in prime spots, near building entrances and walkways.

Goal 6.15: Design parking lots that are walkable, attractive, and integrated with downtown buildings.

Policy 6.15A: Preserve the pattern of small, dispersed parking lots.

The existing small lots are integrated with downtown buildings, which are arranged in a traditional, compact form. They are also largely hidden from view, behind buildings, so that they do not interrupt the charming downtown streetscapes. Moreover, small lots provide convenient access to downtown shops. If any new parking lots are developed, therefore, they should be built according to the same pattern as the existing parking lots.

Policy 6.15B: Design parking lots with identifiable pedestrian walkways, lighting, trees, planting beds, marked entrances, and clear edges, as well as architectural flourishes like archways, decorative pavers, and monuments.

Policy 6.15C: Expand the use of the parking lots along the Peconic River for special events.

The parking lots along the Peconic River are currently used for outdoor performances during the annual Blues Festival and other summertime events. The parking lots can be redesigned, so that they can be more easily converted into performance spaces. Lighting fixtures can be outfitted with durable outdoor electrical outlets, useful for powering stage lights and sound systems. The actual layout of the landscape features and parking aisles should create a natural stage area and audience space. Trees are necessary for shade and comfort, but they should be high-branching and arranged so as not to interrupt sight lines.

Policy 6.15D: Keep sight lines open between Roanoke Avenue and the County Court building by establishing a public plaza and/or landscaped parking lots in the area.

This proposal would enhance the Court building as an architectural landmark in the downtown area. A public plaza could serve as a place for workers to eat lunch outdoors, and it would also function as a celebratory civic space, which downtown currently lacks. The plaza and parking lots could be used for outdoor fairs or events. With the neo-classical façade of the Court building as a backdrop, the plaza and parking lots would become a special destination in downtown Riverhead. Street improvements along Griffing Avenue would help connect this center to Main Street and the waterfront.

Goal 6.16: Enhance gateways and arrival points.

Gateways and arrival points convey the character of downtown and leave indelible impressions with visitors.

Policy 6.16A: Implement streetscape and landscape improvements in key locations.

While all downtown streets should be friendly to pedestrians (with crosswalks, decorative paving, street lamps, trees, shrubs and flowers, decorative signs), gateways and arrival points should have special additional treatment. For example, the Main Street-Court Street intersection is a gateway into downtown in that it provides the first glimpse of the waterfront and has three great civic buildings — the Suffolk County Historical Society, the Henry Perkins Hotel, and the Riverhead Free Library. The design of this gateway should open up pedestrian connections and views of the water. Banners, flags, and landscaping can be used to create a celebratory space that calls attention to the civic buildings. Also, the Historical Society lawn is an attractive, shady space and one of the largest green spaces in downtown and could serve as the setting for summer events, like an arts and crafts market or antique show.

Policy 6.16B: Install edifice lighting on the façades of major downtown landmarks, and install holiday lights and decorations along Main Street from Thanksgiving to New Year's Day.

Edifice lighting can create a dramatic and festive atmosphere in the downtown area, particularly during the winter months, when daylight is limited. It can also call attention to the unique architecture found in downtown. Buildings that could be lit include the Bank of New York building, the Aquarium, the two churches, the Woolworth building, the County Court building, and the Henry Perkins hotel. Holiday lighting can be installed on Main Street buildings, on lampposts, or on trees.

Policy 6.16C: Work with the Business Improvement District to establish maintenance plans for gateways and arrival points.

Attention to detail and high maintenance is an important part of making gateways and arrival points into special places. The maintenance plan should establish standards and develop a funding and implementation strategy.

Policy 6.16D: Create a public plaza/greenway that links the train station to Court Street.

Establish a pedestrian-oriented plaza in the block between Railroad Avenue and Court Street. The space should be bounded by two one-way streets (i.e., the existing Cedar Street and a new road) and should have sidewalks, trees, landscaping, and benches. It will create a physical and visual link between the train station and Court Street, giving the impression that the station is located on Court Street, one of the major entering roadways into downtown.

GOALS & POLICIES FOR ROUTE 58

Vision: Route 58 should remain Riverhead's principal destination for convenience and comparison shopping, but with improved design, traffic circulation, and landscaping requirements.

Table 6-2: Summary of Policies for Route 58

<i>Proposed Zoning</i>	<i>Improvements and Investments</i>
• Destination Retail Center (DRC) in west • Shopping Center (SC) on larger sites in center • Business Center (BC) on smaller sites • High-density residential development on appropriate parcels contiguous with commercial development with transferred development rights	• Require developers to meet high design and landscaping standards for new commercial sites, buildings, and signs • Plant trees and flowering shrubs alongside the arterial • Work with property owners to align site entrances at traffic lights • Encourage the County to implement roadway and signal improvements that ameliorate the flow of through-traffic • Encourage the County to include a planted median and left-turn pockets in any future road-widening projects along Route 58

Goal 6.17: Promote a mix of comparison shopping and convenience shopping along Route 58 that continues to serve both local residents and a regional clientele.

Policy 6.17A: Open up the western portion of Route 58 for Destination Retail Center development.

The ongoing success of Tanger Mall and the growing tourism industry in Riverhead and the North Fork are creating pressure to open up more land for commercial development along the western half of Route 58. For example, in 2001, an Applebee's Restaurant was developed across the street to take advantage of the Tanger Mall clientele. Currently, the area around Tanger Mall, from the Long Island Expressway (LIE) to Harrison Avenue, is mostly zoned for industrial development. Rezoning the area for a wider range of business uses would stimulate assemblage and revitalization of sites in that area, some of which are small-scale and under-utilized. The proximity to the LIE provides a unique opportunity for allow for destination-style retail operations.

In 1996, the Riverhead Planning Board recommended that the industrially zoned land at the western terminus of Route 58 be rezoned in order to discourage inappropriate industrial development and encourage regional commercial development within the vicinity.

During CAC meetings, some participants questioned whether additional retail development along the Route 58 corridor was really necessary, in light of anticipated future population growth. The proposed DRC zoning, however, is intended to draw not only from the local population, but also from a regional market. By building up such destination retail establishments, the Town would experience a positive cash flow of retail expenditures, resulting in higher commercial property values, commercial tax ratables, and increased sales tax revenue sharing. This helps pay for Town services and schools, and reduces pressure for future tax increases, which benefits all Riverhead residents.

Policy 6.17B: Allow a mix of Shopping Center and Business Center development along the rest of Route 58.

Currently, the commercial core of Route 58 is zoned Business B and Business C. These zones allow the full range of retail stores, and they limit office development to business-related, professional, and fraternal offices. With no minimum lot sizes, Business B and Business C allow for a variety of large and small convenience retail establishments. The zoning has successfully attracted auto-oriented convenience retail that provides essential products and services to the community and creates a substantial tax base.

The zoning should continue to allow this mix of uses, while fine-tuning the regulations, so that larger Shopping Center (SC) lots and smaller Business Center (BC) lots are treated in slightly different ways. Lots in the BC zone would be smaller, oriented to quick in-and-out convenience shopping, whereas lots in the SC zone would be larger and can accommodate large-footprint grocery stores. Buildings in the BC zone would be closer to the street, and the sites have frequent curb cuts. SC sites would have large setbacks and parking lots with consolidated curb cuts. While the two zones would have many of the same permitted uses, the BC zone would be the only place along the corridor where new auto dealerships and car washes (by special use permit of the Town Board) would be permitted.

Goal 6.18: Promote improved architectural and site design, traffic circulation, and open space conservation along the Route 58 corridor.

Chapter 9, the Transportation Element, includes detailed provisions for improving traffic flow along the Route 58 corridor, both for local and through traffic. The following policies address the other two issues of design and open space.

Policy 6.18A: Implement more strict design and landscaping standards for new development along Route 58.

Route 58 works well as a commercial corridor and its design should continue to provide safe automobile access and convenient parking. At the same time, superior design concepts can be adapted to fit into its auto-oriented environment. These design changes, while they do not amount to a "Main Street" or "neo-traditional" environment, can still improve the appearance and image of the corridor, erasing some of the adverse impacts of commercial sprawl. The following design concepts can be applied to Route 58:

- *Building Scale, Mass, Materials, and Entrances.* To prevent overly bulky buildings, the height and width of a building should be proportional to the lot size and setbacks, and large expanses of blank walls should be avoided by requiring variations in façade treatment. Exterior building materials should be limited to non-reflective surfaces. Building entrances should be visible from and oriented to the street. These measures would make shopping centers more pedestrian-friendly and storefronts more visible and attractive.
- *Parking Lot Size and Site Location.* Parking lots should be broken up between and behind buildings or landscaped areas, rather than concentrated into a single expanse of asphalt. This reduces the visual dominance of the parking lot and allows the buildings and landscaping to become more visually prominent.
- *Landscaping.* Current landscaping requirements in the existing Business B and C zones are limited to evergreen screening adjacent to residential uses. Trees, shrubs, lawns, hedges, and decorative fencing can soften the visual effect of commercial development and parking fields. The Town should require a minimum amount of landscaping in and around the site, especially along street frontage to screen parking areas as visible from the roadway. The Town should also require existing vegetation preservation where appropriate. A landscaped area should be provided along the street frontage, and this area should be well-maintained and unobstructed (i.e. by parking outdoor storage, permanent displays, etc.).
- *Signage Scale and Materials.* Signs should clearly advertise the name of the business and should be visible from the street. However, they should not generate excessive glare, should avoid creating visual or physical obstructions for motorists, and should be consistent with the design of the building. There should be limits on the number of signs to reduce visual clutter.
- *Banners, Flags, Streamers.* The Town should also give consideration to the use of banners, flags, streamers and other decorations, which also influence the visual character of the corridor. Some communities prohibit all such decorations, while others permit them only on a temporary basis, while still others regulate their location (i.e. permitting them only if attached to a wall or a ground-mounted pole, but not strung between structures, for safety purposes). The Town should continue to allow such uses, but consider establishing appropriate restrictions as to their use.

Policy 6.18B: Maximize landscaped areas along the Route 58 corridor by reducing the maximum floor area ratios, increasing the extent of landscaped areas, and reducing off-street parking requirements through shared parking.

Policy 6.18C: Provide incentives for parcels in the DRC district to receive transferred development rights, and require these parcels to provide generous open space and landscaped areas.

Low base densities are established for the DRC zone, with sizeable bonus densities for the purchase of development rights. Major shopping destinations occupy large areas of land and attract large volumes of traffic. This growth impact should be offset by asking the destination center to "give back" open space that maintains the rural character and the viability of agricultural activity in Riverhead. A small center, built at the permitted base density, would maintain large portions of the site as open space.

Policy 6.18D: Through the site plan review process, improve pedestrian, bicycle, and transit access to DRC, SC, and CRC sites.

Bike racks, continuous sidewalks, and off-street transit stops should be provided.

Figure 6-21: Route 58

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GOALS & POLICIES FOR ROUTE 25A

Vision: Small- to moderate-scale infill development should be combined with open space and civic investments to create a community center in this business district.

Table 6-3: Summary of Policies for Route 25A

<i>Proposed Zoning</i>	<i>Improvements and Investments</i>
• Shopping Center (SC) and Business CR (Rural Neighborhood Business) in western half • Business CR and Residence E (Multifamily Residential Professional Office Zone) on north side of Route 25A between Wading River-Manorville Road and North Country Road • Business PB (Professional Service Building) on 600-75-3-4 • Business CR on eastern parcels between Route 25A and Sound Avenue.	• Announce gateways and arrival points in commercial zones with trees, signs, and seasonal displays • Target sites for parks and community facilities near the intersection of Route 25A and Wading River-Manorville Road and near existing open space preserves • Require development to meet additional design and landscaping standards for new commercial sites and buildings • Focus roadway improvements along the major traffic thoroughfares: Route 25A, Parker Road, and Sound Avenue • Require principal driveway and pedestrian entrances to all commercial sites to be oriented to Route 25A, Parker Road, and Sound Avenue • Implement sidewalk and crosswalk improvements that allow convenient and easy pedestrian circulation • Use traffic-calming techniques to reduce traffic speeds at the tourist-oriented commercial node near the intersection of Parker Road and Sound Avenue • Require variegated street grids and frequent street connections between adjacent subdivisions • Encourage the NYSDOT to improve the level of service at the intersection of State Route 25A and Wading River-Manorville Road.

Goal 6.19: Promote neighborhood-oriented retail, office, and service development along Route 25A.

Policy 6.19A: Concentrate retail development at the intersection of Wading River-Manorville Road.

The sizeable commercially-zoned area along Route 25A in the Wading River area is larger than necessary for the local population. As is, the business district would attract free-standing businesses on scattered sites in a sprawling fashion. To avoid this result, the district should be reduced in size and concentrated around the Wading River-Manorville Road intersection. This would result in a more clustered development pattern at the most visible and accessible place in the business district.

Wading River's grocery store, drug store, and other shops help meet the essential daily shopping needs of nearby neighborhoods. Currently zoned Business CR, the area around the Wading River-Manorville Road intersection allows a wide range of retail stores and commercial uses. The zoning should continue to allow a mix of retail sales and small freestanding shops, offices, and restaurants. A combination of Shopping Center (SC) and Business PB (Professional Service Building), along with the current zoning of Business CR and Residence E (Multifamily Residential Professional Office), would help achieve this goal.

Policy 6.19B: Allow Business CR (Rural Neighborhood Business) uses along the rest of Route 25A.

The existing Highway Service/Commercial zoning near the Parker Road/Sound Avenue intersection is not needed. Stores are already clustered around the Wading River-Manorville intersection, and the area's small population would not be able to support additional retail at Parker Avenue. Business CR should be expanded eastward to take in the triangle of land between Parker Road and Sound Avenue, where office development has already occurred. A variety of moderate-size offices would be permitted, providing space for local lawyers, doctors, dentists, and other professionals. Campus-style multi-family housing would also be permitted as an alternative to offices.

Policy 6.19C: Create a service road for commercial properties located along the south side of Route 25A, west of Wading River-Manorville Road, and design the site as an attractive, auto-oriented shopping cluster, with moderate-size buildings, small, interspersed parking lots, and generous landscaping.

The recommendation for a service road was originally included in the 1988 Wading River Hamlet Study, and it is reaffirmed here. The service road would provide access to properties, limiting curb cuts along the street and improving traffic flow. However, in considering the character of the service road, the CAC decided that it should not take on the character of a

Figure 6-3: Route 25-A

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traditional Main Street. Although a Main Street environment is generally attractive, the site was deemed to be badly sized and located to create a full Main Street ambiance.

Instead, following the model of Amagansett Square in East Hampton, the preferred approach is to have moderate-size buildings with small, interspersed parking lots with generous landscaping, gardens, and lawns. Access to the individual buildings would be from both Route 25A and the service road. Sidewalks, trees, and flowerbeds should be provided both along the service road and the Route 25A frontage. The moderate-size buildings would attract a mix of restaurants, professional offices, small retailers, and personal services.

Goal 6.20: Create a pedestrian-friendly environment, and enhance the identity of the business district as a neighborhood center.

Policy 6.20A: Carry out sidewalk and crosswalk improvements that allow convenient and easy pedestrian circulation.

Crosswalks — combined with either a traffic signal, stop sign, or yield to pedestrians sign — are necessary at the two major intersections in the business district, in order to protect pedestrian safety and encourage walking. These include the Route 25A – Wading River-Manorville Road intersection and the Sound Avenue – Parker Road intersection. Additional crosswalks should extend across Route 25A at the King Kullen shopping center, allowing people to walk from across the street without making a circuitous route.

In addition, sidewalks should link commercial storefronts with surrounding residential areas, so that local residents and workers have the option of walking to the store. Residential sidewalks should lead continuously into sidewalks along Route 25A, and pedestrian walkways should run from the sidewalk, through the parking lot, and right up to the store entrance, creating an unimpeded connection.

Policy 6.20B: Avoid strip-style commercial development, and enhance the countryside image of the Wading River area by adopting design standards for new construction.

Design standards can be used to balance neighborhood with business interests, so that the district is both visually attractive and commercially viable. From a business perspective, buildings and signs should be visible from the street; parking should be abundant and convenient; and signs should be easy to read for both motorists and pedestrians. From a design perspective, overly large, garish, or brightly lit signs should be avoided; the area should be walkable, with safe and continuous sidewalks and crosswalks; and parking lots should be punctuated with trees and shrubbery.

Current landscaping requirements in the Business CR zone on Route 25A require preservation of existing vegetation in the front setback. In addition, 10 percent or more of

parking areas need to be landscaped, and the landscaping needs to be reasonably dispersed throughout the parking lot. In order to accommodate setbacks, however, many sites end up concentrating landscaping around the edges of very large parking lots. In all of the new commercial zones, the Town should implement a more stringent requirement. In addition to the 10+ percent landscaping regulation, the provisions should require that no more than 10 to 15 parking spaces (approximately 100 to 150 feet of asphalt) be located side by side without being broken up by a landscaped planter.

Likewise, the Multifamily Residential Professional Office Zone (Residence E) should require minimum 50-foot buffers with trees along the north portion of Route 25A between between Wading River-Manorville Road and North Country Road. This would frame the core business district and would maintain the double-sided, tree-lined character of Route 25A (adjacent to the campground and cemetery). Parking would not be permitted in the buffer, and the property owner would have to maintain a minimum number of trees within 20 feet of the street edge.

Because many properties in the business district have already been developed, these improvements will take place gradually over time, as those sites undergo expansions or renovations. This is entirely appropriate and preferable in fact, as it allows private investors to explore and pursue different variations on the "countryside" theme, allowing for a more rich and less uniform character to evolve over time.

Policy 6.20C: Announce gateways and arrival points in the business district with trees, signs, and seasonal displays.

The district's major arrival point is the Route 25A – Wading River-Manorville Road intersection. One of the corners on the intersection should be decorated with trees, directional signs, a welcome sign, flowers, seasonal displays, and perhaps a decorative element like a stone wall or fence. These design features are strong enough to convey a sense of the neighborhood, but are still rustic in character, reflecting the rural ambiance of the Town. Likewise, the gateways into the Route 25A commercial node (e.g., the Brookhaven border) should be celebrated with similar features: trees, flowering shrubs, and welcome signs.

Policy 6.20D: Avoid road widening for the section of Route 25A between the Brookhaven Town line and the Wading River-Manorville Road intersection.

Although the business district is auto-oriented, it is also intended to be pedestrian-friendly. Road-widening would reduce the ability of shoppers to cross the street, dampening the potential for cross-fertilization between stores. Also, a wider road would encourage higher speeds, making the area less appealing to pedestrians. Finally, because the business district does not have very deep lots, a widened road would eliminate parking spaces and landscaping that could not be easily replaced elsewhere. As a result, the commercial viability and attractiveness of the district as a whole could be compromised.

Policy 6.20E: Reserve sites for parks and community facilities near the intersection of Route 25A and Wading River-Manorville Road and near existing open space preserves.

As the population of the area continues to grow, additional sites may be required for parks and community facilities. These should be clustered close together, so that they can share buildings and parking. Although the Route 25A – Wading River-Manorville Road intersection is the 100 percent corner for the convenience retail center, it is also the center-point between two important community facilities: the Wading River Elementary School and the post office. That same general area is the perfect location for future parks, playing fields, a community center, a branch library, etc. All together, these facilities would create a true center of community life and activity.

While the properties on the intersection itself are turned over to commercial uses, a few parcels around and behind the commercial node are still available. The elementary school may need room for expansion and it could potentially make use of the adjacent open space areas, which front on Route 25A, for that purpose. A portion of the site could be used for civic facilities, like a branch library, a community center, parks, or playing fields. In this case, the Town could work jointly with Shoreham-Wading River School District to purchase the site, as a partnership, which could also open up the possibility for the Town and School District to share recreational facilities. Since the site is currently commercially zoned, it could be an expensive purchase for the Town and/or the School District, but the community benefit would be significant, due to the site's ideal location relative to the business core and the elementary school.

Goal 6.21: Surround the business district with moderate-density residential neighborhoods and ensure that commercial development is compatible with surrounding residential neighborhoods.

Policy 6.21A: Rezone certain portions of the business district for residential use.

Areas in the vicinity of the business district are already zoned for and developed with residential uses. This zoning should be expanded into the areas where there is commercial zoning, but no commercial uses. In particular, parcels currently zoned for Business E (Highway/Commercial Service) on the north side of Sound Avenue should be rezoned as residential.

Policy 6.21B: Minimize glare impacts from lighting in commercial areas and along streets by establishing appropriate standards.

Glare impacts can be reduced by establishing a cap on the luminous intensity of outdoor lamps and/or capping the number and height of outdoor lamps. Also, lamp heads should be designed such that the light is directed only onto those particular areas or spots that require lighting. To the greatest extent possible, light should not be allowed to travel in a horizontal direction over the property lines on which the lamps are located. This policy should be applied to all business districts and other places where outdoor lighting is being used.

GOALS & POLICIES FOR WADING RIVER

Vision: Wading River should remain an intimate rural crossroads featuring woodland and pond views.

Table 6-4: Summary of Policies for Wading River

<i>Proposed Zoning</i>	<i>Improvements and Investments</i>
• Hamlet Center (HC) • Allow home offices in surrounding residential areas	• Establish hamlet design standards • Improve sidewalks and curbs along storefronts, plant street trees, add historic lampposts, and provide on-street parking in front of shops, restaurants, and offices • Add crosswalks with stop signs at all the intersections in the hamlet center • Add picnic tables and shade trees alongside the pond, with a pond-side pedestrian trail • Add trees, shrubbery, and walkways to the municipal parking lot • Establish parks and playgrounds to frame the hamlet center • Establish bike paths and walking trails that link into the Town's greenway network

Goal 22: Keep Wading River a small, quaint hamlet center catering to local residents.

Policy 6.22A: Limit the size of the hamlet center, and maintain low-density single-family houses around the hamlet center.

In order to protect the hamlet's quaint character, the area zoned for retail and office development should be limited in size. The boundary of the proposed Hamlet Center (HC) zone was drawn to include the entire area of shops, restaurants, and offices beside the duck ponds on North Country Road. Although professional offices would not be out-of-character with the hamlet center, it would be preferable to concentrate most such land uses along Route 25A, where they would be much more visible and accessible. The traffic and parking impacts from small professional offices would be incompatible with the small-scale character of the hamlet.

Figure 6-4: Wading River

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Policy 6.22B: Establish hamlet design standards that preserve the traditional character of the neighborhood.

Buildings in the hamlet center need not have a colonial or country style, but they should follow some basic design standards to ensure that they fit into the traditional format of the neighborhood:

- Pedestrian entrances should face the street, rather than a garage or parking lot;
- Building design, landscaping, and decorative fences should announce the pedestrian entrances;
- Parking lots and garages should be located behind or beside buildings;
- Facades should be punctuated with windows, and blank walls should be avoided;
- Natural cladding materials like wood, brick, and stone should be used; synthetic and reflective materials should be avoided; and
- Buildings should have architectural accents such as porches, porticoes, shutters, decorative door and window frames, balconies, cornices, dormers, chimneys, turrets, and spires.

Policy 6.22C: Allow on-street parking along parcels zoned Hamlet Center (HC) on North Country Road.

On-street parking makes sense for several reasons. First, it would provide an added convenience for local residents who are running quick errands. Second, it would be consistent with the goal of improving the pedestrian-friendly quality of the hamlet center, because parked cars provide a barrier between pedestrians and moving cars. Third, allowing on-street parking would be consistent with the informal character of the hamlet. Since traffic volumes are low, on-street parking would not be expected to cause access or congestion problems. On-street parking should not be permitted alongside the pond, because in that location, they would block views of the water. In response to concerns raised during the CAC meeting, the Town should undertake a study to determine how on-street parking can be added while ensuring safety for motorists and pedestrians.

Policy 6.22D: Establish parks and playgrounds on the outskirts of the hamlet center.

According to the resident survey conducted in summer 1999, 51 percent of the respondents said that the Town should spend more money on parks and picnic areas, and 43 percent said the Town should spend more money on playgrounds. The Town should explore the feasibility of establishing at least one small park/playground on either side of the hamlet center, framing the retail core with open space. There is a vacant site on Sound Road, north of Seaman Court, that could serve this purpose. On the other side of the hamlet center, there are no vacant sites, but the Town could consider partnering with one of the local churches to establish a small park or playground on its property.

Whereas the pond provides natural scenery and habitat, a park with a playground would provide "active" recreational space. Neighborhood children would be the main beneficiaries of a small neighborhood park and playgrounds, because they could walk there without being chauffeured by parents. The hamlet, as a focal point of the community, provides an ideal spot for new parks. While the hamlet center would benefit from the additional of small parks, participants in the CAC meetings stressed the importance of also improving maintenance at the Wading River Community Park located east of the hamlet center. Park investments in the hamlet center should be done in addition to — not instead of — improvements to that existing facility.

Policy 6.22E: Limit the type and scale of home offices in and around the hamlet center.

Home offices should be allowed in the residential areas abutting the HC zone. Other than home offices, no deviation in the surrounding residential character is recommended. Home offices should be of a type and scale that are compatible with the low-density, low-impact, small-scale character of the area. No employees living off-premises and no ancillary retail uses should be permitted. Signage should be limited in size and should only identify the name of the business enterprise (i.e., no advertising signs). This is consistent with the goals and policies regarding home occupations in Chapter 7, the Economic Development Element.

Goal 6.23: Make the hamlet centers more pedestrian friendly, and increase opportunities for enjoying the pond setting.

Policy 6.23A: Improve sidewalks and curbs along storefronts, plant street trees, and add historic lampposts; and add trees, shrubbery, and walkways to the municipal parking lot.

Although the overall lack of sidewalks adds to the rural charm of the area and the low traffic levels allow good pedestrian circulation, some sidewalk improvements could help improve the safety, comfort, and attractiveness of the hamlet. Brick or cobblestone sidewalks could be installed along storefronts, enhancing the historic atmosphere; they are affordable here since such a small area is involved. Landscaping, walkways, and decorative picket fencing would help improve the visual quality of the municipal parking lot and make it more inviting.

Street trees could create a more enticing walking environment and complement the pond environment. Street lamps are necessary to provide a safe walking environment at night, and historic lampposts would fit into the traditional hamlet ambiance. Alongside the pond, a simple gravel path inside the wooden barrier would allow pedestrians to stroll beside the water and enjoy the serene setting; this would require cooperation with the Town of Brookhaven, in which the duck ponds are located.

Policy 6.23B: Add picnic tables and shade trees alongside the ponds.

In addition to the existing landscaping and benches, picnic tables and shade trees could help increase enjoyment of the quiet pond setting. The design of picnic tables should be consistent

with the informal, countryside character of Wading River. If new trees are planted around either Mill Pond or the Duck Ponds, they should be high-branching, deciduous shade trees that create a comfortable place to sit during the hot summer months. This too would require cooperation with the Town of Brookhaven.

Policy 6.23C: Improve the crosswalk at the intersection of North Wading River Road and North Country Road.

The existing crosswalk connects the municipal parking lot with the stores across the street, but broken pavement and faded lines make the crosswalk a potential safety hazard. Decorative pavers should replace the existing crosswalk. Stop signs should be installed at the crosswalk from all directions, because the bend in the road at that spot creates poor visibility for drivers.

Policy 6.23D: Link sidewalks in the hamlet center to existing sidewalks in adjacent residential areas, and where they don't already exist, add sidewalks to those adjacent residential areas.

This policy is intended to promote greater connectivity and walkability between the hamlet businesses and the surrounding residences, strengthening the function and image of the hamlet as a real community center.

Policy 6.23E: Create a pond-side pedestrian trail, and establish bike paths and walking trails to nearby recreational sites.

Nearly 49 percent of the residents who responded to the Townwide survey said that the Town should spend more money on nature trails. The pond setting of the Wading River hamlet provides an ideal setting for a nature trail. A pedestrian trail connecting the ponds would allow residents to enjoy the pond-side setting and scenery even more, providing a local place to walk the dog, stroll, or jog without the interruptions of traffic. It would also provide a shortcut to the hamlet center for some residents. Crosswalks should connect the trail to the shops and parks on the north side of North Wading River Road.

The Town should use park acquisition funds to purchase easements along the ponds for the purpose of establishing a public trail. The Town should actively reach out to private property owners whose land is being considered for purchase, understand their needs, and if the owner agrees to sell an easement, the Town should work to address any concerns they may have about the trail. In particular, the Town should ensure that the trails are adequately wooded, buffered, and/or fenced so as to preserve the privacy of those properties. At the same time, the Town should ensure that property owners will have adequate visual and physical access to the water's edge. Maintenance and liability issues should also be worked out ahead of time. Part of the proposed trail would be located across the Town line in Brookhaven, so the Town will have to have to coordinate with Brookhaven to get that portion of the trail built.

Wading River is fortunate to be located near several major parks and outdoor recreational sites. Bike paths and walking trails would provide residents with greater opportunities for enjoying the outdoors and would offer an alternative to driving to nearby parks. Paths and trails should be established to Wading River Beach, Wildwood State Park, Camp Wauwepex, and the State/County Preserve on Parker Road near the cemetery. Chapter 11, the Parks and Recreation Element, elaborates upon the concept of greenways and bikeways.

GOALS & POLICIES FOR CALVERTON

Vision: Building off Calverton Commons, and the market created by Enterprise Park, encourage a small hamlet center to evolve, with a “country crossroads” character.

Table 6-5: Summary of Policies for Calverton

<i>Proposed Zoning</i>	<i>Improvements and Investments</i>
• Hamlet Center (HC) in core commercial area. • Rural Corridor (RLC) in a limited area east of Fresh Pond Avenue	• Streetscape and sidewalk improvements along the north side of Route 25 and the west side of Fresh Pond Road • Crosswalk improvements at Fresh Pond Road • Pedestrian connections to Enterprise Park at Calverton • Heavy buffering along the northern edge of Enterprise Park • Pedestrian and bike connections to the residential areas northwest of the business center

Goal 6.24: Promote a mix of convenience and comparison retail, as well as office space at the Calverton commercial areas near Fresh Pond Road.

Policy 6.24A: Reduce the existing commercial zoning along Route 25 between the LIE and the Brookhaven Town line.

There are three small commercially zoned areas along Route 25 in the Calverton area: (1) at Wading River-Manorville Road; (2) at Fresh Pond Road; and (3) on the north side of Route 25, at Edwards Avenue east to Manor Road. Since these areas were zoned for commercial development, the Pine Barrens preserve was established, reducing future expectations of development and market potential for retail and service uses along the corridor. In addition, these business districts suffer from competition from Route 58 and Route 25A, each located less than three miles away. These combined factors suggest that these commercial areas should be reduced in scope. The Calverton business districts will continue to attract small, auto-oriented, sprawled development if the current zoning is retained. The area at Fresh Pond Road, however, has some potential for future growth, due to its proximity to Enterprise Park and should be retained on both sides of Fresh Pond Road.

Policy 6.24B: Rezone the hamlet area near Fresh Pond Road for small- to moderate-scale retail and office development.

The proposed HC zoning would allow a mix of small shops, restaurants, and offices, consistent with the anticipated market trends. The area would not be expected to support a grocery store or shopping center, due to competition from Route 58 and Route 25A. Small-scale shops, offices, and restaurants would complement the larger-scale uses in Enterprise Park, building off the clientele that is attracted to that area. It would also provide some conveniences for local residents.

Goal 6.25: 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.

Policy 6.25A: Concentrate compact residential development around the hamlet center at Fresh Pond Road.

Like Jamesport, Aquebogue, Wading River, and Route 25A, compact residential development would help create a mixed-use environment, where local residents can walk to and enjoy the hamlet center.

Policy 6.25B: Create a pedestrian-friendly environment along the Route 25 and Fresh Pond Road frontages through streetscape, sidewalk, and crosswalk improvements.

Policy 6.25C: Establish direct pedestrian linkages between the hamlet center and Enterprise Park.

This would allow patrons of the adjacent family entertainment complex to walk over to the Calverton business center.

Policy 6.25D: Establish a system of off-street driveway and pedestrian linkages between commercial uses in the HC zone.

This policy would help foster a campus-like environment for the hamlet center.

Figure 6-5: Calverton

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GOALS AND POLICIES FOR JAMESPORT

Vision: A concentrated "Main Street" framed by a rural corridor and surrounded by a traditional residential neighborhood should be provided at this historic center.

Table 6-6: Summary of Policies for Jamesport

<i>Proposed Zoning</i>	<i>Improvements and Investments</i>
• Village Center (VC) in core near community center and church • Hamlet Center (HC) where small shopping center is located and in core on north side of Main Road • Rural Corridor (RLC) to the west and in core on south side of Main Road • Provide for TDR Receiving areas within a half mile radius of the Jamesport Central Business District (CBD)	• Create a safe, comfortable, and attractive walking environment in the "Main Street" area that entices shoppers and diners to stroll, and tourists to stop • Require developers to meet additional design and landscaping standards for new commercial sites, buildings, and signs • Maintain architectural quality of buildings • Establish a facade improvement program for commercial buildings in Jamesport, and establish a Business Improvement District (BID) to maintain streets, sidewalks, parking lots, and landscaped areas • Provide a North Fork Wine Country information center or kiosk • Organize seasonal events • Provide on-street parallel parking in the "Main Street" area • Instead of road widening, use traffic-calming to control traffic volumes and speeds in the hamlet centers • Provide long-term opportunities for a restored Jamesport railroad station, for use by both residents and tourists • Establish a bus stop along Route 25 in the Main Street" area • Require variegated street grids and frequent street connections between adjacent subdivisions • Reserve sites for future parks and community facilities • Establish a pedestrian and bicycle trail along South Jamesport Avenue from the hamlet center to South Jamesport beach

Goal 6.26: Promote tourism-oriented specialty shopping in the historic hamlet center near the South Jamesport Avenue intersection.

Policy 6.26A: Concentrate Village Center/Hamlet Center (VC/HC) development in the traditional historic center near the Route 25/South Jamesport Avenue intersection.

Jamesport's Business CR zoning, which runs from west of Washington Avenue to east of Manor Lane, allows a full range of retail stores and professional offices. With population and tourism growth, this relatively permissive zone would tend to attract convenience stores, gas stations, and other auto-oriented uses to serve the large volumes of pass-through traffic. Such stores, usually national chains, would occupy land in and around the hamlet center that could otherwise be used for small shops and restaurants.

In order for the hamlet center to realize its full tourist potential, convenience and auto-oriented retail should be limited in the "Main Street" area. Building on the established niche of antique stores, Jamesport should provide space for additional furnishing stores, as well as art galleries, arts and crafts shops, sit-down restaurants, cafes, specialty food stores, wine shops, and other similar businesses. Professional offices can be permitted, on condition that they be located to the rear of a store or on an upper floor and not front on "Main Street," which should have a continuous and vibrant retail frontage.

Policy 6.26B: Create a safe, comfortable, walkable, and attractive "Main Street" area through sidewalk and streetscape improvements.

Convenient and comfortable sidewalks and walkways can encourage tourists to stroll, browse through shops, or eat in the local restaurants. Attractive street furniture (trees, lamps, benches, hanging signs, planters, newspaper boxes, etc.) can also serve as enticement. Although Jamesport's small size would not encourage long visits (two- to three-hour visits are expected), an attractive sidewalk environment can lengthen the stay of some visitors and encourage them to visit two or more establishments.

The Town should work with property owners and tenants to redesign and upgrade the streetscape in the "Main Street" area. Because Route 25 experiences heavy traffic, marked crosswalks, sidewalk bulb-outs, and blinking traffic signals are necessary at the key intersections in the "Main Street" area. Not only would these measures increase pedestrian safety, but they would enhance the perception of Jamesport as an historic center and special destination. Streetscape design improvements should be continuous throughout the "Main Street" area. Also, sidewalks along "Main Street" should connect to the sidewalks of the adjacent residential neighborhoods. Local residents should be able to walk down to the local shops, restaurants, church, or community center.

Figure 6-6: Jamesport Map

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Policy 6.26C: Establish design and landscaping standards that are consistent with the historic development pattern in the Village Center/Hamlet Center area.

The existing Business CR zoning would not allow new buildings to be built in the same traditional pattern as Jamesport's hamlet center, with its small front yards, front porches, and entrances off the sidewalk. The Business CR zone has a minimum lot size of 40,000 square feet, a minimum lot width of 200 feet, a maximum floor area ratio (FAR) of 0.17, a minimum front setback of 50 feet, and minimum side setbacks of 25 feet.

The standards should be more compatible with Jamesport's historic fabric, and rezoning the area Village Center (VC) and Hamlet Center (HC), with their smaller minimum lot sizes and narrower setback requirements, would allow a more traditional pattern of development. In addition to the VC and HC standards, design standards would ensure that new development is compatible with the historic building fabric:

- *On-site Parking Behind Buildings.* With the elimination of the front setback, parking should be located to the rear of the building, so as not to interrupt the street wall. Open-air, landscaped walkways should connect the parking lots with the street.
- *Street-oriented Building Entrances and Windows.* Shop entrances should face the sidewalk, allowing pedestrians strolling along the roadway to drop in. Shops should also have display windows that create visual interest along the street.
- *Façade Variety.* Exempt bay windows and unenclosed porches from being counted in building area calculations, in order to provide an incentive for variety in façade design. Also, require building facades to be clad with natural materials (wood, stone, stucco, or brick) rather than metal and glass, better reflecting the countryside setting.
- *Sign Control.* Sign regulations should allow variety and interest along “Main Street,” while prohibiting signs that would be incompatible with a traditional, pedestrian-oriented environment. Painted wall signs, hanging signs, wall signs, moveable A-frame, and etched window signs should be permitted, while freestanding signs, roof signs, and internally illuminated or neon signs should be prohibited altogether in the “Main Street” area. Also, natural materials should be used for the sign structure.

Although the VC and HC zoning are similar in many respects, they are distinct. The VC zone has a compact and fine-grain pattern of development in a traditional village format. Small shops would line a traditional Main Street and would be built up to the street. In the HC zone, buildings would still be small in scale, but they would be set back and surrounded with more landscaping, with more of a residential character.

Policy 6.26D: Establish a façade improvement program for the hamlet center.

Façade improvements can help increase the attractiveness of the Jamesport hamlet center. In downtown Riverhead, the Downtown Strategy calls upon the Town to establish a façade improvement program for Main Street buildings. The program would include a mix of grants and tax incentives to encourage property owners to make repairs, add awnings and windows, improve entryways and porches, comply with handicapped access requirements, clean and

paint exteriors, and improve landscaping and walkways. The Jamesport program could be piggybacked on the program offered downtown.

Policy 6.26E: Establish a North Fork wine country information kiosk.

The Town should also join with local businesses to establish a tourism information center or kiosk. The information center/kiosk would help establish Jamesport as the gateway to wine country. If a center is possible, it could be sited in part of the community center or in a storefront. A kiosk would logically be sited at the southeast corner of Route 25 and Jamesport Avenue.

Policy 6.26F: Maintain on-street parallel parking in the “Main Street” area.

On-street parking provides a convenience to motorists by allowing them to park in front of the shop or restaurant they wish to patronize, assuming a space is available. In addition, on-street parking creates a physical barrier between pedestrians and moving traffic, increasing the sense of safety for pedestrians.

Policy 6.26G: Establish a municipal parking district and parking facility.

Existing on-street parking within the Jamesport Hamlet (Route 25) is inconvenient and ineffective in supporting the commercial viability of existing retail uses. In order to address this issue, the Town should establish the Jamesport Parking District and should expend district revenue to construct a parking facility behind the existing stores with access to both Route 25 and Manor Lane. The improvement would serve to provide more convenient parking and would allow for the expansion of retail development of the hamlet, due to the relaxation of off-street parking regulations.

Policy 6.26H: Avoid road-widening along Route 25 in the historic hamlet center.

Population and tourism growth will inevitably lead to traffic increases along Route 25. While the rural parts of Route 25 can be widened easily, road-widening in the Jamesport hamlet would undermine the area's charm. Instead, traffic-calming strategies should be implemented in the hamlet center, in order to create a more pedestrian-friendly environment. These strategies include crosswalks, sidewalk bulb-outs, traffic lights, stop signs, yield signs, and speed bumps.

Policy 6.26I: Concentrate parks and community facilities in the area around the historic hamlet center.

Parks and community facilities may not be needed for many years to come, but the increase in population will eventually create the need. If centrally located sites are not reserved in advance, they may be developed into residential or commercial uses, and the Town would

have to settle for less ideal sites on the outskirts of the residential village or outside the Jamesport hamlet altogether. A village location would ensure that the parks and facilities would be located in a central location within walking distance of the surrounding residential village.

Policy 6.26J: Establish a pedestrian and bicycle trail along South Jamesport Avenue from the historic center to South Jamesport Beach.

Consistent with resident desires for more nature trails (according to the 1999 resident survey), a pedestrian and bicycle trail should extend from the intersection of Route 25 and South Jamesport Avenue all the way down to the beach. Signs should demarcate the trail and direct people to the beach.

Goal 6.27: Create a moderate-density, neo-traditional residential neighborhood around the historic Jamesport hamlet center.

Policy 6.27A: Establish a residential village to the north and south of the hamlet center, but protect those areas that have wetlands or other sensitive natural resources.

One-family houses, two-family houses, and townhouses could be permitted on lots in and around the hamlet center. Also, single-family homeowners would be permitted to have an accessory rental unit in a spare room or detached structure in the back yard. No lots with more than one unit per acre would be permitted with transferred development rights.

Currently, the areas immediately outside Jamesport are zoned Agriculture and allow residential development at densities of one unit per acre. Under the Proposed Land Use Plan, all areas that fall within the Residence A-80 (RA-80) district at Jamesport would be upzoned to two acre lots, which would match the as-of-right density of the Agricultural Protection Zone (APZ). However, parcels in the RA-80 district would have the option to build at densities of one unit per acre with transferred development rights sent from the APZ and/or certain parcels in the Residence AB-80 district.

Some of the areas north and south of the hamlet centers have wetlands and therefore may not be suitable for development of any kind. Those areas must be carefully protected, and wastewater disposal systems must be carefully designed to limit impacts on those areas.

Policy 6.27B: Establish a TDR receiving area in the residential village, and require purchase of TDRs to achieve higher densities.

The RA-80 district around the Jamesport hamlet center should be designated as a receiving area for TDRs, as shown on the Proposed Land Use Plan in Chapter 2, the Land Use Element.

Policy 6.27C: As part of the Town's subdivision and zoning regulations, establish development standards and design guidelines that help create a traditional development pattern.

Development standards and design guidelines should promote a traditional village-style pattern of development. Shallow front yards should be permitted. Front doors should face the street, and garages should be either setback from the main façade of the house or placed in a detached structure in the back yard. Facades should have varied materials and architectural detailing (decorative door and window frames, balconies, bay windows, varied rooflines, dormers, cornices, porches, stoops), in order to create an interesting and attractive streetscape.

In addition, through the Town's subdivision standards, traditional street patterns should be encouraged. Subdivision regulations should be revised to require a minimum number of connecting streets to existing roads and/or a limitation on the number of cul-de-sacs. In this way, the Town can prevent the inefficient street patterns used in many suburban subdivisions, where no through-streets are provided to collector roadways.

Some of the areas north and south of the hamlet center have already been partially subdivided. In many cases, lots have been carved out along the existing street frontage, with larger vacant parcels to the rear. Those larger parcels are typically linked to the roadway by a single strip of land, forming a large flag lot. The parcels along the street frontage should be functionally and visually integrated into the design of the new neighborhood.

Policy 6.27D: Prevent isolated residential subdivisions by requiring variegated street grids and frequent street connections between adjacent subdivisions.

Within certain communities in the 1980s and 1990s, residential subdivisions were generally built with very few street connections to the adjacent roadways and subdivisions, as well as with many cul-de-sacs or dead-ends. These patterns of development created isolated neighborhoods with confusing and circuitous road networks. The Town should require subdivisions in the Jamesport area to have a variegated grid pattern of streets, continuous street connections to adjacent subdivisions, and a limited number of cul-de-sacs. This traditional street pattern would allow easy car, pedestrian, and bicycle circulation between the residential village and the commercial nodes along Route 25.

Goal 6.28: 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.

Policy 6.28A: Maintain the rural character of areas west of the hamlet center along Route 25 through Rural Corridor zoning.

The Jamesport business district is currently zoned Business G from the area west of Washington Avenue to immediately west of Tuthills Drive. The Business G zone limits retail stores to antiques, arts, crafts, and book stores and allows farm stands, providing farms near the village an outlet for selling their goods. In addition to these uses, the newly proposed Rural Corridor (RLC) zone would also permit agriculture-oriented businesses that provide essential goods and services to farms, orchards, and vineyards. Currently, there is no place in Town where rural-oriented businesses are permitted exclusively, and they are forced to compete for space in high-priced commercially zoned areas. By setting aside space for rural-oriented businesses, Riverhead farms benefit and have one less reason to close their operations.

The RLC zone would allow non-residential uses in existing houses. In case of subdivision, properties within the RLC zone could maintain a significant landscaped buffer from the edge of Route 25. This provision would help maintain the countryside character of Route 25 outside the main commercial area of Jamesport. Buildings would be approved for development only on condition that they are housed within buildings that look like residences or farm structures.

In addition to the normally permitted uses in the RLC zone, areas that are within walking distance of Jamesport commercial zones should also be allowed to have small offices and bed-and-breakfasts. Office workers and B&B guests would generally be willing to walk the 1,200-ft distance to the commercial zones to go shopping, eat at a restaurant, or reach the bus stop. However, no restaurants, eateries, or shops would be permitted in this transitional zone, because it is generally beyond the area that most tourists and shoppers would be willing to walk. The combined use of RLC, HC, and VC zoning ensures that a wide variety of shopping opportunities is available, serving everyone from tourists to residents and local workers.

Policy 6.28C: Outside the historic hamlet center, keep Route 25 a two-lane road (one lane in each direction), but make roadway and intersection improvements if necessary.

Such improvements may include wider shoulders, addition of bike lanes or sidewalks, repaving and re-striping, intersection improvements such as left-turn pockets, and improved signal timing cycles.

GOALS & POLICIES FOR AQUEBOGUE

Vision: A more countrified version of Jamesport should be promoted at this historic center, with design guidelines to promote infill, prevent sprawl, and create a traditional residential neighborhood within walking distance.

Table 6-7: Summary of Policies for Aquebogue

<i>Proposed Zoning</i>	<i>Improvements and Investments</i>
• Hamlet Center (HC) in core along Main Road at Church Lane and West Lane • Business Center (BC) where small shopping center is located • Rural Corridor (RLC) elsewhere • Provide for a one-half mile TDR receiving area	• Create a safe, comfortable, and attractive walking environment in the Main Street" area that entices shoppers and diners to stroll, and tourists to stop • Require developers to meet additional design and landscaping standards for new commercial sites, buildings, and signs • Instead of road widening, use traffic-calming to control traffic volumes and speeds in the Main Street" area • Establish a bus stop along Route 25 in the Main Street" area • Require variegated street grids and frequent street connections between adjacent subdivisions • Reserve a major site for a community park on the south side of Route 25 • Establish a pedestrian and bicycle trail from the hamlet center to the waterfront

Goal 6.29: Promote specialty shopping in the historic hamlet center near the Church Lane intersection.

Policy 6.29A: Strengthen the hamlet center at the Route 25/Church Lane intersection.

Currently, the Aquebogue hamlet center is zoned Business G, which allows only a limited range of shops, such as country stores and arts and crafts shops. This limits the retail potential of this traditional center, which already has a day care center, a restaurant, and a few small shops. The zoning should allow a wider range of uses that reflect the historic village pattern of development. Like Jamesport, the Aquebogue hamlet center should allow specialty stores and restaurants on small lots. At the same time, Aquebogue is smaller in scale than Jamesport and would be more appropriately zoned Hamlet Center (HC), rather than Village Center (VC).

Policy 6.29B: Require developers to meet additional design and landscaping standards for new commercial sites, buildings, and signs.

As in Jamesport, parking should be placed behind or to the side of buildings, and pedestrian entrances and display windows should face the sidewalk. Guidelines would also promote architectural detailing on building facades and pedestrian-oriented signage.

Policy 6.29C: Avoid road-widening along Route 25 in the hamlet center.

Road-widening would make the hamlet center less pedestrian-friendly and would disrupt the small-scale character of the village. Instead, traffic-calming strategies should be employed, including frequent crosswalks, stop signs, yield signs, traffic lights, and speed bumps. These would slow down traffic and enhance pedestrian circulation in the Aquebogue hamlet center.

Goal 6.30: 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 25A corridor, and maintain the rural character of the corridor.

Policy 6.30A: Direct convenience shopping to the area near the intersection of Edgar Avenue.

Business Center (BC) zoning should be used to concentrate convenience shopping near the existing shopping center and professional office center found at the intersection of Edgar Avenue.

Policy 6.30B: Maintain the rural character of all other areas along Route 25 through Rural Corridor zoning.

As in Jamesport's Rural Corridor (RLC) district, subdivision within the RLC district would be conditioned on provision of a significant landscaped buffer from the edge of Route 25. Adjacent to the BC and HC commercial districts, areas within the RLC districts would allow offices and bed-and-breakfast inns, in addition to the normally allowable uses. These uses should be required to have a larger lot size and to be housed in residential- or farm-style buildings, in order to mitigate their visual impacts on the predominantly rural corridor.

Policy 6.30C: Outside the historic hamlet center, keep Route 25 a two-lane road (one lane in each direction), but make roadway and intersection improvements if necessary.

Goal 6.31: Make the historic hamlet center of Aquebogue into the neighborhood center for a surrounding moderate-density, neo-traditional residential neighborhood.

Policy 6.31A: Establish a residential village around the hamlet center, and concentrate parks and community facilities in the hamlet center or near the elementary school.

As in Jamesport, one-family and two-family housing should be permitted on lots of one unit per acre with the transferred development rights. Under the Proposed Land Use Plan, all areas that fall within the Residence A-80 (RA-80) district at Aquebogue would have an as-of-right density of ½ units per acre or two acre lots, with the option to build at densities of one unit per acre with transferred development rights. The residential village should follow a traditional design format. Design guidelines should require front doors to face the street and garages to be set back from the front façade or located in the back yard. Facades should be clad with natural materials (wood, brick, stone) or non-reflective metal, and architectural details should be added to the façade for variety. Subdivisions in the residential village should also be required to have a variegated street grid pattern and connecting streets to adjacent sites. This will help create a more permeable neighborhood from a pedestrian point of view, and it will also provide the village with a more traditional ambiance.

Policy 6.31B: Explore potential sites for a community park on the south side of Route 25.

Much of Route 25 in the Aquebogue area is still predominantly agricultural in use and character. As Aquebogue experiences development pressure, the open space and rural character of the south side of the road should be maintained as much as possible. A community park would help maintain the open space character, while also providing much-needed recreational space for residents. The park should have facilities for active recreation (playing fields), as well as passive recreation (trails, forests, lawns).

Providing a major community park opposite the “Main Street” area would help fulfill this goal and also link the Aquebogue area to nearby Meetinghouse Creek, which runs into Flanders Bay. As an alternative, the site on the west side of the Aquebogue Elementary School should be considered, so that the park and the school can share parking and facilities. Either site would be centrally located and easily accessible to the residents living in the general area.

Policy 6.31C: Establish a pedestrian and bicycle trail from the hamlet center to the waterfront.

A trail should link the village and the proposed community park to the mouth of Meetinghouse Creek and Indian Island County Park. By providing a continuous park network with a waterfront connection, the trail would further increase recreational opportunities and significantly increase the attractiveness of Aquebogue for homebuyers. This trail should be part of Riverhead’s greenway network (see Chapter 11, the Parks and Recreation Element).

Figure 6-7: Aquebogue Map

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GOALS & POLICIES FOR UPPER EAST MAIN STREET

Vision: As a transitional area between downtown and Route 58, Upper East Main Street should be transformed from an automotive/industrial corridor into a residential/open space corridor with a small commercial node that announces the arrival into downtown.

Table 6-8: Summary of Policies for Upper East Main Street

<i>Proposed Zoning</i>	<i>Improvements and Investments</i>
• Hamlet Center (HC) south of Elton Street on the west • Business Center (BC) where automotive businesses are located • Scattered Commercial/Residential Campus (CRC) sites	• Improve sidewalks, add historic lighting, and plant trees from Route 58 to downtown • Improve crosswalks at the Elton Street and Hubbard Avenue intersections • Transform streamside wetland area as a community park with trails and interpretive walks • Improve sidewalks where East Main Street crosses the LIRR tracks • Actively pursue redevelopment of the industrial site at the Elton Street intersection, as well as the automotive site at the Hubbard Avenue intersection

Goal 6.32: Establish more concentrated nodes of commercial development along the corridor, reducing the appearance of sprawl.

Policy 6.32A: Concentrate Hamlet Center and Business Corridor development between Elton Avenue and Hubbard Avenue.

Despite the existing industrial/business zoning, many of the properties fronting on East Main Street are actually vacant or residential in use. This suggests that the industrial/business zoning exceeds the localized demand for such uses. If left intact, the zoning would attract low-value commercial development or leave the existing properties underutilized. A paring down of the business zoning would help create a more clustered development pattern with more successful commercial activity.

The largest concentration of existing businesses is found between Elton Street and Hubbard Avenue, and the business zoning should be consolidated in this area. On the east side of the street, there are a variety of auto repair shops, gas stations, and other automotive uses. Business Center zoning, which allows a wide range of retail businesses on

small lots would be appropriate for that stretch of the road. On the west side of the street, a few houses have been converted into offices or shops. The Hamlet Center zoning would allow the trend toward commercial conversions to continue, while preserving the character of those houses.

Policy 6.32B: Pursue the redevelopment of larger, existing industrial and automotive sites into campus-style offices or residences.

With regard to the large industrial site at the corner of East Main and Elton, the Town should promote a use that is more compatible with the surrounding neighborhood. The recommended Commercial/Residential Campus (CRC) zoning would allow development of an office campus or two-family residences, similar to others that have already been built along Upper East Main Street. Likewise, the Town should promote redevelopment of the automotive site at the corner of East Main and Hubbard. Its current use is inconsistent with the predominantly residential use and character of the area. This automotive site has a large outdoor storage area for cars and extends far back into the residential neighborhood.

Policy 6.32C: Use parks to create an attractive approach into downtown.

The area alongside Sawmill Creek, on both sides of East Main Street, is an ideal setting for a neighborhood park. A park in this location could not only provide passive recreational space for the neighborhood, but would create an attractive green gateway into downtown. The park, if established, should incorporate the pond on the west side of East Main Street, providing a visual green counterpoint to the adjacent commercial uses. Located halfway between downtown and Route 58 and next to the neighborhood commercial node, the park would become the new centerpiece of the community. Marginal residential and business parcels should be acquired for open space values.

Goal 6.33: Reduce industrial zoning and promote moderate-density residential development along the corridor and around the business districts.

Policy 6.33A: Eliminate industrial zoning along East Main Street.

East Main Street is ill-suited for industrial development. The lots are small; the area is locked in by residential neighborhoods; and that roadway is relatively difficult to negotiate by truck. Aside from an 11-acre industrial site at the corner of East Main and Elton, there is little existing industrial activity relative to the large land area zoned for industrial development (about 90 acres). Over the next twenty years, most new industrial development in Riverhead is expected to occur in Enterprise Park. For these reasons, it makes sense to eliminate the industrial zoning from East Main Street altogether, replacing it with a mix of residential and commercial zoning that better reflects current uses and anticipated demand for the area.

Figure 6-8: Upper East Main Street

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Policy 6.33B: Extend the existing residential zoning right up to East Main Street, so that it fills in the gaps between the newly proposed commercial zones and protects the adjoining residential neighborhoods.

The existing commercial and industrial zoning have placed pressure on the surrounding residential neighborhoods. Industrial and commercial uses have visual and environmental impacts on their surroundings. Moreover, because so much of the industrial and commercial zoned land is used for residential purposes or lies vacant, the threat of business expansion reduced the attractiveness and investment interest in residential properties. Reduction of the industrial and business zoning and expansion of the residential zoning would help prevent commercial development from encroaching on these compact, traditional residential areas, thereby stabilizing property values. This strategy will help reinforce the residential uses and character along East Main Street.

GOALS & POLICIES FOR POLISH TOWN

Vision: The Pulaski Street retail core should be strengthened and better linked to downtown, and the surrounding residential neighborhood should be protected from commercial and industrial encroachment.

Table 6-9: Summary of Policies for Polish Town

<i>Proposed Zoning</i>	<i>Improvements and Investments</i>
• Village Center (VC) in the heart of Polish Town and along Osborne Avenue • Downtown Center (DC) in mixed use and commercial areas abutting downtown • Surrounding residential neighborhoods are rezoned Residential	• Improve crosswalks along Pulaski Street, from Griffing Avenue to Sweezy Avenue • Extend downtown streetscape improvements north along Griffing Avenue and Osborn Avenue north to Pulaski Street • Improve sidewalks across the LIRR tracks, at Roanoke Avenue, Griffing Avenue, and Osborn Avenue

Goal 6.34: Strengthen the commercial node along Pulaski Street and the surrounding residential neighborhoods.

Policy 6.34A: Concentrate Village Center development along Pulaski Street and Osborn Avenue.

Pulaski Street has many of the same characteristics as downtown and Jamesport: small, charming shops lining the sidewalk; limited parking; offices and residences above the stores. The small shopping center at the corner of Osborn and Pulaski Street stands out, because it does not fit in with traditional building fabric. On this one site, shops are set back from Osborn Street; there is a large parking field in the front yard with minimal landscaping; and

signage is reminiscent of Route 58. The Village Center (VC) zoning would protect the traditional pattern of development by requiring new buildings to follow the historical pattern.

Policy 6.34B: Protect and enhance the surrounding residential neighborhoods by rezoning them for residential use.

Despite the existing Industrial B and Business C zoning north and east of Polish Town, nearly the entire area is developed with traditional single-family and two-family homes. There are a few scattered offices and corner stores in the area, but no industrial development. The area is ill-suited for either business or industry, because the small lots are not conducive to either, and lot consolidation would be an expensive and disruptive undertaking. Route 58 and downtown are expected to absorb nearly all of the commercial demand in the area, and Enterprise Park is expected to absorb nearly all future industrial and large-scale office development over the next twenty years. It makes sense to zone the area residential, consistent with the prevailing uses, and market prospects.

Goal 6.35: Strengthen the physical connections between Polish Town and downtown.

Policy 6.35A: Create a transitional mixed-use area between the LIRR rail yard, west of Roanoke Avenue, and the residential areas north of the LIRR tracks.

The area immediately north of the LIRR tracks, between the railroad yards and Lincoln Street, has been partially converted from residential into commercial uses. A large parking lot is located in the area, and the Cornell Cooperative Extension is planning to move into an existing building on the north side of the tracks on Griffing Avenue. Because of the mixed commercial and residential uses in the area, and because of its proximity to downtown and the railroad station, a mix of uses should continue to be permitted through an expansion of the Downtown Center (DC) zoning. This mixed-use zone would create a buffer area between the downtown and the exclusively residential areas north of the tracks.

Policy 6.35B: Link Polish Town to downtown, through streetscape, sidewalk, and crosswalk improvements, as well as signs and kiosks.

While Polish Town is distinct from downtown Riverhead, linkages to downtown are important. Downtown provides a potential market for Polish Town shops and restaurants. While most tourists will be drawn to the far end of downtown, where the Aquarium is located, some of them are expected to park their cars in the vicinity of the railroad station and the court building. The physical proximity of that parking lot to Polish Town creates the potential for capturing some of those tourists. Signs and a kiosk would help inform downtown visitors as to the presence of Polish Town and could help draw some people up into the area. The kiosk should provide walking directions to Polish Town and should provide a list of shops, restaurants, and special events along Pulaski Street.

Figure 6-9: Polish Town

Back of Figure

GOALS & POLICIES FOR OTHER BUSINESS-ZONED AREAS

Goal 6.36: Reduce the potential for commercial sprawl outside downtown, Route 58, and the hamlet centers.

Policy 6.26A: 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.

The proposed rezoning of each site is demonstrated on the Proposed Land Use Plan in Chapter 2, the Land Use Element.

- ***Wading River East.*** This small commercially zoned area is found at the intersection of Hulse Landing Road and North Wading River Road. The Two by Four, a popular restaurant, is located there, but all other buildings in the district are single-family homes. The relatively low population and the competition from Route 25A and Wading River hamlet have not created a need for convenience shopping in this location. Moreover, although the Two by Four is a popular specialty destination, the remote location of the district is not conducive to supporting additional specialty restaurants or shops. If left intact, the business district would probably attract marginal retailers that could not afford to locate in more visible and accessible locations, such as non-chain gas stations and auto repair shops. This type of development would threaten the quiet residential character of the area. Because the business district serves little real need, the Town should remove the commercial zoning and rezone it for housing. The Two by Four can remain as a pre-existing non-conforming use.
- ***Roanoke.*** A small commercially zoned node is located at the intersection of Sound Avenue and Park Road, just west of the Roanoke Avenue intersection. A restaurant and a country store are found in this location, and all the remaining land is vacant. Farms and open space surround the commercial node, and small residential neighborhoods are found on the north side of Sound Avenue. Competition from nearby Route 58 has curtailed market demand for development there. As this area is the only commercially zoned area along the length of the Sound Avenue corridor, the existing commercial zoning should be retained.
- ***Laurel.*** This small commercial cluster on Route 25 near the Southold border has virtually no commercial development, and no commercial development is found on the Southold side either. Traffic along the road will eventually create pressure for auto-oriented roadside commercial development, which would be inappropriate in the rural setting. The commercial zoning should be eliminated.
- ***North of Downtown.*** Large areas north of the LIRR tracks in the downtown area are zoned for commercial and industrial development, from Polish Town east. This zoning was put into place during the 1970s, when Town leaders envisioned

downtown Riverhead as a major regional office center. Large-scale downtown office development never materialized, and areas north of downtown have remained residential in use and character, except for a few scattered offices, gas stations, and corner stores. This area should largely be rezoned for residential use, to be more consistent with current conditions and the adjacent residential areas, with a transitional mixed-use zone on the north side of the railroad station.

- ***Route 25 in Wading River/Calverton.*** The creation of the Pine Barrens reserve reduced the potential for residential development in the western part of Riverhead, consequently reducing the need for commercial land. The small, evolving hamlet center near the Fresh Pond Road intersection still has some potential for growth due to its proximity to Enterprise Park, so that particular node will remain.

7. Economic Development Element

7.1 VISION STATEMENT

With the increasing popularity of the North Fork as a tourist destination, Riverhead should develop attractions that can capture a significant portion of the emerging tourist industry in general and agro-tourism in particular. At the same time, Riverhead should continue to pursue a diverse economic base by promoting office and industrial development, agriculture, retail development, and entrepreneurial and small-business activity in appropriate locations. Economic development pursuits must be balanced with the conservation policies expressed in the other sections of this plan, particularly with regard to historic, scenic, and natural resources.

7.2 INTRODUCTION

Riverhead has a strong and diverse economic base, with significant opportunities for growth in the future. Riverhead's major growth opportunity is in the area of tourism. Over the course of the 1990s, the North Fork became a significant tourist destination for the first time. The wine country, outdoor recreation activities, the Atlantis Aquarium, Splish Splash, Tanger Mall, and other attractions started drawing a significant flow of day-trippers, weekenders, and vacationers. Riverhead can implement a wide variety of strategies to encourage travelers to spend more time and money in Town.

In addition to tourism, there is likely to be demand for additional office and industrial development. Historically, office and industrial development have been concentrated in the western parts of Long Island, closer to New York City and the densely settled suburbs of Nassau and western Suffolk counties. However, as land becomes more scarce and expensive in those areas, development pressure will leapfrog over the Central Pine Barrens region and land in western Riverhead.

There is also enormous potential for retail growth, not only in conjunction with tourism, but also in the form of "destination retail centers" like Tanger Mall. The Downtown Revitalization Strategy of August 2000 and Chapter 6, the Business Districts Element, call for tourism-oriented retail in downtown Riverhead and the Jamesport hamlet center. These places are well-suited for tourism retail, because they can build off of nearby tourist attractions, downtown having the Aquarium, various other cultural attractions, and annual summertime events, and Jamesport having an established niche of antique and crafts stores and proximity to the wine country. There is also potential for development of additional destination retail centers like Tanger Mall that draw upon a regional consumer market.

While Riverhead has the largest concentration of farm activity in the County and a high volume of farm sales, the agricultural industry has continued to be vulnerable to the depletion of land resources in the face of suburban sprawl. Chapter 3, the Agriculture Element, lays out a comprehensive strategy for farmland preservation. Provided that land resources remain available, agriculture can continue to be a strong and viable industry in the local economy. The agricultural industry is undergoing a shift toward the production of wines, organic produce, and landscaping products. These high-value product lines are helping farms remain competitive in the marketplace.

RIVERHEAD'S ASSETS

Riverhead has several major assets that can be harnessed to promote economic development. First and foremost, Riverhead is the gateway to the North Fork and is located at the terminus of the Long Island Expressway (LIE). As more and more people travel through Town bound for North Fork attractions, they can be enticed to visit attractions in Riverhead, stay in local hotels and bed-and-breakfast inns, spend money in local shops, and eat in local restaurants. Also, because Riverhead is located at the juncture of the North and South Forks, it has the

potential to draw upon the tourism markets of both forks, as well as the suburban market of western Long Island.

Another major asset is the Town's abundant land resources. Riverhead has the potential to accommodate a great deal of new commercial and residential development, even after large areas of open space are preserved. This concept leads to the third major asset — the Town's character. The Town's rural and open space reserves and historic fabric lend character to Riverhead, distinguishing it from sprawling suburban areas to the west and the built out beach communities to the south. Tourists, visitors, homebuyers, and business are attracted to Riverhead by its beautiful scenery and historic character. Degradation of those scenic and historic resources could actually diminish the Town's ability to attract business (see Chapter 5, the Scenic and Historic Resources Preservation Element).

7.3 TOURISM

As noted, the North Fork of Long Island became a popular tourist destination for the first time in the 1990s. There were several reasons for this phenomenon.

1. First, heavy summer traffic and overcrowding on the South Fork of the island caused more and more people to explore the North Fork as an alternative destination.
2. Second, people seeking less expensive summer rentals, hotel rooms, and vacation properties started looking to the North Fork.
3. Third, agro-tourism (in general) and the East End wine country (more specifically) grew in popularity.
4. Fourth, other forms of non-beach activities grew in popularity. These include antique-hunting, cultural activities, hiking, biking, horseback riding, and other forms of cultural and outdoor recreation.

As tourism activities became more diversified, the tourist season started to outgrow the summer, beginning in the springtime and spilling over into the fall and even winter. Also, people are taking fewer vacations (lasting one week or more) and making more frequent weekend and day trips.

TOURIST ATTRACTIONS

Building up the tourism industry in Riverhead will require a multi-faceted strategy. The first step is to continue to develop attractions that appeal to tourists. The Town has already pursued this goal for many years. The key to tourism development in Riverhead is to develop the types of attractions and destinations that tourists are actively seeking, based on current national and local trends. This section summarizes some of the major attractions that already existing in Town.

Downtown Attractions

Downtown Riverhead already has a number of successful cultural attractions that appeal to tourists: the Atlantis Aquarium, the Suffolk County Historical Society (museum), the Long Island Railroad Museum, the East End Arts Council, and the Leavitt Music Hall. Annual downtown events, including the Country Fair, the Polish Fair, the Blues Festival, and the Community Mosaic, have also been successful in attracting visitors. While these attractions and events have had an extremely positive impact, downtown has not reached its full potential as a tourist attraction. While continuing to develop downtown attractions, the Town should work on cultivating "market niches" oriented to tourists, so that downtown shops, services, and restaurants can better capitalize on the tourist traffic.

Long Island Wine Country

Although the first vines were planted in 1973, the East End wine country did not start attracting significant tourism traffic until the mid- to late-1990s. Following in the footsteps of Northern California's Napa Valley, the East End vineyards and wineries have developed tourist facilities and activities, such as guided tours, wine tasting, wine sales, eateries, gourmet delis, and gift shops. Many also have banquet facilities for parties, weddings, business functions, and other events. The success of wine country tourism is not just a matter of high-quality wine, it is also a matter of providing good transportation options and protecting the North Fork's rural character — two factors critical to the success of Napa Valley as a tourism destination. The small rural hamlets that dot Riverhead and Southold have a unique opportunity to reposition themselves for wine country-oriented tourism, with restaurants, specialty shopping, gourmet food stores, bed-and-breakfast inns, and events.

Other Agro-tourism

Wine country tourism falls into the more general category of agro-tourism, defined as any agricultural activity that attracts tourists who are interested in seeing, learning about, or participating in that activity, or who want to purchase fresh farm products. Some farms in Riverhead and Southold currently provide tours, allow visitors to pick-their-own produce, and sell locally grown and homemade products. One example is Woodside Farm in Jamesport, which grows blueberries, peaches, and other fruits. Tours are offered, and farm products are sold. In the future, there may be the potential for "farm experience" vacations or farm-based bed-and-breakfasts — two vacation concepts that are growing in popularity nationally and internationally.

Theme Park Attractions

Theme parks cater to children and families, one of the largest segments of the travel market. To be successful, theme parks need several essential factors: (1) activities and events that are appealing to children; (2) activities that parents feel will be rewarding for their children (i.e., educational, cultural, and/or fun); and (3) excellent access and visibility, ideally from a major

highway. Riverhead already has one of the most popular and successful theme parks on Long Island — Splish Splash. Two other popular theme parks, the Animal Farm and the Long Island Gamefarm, are located nearby in Manorville. In Enterprise Park, there is the opportunity to add additional theme park attractions. One issue to consider with theme parks is how to encourage spillover economic impacts on surrounding areas. There may be ways to entice theme park visitors to visit other parts of Town, patronizing other attractions and businesses. The Town should work with theme park operators to encourage cross-fertilization.

Race Track

The existing race track on Route 58 is a popular destination, particularly during the summer months. As one of the only race track facilities on the East End, the race track draws loyal crowds who patronize local businesses. There has been discussion of the potential for establishing a new race track at the Enterprise Park at Calverton, but no firm plans have been determined. If the new race track were built, it is unclear what would happen to the existing facility. In all likelihood, two race tracks would not be needed, meaning that if the new facility were built, the Route 58 track would be vacated and could eventually become available for redevelopment as a different use.

Active Outdoor Recreation

Parks and recreational facilities not only serve local residents, but they often attract out-of-town visitors as well. According to the Travel Industry Association of America, "adventure" travel (such as off-road mountain biking) and biking vacations are on the rise. Equestrian riding is also experiencing a resurgence in popularity. The second largest annual horse show on Long Island — the North Fork Classic — is now held in Enterprise Park.¹

Riverhead has a variety of public and private parks and recreational facilities that provide opportunities for sailing, canoeing, kayaking, fishing, hunting, swimming, bird watching, golf, tennis, horseback riding, and all sorts of team sports. As of 2001, the Town has plenty of parkland to accommodate both residents and tourists, as discussed in Chapter 11, the Parks and Recreation Element. However, the Town is lacking some types of facilities that would appeal to tourists, particularly walking, hiking, or biking trails.

Beaches

Trips to the beach are one of the most popular forms of tourism. Riverhead has five public beaches that attract numerous visitors during the summer months: Wading River Beach, Wildwood State Park, Reeves Park Beach, Iron Pier Beach, and South Jamesport Park. There

¹ Bob Liepa, "The Heart of Horse Country," *The Times Review*, <www.timesreview.com>, visited December 19, 2001.

are also numerous private beaches on the Sound and Flanders Bay. However, the primary beach destinations on the East End have traditionally been on the south shore of the island: Fire Island, West Hampton Beach, and other locations in the towns of Brookhaven, Southampton, and East Hampton. Because these beach environments are so well-known and well-tooled for beach recreation, Riverhead would have difficulty competing for beach-bound tourists. Instead, Riverhead should focus on alternate forms of tourism, as discussed in the other sections of this chapter — cultural attractions, agro-tourism, and active recreation.

Golf Courses

Golf courses have been demonstrated to attract visitors, as well as provide recreation for residents. The Town of Riverhead currently has seven (7) golf courses (135 holes) that are privately owned and open to the public: Calverton Links, Cherry Creek Golf Links (36 holes), Fox Hill Golf and Country Club, Great Rock Golf Club, Long Island National, Sandy Pond Golf Course (9-hole Par 3) and Swan Lake Golf Club; one (1) municipal course (18 holes): Indian Island Golf Course; and two (2) private clubs (36 holes): Friars Head Golf Club and Olde Vines Golf Club

OVERNIGHT ACCOMMODATIONS

Riverhead will require additional hotel space in the future, as the tourism market increases in volume. Unlike the South Fork, which caters to households with second homes spending the whole summer, the North Fork's emerging tourist industry caters more toward day-trippers and weekend travelers. These tourists rely primarily on hotel accommodations or bed-and-breakfast inns, as opposed to summer homes, or they may stay with friends or relatives. Those tourists who do look to Riverhead for seasonal accommodations are typically seeking out housing that is more affordable than what can be found on the South Fork.

- ***Hotels and Motels.*** The largest hotel in Riverhead is the Best Western, located next to Tanger Mall on Route 25. This hotel caters to a wide range of people, from tourists seeking an inexpensive alternative to the South Fork to out-of-town business travelers. The Ramada Inn benefits enormously from its visibility and easy access from the LIE. There are also several small hotels and motels in the Jamesport and Aquebogue areas, including two waterfront motels.
- ***Rental Cottages.*** There are several places in Riverhead that offer summer cottages (for example, J&S Reeves Summer Cottages in Aquebogue; Woodcliff Park and Cottages in Baiting Hollow; Moore's Cottages in Jamesport). These provide a lower-cost alternative to more expensive summer rentals on the South Fork.
- ***Bed-and-Breakfast Inns.*** A bed-and-breakfast inn is typically defined as a private residence, where the live-in owner provides overnight accommodations and a meal to a traveler. There are several bed-and-breakfast inns found throughout Riverhead. Many are found in historic Victorian houses, Arts and Crafts homes, or farmhouses, which evoke old-style domestic charm.

- ***Country Inns.*** The Riverhead Town Code defines a country inn as a commercial use of real property consisting of a building not to exceed two stories and which contains no more than 20 rooms arranged or designed to be made available as overnight accommodations for guests for a stay of no longer than a two-week rental. Accessory restaurant or tavern use of a premises shall be housed within the principal building with a total restaurant seating not to exceed six times the number of guest units and total tavern seating not to exceed one-third of the restaurant seating. In the event that a parcel is improved with a country inn, the subject property is restricted from improvement with any other permitted or specially permitted uses. Accessory uses within the country inn building are limited to recreational use, conference room, or library not to exceed 10% of the total floor area of rooms provided.
- ***Country Clubs, Resorts, and Spas.*** Country clubs, resorts, and spas facilities provide hotel rooms in combination with a variety of private recreational facilities and health-oriented activities, such as golf courses, tennis courts, swimming pools, running tracks, health clubs, marinas, or therapeutic facilities that offer massages, mineral pools, mud baths, etc. Typically, country clubs, resorts, and spas are located on a private campus, providing a private, quiet, and relaxing environment, picturesque views, and access to waterfront areas or open space. Riverhead does not currently have any resorts or spas, and although there are several golfing country clubs, they do not have overnight accommodations. Such facilities could be extremely successful in Riverhead, as they would cater to the vineyard tourists eager to enjoy a scenic, serene experience in the countryside.
- ***Banquet and Convention Facilities.*** Banquet facilities provide venues for private parties, such as weddings, and convention facilities provide space for professional meetings, events, and expositions. Banquet facilities are often provided in conjunction with hotels, resorts, spas, bed-and-breakfasts, wineries, or country clubs. Many take advantage of a picturesque or characteristic setting, with scenic views that provide a beautiful backdrop for photographs and an evocative setting for personal/family gatherings. Convention halls are sometimes provided in conjunction with hotels. The success of a convention facility is typically less dependent on scenery, but more dependent upon good access, a central location, and facilities of an adequate size.

TOURIST-ORIENTED RETAIL

As discussed in Chapter 6, the Business Districts Element, there are two locations in the Town where tourist-oriented shops, restaurants, entertainment, and events should be concentrated: downtown Riverhead and the Jamesport hamlet center. Downtown has a traditional Main Street with turn-of-the-century buildings; a waterfront park along the Peconic River; and a variety of cultural attractions, including the popular Atlantis Aquarium. Jamesport is located in the North Fork wine country, and it has a cluster of historic buildings with a row of antique stores that form a traditional hamlet center. Tanger Mall and other forms of retail are discussed in greater detail in Section 7.6.

TOURISM: GOALS & POLICIES

Goal 7.1: Continue to attract tourists by developing a wide variety of attractions throughout the Town, with particular emphasis on those attractions that appeal to weekenders and day-trippers.

Many of the policies stated throughout this Element are in support of this general goal.

Policy 7.1A: Develop a coordinated theme for tourist signage and post signs along major roadways in downtown, and in the hamlet centers.

Signs should convey a coordinated "Riverhead theme," with images, words, colors, and/or lettering that reflect those characteristics that contribute to the Town's identity (e.g., the Peconic waterfront, the agricultural belt, and wine country). This unified theme would convey the message that Riverhead has a package of attractions that can be enjoyed over the course of a visit. Roadside signage would help direct visitors to their destinations. Signs in downtown and the hamlet centers could be more elaborate, providing a directory of local shops, restaurants, and attractions, as well as transit information and descriptions of historical sites and natural features.

Goal 7.2: Promote cultural attractions in downtown Riverhead.

The Downtown Revitalization Strategy and Chapter 6, the Business District Element, contain many strategies and policies in support of this goal.

Policy 7.2A: Support the development and growth of cultural attractions in downtown.

Cultural attractions include not only quasi-public facilities like museums, aquariums, and theaters, but also smaller, private facilities like art galleries and entertainment venues (i.e., piano bars, jazz clubs).

Policy 7.2B: Cluster multiple cultural attractions along Main Street in downtown.

With a mix of different cultural attractions, downtown can appeal to a wider range of tourists, and each cultural anchor can build off the success of the other. That is, with some creative marketing, visitors can be encouraged to circulate throughout downtown on foot, visiting multiple destinations and patronizing shops and restaurants on the way.

Policy 7.2C: Encourage coordinated marketing and programming for cultural attractions.

This can encourage visitors to extend their stay. During longer visits, weekenders and daytrippers are more likely to spend money in local shops and restaurants. Coordinated marketing could include ticket packaging (such as a unified one-day pass) or excursion trips

through the Long Island Railroad. Programming involves the coordination of "theme" events between different venues. For instance, picking up on the Aquarium's aquatic theme, the Historical Society could offer a whaling exhibit or the Arts Council could host an exhibit on maritime-related artwork.

Goal 7.3: Promote the growth of the wine industry and agro-tourism in Riverhead.

Policy 7.3A: Encourage vineyards and wineries to develop facilities, amenities, and attractions that cater to tourists.

Such amenities include wine tasting, tours, gift shops, banquet facilities, eateries, and related parking (for cars and tour buses). The Town's zoning provisions need to be flexible enough to allow such uses. Nevertheless, the size of these facilities should be limited, in order to allow some beneficial economic spill-over to the nearby hamlet centers. This could be achieved by allowing such uses to be accessory in nature and by limiting the number of seats per square foot of total floor area for eateries. Businesses in hamlet centers should work together to market themselves to vineyard-bound tourists (see Chapter 6, the Business Districts Element).

Policy 7.3B: Work with the Metropolitan Transportation Authority to explore the feasibility of using the Long Island Railroad tracks and equipment for "wine train" excursions.

In Northern California's Napa Valley, the wine train concept has been a great success. Visitors can park at the south entrance of the valley, buy a day pass for the train, and hop on and off the train, which stops in front of individual wineries. The wine train is particularly attractive for visitors who are interested in wine tasting but do not want to risk driving with elevated blood alcohol levels or bother having a designated driver. However, unlike Napa, the train line on the East End does not run parallel to the road that provides access to the vineyards. A wine train excursion on the East End would need to be combined with trolley services that would connect people from train stations to wineries.

The current Engine 39 project would restore a vintage LIRR locomotive and carriages and would run a wine/dine train from the Riverhead Station to the Greenport Station with a return. This concept would be greatly enhanced with the re-construction of the old Jamesport Station, which would provide a connection to trolleys and/or buses touring the wineries and vineyards on the North Fork.

Policy 7.3C: Encourage private bus and limousine operators to offer "package" excursion trips to the wine country from East End hotels and hamlet centers, as well as tourist-oriented hotels in New York City, Connecticut, or Rhode Island.

Policy 7.3D: In addition to the vineyards and wineries, promote the growth of other forms of agro-tourism.

Town zoning policies should be flexible enough to allow agro-tourism uses on active farms. At the same time, performance standards can be used to limit undue impacts on nearby residential areas.

Policy 7.3E: Explore the feasibility of developing "farm experience" vacations and farm-based bed-and-breakfast accommodations in Riverhead.

Goal 7.4: Promote theme parks and commercial recreation facilities in Enterprise Park and in the area between Enterprise Park and the Long Island Expressway.

These locations take advantage of the excellent accessibility provided by the LIE.

Policy 7.4A: Continue to pursue the development of an additional theme park in Riverhead, ideally in Enterprise Park.

Policy 7.4B: Work with theme park operators to develop a multi-faceted marketing strategy to encourage theme park visitors to explore other parts of Riverhead.

Theme park tourists can be encouraged to explore other parts of Town for shopping or eating through the following strategies:

- Combined multi-day admission between theme parks and the Atlantis Aquarium. The Aquarium is a unique attraction that is a hybrid between a traditional cultural/educational attraction and a theme park. It has the same basic market as most theme parks — children and their families — and thus, cross-fertilization between such attractions is a possibility. Splish Splash and the Aquarium have an excellent potential for combined marketing, since they share the same "water" theme.
- Flexible parking rules and admission tickets at theme parks, such that people can leave midday for lunch or shopping and then return later without having to pay again.
- Supervised children's events and programs, such that parents can drop off their children for a morning or afternoon at the theme park, and then visit downtown, Tanger Mall, or other destinations on their own.
- Distribution of coupons and advertisements for downtown and Enterprise Park attractions at theme park entrances, such that visitors become aware of other recreational opportunities in Riverhead. This would encourage people to explore other locations in Riverhead later in the day or on another trip.

Goal 7.5: Promote the establishment of equestrian facilities throughout Riverhead.

Policy 7.5A: Facilitate the development of a state-of-the-art equestrian show facility and bridle trails in Enterprise Park.

Equestrian show facilities can have beneficial economic impacts, as evidenced on the South Fork of the island. Unlike some other sporting or entertainment venues, equestrian shows occur year-round, and patrons spend several days at a time in the host community, staying in local hotels and patronizing local restaurants and shops. There is more than enough room to accommodate such a facility in Enterprise Park and still fit all the other proposed uses for the site. Perhaps, the equestrian facility could be linked to the proposed theme park and family entertainment uses on the site by providing horse-riding lessons.

Building off the equestrian show facility, bridle trails could be built throughout Enterprise Park. Not only would this provide an additional amenity for equestrian enthusiasts, but the horses would also add a unique sense of identity to the park. These bridle trails could be connected to the Townwide greenway system through the Pine Barrens Core Barrens Area. (see Chapter 11, the Parks and Recreation Element).

Policy 7.5B: Encourage the development of horse barns, equestrian clubs, and riding academies throughout Riverhead.

Ensure that the Town's zoning provisions allow for such uses in agricultural areas.

Goal 7.6: Expand and improve parks and recreational facilities in Riverhead, and make them accessible to tourists by fee.

This goal generally echoes the goals and policies expressed in Chapter 11, the Parks and Community Facilities Element. The policies herein focus on the idea of making Town parks tourist-friendly. It would behoove the Town to establish an appropriate rate schedule for residents and visitors.

Policy 7.6A: Develop a greenway system with walking trails, and potentially biking and equestrian trails as well, all of which could be used by both residents and tourists.

This policy is expressed in greater detail in Chapter 11, the Parks and Recreation Element.

Policy 7.6B: Develop a marketing campaign intended to draw attention to Riverhead's outdoor recreational opportunities.

In order to attract additional tourists to Riverhead's parks and recreational facilities, the Town must not only provide the appropriate facilities, but also advertise their availability. The Town should work with business leaders, business organizations, and the Chamber of

Commerce on several initiatives to market Riverhead as a good place for pursuing active recreational activities:

- Often, when considering potential vacation destinations, prospective tourists explore their options online or in travel guides. One advertising strategy is to provide web sites and publishers with pre-prepared information on Riverhead's recreational opportunities.
- Another option is to prepare brochures that are made available in restaurant lobbies, hotel lobbies, concierge desks, and other similar locations in both Riverhead and other East End towns. Such information could also be made available in retail stores that cater to outdoor recreation, such as bike shops, kayak rental outlets, camping stores, etc. These locations would target people who are already on the East End for a weekend or vacation, as well as people interested in recreational activities.

Policy 7.6C: Ensure that parks, recreational facilities, and greenways can be easily found and accessed by out-of-town visitors.

The Town should work with State and County officials to install directional signs to parks and greenway entrances. Information signs should also be placed at the entrances to parks and greenways. Convenient, safe parking should be available at those entrances as well.

Policy 7.6D: Provide essential visitor amenities near the entrances of parks, recreational sites, and greenways.

In appropriate locations (ideally, near park entrances), the Town should allow parks to have concession stands that provide beverages, snacks, essential supplies like batteries, and even equipment rental, such as bicycles and kayaks. Also, public restrooms should be available in certain locations.

Policy 7.6E: Concentrate commercial recreation facilities in Enterprise Park and the area located between Enterprise Park and the terminus of the Long Island Expressway.

These include golf courses, family entertainment, facilities providing sports instruction, and so on.

Goal 7.7: Encourage development of additional overnight accommodations in the appropriate locations, subject to design, development, and environmental standards.

In the future, additional hotel space is likely to be needed in Riverhead, due to increasing tourism. New hotel space should be provided in locations and designed in a manner that are appealing to tourists. Hotels should be permitted in a variety of different locations, in order to tap into different segments of the accommodations market.

Policy 7.7A: Allow hotel and convention center development within Enterprise Park at Calverton and in areas adjacent to the Long Island Expressway.

These locations are attractive because they have convenient access and a central location. They appeal to business travelers, people needing to stay in a convenient, central location, and tourists seeking out an affordable alternative to other accommodation options.

Policy 7.7B: Encourage cottage accommodations, bed-and-breakfast accommodations, and banquet facilities in downtown and the hamlet centers.

Summer cottages, bed-and-breakfast accommodations, and banquet facilities can fit into an environment like downtown Riverhead or Jamesport, where there are residences, restaurants, entertainment venues, and shopping, and where there are opportunities for visitors to circulate on foot.

Policy 7.7C: Encourage cottage accommodations, bed-and-breakfast accommodations, motels, country clubs, resorts, spas, and banquet facilities in picturesque settings throughout Town.

Many tourists prefer to stay in places that are picturesque, quiet, quaint, or off-the-beaten-path. Therefore, some types of accommodations should be permitted adjacent to waterfront areas, open space preserves, or popular recreational attractions like beaches, marinas, hiking trails, equestrian facilities. Certain types of accommodations could be permitted in the midst of residential areas.

Some of the older, smaller, historic homes along Flanders Bay or Long Island Sound could be converted into rental cottages or bed-and-breakfasts. Also, country inns can continue to be permitted, provided that they are smaller in size and compatible with surrounding rural and residential areas in their design. However, motel, country club, resort, spa, and banquet facilities should be avoided in residential neighborhoods, because they could be incompatible with the off-the-beaten-path quality of those areas. Such facilities should be located only in designated tourism/resort areas, as discussed in Chapter 2, the Land Use Element. Hotel and convention center development should not be located in the rural and residential areas of the Town, between business districts.

Policy 7.7D: Ensure that overnight accommodations located in residential, rural, open space, and waterfront locations are environmentally and aesthetically compatible with their surroundings.

Currently, the Town's zoning provisions for "country inns" provide for moderate-size hotel development in areas throughout Riverhead. The Town should implement reductions in the 50 room maximum for country inns, as well as design standards and guidelines for such hotels, so that they fit into the neighboring residential, open space, and rural areas. The Riverhead Planning Board has established policy in this regard and a public hearing has been

held upon the legislation. Buffering and landscaping standards should be considered, as one way to reduce visual impacts. Design standards should limit total floor area and impervious coverage, establish a maximum building size, and impose design standards for façades, building massing, and parking lots. Site plan review and architectural design review should also be required.

In addition, the Town should ensure that accommodations are developed in such a way that they do not result in unnecessary clearing, excessive runoff or erosion, excessive traffic impacts on residential areas, or other potentially harmful environmental impacts. Adverse impacts due to site lighting and illumination are notable in this regard. Wastewater disposal methods are reviewed and approved by the County, but the Town should consult with the County to ensure that appropriate standards are applied.

Pursuant to Resolution 456 dated May 6, 2003, the Riverhead Town Board has revised the definition of Country Inn, in order to ensure the compatibility of the use with the rural character of the Town of Riverhead. The revision reduces the allowable number of rooms from fifty (50) to twenty (20) rooms, and further regulates the intensity of accessory restaurant and tavern uses.

Goal 7.8: Building off their historic character and unique setting, concentrate tourism-oriented retail in downtown Riverhead and Jamesport.

Policy 7.8A: In downtown Riverhead, attract tourist-oriented shops and restaurants that build off of the cultural attractions there.

Downtown has an eclectic mix of shops and eateries, meeting the needs of a number of different submarkets, including local residents and employees, tourists and other visitors, and people conducting business at Town Hall, the Courthouse, or one of the small private offices located in downtown. Downtown can and should continue to serve these groups, but at the same time, there is room to accommodate additional tourist-oriented shops and eateries that build off of the popularity of the Atlantis Aquarium and other downtown attractions. The Downtown Revitalization Strategy makes a variety of specific recommendations for tourist-oriented retail:

- Specialty food markets and sit-down restaurants (with outdoor dining) that provide tourists with options for lunch and dinner.
- Family-oriented shops and restaurants that cater to families. Exhibits at the Aquarium are primarily directed toward young children.
- Antique, crafts, and furniture stores, as well as art galleries, that appeal to "cultural tourists," such as those that may be visiting the Suffolk County Historical Museum, the Long Island Railroad Museum, the East End Arts Council, the Vail-Levitt Music Hall, or the Suffolk Theater (if restored). Such stores also appeal to adults who may be in the process of settling into a new home or a vacation home.

- Stores selling recorded music (particularly music that may be hard to find in a mass-market retail store, for example), sheet music, or musical instruments. These stores would benefit from the tourist traffic created by the annual Blues Festival and the summertime concert series.

Policy 7.8B: Implement strategies that strive to maintain the historic charm and character of downtown, promote pedestrian circulation, and enhance the Peconic River waterfront.

Downtown Riverhead has a unique and attractive building stock dating from the late 19th to the mid 20th centuries. Buildings were placed close to the sidewalk and were designed in a pedestrian-oriented (rather than an auto-oriented) format. Many buildings have attractive architectural details. Tourists are known to enjoy traveling to such historic places. Preserving and enhancing these characteristics can help promote downtown Riverhead as a tourist destination.

The Downtown Revitalization Strategy recommends improving the waterfront park, promoting a compact, fine-grain, mixed-use pattern of development, preserving historic sites, requiring traditional design formats, and giving preference to pedestrian and bicycle circulation through sidewalk and street improvements. All of these strategies would support the overall economic development strategy to promote tourism in downtown.

Policy 7.8C: In Jamesport, attract tourist-oriented shops and restaurants that build off of wine country tourism and its established niche of antique stores.

As discussed in Chapter 6, the Business Districts Element, Jamesport has a cluster of antique stores and small eateries that currently attract locals and some out-of-town visitors. However, because of its small size, deferred maintenance, and lack of promotion, Jamesport has yet to attract significant tourist traffic. In order for the hamlet center to meet its full business potential, the Town should build up the hamlet's specialty shopping and restaurant niche, while limiting auto-oriented and convenience retail. The reconstruction of the Jamesport LIRR station would be an important improvement in this regard. Building on the established niche of antique stores, Jamesport should provide space for additional furnishings stores, as well as art galleries, arts and crafts shops, sit-down restaurants, cafes, specialty food stores, wine shops, and other similar businesses.

Policy 7.8D: In Jamesport, add a variety of amenities and implement a number of physical improvements along the main shopping street, in order to encourage strolling and browsing.

A variety of public amenities could be added to Jamesport in order to further increase tourist interest. One idea is to consider rebuilding the Jamesport railroad station and re-introducing train service, in combination with the "wine train" concept. Another concept is to establish a pedestrian and bicycle trail along South Jamesport Avenue from the historic center to Jamesport Beach. In this way, Jamesport could become a pit stop for touring bicyclists. Also,

a tourist information kiosk should be provided, such that Jamesport is marketed as the gateway into wine country, where tourists can make their first stop and plan out their day over coffee or an early lunch.

In addition, investment is needed to improve the physical quality of the Jamesport environment. Chapter 6, the Business Districts Element, calls for a wide variety of strategies that can make Jamesport more attractive to tourists, including pedestrian-oriented sidewalk and street improvements; traditional design standards for new development; and façade improvements and landscaping.

7.4 OFFICE AND INDUSTRY

The service sector² in Suffolk County economy generated roughly \$18.8 billion in sales in 1998, representing 26 percent of the County economy. Throughout the 1990s, the major locus of office growth was in western Suffolk County, particularly in Brookhaven, Huntington, and Islip. Riverhead, by way of comparison, had relatively little office growth during this period. But in the future, demand for office and industrial space in Riverhead is likely to grow, for several of reasons.

- First, as land becomes more scarce and expensive in Towns to the west, more businesses will look to Riverhead for space.
- Second, although Riverhead is about 15 to 20 miles east of the more developed areas of the County, the Central Pine Barrens region restricts development for much of that stretch. This means that despite Riverhead's distance from existing business centers, it is the next major location available for significant office and industrial growth.
- Third, Riverhead has a great deal of developable land available for office and industrial development, particularly in Enterprise Park and adjacent areas.
- Fourth, the Long Island Expressway (LIE) provides excellent accessibility to the Town's major office and industrial locations.

Based on recent trends, Riverhead is likely to experience a greater demand for office space than industrial space. However, current economic outlooks remain uncertain. Riverhead's land use regulations should be flexible enough to accommodate both office and industrial development, allowing the market to decide how much of each will ultimately be built.

2 Includes sectors with NAICS codes 60-67, 73, 80, 81, 87. There are depository institutions; nondepository credit institutions; security/commodity brokers and services; insurance carriers; insurance agents, brokers, and service; real estate; holding and other investment offices; business services, health services, legal services; and engineering, accounting, and related services.

OFFICE AND INDUSTRY: GOALS AND POLICIES

Goal 7.9: Concentrate major office and industrial development in Enterprise Park.

Enterprise Park is uniquely suited for office and industrial development, because of its central location and convenient access from the LIE. Also, the site is already outfitted with some of the essential infrastructure necessary for large-scale development, including sewage treatment capacity. Because most of the site is publicly owned, the Town has a unique opportunity to effectuate appropriate development. The Town can hold onto the remaining parts of the site until development pressures are ripe and the best development proposal is put forward. The Town is under no pressure or obligation to sell the site in the short run, as there is no shortage of land elsewhere in Town for private development. As parcels are ultimately conveyed to private developers, the Town can use its status as the original owner to negotiate for specific improvements or design requirements.

Policy 7.9A: Continue to implement the Reuse Plan for the Calverton Enterprise Park site, or any amendments thereto.

The U.S. Government has the authority to sell or otherwise dispose of publicly owned properties, for reuse by private parties, even if that property had originally been condemned for a public use. The Grumman site was used for a legitimate public purpose for a long period of time, and the closure of the site was part of a nationwide initiative to close military bases under the administration of President Clinton. The federal government worked with the Town, which has land use regulatory authority, to develop a reuse plan for the site. The plan was completed in March 1996 and was prepared jointly by the Town's Community Development Agency and the Calverton Air Facility Joint Planning and Redevelopment Commission.

Policy 7.9B: Continue working with private developers, surrounding residents, and surrounding property owners to ensure that development at Enterprise Park is compatible with the scale and character of surrounding areas.

Development in Enterprise Park can be made to fit into the Town's rural landscape. As a single compound with an enormous land area, the site can be surrounded with wide setbacks and densely vegetated buffers that screen office and industrial development and their parking lots from the surrounding residential and rural areas.

Goal 7.10: Strengthen the industrial zoning outside the Enterprise Park to be more responsive to market demands and surrounding uses.

Policy 7.10A: Allow commercial recreation uses in some of the industrial area located between Enterprise Park and the Long Island Expressway.

The industrially zoned areas located between the LIE and the Enterprise Park should continue to allow moderate-size industrial and warehouse development. This provides an ideal location for businesses that would not necessarily want to be located in Enterprise Park, such as contractor's offices and other industries in which businesses tend to have less than 40 employees. Businesses of such sizes are well-suited to the smaller lots permitted in that area.

At the same time, the Town should also permit and encourage commercial recreational uses in some of those areas. This provides an alternative in case industrial development does not materialize or is smaller in quantity than anticipated.

Policy 7.10B: Maintain a cluster of light industrial uses and zoning adjacent to the Route 25 exit of the Long Island Expressway, on the northwest side of the expressway.

There is an existing cluster of moderate-size industrial uses in this area, as well as the Splish Splash amusement park. Many of the businesses located in this area provide a variety of important services, serving not only residents, but also Riverhead businesses.

Policy 7.10C: Maintain a cluster of light industrial uses and zoning in the area that lies roughly between Pulaski Street, Mill Road, and West Main Street, west of downtown.

There is an existing cluster of moderate-size industrial uses in this area. The site is ideally situated between Route 58 and downtown and provides business support services for both areas.

Policy 7.10D: In the eastern part of Riverhead, rezone the following four existing industrial/utility sites:

- (1) Site on Edgar Avenue, (including the existing Crescent Duck Farm);***
- (2) Site on West Lane (the existing industrial site);***
- (3) Site on Sound Shore Road (the existing Tosco utility site); and***
- (4) Site on Long Island Sound (KeySpan Property).***

These sites are surrounded by residential and rural uses, and conversion to more compatible uses would be appropriate in the long-term. The Tosco site is an industrial use that was

constructed before Riverhead had adopted land use regulations. The Crescent Duck Farm is currently zoned for industrial use, as many duck farms were zoned in the past, but its primary function is that of an agricultural site. The KeySpan property is unimproved and is an important site for agriculture and recreational use. It is important to note that subsequent to zoning map amendment, the Crescent Farm, Tosco, and a former Photocircuits site would enjoy non-conforming status and continue to operate.

Policy 7.10E: Continue to allow and encourage a mix of office and industrial development in the industrial zones.

Policy 7.10F: Eliminate industrial zoning in locations along Route 58 and Upper East Main Street , as well as in the residential areas immediately north of downtown.

As discussed in Chapter 6, the Business Districts Element, these areas are not well-suited to industrial development. Much of the area along Upper East Main Street and north of downtown area primarily residential in use, and industrial development would generally be incompatible. Much of the area along Route 58 is under pressure for commercial development and is ideally suited for retail.

Goal 7.11: Ensure that office and industrial development fits into the Town's rural character.

While continuing to allow office and industrial development in appropriate locations, the Town must balance development with environmental conservation, open space preservation, and good site planning. Riverhead's zoning regulations can be strengthened in terms of environmental protection.

Policy 7.11A: Increase the minimum lot size for development in the industrial zones, in order to reserve those areas for large-scale development and to require greater open space preservation.

Currently, the zoning provisions require a minimum lot size of 40,000 square feet in the Industrial A zone and requires no minimum lot size for the Industrial B zone. In order to accommodate large-scale office and industrial development (typically 50,000 square feet in size or more), a minimum lot size of 10 to 15 acres would be needed. The Industrial/Recreational zone can have smaller lot sizes for industrial development, but should still be larger than the current requirement in order to provide more open space on these lots. About one-acre to two-acre lots might be appropriate.

Policy 7.11B: Reduce the maximum floor area ratio (FAR) for industrial and office development in the industrial zones in order to provide more open space and landscaping, and other appropriate amenities.

Policy 7.11C: Establish environmental performance standards for development in the industrial zones.

Industrial and office development should be required to meet performance standards for noise, emissions, effluent, glare, and other environmental factors. Performance standards are flexible, in that they allow a wide variety of industrial uses, provided that the off-site impacts can be limited or contained.

Policy 7.11D: Establish more stringent requirements for open space preservation, setbacks, buffers, and landscaping on individual lots in the industrial zones.

Preserved open space areas could continue to be used for agriculture, through rental agreements between the office/industrial proprietor and local farmers, or they can be maintained as woodlands or meadows, providing habitat areas for plants and animals. Wide setbacks and densely vegetated buffers should also be provided. Riverhead's relatively flat landscape makes such buffers absolutely critical, because without them, there would be nothing to prevent new office or industrial buildings from being seen from miles away, ruining the Town's scenic quality. Parking lots in these areas should also be subject to stringent landscaping standards.

Policy 7.11E: Maintain open space preserves in Enterprise Park, as well as any site in an industrial zone that is subject to subdivision.

Policy 7.11F: Provide wide setbacks and landscaped buffers around the perimeter of Enterprise Park, as well as any site in an industrial zone that is subject to subdivision.

This policy is consistent with the Calverton NWIRP reuse plan.

Policy 7.11G: Adopt design guidelines for office and industrial development in the industrial zones, as well as roadways and parking lots in those areas.

This policy is intended to encourage site planning, building design, and parking lot design that is both viable for the marketplace, aesthetically attractive, and compatible with the Town's character. Roadways and parking lots should be designed not just with automobile circulation in mind, but also pedestrian, bicycle, and bus circulation.

Policy 7.11H: Consider requiring review by the Town's Architectural Review Board of all newly proposed development in Enterprise Park.

This would help ensure high-quality design. Review standards and guidelines specific to Enterprise Park should be developed and used as the basis for review.

Goal 7.12: Concentrate moderate- and small-scale professional offices in proximity to residential areas.

Policy 7.12A: As discussed in Chapter 6, the Business Districts Element, concentrate small-scale professional office development in downtown Riverhead and in the hamlet centers.

Small-scale professional office development should be discouraged in Enterprise Park, and in the industrial areas between Enterprise Park and the Long Island Expressway. These areas, as discussed, should be reserved for larger-scale development.

Policy 7.12B: As discussed in Chapter 6, the Business Districts Element, allow moderate-scale professional office development along Route 58, along Route 25A in the Wading River area, and along Upper East Main Street.

Through the CRC zone, moderate-size office campuses can be established in these areas.

7.5 AGRICULTURE

As discussed in Chapter 2, the Agriculture Element, farming plays an important role in the economy of the Town and the County. With one third of the County's remaining farmland located in Riverhead, the Town is still very much the center of the regional agricultural industry. Important agricultural products in the County include: nursery and greenhouse products, potatoes, rye, cauliflower, broccoli, pumpkins, and spinach. Also, as noted, a growing part of Suffolk County's agricultural economy is the wine industry.

AGRICULTURE: GOALS AND POLICIES

Goal 7.13: Preserve agricultural land.

The viability of the agricultural industry in Riverhead relies upon the availability of farmland. Chapter 2, the Agricultural Element, includes a variety of strategies for farmland preservation. These strategies are reaffirmed through the following policies.

Policy 7.13A: Implement the provisions of the Agriculture Element that strengthen the Town's Transfer of Development Rights (TDR) program and encourage cluster development in the APZ.

Policy 7.13B: Work more aggressively toward the purchase of conservation easements on farmland in Riverhead and encourage State and County agencies, foundations, and local non-profit organizations to do the same.

Goal 7.14: Provide farmers with tools, incentives, and protections to keep farming.

Policy 7.14A: Ensure that the Town's zoning provisions continue to allow diverse agricultural operations and facilities, as well as agro-tourism facilities and equestrian facilities.

Policy 7.14B: Allow accessory units in accessory structures within the Agricultural Protection Zone (APZ), so as to allow farmers to derive rental income from underutilized structures.

Cluster subdivision within the APZ will result in large agricultural lots with a right to construct a single family residence or homestead. These agricultural lots should be provided the right to construct an accessory single family unit, in order to provide additional housing stock for small families or agricultural worker housing. In this regard, the principle structure shall be owner occupied with a minimum lot size of five (5) acres. In the event that the accessory unit is to house agricultural workers, the workers must work on the premises.

Policy 7.14C: Work with the State's Department of Agriculture, the Cooperative Extension Service, and/or the Long Island Farm Bureau to provide farmers with technical assistance to convert their crops to agricultural product lines with expanding demand, such as organic foods, grapes, wine, pumpkins, and nurseries.

There may be additional products as well, including more traditional products like potatoes, that may continue to be commercially successful. The Town should continue to stay abreast of evolving trends in the local agricultural industry.

Policy 7.14D: Work with the State's Department of Agriculture, the Cooperative Extension Service, and/or the Long Island Farm Bureau to develop a program in community-supported agriculture, wherein residents make a commitment to purchase a certain amount of produce or other products during a given year from local farms.

Policy 7.14E: Work with the Long Island Farm Bureau to match prospective farmers with available farmland.

Policy 7.14F: Work with the New York State Department of Agriculture's "Grow New York" program to implement agricultural economic development strategies in Riverhead.

Grow New York makes grant funding available for capital and technological improvements on farms, as well as marketing programs to increased demand for local farm products.

Policy 7.14G: Encourage farmers to explore agro-tourism as means of supplementing farm income.

Policy 7.14H: Create greater opportunities for the local sale of farm products through the creation of improved regular farmers' markets in downtown Riverhead and new seasonal farmers markets at the western end of Route 58.

See discussion in Chapter 3—Agricultural Element.

Policy 7.14I: Encourage farmers to take advantage of the State's Agricultural Environmental Management Initiative, which offers grant funding to farms to help farmers come into compliance with environmental regulations, while improving productivity and neighbor relations.

Policy 7.14J: Strengthen the Town's Right to Farm ordinance, by:

- ***Requiring any new development or subdivision within 500 feet of agricultural land, agricultural operations, or agricultural processing facilities to adopt a deed restriction that recognizes the presence of farm activity and obligates future residents to accept the related inconvenience or discomfort as normal and necessary.***
- ***Requiring a signature by each property transferee, such that the transferee acknowledges and agrees to the "right to farm" provision***

Agricultural sites actually have a diversity of uses and activities (i.e., production and storage facilities, temporary housing for seasonal shelters, frequent truck activity, noise from tractors and other machinery, odor from farm animals), some of which may be perceived as nuisances by the residents of new subdivisions. It is not uncommon for the residents of new rural-area subdivisions to complain about these "nuisance" activities and eventually take legal action to have those activities halted. Such actions can be financially devastating to farmers and can accelerate the loss of agricultural activity and farmland. The Town already has adopted a right-to-farm ordinance that is intended to protect existing farmers from such "nuisance" suits, but the ordinance can be strengthened.

Policy 7.14K: Require additional setbacks and buffers for any new development or subdivision located adjacent to agricultural sites.

In the revision of clustered subdivisions within the APZ, the Planning Board should recognize the inherent conflicts between residential and agricultural uses and provide adequate buffer yards and planting to minimize nuisances. A specification for a standard vegetated buffer or hedgerow should be devised.

7.6 RETAIL

As discussed in Chapter 6, the Business Districts Element, retail is one of the largest sectors of the Riverhead economy. As its market base, Riverhead retailers not only rely on local residents and employees, but also tap into the market potential of tourists and other visitors. In 1998, Riverhead residents spent approximately \$138 million in non-gasoline products. However, in the same year, Riverhead's stores had retail sales in excess of \$310 million, far surpassing the expenditure of the residents alone. Seasonal residents, tourist populations, and residents of other nearby towns are the primary sources of the higher-than-expected retail sales figures.

In the future, Riverhead must continue to meet the shopping needs of both residents and visitors, in order to maintain the strength of the retail sector. Chapter 6, the Business Districts Element, provides a comprehensive strategy for strengthening the market draw of Riverhead's various business districts. It calls for convenience and excursion shopping along Route 58 and Route 25A and specialty shopping, sit-down restaurants, and entertainment in downtown and Jamesport. Small market niches are also to be developed for each of the hamlet centers.

In each business district, future retail growth should be coupled with policies to improve the character of the built environment (landscaping, parking lots, streetscapes, building design, signs), and provisions to improve access and circulation. In downtown and the hamlet centers, an emphasis is placed on creating an attractive pedestrian environment that promotes walking and window shopping.

DESTINATION RETAIL

Some retail establishments are so large and so desirable, that they function as destinations in and of themselves. That is, people take day-long or half-day excursions solely for the purpose of shopping at that particular location. Tanger Mall is just such a destination. It provides a large selection of brand-name, discount products, and it is located adjacent to the last exit of the LIE, providing easy access from points west. Due to its location at the end of the expressway, as well as the availability of large land parcels, the western end of Route 58 is ideally situated for destination retail.

RETAIL: GOALS AND POLICIES

Goal 7.15: Concentrate convenience retail on Route 58 and in the hamlet centers, and concentrate destination retail on the western end of Route, near the Long Island Expressway.

Policy 7.15A: Implement the provisions of Chapter 6, the Business Districts Element, regarding commercial zoning along the Route 58 corridor and in the hamlet centers.

As discussed in Section 7.3, tourist-oriented specialty shops and restaurants should be focused in downtown Riverhead and the Jamesport hamlet center. Concentrating convenience shopping along Route 58 and the hamlet centers ensures that everyday products and services are made available to residents in central locations. Destination retail is well-suited to the western end of Route 58, where the proximity to the LIE can draw a regional clientele.

Goal 7.16: Limit commercial sprawl and improve the aesthetic quality of the Town's business districts.

Policy 7.16A: Reduce commercial zoning in areas with underdeveloped commercial zoning, particularly in Roanoke, Laurel, Calverton West, Calverton East, Wading River East, and north of downtown.

This is intended to reduce the proliferation of commercial uses along rural corridors, detracting from scenic views.

Policy 7.16B: Impose more stringent standards for building design, parking lot design, signage, landscaping, and open space in all commercial zones.

Aesthetic improvement such as these can bolster the attractiveness of the business districts, improving the ability of stores to attract and retain customers.

7.7 HOME OCCUPATIONS AND BUSINESSES

Home occupations and home businesses provide opportunities for entrepreneurial activity in Riverhead. An entrepreneur starting his or her own business, who may not have abundant start-up resources, can operate the business out of the home on a temporary basis until the business gets underway. Similarly, if flexible live-work arrangements are permitted, someone who may be spending the summer or other parts of the year on the East End has the opportunity to work from home, rather than enduring a long daily commute. With the dawn of the high-speed telecommunications and the internet, workers can easily work from home and still communicate closely with their offices throughout the course of the day.

However, some restrictions on home occupations and home businesses are necessary and appropriate, in order to prevent impacts on adjacent residences. Home occupations (a home office or workshop used only by residents living on the premises) would not typically have off-site impacts, but home businesses could generate noise or visual nuisances that are inappropriate in a residential area. For example, while a computer programmer could set up a home office with virtually no impact on the neighborhood, a plumbing contractor working out of home would have greater impacts. Contractors require indoor and outdoor storage for materials and equipment, and their operations are often associated with truck activity.

Similarly, artist or artisan space (i.e., a cabinet-maker's workshop) may involve off-site impacts like noise or fumes that ought to be regulated.

HOME OCCUPATIONS AND BUSINESSES: GOALS AND POLICIES

Goal 7.17: Maintain the ability of residents to establish home occupations in all residential areas.

Policy 7.17A: Revise zoning provisions to permit home occupations in all residence zones throughout the Town.

Currently, the zoning provisions allow home occupations as a permitted accessory use in the Agriculture, Residence B, Residence C, and Residence D districts. The zoning regulations should be amended in order to allow a home occupation anywhere that a residential use is permitted. During CAC meetings, some participants expressed concern that allowing home occupations could result in an increased level of residential development. It is unlikely that this would happen. Riverhead would not be unique among towns in allowing home businesses, so it is unlikely that a person would seek a home in Riverhead solely for the purpose of being able to set up a home business. Housing demand is more strongly influenced by other factors, such as housing cost, property taxes, the quality of the local schools, location relative to highways and transit, and location relative to place of work.

Policy 7.17B: Modify the definition of “Home Occupation” to address the following at a minimum:

- ***Prohibit outdoor storage;***
- ***Prohibit retail sales;***
- ***Limit the size of the home occupation, relative to the size of the residential use;***
- ***Limit hours of operation and hours of deliveries or shipments;***
- ***Require that no additions or accessory structures be built for the purpose of accommodating the home occupation;***
- ***Prohibit signs related to the home occupation;***
- ***Limit on-site parking to what is necessary for the residential use;***
- ***Limit the area of impervious surfaces of residential lots for home occupations;***
- ***Limit the weight of vehicles that are parked upon residential lots for home occupations;***
- ***Require that the only people working on the home occupation be residents of the housing unit in which the home occupation is located.***

To enforce these requirements, the Town can consider subjecting home occupations to the special permit review process, or some other appropriate review process.

Policy 7.17C: Require home occupations to comply with performance standards for noise, odor, glare, and other environmental impacts.

Goal 7.18: Allow residents to set up home businesses in residential areas, provided that adequate space is available and that the business can be compatible with the neighborhood.

Policy 7.18A: Revise zoning provisions to permit home businesses on single-family residential lots of 40,000 square feet or more in size.

Smaller lots or lots in clustered subdivisions would not be of adequate size to accommodate home businesses, with their parking and storage needs, as well as their potential off-site impacts.

8. Housing Element

8.1 VISION STATEMENT

As development pressures continue to increase, the Town should promote the preservation and development of work force housing for senior citizens, young adults, first-time homebuyers, seasonal workers, low-income individuals and households, and special needs populations. Work force housing should be distributed throughout the Town, should be in locations accessible via transit, and should have a design and be of a quality and character that are indistinguishable from that of market-rate housing.

8.2 INTRODUCTION

Riverhead has been and continues to be the work force housing alternative for the East End. 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 considered to be affordable for persons at 100 percent of the Suffolk County median income and above. 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 work force housing 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 more affordable 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, work force housing provides residential opportunities for moderate- and 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," who despite their smaller paychecks, play a critical role in the local economy. Moderate- and low-income professions include nurses, social workers, postal workers, train and bus operators, police officers, fire fighters, and teachers, who provide many of the essential community and educational services needed in Town. In addition, hotel clerks, cleaning personnel, waiters and waitresses, agricultural workers, office assistants, students, and artists often live on very limited incomes and require work force housing. Seasonal workers — especially those working in the agriculture and tourism industries — usually need work force rental housing. By helping to house these workers, work force housing initiatives benefit 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, people living with HIV or AIDS, and homeless people. The 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 so much work force housing relative to other East End towns, and because the Town has numerous work force housing programs in place, the challenge for the Comprehensive Plan is not whether or how to provide work force housing, but to make sure that the initiatives being undertaken are successful, cost-effective, and compatible with the community. As development pressures and housing costs escalate, the Town should monitor the work force housing stock to make sure that people are still able to find housing that suits their needs.

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 work force housing initiatives to date, as discussed throughout this chapter, have strongly promoted homeownership.

8.3 SUMMARY OF BACKGROUND RESEARCH

DEMOGRAPHIC AND HOUSING TRENDS

According to the 2000 U.S. Census, Riverhead has 12,479 housing units. 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.

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 way of comparison, the median housing value for Southampton was 18 percent *greater* than the County. As of April 2000 the U.S. Census reported that median housing values in Riverhead were \$166,000, compared to \$185,200 for all of Suffolk County. The Suffolk County Planning Department said in July 2003, that housing prices in Suffolk County, including the Town of Riverhead, have increased approximately 50 percent since the April 2000 U.S. Census figures. Similarly, the median gross rent for Riverhead was \$816, compared to \$945 for Suffolk County as a whole, as of April 2000, according to the 2000 U.S. Census. The Suffolk County Planning Department stated in July 2003 that rents have likely increased significantly since that time. As of the 2000 U.S. Census, median household income in Riverhead was \$46,195, compared to \$65,288 for Suffolk County and \$43,393 for the State of New York. For various reasons, it is likely that Riverhead housing has become somewhat less affordable to residents:

- First, 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 the island — in combination with the increased demand — would have resulted in rising housing costs.
- Second, there was 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.
- Third, with the increasing popularity of North Fork tourism, Riverhead started to attract seasonal residents who purchased or rented summer homes. This factor also contributed to the higher levels of housing demand.

- Fourth, over the course of the 1990s, housing values and prices increased sharply in nearby towns that already had a shortage of work force 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 the sharp increase. Many people priced out of Southampton and East Hampton (both seasonal and year-round residents) started looking to Riverhead as an alternative.

Although the nation entered a recession as of late 2001, which has somewhat lessened the affordability problem, the long-term prospects for the Long Island economy are strong. The Town can anticipate that housing affordability will continue to degrade, as Riverhead continues to grow in popularity as a place to live and invest.

POPULATION AND HOUSEHOLD COMPOSITION

While the number of housing units grew by 16 percent between 1990 and 2000, the population grew by 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.

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. People born immediately after World War II, between 1945 and 1960, were between 40 and 55 years old as of the year 2000. This partially explains the large number of people in the 35 to 54 age bracket. In the future, as the baby boom generation enters retirement, the number of Riverhead residents in the 35 to 54 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 groups — 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 in the form of married couples with children, as shown in Table 8-1. 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.

Table 8-1: Households by Type in the Town of Riverhead, 2000

	<i>Number of Households</i>	<i>Percent of Total</i>
<u><i>Family Households</i></u>		
Married Couples with Children Under 18	2,289	21%
Other Married Couples ¹	3,515	33%
Other	1,484	14%
<u><i>Non-family Households</i></u>		
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).

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

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

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.

As shown in Table 8-2, the majority of households in Riverhead are owner-occupied. 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.

Table 8-2: Households by Occupant in the Town of Riverhead, 2000

	<i>Number of Households</i>	<i>Percent of Total</i>
Owner-occupied	8,288	77%
Renter-occupied	2,461	23%
Total households	10,789	100%

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

EXISTING STOCK OF WORK FORCE HOUSING

Age-Restricted Housing

Age-restricted housing within the Town of Riverhead is made up of a collection of mobile home parks, garden apartments and multi-family condominium developments. In all, there are eleven mobile home parks within the town, and they provide housing for seniors with a range of income levels. Glenwood Park and Foxwood Village offer pre-fabricated homes for sale at moderate cost. Seniors with more limited incomes are generally not able to afford pre-fabricated homes. John Wesley Village and Riverhead Landing apartments are age-restricted units that provide housing opportunities for individuals with maximum income levels of about \$30,000.

People with Developmental Disabilities

As discussed in Chapter 12, the Community Facilities Element, the deinstitutionalization of people with developmental disabilities has resulted in a critical housing need for those groups, while housing options are limited. Many patients who leave institutions have nowhere to go, or go back to family members who are ill-equipped to care for them. To prevent this problem, the State has adopted a temporary moratorium on the closing of County hospitals. Outside of an institution, the preferred living environment for people with development disabilities is a "community living" group home, where they can obtain supportive services and professional attention, while still living in a typical residential setting. Group homes are required by federal law to be permitted in residential neighborhoods. In Riverhead, many group homes have been established in the downtown area.

People Living with HIV or AIDS

With the advent of protease inhibitors, people with HIV and AIDS have much longer life expectancies. As a result, although HIV and AIDS are still life-threatening, it is also a chronic condition that people live with for many years. People taking protease inhibitors may be

healthy enough to continue living, but they may not be well enough to continue working, and they have increasing health care costs. They have a critical need for inexpensive housing.

The federal Housing Opportunities for Persons with AIDS (HOPWA) program provides housing assistance and supportive services for low-income people with HIV/AIDS and their families. State and local governments can be eligible for receiving HOPWA funds. Funds can be used to build a broad range of housing types, including emergency shelters, shared housing, apartments, single room occupancy units (SROs), group homes, and housing combined with supportive services. Funds can also be used for a variety of housing-related expenses, social services, and program development costs. Households receiving rental help or living in housing funded under the program are obligated to pay a portion of the rent, based on their income.¹

Homeless People

Based on the increasing demand for beds in emergency shelters throughout the U.S. over the course of the 1990s, the problem of homelessness is thought to have increased markedly.² There are a variety of housing opportunities for homeless people on the East End. Persons who are homeless or in danger of becoming homeless can apply for assistance at one of the County's Social Services Centers, one of which is located on East Main Street. There are shelters Countywide, including two in Riverhead: Love'M Sheltering in Calverton (permanent housing and emergency shelter) and Madonna Heights/Peconic Heights in downtown (for women). There are also soup kitchens and food pantries throughout Riverhead, several of which are operated through religious institutions.³ In addition, there are some hotels and motels throughout the County that provide housing for individuals and households, in exchange for financial assistance from County, State, federal, or private sources.⁴

As is the case with individuals living with AIDS, since this population cohort is not seen as a particular problem in Riverhead, the Town will remain vigilant to provide housing services when determined to be needed.

¹ U.S. Department of Housing and Urban Development, <www.hud.gov>, visited December 28, 2001.

² National Coalition for the Homeless, <www.nationalhomeless.org>, visited January 7, 2002.

³ Nassau-Suffolk Coalition for the Homeless, <www.nsch.org>, visited January 7, 2002.

⁴ Suffolk County Legislature, "Tonna's Bill to 'Clean Up' Emergency Housing is One Step Closer to Becoming Law," August 23, 2001, <www.co.suffolk.ny.us/legis/press/>, visited January 7, 2002.

TOWN INITIATIVES IN SUPPORT OF WORK FORCE HOUSING

Over the last two decades, the Town of Riverhead has undertaken a variety of initiatives to provide and promote work force housing. These initiatives have resulted in preservation and expansion of the work force housing stock.

Zoning Regulations and Approvals

In 1980, the Town created the Residence Redevelopment Community (RDC) District to create opportunities for work force housing. This floating district allows multi-family 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.

Work force 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 work force owner-occupied single-family housing units in the downtown area. The LIHP obtained approximately \$775,000 in federal and State grants to cover the majority of the construction costs for the project, called "The Homes at Millbrook Gables". The resulting units will have a market value of about \$160,000, but will be sold for approximately \$89,623 to \$128,951.⁵

Section 8 Rental Vouchers

Through a federal Section 8 voucher, a local housing authority pays a portion of an eligible household's rent, using funds from the U.S. government. The subsidy is sent directly to the landlord, and the renter is obligated to pay the difference between the contract rent and the subsidy amount. Currently, the Riverhead Housing Corporation allocates Section 8 subsidies for about 150 housing units.

Funding and Loans

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. Local soup kitchens also receive funding from the department.

⁵ "Millbrook Gables Subdivision, Town and Housing partnership break ground for affordable housing." Press Release, Town of Riverhead, April 28, 2003, <http://www.riverheadli.com/rpress37.html>

There is a current initiative on the part of State Assembly Member Fred Thiele to establish a revolving loan fund or other permanent funding mechanism for work force housing on the East End. Towns could use the fund to either construct new homes directly or in conjunction with a non-profit housing corporation, or to offer zero interest loans to first-time homebuyers. A mandatory referendum would have to be passed before the fund could be established.⁶

Development Initiatives

Between 1989 and 1991, the Town undertook the development of 43 new for-sale, single-family homes for first-time homebuyers at prices of \$60,000 to \$69,000. The project was subsidized by a grant from the U.S. Department of Housing and Urban Development (HUD). Purchasers were required to be first-time homebuyers at incomes less than 80 percent of the Suffolk County median income and were selected by lottery within the Section 8 low- to moderate-income limitations.

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 at prices between \$65,000 to \$90,000. Second mortgage liens ensured continued benefit to first-time homebuyers within the required income limitations. AHC is a private, non-profit provider of work force housing.

On an ongoing basis, the Town purchases properties with CDBG funds for substantial rehabilitation and resale or new construction of work force homes. These homes are sold for \$40,000 to \$60,000 to low- to moderate-income first-time homebuyers. Approximately 15 homes have been provided under this program over the past decade. The Town has also acquired two 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 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 30 to 50 rehabilitated homes. The targeted income level for this project is 50 percent of the County median income.

⁶ Letter from State Assembly Member Fred Thiele to Andrea Lohneiss, January 28, 2002.

8.4 GOALS & POLICIES

Goal 8.1: Continue to provide a variety of housing opportunities for low- and moderate-income households in Riverhead.

Policy 8.1A: Continue to support the Community Development Department's initiatives to develop work force housing units and to work with non-profit organizations to provide work force housing in Riverhead.

The Community Development Department has been extremely successful in providing work force housing and their efforts will be critical in the future as development pressures continue to increase housing costs. Providing work force housing does not have any known negative fiscal impacts on the Town. Although providing work force units may generate less tax revenue than similar market-rate units, lower-income households are less likely to have children (as many low-income households are composed of senior citizens), meaning that they generate fewer municipal costs on average than market-rate housing units.⁷

Moreover, the Town's initiatives to provide and promote work force housing have been — and should continue to be — cost effective. The Community Development Department has been successful in obtaining grant funding and partnering with local non-profit organizations. Per unit funding that the Town currently puts toward work force housing development is comparable to — if not less than — the costs incurred by the Town for market-rate housing development. Typical market-rate housing generates more costs in terms of municipal expenditure (particularly school costs) than it generates in terms of tax revenue. What offsets the higher costs of housing development — whether affordable or market-rate — is commercial and industrial development, which generates a positive flow of tax revenue for the Town.

Policy 8.1B: Give Town residents and employees preference for occupancy of newly developed or rehabilitated work force housing units.

Although the Town is committed to providing work force housing, it cannot be the sole source of work force housing on the East End of Long Island. Riverhead cannot accommodate all the residents who are being priced out of adjacent communities. This policy is intended to make sure that current Riverhead residents can reap the benefits of the Town's work force housing initiatives.

⁷ Annual Demographic Survey, March Supplement. A Joint Project Between the Bureau of Labor Statistics and the Bureau of the Census, <ferret.bls.census.gov/macro/032000/quint/3_000.htm>

Policy 8.1C: Initiatives for work force housing development should continue to deliver single-family units with homeowner equity.

This has been the Town's policy and practice for many years. Homeownership has several advantages:

- It promotes greater financial stability for households in the long term. Unlike renters, homeowners build up equity based on their home investment, and they are eligible for significant tax deductions. These advantages usually more than offset the disadvantages of having to pay a down payment, maintenance costs, and property taxes.
- Through homeownership, residents have a greater financial stake in the community and have an incentive to help build toward the Town's future economic well-being.
- Finally, the existing pattern of detached, owner-occupied, single-family homes also contributes to the character of the community. Promoting homeownership helps preserve this pattern.

- ***Maintain existing residential lot yields for the purpose of providing work force housing.***

There exist numerous parcels in close proximity to the proposed Agricultural Protection Zone (APZ) that currently lie within the Residence C zoning use district, with the general vicinity characterized by non-conforming (undersized) lots. In order to maximize opportunities for the development of work force housing, it is recommended that these parcels be zoned Residence A-40 (RA-40), having an as-of-right density of one (1) unit per acre with an ability to increase the development yield to a maximum of two (2) units per acre with work force housing.

- ***Promote initiatives for multi-family work force housing***

Though the aforementioned housing type is desirable, there exists a segment of the population of the Town of Riverhead with incomes that will not support the issuance of a mortgage even with available subsidies. In order to provide housing to these families, it is recommended that the Town develop an overlay zoning district to allow for high-density rental housing upon appropriate parcels served by a proper water sewer and a roadway infrastructure. Parcels east of the Long Island Expressway and north of the proposed Destination Commercial District could be considered. This high-density overlay district would require the delivery of work force rental units at an appropriate percentage and could, if economically viable, require transferred development rights.

Policy 8.1D: Continue to support the actions of the Riverhead Housing Development Corporation in providing additional Section 8 rental vouchers, and work with County, State, and federal agencies to explore ways to help Section 8 recipients move to homeownership.

The advantage of the Section 8 voucher program is that it works within the private market and allows low- and moderate-income households to have housing choice. At the same time, to promote greater long-term financial stability for Section 8 households, the Town should explore ways to move Section 8 households from renting to homeownership.

Policy 8.1E: Continue to provide opportunities and incentives for the development of rental housing in Riverhead, while maintaining the character of Riverhead as a community of homeowners.

Rental housing provides housing opportunities for people who may not be able to afford a down payment for a home or a condominium or who may not qualify for a mortgage. Rental units are particularly appealing to young adults just having graduated from college, who typically do not have savings. As a result of increases in housing prices during the 1990s, renting may be the only feasible choice for many people in the housing market. There are a variety of strategies that can be used to increase the supply of rental housing in Riverhead:

- ***Allow accessory housing units to be built within the APZ.***
See Policy 7.14B. Further, the principal residential use (homestead) must be owner occupied and the construction of the accessory unit should require the use of one (1) development right.
- ***Consider excluding accessory units from property tax valuations.***
This would provide property owners with an added incentive to build rental accessory units in their houses or on their properties.
- ***Allow second- and third-floor housing to be built above ground-floor "Main Street" retail uses in the downtown Riverhead; in the hamlet centers of Jamesport, Aquebogue, and Wading River; and in the Polish Town business district.***
- ***Continue to allow development of small apartment buildings with rental units in downtown Riverhead.***
- ***Allow development of apartment buildings with rental units in a campus-like setting on select sites along Route 58 in the Route 25A business district, and along East Main Street.***

These would be permitted in the Commercial/Residential Campus (CRC) sites shown on Figure 2-1, the Proposed Land Use Plan, as discussed in Chapter 2, the Land Use Element.

Policy 8.1F: In conjunction with large-scale multi-family, townhouse, or two-family housing development, consider establishing minimum set-asides for housing units affordable to moderate- and low-income households.

For sizeable projects, a minimum percentage of the housing units should be set aside for households with low or moderate incomes. As an example, take a multi-family housing development that would add 100 housing units to Riverhead's housing stock. (This could conceivably be done in the CRC zone.) The zoning regulations could require that 10 percent of the units be set-aside for low-income households and another 10 percent are set aside for moderate-income households. This means that the rent for those units would be fixed at a level that would be affordable to such households.

Regulations would be used to ensure that designated units are maintained at affordable levels. Typically, in municipalities that employ set-aside requirements, the monthly rent or costs (taxes, plus mortgage, plus maintenance) would be set at 30 percent of the average income level for a low- or moderate-income household. Low-income households would be defined as having 50 percent or less of the area's median income, and moderate-income households are defined as having 50 to 80 percent of the area's median income.

This policy would help work force housing units become integrated with market-rate housing, preventing any single neighborhood from turning into a lower-income “ghetto,” where housing values are propelled into a downward spiral.

Policy 8.1G: Continue working with the Long Island Housing Partnership and other non-profit housing developers to identify sites and funding for the development or rehabilitation of work force housing.

Policy 8.1H: Reach out to local financial institutions, including the USDA Rural Development Office, other Suffolk County towns, and non-profit housing developers to identify additional funding sources and mechanisms for work force housing.

One option is to provide low- and moderate-income households with the opportunity to obtain low-interest or reduced-down payment mortgages. This would be enormously helpful to households that want to become homeowners but do not have the resources to get started.

Policy 8.1I: Ensure that work force housing remains perpetually work force.

Policy 8.1J: Continue to monitor housing affordability and the availability of work force housing in Riverhead.

While Riverhead currently has a relatively affordable housing stock, compared to other East End towns, increasing development pressures may diminish the supply of work force housing in the future. The Town should continue to monitor housing values and rents and the ability of lower-income households to find housing in Riverhead. On an ongoing basis, the Town should also periodically review its own work force housing initiatives to make sure that they

are having the desired effect. The Town should attempt to determine what groups, if any, are having trouble finding appropriate housing in Riverhead.

Policy 8.1K: Encourage other East End towns to provide their fair share of work force housing, so that senior citizens, young adults, first-time homebuyers, seasonal workers, low-income individuals and households, and special needs populations have the choice to live in a wide variety of locations.

In recent years, because of Riverhead's relatively affordable housing stock, many people who are no longer able to afford homes in nearby towns are moving to Riverhead as an alternative. The Town has partially benefited from this spillover effect, as property values have increased in some areas. Nevertheless, the trend also suggests that Riverhead may be providing more than its fair share of housing for lower-income residents. Other East End Towns should work to increase work force housing opportunities throughout the eastern part of Long Island.

Policy 8.1L: Continue to apply for and utilize federal, State, County, foundation, and non-profit funding available for work force housing development or rehabilitation.

Policy 8.1M: Continue working with State leaders to pass State legislation that would allow Riverhead to set up and benefit from an Affordable Housing Revolving Loan Fund.

Legislation proposed by Assembly member Fred Thiele would allow each of the five East End towns to establish an Affordable Housing Revolving Loan Fund. Towns would be able to use revenue from a temporary tax surcharge on luxury homes (valued at \$1 million or more) or a special impact fee on permits for luxury building projects. These funds could be used to build housing or to provide no- or low-interest loans to qualified first-time homebuyers. If State legislation is not adopted, the Town should consider the feasibility of establishing a revolving loan fund with seed money from another revenue source.

Goal 8.2: Continue to support the efforts of low- and moderate-income households in Riverhead to rehabilitate their housing units.

As noted, the Town's Department of Community Development provides financial assistance to low- and moderate-income homeowners who need to make emergency home repairs or improvements necessary for the health and safety of the residents. The following strategies can be used to strengthen the Town's current efforts.

Policy 8.2A: Continue to support the Community Development Department's program to provide home improvement funding and loans to low- and moderate-income housing.

This program has been successful in rehabilitating units occupied by lower-income residents, improving the quality of life for those households. Another added benefit is that — in case of resale — the unit may sell at a higher price as a result of rehabilitation. The Town may eventually see a positive impact in tax revenue from the property. Additional staffing of this element of the Community Development Department is recommended.

Policy 8.2B: Reach out to local financial institutions and non-profit housing developers to identify additional funding sources and mechanisms for home improvement.

Federal funds available from the U.S. Department of Housing and Urban Development (HUD) have become more scarce. Alternative funding sources are needed to supplement HUD allocations. As noted, the Town's Department of Community Development has been working to diversify its funding sources to include a variety of State, federal, and foundation funds.

Goal 8.3: Promote high-quality, well-maintained housing.

Policy 8.3A: Consider implementing periodic enforcement "sweeps" of residential neighborhoods.

In a "sweep," zoning officers, building inspectors and the Fire Marshal would get together and perform a "sweep" of a neighborhood to look for violations. All neighborhoods throughout the Town would be covered on a periodic basis (i.e., once every two to four years, on average, more frequently if necessary, or less frequently if more practicable). Neighborhoods would be notified of the sweep in advance, with the notice describing the most common infractions, so as to encourage self-correction.

Policy 8.3B: Ensure that Section 8 rental housing and housing permitted under the Town's rental law achieve the same high standard of maintenance as market-rate rental units throughout Riverhead.

Regular inspections should continue as a way of ensuring good maintenance of the rental unit housing stock.

Policy 8.3C: Ensure that work force housing is compatible in design and quality with market-rate housing in the surrounding neighborhood.

New work force housing projects should be designed such that they fit into their surroundings. Features that can promote compatibility include: high-quality façade materials; architectural variety between adjacent units (i.e., building massing, fenestration and façade treatments); and attractive landscaping that can be affordably maintained.

Policy 8.3D: Ensure that high density rental unit development occur in appropriate locations, where it is compatible with its surroundings.

See Policy 8.1C

Goal 8.4: Provide additional housing opportunities for senior citizens.

Riverhead already provides a great deal of housing for senior citizens. As of the 2000 U.S. Census, more than 9 percent of the Town's population was over the age of 75, and another 9

percent was between the ages of 65 and 74. These rates are notably higher than the County averages of 5.3 percent and 6.5 percent. Because it already attracts a large number of seniors, and because senior citizens are expected to increase in number in coming years, the Town should work to increase housing opportunities for senior citizens.

Policy 8.4A: Allow retirement housing in downtown Riverhead and the hamlet centers.

As the baby boom generation enters retirement, Riverhead will experience an increasing need for affordable retirement housing. Currently, the zoning code allows retirement housing in the Residential RC zone, which is designated for several sites in Town. Senior housing should also be permitted in and around downtown and the hamlet centers upon parcels with appropriate areas. Housing for retirees in these locations should be allowed on smaller lots, at densities and building scales that are compatible with the existing neighborhoods.

Retirement housing in downtown or hamlet centers would give seniors greater access to public services and facilities, shopping, medical offices, and public transportation. To be within walking distance of such services, senior housing should be located no farther than about a quarter-mile from Main Street in downtown or from the commercial core in one of the hamlet centers.

Policy 8.4B: Allow campus-style retirement housing development along Middle Road, Route 58, along Upper East Main Street, and in the Route 25A business district..

The RC zone already allows such development on a few sites along Middle Road. Housing for retirees can be auto-oriented, because seniors are generally in good health and mobile. Even though such campus-style development is auto-oriented, it should nevertheless be located in central locations, in proximity to shopping, medical offices, public services and facilities, and public transportation. Because seniors may be in varying states of health, proximity to such services can help create a better quality of life. Because development in the Residence RC can have a net density not to exceed four (4) units per acre with transferred development rights, it is more appropriately located in built-up locations of the Town, rather than rural areas. Senior housing would also be permitted in the CRC zone.

Policy 8.4C: Allow residential health care facilities, including "continuum of care" housing, to be developed in the Residence RC zone, as well as in downtown Riverhead and the CRC zones.

Residential health care facilities include nursing homes, assisted living, skilled nursing care, and similar facilities where seniors both live and receive daily health and personal care. "Continuum of care" facilities allow seniors to "age in place," by providing whatever services a senior citizen would need at their particular stage of life, ranging from minimal care to intensive health and personal care. Thus, seniors could receive increased levels of care over time without having to move from place to place.

Policy 8.4D: Consider requiring retirement housing, residential health care facilities, and other similar facilities to provide non-emergency ambulatory transportation for residents or patients.

This policy is intended to reduce burdens on the EMS and ambulance services in the Town, who are under increasing pressure to respond to such non-emergency calls.

Policy 8.4E: Require the provision of off-street bus stops to provide improved transit or shuttle service for seniors.

This also allows seniors to avoid long walks to curbside bus stops.

Goal 8.5: Ensure that group homes are compatible with the surrounding neighborhoods.

Municipalities are required by federal and State law to allow group homes in residential areas. Yet a group home that is denser than the surrounding housing can have negative impacts on the neighborhood, as can a concentration of several group homes in an area. Group homes have employees and volunteers who assist residents with day-to-day living, and products like food, medicine, and household items may need to be delivered. As a result, group homes have parking and loading needs that differ from other residences. Group homes can be subject to the same requirements as other residences in the same zone, but cannot be singled out and subjected to more stringent standards.

Policy 8.5A: Limit the number and size of buildings in residential neighborhoods, in order to ensure that all development is compatible in scale.

In all zones where residential development is permitted, revise the zoning provisions to limit the overall residential density (units per acre) as well as the overall size of the structure (floor area ratio, or building area as a percentage of the lot area). It is recommended that the maximum building area should be 7 percent for a one (1) story residence, 5 percent for a two (2) story residence, and 3.5 percent for a three (3) story residence. The zoning provisions should *not* place restrictions on the number of persons per housing unit, unless those restrictions can be equally applied to all residences. Since households vary widely in size and composition, imposing such a uniform limit on the number of persons per housing unit is not recommended.

Policy 8.5B: Limit the total impervious surface coverage allowed in residential areas.

By limiting the impervious surfaces allowed in residential areas, the Town can prevent an excessive amount of land from being paved over for driveways, parking areas, patios, or other outdoor amenities. This would be beneficial from an environmental perspective, as well as an aesthetic point of view, and it would be appropriate for all residences, including group homes.

Policy 8.5C: Require a minimum distance between group homes.

This policy is intended to avoid an undue concentration of group homes in any one location, so that the impacts are more dispersed, and group homes are evenly intermixed with conventional residences. Each residential zoning district may have a different minimum distance, tailored to the densities and character of that zone.

Goal 8.6: Provide additional housing opportunities for people living with HIV or AIDS when determined necessary.

When housing needs for this population become evident, the Town could explore the option of providing additional housing opportunities.

Policy 8.6A: Explore the feasibility of obtaining HOPWA funding to provide housing opportunities or housing-related services for people living with HIV or AIDS in Riverhead.

Policy 8.6B: Explore partnering with Suffolk County to provide public information on housing opportunities for people living with HIV or AIDS.

Such programs could include updating Town and County websites with information on HIV/AIDS housing opportunities and/or distributing brochures to Central Suffolk Hospital, medical offices, and social service offices.

Goal 8.7: Provide additional housing, food, and health care services for homeless persons.

Policy 8.7A: Allow soup kitchens and emergency housing to be established in places of worship as an accessory use.

Soup kitchens and emergency housing would provide homeless people with a place to go for basic food and shelter on a day-to-day basis. Emergency housing is a temporary accommodation that is available one night at a time, on a first-come first-served basis. Information on more permanent homeless shelters should be made available on-site. The Town can place conditions of approval on the accessory use, such as prohibition of loitering, limitation on the number of beds, requirement of indoor bathrooms, minimum security standards, and maintenance requirements.

Policy 8.7B: Work with the County to provide public information on homeless shelters, soup kitchens, and health care services available to homeless persons.

Information should be supplied to the Riverhead Police Department, the Riverhead Volunteer Ambulance Corps, local social service agencies, and local medical offices. Also, information should be made available on the Town and County web sites, such that residents or workers who know of a homeless person in their neighborhood can contact agencies who may be able to reach out to that person.

9. Transportation Element

9.1 VISION STATEMENT

Route 25 and Route 58 should remain Riverhead's primary east-west traffic corridors, while other east-west roads are discouraged from being used as bypass routes. Road improvements throughout Riverhead should be undertaken in a manner that is sensitive to the Town's residential neighborhoods and its historic, scenic, and natural resources. Downtown and the hamlet centers should be oriented to transit, pedestrians, and bicycles, and commercial sites through Riverhead should be accessible via bus, by bike, and on foot.

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) dead ends 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 Sustainable East End Development Strategies (SEEDS) initiative, 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 initiative 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. SEEDS is utilizing the Long Island Transportation Plan 2000 Travel Demand Model (LITP2000) to test the preliminary recommendations and scenarios, with the goal of projecting future traffic and transit demand alternatives throughout Riverhead and the East End.

9.2 SUMMARY OF BACKGROUND RESEARCH

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 list of highway facilities is included in the appendices.

Average Annual Daily Traffic (AADT) flows for major roadways available from NYSDOT and SCDPW are presented on Figure 9-1. Information shown on the map was obtained from the North Fork Recreational Travel Needs Assessment (NFRTNA), the *Long Island Transportation Plan to Manage Congestion* (LITP 2000), and the SCDPW. Due to North Fork tourism, summer traffic volumes are typically higher than AADT flows. The paragraphs in this section describe Riverhead's major roadway facilities and provide information regarding their prevailing conditions and current function within the roadway system.

Long Island Expressway

The LIE is a six-lane east-west interstate highway that traverses most of Long Island and terminates at Route 58 in Riverhead. The LIE 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.

There are no congestion issues related to the 1.25-mile stretch of the LIE that runs through Riverhead. Present capacity for that length far exceeds demand and is expected to be more than adequate in the foreseeable future. The existing AADT on this part of the LIE is approximately 18,000 vehicles per day (vpd).

During focus groups, Riverhead residents commented at length about the LIE. Comments ranged from "do absolutely nothing" to "extend the facility to its originally conceived endpoint." Other comments specifically referred to the entrance or exit ramps at Exits 71 and 72. 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. This Element 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 the Queensboro Bridge in midtown Manhattan to the easternmost tip of the North Fork — Orient Point. Approximately 17.5 miles of Route 25 lie within Riverhead. The easternmost and westernmost portions of the Riverhead portion of Route 25 are relatively undeveloped, with the central portion running through the highly developed area of downtown Riverhead.

West of the LIE

In the future, traffic along the westernmost portion of Route 25 will increase as Enterprise Park is developed. Route 25 will provide access to the main entrance of Enterprise Park. According to the Final Environmental Impact Statement (FEIS) prepared by the U.S. Navy prior to turning the property over to the Town, the redeveloped Enterprise Park has the potential to generate 4,000 vehicle trips per hour during the weekday peak hour, and 3,000 trips per hour during the Saturday peak hour. On a daily basis, over 42,000 weekday and 33,000 Saturday trips could be generated. Clearly, this has the potential to have major impacts on the transportation system in the vicinity of the property, not only on Route 25, but also Route 25A, Manorville-Wading River Road, and Swan Pond Road/River Road.

In order to examine the impact of this future traffic, the FEIS analyzed future traffic volumes at four locations along Route 25, namely at the following intersections: (1) Rocky Point Road; (2) Edwards Avenue; (3) North Country Road; and (4) Manorville Road. The results of this analysis indicate that operating conditions would deteriorate to the extent that unacceptable levels of service would prevail during all weekday peak hours at all four locations. With the exception of the intersection of North Country Road, the same deterioration of levels of service is expected to occur during the Saturday peak. The FEIS goes on to suggest minor intersection widenings at these locations would only marginally improve levels of service. A 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.

LIE to Downtown

Capacity deficiencies in this area 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 this stretch 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 the Route as an alternative to both Route 24 and Route 58.

Figure 9-1: Existing Traffic Volumes

Back of Figure

Downtown

In the hamlet center, Route 25 runs along Main Street and serves as a main traffic conduit through the downtown area. 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 the downtown area 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 could not be accomplished without significant disruption to downtown businesses, cultural facilities, parking, pedestrian activity, and the historic building fabric. Nevertheless, some friction factors (especially 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 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 level 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, the Business Districts Element, and the Downtown Revitalization of August 2000, 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.

East of Downtown

The 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. A small segment of Route 25 links Route 58 to Route 105, inheriting 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 goes north to Sound Avenue, and some continues east on Route 25.

Speed Limits within the Town of Riverhead

Figure 9-2 depicts the speed limits for a majority of the roadways in the Town of Riverhead. There are four roadways that have 55 MPH speed limits in the Town: 1) Route 25A, between Sound Avenue and Route 25; 2) Route 25, from the Brookhaven Town line to Route 58, and from just east of Jamesport to the Southold Town line; 3) the LIE; and 4) Cross River Drive.

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. All 3.5 miles of Route 43 lie within Riverhead. Some vehicles destined to the North Fork from downtown Riverhead and Route 58 use Route 43 to reach Sound Avenue, which they then follow into Southold. Some 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 easternmost 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 westernmost section near the LIE and Tanger Mall, the roadway has been widened to four lanes with dedicated turning pockets.

Route 58 was originally built as a bypass to Route 25, but it 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.

As part of the NFRTNA, 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, an extensive origin-destination survey was conducted much of it focused on eastern Riverhead. Motorists were asked to fill out postcards with questionnaires. The survey results indicate that many of the motorists on Route 58 were destined to points in Southold, including the Cross Sound Ferry Terminal.

Figure 9-2: Speed Limits within the Town

Back of Figure

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 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.

- Sound Avenue is a two-lane roadway, with significant horizontal and vertical curvature and old growth trees along many segments, resulting in poor sight distance for stopping. Shoulders are narrow or nonexistent; there are few sidewalks; and there are many agriculture-related businesses (such as farm stands), some of which do not have well laid out driveways or parking lots.
- Middle Road is slightly better from an engineering and aesthetic perspective. 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.

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 off of these bypass routes. Traffic calming on the bypass roads is also recommended in conjunction with improvements to Route 58.

Friction from Commercial Development

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 Centre. This activity is beginning to attract synergistic uses such as restaurants. The newly proposed land use designations for the western end of Route 58 (see Chapter 2, 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 4 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 Flanders, and take Route 105 north to either Route 25 or Sound Avenue.

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.

Sound Avenue

Sound Avenue is a two-lane east-west Town roadway that runs from Route 25A in Wading River to Route 48 in Southold. Approximately 14.5 miles of Sound Avenue lie within the Town of Riverhead. Currently, Sound Avenue has experienced relatively light traffic volumes (7,200 vpd), although some passing cars experience delays as a result of cars and farm equipment pulling on and off the road.

In recent years, the road has experienced increases in traffic volume, because tourists increasingly use it to reach the Long Island wine country. As noted, it is also used more and more as a bypass for Route 58. Although the existing right of way is 66 feet wide, the pavement is between 28 and 30 feet wide for most of its length. Few sidewalks and shoulder areas are provided. In some cases, landscape features of the homes such as fences and plantings encroach on the Town right of way. The road has significant horizontal and vertical curvature, which limits stopping sight distances. There have been a number of accidents recently on Sound Avenue, some involving seasonal agriculture workers walking or bicycling along the road.

Sound Avenue is known and beloved by Town residents as a bucolic country road. The road is lined with old trees and historic homes, farms, and farmstands. In 1974, as part of the U.S. bicentennial celebration, the road was designated an historic corridor by the Department of State Parks and Historic Preservation. During focus groups and CAC meetings, residents have repeatedly expressed the wish to maintain the character and beauty of the road.

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 1997 Final Environmental Impact Study (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.

Edwards 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 RAIL ROAD

The Long Island Rail Road (LIRR), a subsidiary of the Metropolitan Transit Authority (MTA), provides passenger rail service to 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 City Terminal Zone stations (i.e., 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. The LIRR's *East End Transportation Study* indicates that 64 percent of the railroad's total ridership consists of commuters who ride the trains daily. 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 west of Ronkonkoma. On weekdays, there are only four trains running into New York City over the course of the day, with only three trains returning to Riverhead. By way of comparison, Ronkonkoma station runs about 5 trains every hour during the morning peak. 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 to two trains per day in each direction (i.e., New York City and Greenport). No additional summertime service is provided on the Greenport branch. Because train service is inconvenient, it is not extensively

used for recreational trips. During focus groups, participants expressed a desire for more frequent train service and better scheduling, primarily to facilitate weekend trips into New York City.

Infrastructure Improvement Needs

If train service were to be increased to the North Fork, some critical infrastructure improvements would be necessary. According to the LIRR's *East End Transportation Study*, 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, a condition referred to as "dark territory." In dark territory, 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. Pilot implementation of the CBTC system is included in the railroad's 2000-2004 capital program, as is the beginning of the installation of the power switches.

In recent years, the success of Tanger Mall led to discussion of an idea for a new train station adjacent to the mall. Construction of a new train station would be an extremely expensive undertaking. Meanwhile, it is questionable what levels of ridership could be expected. Outlet mall patrons tend to make large purchases, and cars are useful for taking their purchases home, meaning that interest in taking the train to the mall would tend to be low. In light of the needs of the rest of the LIRR system, including the downtown station, building a new station near Tanger Mall would not be cost effective.

SUFFOLK COUNTY TRANSIT SYSTEM

Suffolk County Transit (SCT) has five bus routes in Riverhead:

- **Bus Route 8A**, serving Calverton, Riverhead, and Suffolk County Community College (SCCC). Runs between Calverton Hills and SCCC East. Stops include Central Suffolk Hospital, downtown Riverhead, and Riverhead County Center. Runs once every hour.
- **Bus Route S-58**, serving East Northport, Smithtown, Selden, Coram, Calverton, and Riverhead. Major stops include Huntington Square Mall, Mayfair Shopping Center, Smithtown Station (LIRR), Smith Haven Mall, Splish Splash, Tanger Mall, Riverhead Station, and the County Courthouse. Runs roughly once every hour.

- **Bus Route S-62**, serving Hauppauge, Smith Haven Mall, and Riverhead. Runs between the Hauppauge Industrial Complex and Riverhead County Center. Stops include the government offices in Hauppauge, Smith Haven Mall, and Tanger Mall. Runs once every hour.
- **Bus Route S-66**, serving Patchogue, Center Moriches, and Riverhead. Runs between the Patchogue railroad station and Riverhead County Center. Stops include Bellport, Shirley, Mastic, and Center Moriches. Runs once every hour.
- **Bus Route S-90**, serving Center Moriches and Riverhead. Runs between the Center Moriches railroad station and Riverhead County Center. Stops include Eastport, Speonk, Westhampton, and Quogue. Runs roughly once every two hours.
- **Bus Route S-92**, serving Orient Point and East Hampton. Runs between Orient Point ferry dock and the East Hampton railroad station. Stops include Greenport, Mattituck, downtown Riverhead, Riverhead County Center, and Sag Harbor. Runs once every hour.

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. Reservations must be made one to seven days in advance of the trip by calling the Reservation Office at 631-491-6500.

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, the Business Districts Element, includes extensive recommendations for improving the pedestrian environment not only in downtown but 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. A map of unofficial bicycle route designations is provided in *Your Guide to Long Island Bikeways*. Although this is a NYSDOT publication, designations shown are the unapproved recommendations of local bicyclists. NYMTC provides a map of existing and proposed bike routes in their Regional Transportation Plan. Chapter 11, the Parks and Recreation Element, lays out strategies for expanding the bicycle network in Riverhead.

Importantly, NYMTC has recently issued a Request for Proposals (RFP) for the *Long Island Non-Motorized Transportation Study*, the purpose of which is to develop a comprehensive master plan for existing and proposed non-motorized transportation facilities on Long Island. This plan is to identify and prioritize programs that should be completed in the region that would support pedestrian travel, bicycling, and other non-motorized modes as alternatives and complements to vehicular modes.

AIR TRAVEL

Riverhead Airpark, which exclusively serves private planes, is located at the intersection of Sound Avenue and Route 105. A publicly-owned private use 10,000 foot runway serves industrial land uses within the Enterprise Park at Calverton. Long Island MacArthur Airport (Islip) is the closest airport to Riverhead that provides passenger service.

9.3 GOALS & POLICIES

Goal 9.1: Reduce traffic congestion and improve traffic flows along Route 58, while improving the aesthetic quality of the roadway.

The intent is to have Route 58 continue to serve as the main east-west corridor for regional commercial and east bound through-traffic. Focusing roadway improvements along Route 58 will help improve traffic flow and reduce the tendency of through-traffic to use local streets and rural corridors as bypass routes. In addition, the roadway improvements will help maintain good vehicular access to the commercial establishments along the road. Figure 9-3 illustrates various roadway improvements that are being considered along Route 58 and Middle Road.

Policy 9.1A: Work with Suffolk County to develop a plan to convert the entire length of Route 58 (including the portion of Route 25 that links Route 58 to Route 105) into a four-lane roadway, with a raised, landscaped median, and turn pockets at major intersections and entrances to major shopping centers.

Expansion of Route 58 to two lanes in each direction will essentially double its carrying capacity. The center turning lane will be eliminated and replaced with a center median. The primary purpose of the median is to reduce traffic “friction” resulting from left-turn movements across the flow of traffic. With a median, friction would be reduced in the following ways:

- Left-turn movements would only be permitted at signalized intersections at cross streets or major entrances to shopping centers. Minor driveways and side streets would be restricted to right turns in and out only.
- Access to properties on the opposite side of the street would be accomplished by making u-turns at signalized intersections, which would be provided with appropriate turning lanes and signal phasing to facilitate the movement. Designated intersections would provide shoulders wide enough to allow trucks to make u-turns, while trucks would be prohibited from making u-turns at other intersections.

To accommodate the widening project, the existing right-of-way (ROW) would have to be expanded only about 8 feet. The roadway is currently narrower than the public ROW. To obtain this additional 8 feet, the County would have to condemn those areas alongside the existing ROW. Also, through site plan review, the Town can require newly developed properties to dedicate land along the road frontage to accommodate the widening project.

The widening of Route 58 would be a County project and would be funded through the County. Funding for the project may not be immediately available due to current economic conditions, but the Town should be ready with a plan when funding does become available.

It is not necessary to expand the short segment of Route 25 between Route 58 and Route 105 to three lanes in each direction, as some have suggested. According to traffic volume information presented in Figure 9-1, there is no notable increase in traffic volumes at this point, despite the fact that Route 25 and Route 58 converge.

Policy 9.1B: Attractively plant the raised median along Route 58 with native species, and install artwork, decorative signage, and lighting that reflects the Town's character.

In many parts of the country, medians are nothing more than reinforced concrete barriers. For Route 58, the recommendation is for a median wide enough to be planted with trees, shrubbery, and flowers, adding a splash of greenery to the Route 58 landscape. The median would also provide room for artwork, street lamps, street signs, and identifying signs, all attractively designed. The median should be irrigated to maintain the landscaping, and business, volunteer, or community groups could be organized to participate in maintenance efforts. The County and Town could approach local businesses to contribute funding toward the construction and maintenance of the median. The proposed median would be approximately 14 feet wide.

The widening of Route 58 and the establishment of the planted median create an ideal opportunity to bury utility lines. Utility companies have been resistant to undergrounding in the past due to installation and maintenance costs. Undergrounding at the time of the widening project would be relatively cost-effective, because the utility poles would have to be moved anyway, and the County would already be ripping up and replacing the pavement. The County and the Town should work with utility companies to explore ways to better facilitate access to underground utility lines for maintenance purposes.

Policy 9.1C: Widen the rotary at the intersection of Route 58 and Roanoke Avenue simultaneously with the Route 58 widening.

The inventory and analysis phase of this Transportation Element indicated that a low level of service exists at the intersection of the rotary and Roanoke Avenue, both of which are County highways. It was further noted that the Rotary is a place of historic and civic pride. The use of rotaries at the intersections of arterial roadways has recently been demonstrated as an effective traffic control device to both minimize motor vehicle traffic congestion and bring about "traffic calming." The recent construction of a rotary within the Village of Huntington, NY has been proven effective in the aforementioned.

At such time that the County of Suffolk improves Route 58 to a four-lane roadway, the County should prepare a taking map and roadway design, in order to appropriately widen the circle. Further, the circle should be landscaped and improved to be the focal point of County Route 58.

Figure 9-3: Roadway Improvements

Back of Figure

Policy 9.1D: Improve signal synchronization along Route 58, and provide signal preemption for emergency vehicles.

Improved signal synchronization can continue to enhance traffic flows along the corridor. Signal preemption for emergency vehicles protects public safety, both by increasing response times for ambulances and reducing the potential for accidents between ambulances and traffic.

Policy 9.1E: Work with the Town of Southampton, the State, and the County to encourage the use of LIE Exit 71, Route 24, and Route 105 as an alternate bypass route to Route 58.

These roads experience relatively little congestion compared to Route 58. Congestion at the intersection of Peconic Avenue and Flanders Road, where a traffic circle is located, opposite downtown Riverhead, should be addressed.

Goal 9.2: Discourage use of east-west Town roads as bypasses to Route 58.

Policy 9.2A: Do not widen Sound Avenue, Middle Road, Northville Turnpike, or Church Lane to more than two travel lanes (one lane in each direction).

These roads are used as bypass routes for Route 58. By focusing roadway improvements on Route 58, the intent is to have Route 58 serve as the Town's major east-west traffic corridor and to discourage use of the alternate routes. The addition or expansion of emergency shoulders and the widening of intersections for turn pockets should be permitted, as those improvements help increase safety and reduce traffic friction.

It is not anticipated at the present time that road widening would be necessary on these roadways to accommodate future development. As a result of the proposed change in zoning from one-acre to two-acre lots (see Chapter 3, the Agriculture Element), traffic flows Townwide are expected to be less than would have been anticipated under the current zoning. Moreover, under the proposed Transfer of Development Rights (TDR) program, this Comprehensive Plan could reduce the anticipated future traffic flows on Middle Road, Northville Turnpike, and Church Lane. On Sound Avenue, certain areas north of the roadway will have increased development as a result of the TDR program, but the area south of Sound Avenue will have less. There will, therefore, be no net gain in housing along the corridor. That is, much of the development that would have been found south of Sound Avenue will be shifted to the north on appropriate parcels or to other parts of Town. If evolving development patterns result in unacceptable congestion levels on these roads, however, the Town should revisit the issue.

Policy 9.2B: Explore the potential for using traffic-calming techniques on Route 58's bypass and side roads in order to encourage traffic to be diverted back down to Route 58.

Additional policies to this affect are discussed under Goal 9.12. On side roads, traffic calming techniques should, if possible, only impact traffic leaving Route 58. Traffic going toward Route 58 should not be reduced in speed or flow.

Goal 9.3: On an ongoing basis, work to reduce traffic congestion on roads throughout Riverhead.

Policy 9.3A: Encourage NYSDOT to conduct a study of the Route 25 corridor between the Brookhaven border and the LIE.

NYSDOT has been willing to fund a Calverton Corridor and Local Roads System Assessment for the Town. The assessment would: (1) Characterize the impacts of development at and ancillary to the Enterprise Park; (2) Evaluate and identify improvements to State and local roads that would mitigate these impacts; (3) Evaluate and identify alternative land uses and development patterns that might mitigate or alleviate these impacts; and (4) Discuss potential funding strategies for the local system improvements. If undertaken, the Town should also make sure that the State contemplates the timing of roadway improvements, such that they are provided at the time when they will be needed (i.e. when development of a threshold amount occurs in Enterprise Park).

The NYSDOT continues to feel this type of study is needed, but the funding that was originally made available was re-allocated elsewhere. The Town should urge NYSDOT to locate alternative sources of funding for this study. The Town can consider offering to participate financially in the study, perhaps through a local matching program, or by undertaking some of the study requirements on its own, such as traffic data collection.

The section of Route 25 east of the LIE would be expected to experience a reduction in traffic volumes as a result of improvements along the Route 58 corridor. If such improvements do not materialize, the section of Route 25 between the LIE and downtown should be included in the study as well.

Policy 9.3B: Ensure that Enterprise Park at Calverton is given consideration in the Sustainable East End Development Strategies (SEEDS) initiative.

SEEDS is being conducted under the auspices of the New York Metropolitan Transportation Council (NYMTC), the quasi-public clearinghouse for federal transportation funds for the New York Metropolitan region, which includes all of Long Island. In particular, the SEEDS initiative is recommending and modeling several transit-focused and roadway focused investment scenarios. Enterprise Park at Calverton is proposed to be a regional intermodal hub in Transportation Scenario 3 of the SEEDS initiative. This would involve upgrading the non-operational rail spur at Calverton to accommodate transit rail service. An intermodal hub would provide several different services, such as rail service, bus service, and roadway connections, and combine all possible transit options at one location, with the goal of increasing frequency, convenience, connectivity and coordinated scheduling. The Calverton intermodal hub would be part of a regional system that creates a hierarchy of intermodal hubs throughout the SEEDS study area.

Transportation Scenario 5, which proposes large-scale investments, tests the idea of providing new rail infrastructure that would connect the proposed regional hub at Calverton to a proposed regional hub at Gabreski Airport. This would increase frequency of service on the LIRR, while

creating two major western terminuses for the SEEDS study area with direct connection to all other transit systems west of the study area.

In addition, the SEEDS initiative is proposing a new interchange connecting the Calverton regional hub to the LIE. The interchange would include signage and roadway improvements providing direct access to Enterprise Park.¹

Policy 9.3C: Continue to assess the traffic impacts of new development, and require developers to provide roadway improvements and/or other transportation amenities to mitigate those impacts.

Provision of transit services and facilities, pedestrian-oriented development patterns, and pedestrian and bicycle amenities can help mitigate future traffic impacts. Although such improvements would not completely eliminate the need for roadway improvements in many cases, they can contribute to the mitigation effort.

Policy 9.3D: Continue to consider road improvement projects Townwide on a case-by-case basis, in order to address issues of traffic congestion, but avoid road widening along scenic corridors.

This policy is intended to balance the need for traffic relief with the need for scenic preservation throughout the Town. In conjunction with new development proposals, the Town should continue to evaluate potential traffic impacts and the need for potential roadway improvements.

Policy 9.3E: Through the site plan review process, require cross access agreements and linked parking lots between new commercial development and adjacent commercial sites.

If adjacent sites are vacant but zoned for commercial development, parking areas shall be designed such that a connecting driveway can be installed when the vacant site is developed. Further, the site plan approval for new commercial development should require a covenant that provides for unrestricted entry into such development by public transportation.

Policy 9.3F: Either require or condemn cross-access easements for existing adjacent commercial uses along Route 58 and in the hamlet centers.

Some CAC members expressed concern about the feasibility of cross-access easements because there have been some unfruitful attempts at establishing such easements in the past. Today, cross-access easements are much more common, and developers are more accustomed to accommodating them. Also, people are willing to pay more for access nowadays, because of higher property values, stronger development pressures, and heavier traffic volumes.

¹ SEEDS "Transportation Technical Session" Presentation, 12 May 2003, AKRF, Inc.
<http://www.seedsproject.com/downloads.html>

Goal 9.4: Provide a Townwide roadway system that ensures the safety of cars, trucks, buses, pedestrians, and bicycles.

According to NYSDOT and SCDPW, traffic volumes on Riverhead's roadways are expected to grow at an annual rate of about 2 percent in coming years. In some areas of Riverhead, where significant development is expected to take place, the rate of increase may be higher. The Town has the opportunity to avoid the pitfalls that have beguiled much of the rest of Long Island, by promoting the use of alternate modes of travel through transportation investments and land use and development policies (see Goal 9.13). At the same time, roadway improvements will continue to be needed, and safety is the primary concern.

Policy 9.4A: Work with State and County agencies to improve roads and intersections with safety deficiencies, while being respectful of adjacent neighborhoods and businesses and helping preserve Town's natural, scenic, and historic resources.

In places where pedestrians have been at risk from high-speed traffic, appropriate improvements (e.g., lighting, sidewalks, crosswalks, etc.) should be made to promote safety. For example, in some parts of Riverhead, farm workers walking alongside rural roads have faced precarious conditions. At the same time, the Town should ensure that roadway improvements are compatible with the character of the area. Lighting along a scenic rural corridor, for example, could be tailored to the environment by setting the street lamps at a lower luminous intensity; installing antique or otherwise well-designed lampposts; or opting for gravel rather than paved sidewalks.

Policy 9.4B: Undertake a full topographic survey (roadway profile) of Sound Avenue and Middle Road to identify locations with safety problems and recommend improvements.

Many parts of Sound Avenue are excessively steep or have sharp corners that create safety hazards. Improvements to such sections of the roadway may be necessary. To the greatest extent possible, any improvements should be done within the existing right of way. Great care should be taken in preserving the trees and other landscape features along the road. During the course of regular maintenance of the roadway, minor widening and pavement markings should be employed to provide as wide a shoulder as possible.

Policy 9.4C: Provide for a uniform design of street signs on public highways.

Policy 9.4D: Explore the need for signal preemption for emergency vehicles at high-volume intersections throughout Riverhead.

Goal 9.5: Continue to support and encourage passenger use of the Long Island Railroad and Riverhead Station.

Policy 9.5A: Work with the LIRR to improve and increase rail service east of Ronkonkoma to the North Fork.

Enhanced service east of Ronkonkoma could increase utilization of North Fork stations, including Riverhead Station, by both commuters and tourists. Tourism use would include both North Fork residents who want to travel into New York City, and residents of the city and western Long Island who wish to visit the North Fork. Improved transit service to the North Fork is justifiable since all of Suffolk County is located within the MTA service area and contributes to MTA revenue via sales taxes and mortgage recording taxes.²

Policy 9.5B: Work with the LIRR to increase passenger use of the North Fork line for tourism and recreational purposes.

The Town should seek to provide tourism-oriented rail services, based on the model currently employed on the South Fork. The LIRR currently provides train service to the South Fork that is oriented toward recreational users. This service, known as the "cannonball" provides non-stop service between Jamaica Station and Westhampton on Friday evenings to accommodate weekenders heading to the Hamptons. Additional policies related to the concept of tourism-oriented rail service are included in Chapter 6, the Business Districts Element, and Chapter 7, the Economic Development Element. The construction of a Jamesport Station is a notable improvement.

Policy 9.5C: Proceed with plans to establish a multi-modal transportation center adjacent to and including the refurbished Riverhead Station building.

The Town has been awarded funding to develop a transportation center in and around the existing train station in downtown Riverhead. Conceptual plans for the center provide increased parking for the railroad station and the expanded County Court facilities, a place for bus stops and shelters, enhanced pedestrian facilities, secure bicycle storage, and a source of real time transit information, perhaps through an electronic link to the NYSDOT's INFORM system. Design of this project is scheduled for 2002.

Policy 9.5D: Place trailblazer signs around the downtown area directing people to Riverhead Station.

Signage will help patrons find the station and call attention to the presence of rail service. Locations for trailblazer signs include Main Street in downtown, Route 25 east and west of downtown, Route 58, the Exits 71 and 72 off the LIE, and Route 24 in Southampton.

² MTA/New York City Transit, Manhattan, East Side Alternatives Major Investment Study/Draft Environmental Impact Statement, Chapter 17: Cost and Financial Analysis, 1997.

Policy 9.5E: Make train information more readily available to residents and visitors.

Route and schedule information should be made available in Town Hall, the Riverhead Free Library, the Atlantis Aquarium, downtown restaurants, Tanger Mall, Splish Splash, and other attractions Townwide.

Policy 9.5F: Work with the LIRR and Suffolk County Transit to coordinate bus and train schedules.

Better coordination would encourage increased use of both trains and buses by reducing wait time for transferring patrons.

Policy 9.5G: As a temporary measure, work with the LIRR and Suffolk County Transit to explore the feasibility of running express bus service to Ronkonkoma Station.

Until such time that train service east of Ronkonkoma Station can be improved and increased, express bus service could increase the utilization of train service for the commute to work. Prior to initiating the new service, the Town should work with the LIRR and Suffolk County Transit assess the potential use of an express bus line.

Running express bus service from Riverhead would require a park-and-ride lot somewhere in Town, ideally located in close proximity to one of the LIE entrance ramps. If express bus service is provided, the Town should work with Suffolk County Transit to identify a suitable site for a park-and-ride lot. As an alternative to building a new parking lot, a shared parking agreement with one or more commercial sites along Route 58 could be considered. Any park-and-ride facility should provide secure bicycle storage, in addition to vehicular parking.

Policy 9.5H: Employ the necessary Town resources to implement the conclusions and recommendations of the Sustainable East End Development Strategies (SEEDS) initiative.

Goal 9.6: Support and encourage freight use of the Long Island Rail Road.

Policy 9.6A: Work with the LIRR to reestablish rail freight operations to Enterprise Park.

The freight operations of the LIRR have been privatized and are currently operated by New York and Atlantic Railways, a subsidiary of Anacostia and Pacific Railroads. A rail spur and switches already exist, but will likely need refurbishing. Freight operations could reduce some of the need for trucking activity, with beneficial impacts on Town roadways.

Goal 9.7: Continue to support and encourage use of Suffolk County Transit buses.

Policy 9.7A: Strongly encourage Suffolk County Transit to increase service along existing bus routes in Riverhead.

The Town should work with the County to reduce bus headways (i.e., wait time) on the existing bus routes presently operating in Riverhead. The minimum headway on any route currently is one hour. During the public outreach effort for this plan, the long wait times between buses was second only to insufficient routes as the reason given for not using bus service. Similar sentiment was expressed in the survey performed for the NYSDOT's North Fork Study. At present, no bus service is offered on any of the routes on Sundays. Consideration should be given to providing Sunday service on some of the existing routes. A number of tourist destinations, such as the Aquarium, Tanger Mall, and Splish Splash attract significant weekend markets for public transportation, yet the existing service does little to accommodate them.

Policy 9.7B: Strongly encourage Suffolk County Transit to focus service enhancements in downtown Riverhead, along Route 58, and along Route 25 west of the LIE.

At present, three of the County's current bus routes provide service to Tanger Mall (S-62, S-8A, and S-58), and headways are hourly with no Sunday service. The S-8A stops on Route 25 near the southerly end of Tanger Mall and then takes a circuitous route through Town before reaching downtown locations. Travel time between downtown and Tanger Mall is nearly 50 minutes. The S-62 and the S-58 link Tanger Mall, Splish Splash, the County Courthouse, and Riverhead Station, but none of the downtown cultural attractions. S-92 runs from Riverhead Station east along Main Street and serves the Aquarium. No single route links all these sites.

Increased bus service should be provided between Enterprise Park, Route 58, and downtown Riverhead. Bus service should operate on as frequent a schedule as possible, with a half-hour being the longest recommended headway. The ideal solution would be loop service between Enterprise Park and the Aquarium, along Route 58 and Route 25, with stops at Splish-Splash, Tanger Mall, Riverhead Station, and the County Courthouse. The Town should encourage the County to publicize the existence of this route, if established, and the beneficiaries of the service (Tanger, Splish-Splash, etc.) should be encouraged to advertise it as well. If Suffolk County Transit does not provide a bus loop, the Town should explore the feasibility of providing a Town-sponsored shuttle.

Policy 9.7C: Encourage Suffolk County Transit to outfit its buses with bicycle racks.

At present, Suffolk County Transit's policy is not to allow bikes on buses, and no bike racks are provided at the front of the bus. The County has expressed reluctance to allow bikes or install racks, due to liability issues. However, many bus systems nationwide now successfully offer this accommodation, which encourages use of both bicycles and the bus system. The Town should

investigate further the experiences of other transit operators and provide the information to Suffolk County Transit.

Policy 9.7D: Work with Suffolk County Transit and local businesses to install and improve bus shelters throughout Riverhead.

Bus shelters provide waiting patrons with protection from inclement weather, as well as the hot sun during summer months. Patrons may be more willing to wait if the wait time (already frustrating in itself) is not further complicated by having to endure the snow, the rain, or the heat. Bus shelters should be designed with seating and places to lean, and their design should be compatible with Riverhead's unique character as a rural and residential community. Ideally, different designs should be used in different parts of town, each reflecting the local theme (e.g., Victorian "Main Street" character in downtown; countryside character in Jamesport, etc.).

At the same time, shelter design should be such that the resulting maintenance costs are not unmanageable. The Town should work with Suffolk County to develop a maintenance plan for shelters, ensuring the bus shelters are always free of graffiti and litter, are kept clean, and are repaired expeditiously in case of damage. If appropriate, the Town should consider contributing funds toward the installation and maintenance costs. In Riverhead's business districts, the Town could endeavor to organize local merchants (in downtown, through the Business Improvement District) to pay for shelters.

Policy 9.7E: Encourage Suffolk County Transit to improve and increase paratransit service, particularly for senior citizens.

Currently, Suffolk County Accessible Transit (SCAT) serves disabled persons, upon reservation, for any trip between two points in the County. No trip type take precedence over any other, meaning that it may be difficult to pinpoint one's arrival time. This makes SCAT somewhat inconvenient for work trips, doctor appointments, and other time-sensitive travel. The County should consider starting specialized paratransit services for disabled persons for the commute to work and medical appointments. Also, services specifically tailored to seniors (whether disabled or not) may be appropriate. Seniors may lose the ability to drive before they are considered disabled.

Policy 9.7F: Work with NYSDOT and Suffolk County Transit to explore the need for and feasibility of extending Clipper Express Service to Riverhead.

Currently, this service runs from park-and-ride lots off LIE Exits 58 and 63 west to the Route 110 corridor and the Hauppauge Industrial Park. The existing park-and-ride lots are well-located at two of the most congested spots on the LIE. The Clipper takes advantage of the LIE's high-occupancy vehicle (HOV) lanes, which are found west of Exit 64. Rather than enduring more traffic, commuters have a strong incentive to pull off the highway and use the service.

Extension of Clipper service to Riverhead may be needed in the future, as development continues to occur and LIE congestion worsens. The Town should continue to monitor the need for such services and work with NYSDOT to expand service, if necessary.

Goal 9.8: Encourage use of private vanpool services.

Policy 9.8A: Encourage Riverhead employers to provide vanpool services.

State funding and tax benefits are available for vanpool programs. The Town should assist employers and nonprofits interested in setting up vanpool programs by providing technical assistance and information referrals. If appropriate, the Town may also consider making monetary contributions toward the operation of such programs.

Goal 9.9: Encourage walking, biking, and transit use in downtown and the hamlet centers; and ensure that commercial sites Townwide are pedestrian-, bicycle-, and transit-friendly; and ensure that residential neighborhoods are walkable and bikeable.

A variety of strategies are included in Chapter 6, the Business Districts Element, to improve the walkability of the Town's business districts. Strategies range from sidewalk and crosswalk improvements, to façade and streetscape improvements, to enhanced landscaping and lighting, to design of pedestrian-friendly parking lots.

Policy 9.9A: As part of the site plan review process, ensure that all commercial development is accessible via transit, by bicycle, and on foot.

All site plan applications for commercial development should include sidewalks and walkways for pedestrian access, adequate space in driveways for bike access and circulation, and bicycle parking. Continuous walkways should connect public sidewalks along the roadway with walkways in front of building entrances or storefronts. When application is made for residential subdivision, the needs of bicyclists and pedestrians should be given heed, as much as those of motorists. Subdivisions should include sidewalks, and subdivision roadways should provide shoulders or bike lanes. In addition, public transit connections and transit stops should be identified on all site plans and it should be the responsibility of the developer to make the necessary improvements.

Policy 9.9B: In the review of commercial site plans, consider both the need and location of bicycle racks on an ad hoc basis.

Racks should be of a quality that they provide secure parking for bicycles. Also, racks should be located in prime locations, close to main building entrances. They should be located so as to minimize the potential for bicycle-pedestrian or bicycle-automobile conflicts when bicyclists are arriving or leaving.

Policy 9.9C: Work with the Business Improvement District and the Parking District to both locate and install bicycle rack(s) in a central location.

Individual sites within the Parking District should not be required to provide their own bicycle racks, because parking is shared. Rather, bicycling parking could be located in the shared lots, along the Main Street sidewalks, and along the waterfront.

Policy 9.9D: Work with local merchants in the Jamesport, Aquebogue, Wading River, Calverton, and Route 25A business districts to provide adequate bicycle racks in appropriate locations.

Like downtown, some parts of these business districts may have limited parking and could benefit from a pooled bicycle parking.

Policy 9.9E: Develop standards for street patterns in residential neighborhoods that are walkable.

The Planning Board should continue to require the use of curvilinear street arrangements and cul-de-sacs in residential subdivisions, to allow convenient pedestrian movement. Walkway easements over lots should also be considered to connect streets.

Goal 9.10: Encourage biking throughout Riverhead.

Policy 9.10A: Actively participate in NYMTC's initiative to prepare a bicycle master plan for Long Island.

NYMTC is in the process of developing a plan for a system of off- and on-road bicycle facilities on local and County roadways. As the system is planned for local roadways, NYMTC intends that there be significant input and participation at the local level. The Town should decide on the most appropriate locations for bicycle facilities, using the recommendations in the Comprehensive Plan as a starting point.

Policy 9.10B: When appropriate, include bicycle paths in the Town's proposed greenway network.

As discussed in Chapter 11, the Parks and Recreation Element, a Townwide greenway network is proposed. Each greenway would include a pedestrian path, at a minimum, but could also include bicycle and bridle trails. Bike paths along the greenways would provide residents with an

alternative to on-street riding. Also, dedicated bicycling paths are popular with visiting bicycle enthusiasts and could help draw more tourism activity and spending.

Goal 9.11: Promote pedestrian and bicycle safety Townwide.

Policy 9.11A: Establish guidelines and standards for the development of sidewalks and bicycles paths or lanes alongside roadways.

In its current rewrite of the Town of Riverhead Highway Specifications, the Planning Board should include specifications for sidewalks and bicycle paths on certain street types.

Policy 9.11B: Explore ways to improve bicycle safety on Sound Avenue.

Sound Avenue is currently dangerous for biking due to high speeds. NYMTC is considering an application by the Town for funding a safety improvement project along Sound Avenue between Route 105 and the Southold Town line. This project will provide for the installation of 5-foot wide shoulders on either side of the road and resurfacing of the existing pavement. The NYSDOT supports the project, and funding is likely. The wider shoulder will help improve emergency vehicle access and provide additional room for cars to pull over during an emergency. They will also allow bicyclists to use the roadway more safely, because they will not be in the direct path of oncoming cars.

Off-road bike paths would be preferable to shoulders from a safety viewpoint, but difficult to implement. Installation of continuous bike paths would mean that utilities would have to be moved and some old growth trees eliminated. Moreover, because the current roadway is not aligned with the actual ROW, installation of bike paths along the roadway as is would require the path to hop back and forth across the street, resulting in dangerous conditions for both bicyclists and motorists. To avoid a hopping bike path, the entire roadway would have to be realigned. These changes would have serious cost and scenic quality implications.

The Town should consider ways that the planned shoulders could be made safer for bicyclists. For example, the Town could consider installing rumble strips along the edges of the travel lanes or 3-foot tall wood barriers between the travel lane and the shoulder at sharp curves. If any significant reconstruction of Sound Avenue is ever undertaken, the feasibility of installing bike paths should be reconsidered.

Policy 9.11C: Consider installing bike paths or lanes and making other roadway improvements that enhance bicycle safety along major east-west and north-south routes.

Sound Avenue is not the only major road where improved bicycle safety may be necessary. Other routes that should be considered include, but are not limited to, Route 25, Middle Road, and Reeves Avenue (in the east-west direction) and Doctor's Path, West Lane, Roanoke Avenue and Edwards Avenue (in the north-south direction). Route 58 is not well-suited to bicycle traffic,

due to heavy traffic volumes, high traffic speeds, and frequent curb cuts and driveway activity, so bike lanes would be inappropriate.

Efforts for on-street bike paths or lanes should be coordinated with development of bike paths in off-road greenways. That is, bike facilities should not be duplicated in adjacent locations (e.g., along Route 25 in the downtown area and along the adjacent Peconic River greenway) at the expense of expanding the bicycle network into other parts of Town.

Goal 9.12: Use traffic-calming techniques to slow down traffic on roads used as bypass routes, in downtown, in hamlet centers, and in residential neighborhoods.

The concept and practice of traffic calming is known by a number of names across the U.S., including neighborhood traffic management, traffic abatement, and traffic mitigation. Regardless of its name, the objective is the same, namely to reduce the speed and volume of traffic to acceptable levels for the nature and function of the street and adjacent land uses.

The Institute of Transportation Engineers (ITE) defines traffic calming as “the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users.” In addition, the ITE states that traffic calming devices are intended to be self-enforcing, that is, as opposed to devices that are regulatory in nature, such as STOP signs and speed limit signs.

Traffic calming in its varied guises has been implemented in a large number of communities throughout the U.S. and around the world. When dealing with through-traffic, traffic-calming strategies have been most successful when two conditions are present. First, there is an alternative route to which traffic can be diverted. Second, the travel time on the traffic-calmed route is increased to the extent that it is no longer worthwhile taking, compared to the alternate route.

Policy 9.12A: Undertake a study to identify potential locations for traffic-calming techniques, and identify criteria for implementing those techniques.

As noted, traffic calming can have mixed results if not implemented properly. If one road is traffic-calmed, there must be another facility with the capacity to absorb the traffic overflow. Arterial roads must be improved, as traffic calming is done on side streets. The Town should investigate appropriate locations for traffic-calming. Among the potential candidates are the side streets off of Route 58, local residential streets experiencing through-traffic, pedestrian-intensive areas in downtown Riverhead and the hamlet centers, scenic corridors, and streets in the vicinity of schools and parks.

Policy 9.12B: Conduct a campaign to educate the public about the anticipated impacts of traffic-calming techniques.

An important part of traffic-calming is public education with regard to expectations. Appendix H describes the various traffic calming techniques available, and provides a discussion of their benefits and drawbacks. It is recommended that this be used as a starting point for a public discussion regarding traffic-calming in Riverhead. Throughout the outreach campaign, the public should be encouraged to notify the Town of undesirable conditions on local roadways.

Goal 9.13: Systematically regulate property access patterns, in order to reduce traffic friction.

Policy 9.13A: Amend the existing roadway classification system, in order to maintain proper access management and provide for rural routes.

Roadways perform the dual role of providing access to abutting properties and accommodating through-traffic. It is important that these roles be balanced, because traffic congestion can result when development is poorly planned or driveways are improperly located.

A roadway classification scheme categorizes roads by their function. It usually has four major categories: Expressways, Arterial Roads, Collector Roads, and Local Roads. Expressways serve only through-traffic, with no intersections, or they provide access alongside the road. Arterial roads primarily serve through-traffic, but have intersections with other major roads and provide property access, particularly to large destinations. Collector roads distribute traffic coming from arterial streets, with more frequent intersections and curb cuts. Finally, local streets are entirely oriented to property access, with little or no through-traffic. Similarly, rural routes are dedicated to local traffic and serve neighborhood residents.

Policy 9.13B: As part the Town's access management policy, limit the establishment of excessive curb cuts and driveways on arterial roads, with the exception of scenic corridors, rural corridors in downtown, and in hamlet centers.

This policy is intended to preserve the carrying capacity of arterial roads, thereby reducing future traffic congestion and widening needs as the Town continues to experience development. The subdivision and site plan review processes should make certain that no resulting parcels have access only to an arterial road, which would result in the necessity to establish an additional curb cut on the arterial. Instead, new parcels should be accessed from existing side roads or new roads in the subdivision. If parcels do have sole access to the arterial, access to the roadway should be limited to a single access point. That is, through easements, adjacent lots would connect their driveways into a single curb cut.

In downtown, in historic hamlet centers, and along rural and scenic corridors, consolidated access patterns such as these would be inconsistent with the pattern of small-scale development. In these areas, access patterns should revert to a more traditional pattern, where access is directly from the

arterial roadway. More specifically, this traditional pattern should be preserved in area zoned DC, HC and VC. In these zones, even though parcels would be accessed only from the arterial, not all properties would necessarily have curb cuts, because a pedestrian-oriented pattern of development is being encouraged. Also, in Jamesport and Aquebogue, where traditional neighborhood design is called for in and around the hamlet center, it would be entirely appropriate for residences to front directly onto the arterial roadway. The traditional pattern should also be used along Rural Corridors (RLC zones) and scenic corridors, which would be more compatible with the agricultural uses of those areas.

Policy 9.13C: Require new subdivisions to provide roadway connections to existing arterial, collector, and local streets and reserve space for potential future connections to adjacent undeveloped lots.

This encourages subdivisions to be interconnected, allowing some circulation to take place off of the Town's arterial road network, alleviating some of the traffic congestion on those roads.

Policy 9.13D: Wherever possible, require newly developed or redeveloped commercial sites to locate their driveways several hundred feet away from signalized intersections or to place their driveways on side streets.

Proper spacing of driveways and intersections has been shown to make it easier for drivers to react and to respond to conflicts. Side-street entrances and exits are well-suited to residents, who are more likely to approach Route 58 from north-south streets. Driveways should be two-way to allow both entering from and exiting to roads off of Route 58.

Policy 9.13E: Establish driveway design standards for commercial development, and require newly developed or redeveloped commercial sites to provide auxiliary turning lanes.

Auxiliary lanes help reduce accident risks and increase roadway capacity by reducing the difference in speed between through-traffic and turning vehicles. To the extent possible, left-turn movements at unsignalized driveways should be limited as well. This can be accomplished through the use of channelizing islands in driveways. Along Route 58, left-turn movements will be prevented by the raised center median.

Policy 9.13F: Develop model roadway sections for each type of roadway classification, and work with the appropriate agencies and private developers to ensure that roadways, when built or improved, meets the model specifications.

Property dedication to accommodate the ultimate desired section should be made a requirement for approval of building permits for properties adjacent to the roadway. For roadways not under the jurisdiction of the Town, the desired section should be discussed with the appropriate agency so that ample right-of-way can be preserved for alternative improvement strategies. In some cases, actual design and construction of the roadway to the desired section can be made a

condition of approval for subdivisions. Model roadway sections should specify the number and width of travel lanes, including bike lanes, parking lanes, shoulders, sidewalks, and bus stops for roadways.

Policy 9.13G: Through the site plan review process, require new buildings and parking areas to be sufficiently set back from existing right-of-way lines in order to facilitate future roadway widening.

Driveway throats should also be required to be long enough so that when the road is widened in the future, operations within the site will not be compromised. In addition, cross-easements to allow internal access arrangements should be encouraged so that access to the signalized intersections can be maximized. Where appropriate, similar standards should be applied to frontage on side streets to accommodate widenings to provide additional left and right turning lanes. In order to provide incentive for cooperation, consideration should be given to allowing increased density or relief from parking requirements on the site to offset the loss of use of the property. Alternatively, these setback and site plan requirements could be made part of the language in the newly created zoning district, which could also include provisions allowing the increased density and/or reduction in parking requirements.

Goal 9.14: Better coordinate land use and transportation.

Land use and development patterns influence how and where people travel. Over the last 50 years, Riverhead, like most of Long Island, has followed an auto-oriented pattern of development, making the automobile the mode of choice for most people. In the future, there will be important opportunities to foster more compact settlement patterns that create more opportunities for walking, biking, and transit use. The Sustainable East End Development Strategies study is currently examining how current land use policies and transportation investments have resulted in today's transportation patterns. The study, which is currently being prepared will come forth with recommendations for more sustainable development patterns and improved coordination between towns.

Policy 9.14A: Adopt land use and zoning policies that take into account roadway classifications, such that high-intensity uses are concentrated in locations where roadway capacity is expected to be available.

The Proposed Land Use Plan in Chapter 2 is generally intended to reflect this principle. Rezoning proposals in the future should continue to take into account roadway capacities.

Policy 9.14B: Adopt land use and zoning policies that take into account existing and planned transit services and facilities, as well as the potential for pedestrian and bicycle circulation.

By orienting development to transit, pedestrian, and bicycles, the Town can provide real alternatives to automobile circulation. Policies throughout this chapter are intended to build off

transit, biking, and walking as alternative modes of travel, particularly in downtown and the hamlet centers.

Policy 9.14C: Cooperate with other towns on the East End to foster development patterns that result in more sustainable transportation patterns.

Once the SEEDS recommendations are released, the Town should consider how to best coordinate land use and transportation policies to foster more sustainable development patterns. Sustainable development is critical to maintaining the long-term attractiveness of the East End as a place to live, do business, and visit.

Goal 15: Preserve the character of the Town's scenic corridors.

Chapter 5, the Scenic and Historic Resources Element, provides a detailed discussion of strategies for scenic corridor preservation. In addition, the following policies can help preserve those roadways.

Policy 9.15A: Do not widen Route 25 east of Route 105, but provide for additional widths at appropriate intersections to ensure efficient traffic flow.

Some participants of the CAC meetings expressed the concern that a widening of the Route 58 corridor would create a bottleneck where the road hits Route 105 and is reduced back down to one lane in each direction. At that point currently, eastbound traffic already breaks into two directions: east on Route 25 and north on Route 105 to Sound Avenue. Because the traffic splits, the traffic volumes on Route 25 east of Route 105 are considerably lower, and the neck down to a 2-lane road is appropriate. Widening Route 25 east of Route 105 is not recommended because it would damage the scenic character of the corridor (appealing to wine country tourists) and disrupt business in the hamlet centers of Jamesport and Aquebogue.

Policy 9.15B: Allow Route 25 (east of Route 105) and Sound Avenue (east of Route 105) to share the traffic flows traveling to and from the Route 58 corridor, while preserving the unique scenic and historic qualities of both.

By not widening Route 25, it means that a portion of the traffic bound for Southold will continue to use Sound Avenue as an alternate route. The idea is not to make Sound Avenue absorb all of the traffic flows from Route 58, but for Route 25 and Sound Avenue to share the volumes. Both roads have important characteristics: Route 25 has two historic hamlet centers, and Sound Avenue had a bucolic scenic quality and historic farmhouses. While steps are being taken to protect the visual quality of both roads, traffic will nevertheless continue to make use of both roadways, particularly as North Fork tourism continues to grow.

Some portions of Route 25 will be traffic calmed in the hamlet centers, meaning that traffic will have a tendency to travel north to Sound Avenue. To avert this problem, the side streets between Route 25 and Sound Avenue should be the target of traffic-calming strategies. Also, the Town

should consider traffic calming parts of Sound Avenue, such that Route 25 and Sound Avenue have equivalent traffic calming measures, and neither route is favored over the other for traffic flow.

10. Utility Service Element

10.1 VISION STATEMENT

Utility infrastructure is critical to the health, safety, and welfare of the community. Water, sewer, electric, natural gas, and telecommunications facilities are relied upon by residents and businesses for day-to-date activity and contribute to the Town's economic wellbeing. Utilities should continue to be expanded to meet Riverhead's growing needs. At the same time, the Town should strive to limit any potential negative impacts from new infrastructure on the natural environment or Riverhead's historic or scenic resources.

10.2 SUMMARY OF BACKGROUND RESEARCH

ELECTRICITY AND NATURAL GAS

Since the breakup of the Long Island Lighting Company (LILCO), the Long Island Power Authority (LIPA), as a public entity, has been responsible for electric distribution. Gas distribution has been the responsibility of LILCO's successor company, Keyspan, a private, regulated corporation.

LIPA operates and maintains the power grid that serves Riverhead and hooks up new users into the system. While LIPA is responsible for delivering electricity to homes and business, residents and employers have the option of purchasing these energy sources from other suppliers. This flexibility in the energy market was made possible by federal deregulation of the energy sector in the late 1990s. Since LIPA is a public entity of the State of New York, power supply and distribution are still closely regulated by the State.

As of 2001, the combined forces of utility deregulation and aging power plants have raised the specter of a nationwide energy crisis. So far, Riverhead has not experienced chronic blackouts or brownouts. If the New York City metropolitan region is afflicted by an energy crisis, it is conceivable that Riverhead could experience rolling blackouts or energy shortages, along with other communities. LIPA is currently undertaking several projects to secure a more reliable power supply. These include the Cross Sound Cable project (high voltage underwater cable that would connect the electric transmission grids of new England and Long Island), the installation of new turbines at LIPA plants, the use of portable generators for emergency backup, and the development of a program for off-shore wind power. Either power plant expansions and/or conservation measures may be needed in the future to serve the Long Island's growing economy and population.

Keyspan has been more active in the expansion of its natural gas infrastructure than had LILCO. Service in Riverhead has been expanding. As a general rule, Keyspan will install 100 feet of new main at no cost for each new prospective customer. Recently, the company has indicated it would embark upon a more aggressive expansion plan, to the point that it would make installation more favorable to residents. During focus groups, participants have indicated an interest in maximizing the availability of natural gas service in Riverhead.

SANITARY SEWERS

The Town has a sanitary sewer district with a full sewage treatment plant. This facility provides sanitary waste treatment and disposal for the area around downtown Riverhead, including most of the Route 58 corridor. The facility recently underwent an \$8.5 million upgrade. It is sized at 1.3 million gallons per day (gpd) and provides a 100,000 gpd scavenger waste disposal point which is one of the only two such disposal points available in Suffolk County, the other being at Bergan Point in the Town of Babylon, near the southwestern end of the County.

The Riverhead plant has tertiary treatment, but only for nitrates. Plant effluent is discharged into the Peconic River. The Suffolk County Department of Health Services (SCDHS) believes that this effluent does not adequately dissipate since the extreme west end of the Peconic Estuary is not adequately flushed due to its small size and the distance to the mouth. The Riverhead Town Board, as the sewer district commissioners, and the SCDHS are exploring the possibility of using the Indian Island Golf Course for recharge after treatment (i.e. application of gray water to the ground).

The Riverhead Town Board extended the appurtenances of the Riverhead Sewer District westerly within the bed of County Route 58 to the terminus of the LIE. Due to forecasted sanitary flows emanating from the development of this area, the District is currently at full capacity. The conclusions of the Peconic Estuary Study indicate that there are no plans for increasing the capacity of the district treatment facility without certain technological changes.

However, the Town Board has established the Calverton Sewer District to collect and treat industrial wastewater and sanitary sewage generated by the development of the real property within Enterprise Park at Calverton (“EPCAL”). The existing treatment facility serving EPCAL was originally constructed to serve the Calverton Naval Weapons Industrial Reserve Plant (NWIRP) and has a capacity of 62,000 gallons per day. The Calverton Sewer District will eventually expand to serve all users within EPCAL.

Riverhead currently has one (1) privately owned sewage treatment plant (STP), which serves the condominium development known as Willow Ponds, located at Sound Avenue, Roanoke. The Willow Ponds STP is rated at a capacity of 70,000 gallons per day with expected total flows of 50,355 gallons per day. Due to this under capacity, the Willow Ponds development could sustain higher development yields and is a unique parcel to accept transferred development rights.

SOLID WASTE AND RECYCLING

Riverhead operated a municipal residential collection system and sanitary landfill until the mid-1990s. In 1993, the Town ceased accepting waste at its Young’s Avenue landfill but continued to utilize the transfer station at this 40-acre facility. This transfer station is now closed.

The Town has developed a solid waste management plan that identifies six (6) solid waste collection districts for residential solid waste and recycling collection. Figure 10-1 delineates the boundaries of the six collection districts in Riverhead. The Town solicits bids for each district. The selected carter(s) must provide the Town Clerk’s Office with quarterly tonnage reports for tracking quantities of residential household waste and recyclables. Table 10-1 shows the 2002 quarterly tonnage figures for the six collection districts in Riverhead. In 2002, Crown Sanitation Inc. collected approximately 5,400 tons of household municipal solid waste (MSW) in collection districts A, B and C, and Waste Management Inc. collected approximately 5,000 tons of household MSW in collection districts D, E and F.

Table 10-1: Solid Waste Collection Quarterly Data, January 1, 2002 – December 31, 2002

<i>Carting Company</i>	<i>Type of Waste</i>	<i>1/1 – 3/31</i>	<i>4/1 – 6/30</i>	<i>7/1 – 9/30</i>	<i>10/1 – 12/31</i>
<i>Crown Sanitation (Districts A, B & C)</i>	Household MSW	1263.14	1378.48	1404.39	1348.67
	Paper / Cardboard	345.19	352.98	296.45	331.54
	Commingled Glass, Metals & Plastics	151.56	123.12	151.91	142.19
	Yard Waste & Bulk	600.20	859.63	753.18	737.67
<i>Waste Management (Districts D, E & F)</i>	Household MSW	971.27	1289.79	1490.20	1247.76
	Paper / Cardboard	165.37	171.41	197.31	191.05
	Commingled Glass, Metals & Plastics	79.88	83.82	102.20	75.48
	Yard Waste & Bulk	524.13	739.26	650.33	724.41

Source: Town of Riverhead Tax Receiver, 2003.

The Town also provides for residential yard waste collection and residential yard waste drop-off with compost offered to Town residents. The yard waste facility is now located at the Young's Avenue site. Household hazardous waste collection is conducted quarterly under the Town's STOP program (Stop Throwing Out Pollutants), a very successful program in the Town. Riverhead has also provided its citizens with small battery disposal bins at Town Hall.

Commercial property owners must contract for private waste collection services. Under Chapter 103 of the Town code, source separated/curbside recycling is mandatory in Riverhead for both commercial and residential properties. The Town requires cardboard and newsprint and commingled materials (plastics, metals) to be recycled.

The Town completed and received NYSDEC approval for its 1999 Solid Waste Management Plan. The Town officially adopted the plan and is currently updating the plan to reflect the next five-year management approach to solid waste. Included in the update will be information on the comprehensive recycling program, updated trends in solid waste as reflected in six district tonnage reports, and identification of future solid waste collection, disposal and facility requirements.

The most significant recent change in solid waste management has been the reclamation of the Town's Young's Avenue landfill, a 40-acre site adjacent to a former municipal sand mine, used primarily for daily cover material and highway sanding. The landfill is being reclaimed pursuant to 6NYCRR Part 360 Solid Waste Management Facility Regulations. The Town selected reclamation for a number of reasons including: the growing number of residential developments in the area surrounding the landfill; cover system (cap) was installed, and long term monitoring and maintenance required for a capped landfill (currently 30-years pursuant to Part 360). The reclamation project is being funded with low interest rate bonds and the state will provide up to two-million dollars in matching funds for landfill closure projects.

Figure 10-1

Back of Figure

To date the reclamation project has been refined into a major materials separation project with approximately 80 percent of the materials recovered for recycling. The balance of the waste is disposed of at an out of state landfill. There have been no hazardous materials found and there have been no odors generated largely because the putridcides have decomposed. The project is currently within budget, and slightly ahead of its scheduled completion (2006), with one-third of the landfill's reclamation nearing completion. One of the by-products of the reclamation project is aggregate (stone, gravels and sands). This material is being used in the manufacture of hot-mix asphalt after a Beneficial Use Determination (BUD) for the aggregates was made by the NYSDEC. The asphalt plant is located on the adjacent former sand mine has also been restored in accordance with the NYSDEC mining permit requirements.

Upon completion of the reclamation project and the use of the reclaimed aggregates as feedstock for the portable plant, consideration has been given to utilize the entire 70-acre site as a Town park, among other. New applications and requests for expanding existing solid waste facilities within the Town are being studied. It is expected that the Master Plan and the Updated Solid Waste Management Plan will provide the recommendations necessary to consider these applications.

DRINKING WATER

The Town of Riverhead has demonstrated a strong commitment to providing high-quality drinking water and fire flow protection to its residents. The Riverhead Water District has been expanding its boundaries over the last 20 years from just within the hamlet of downtown Riverhead to approximately 90 percent of the Town. The district now includes a substantial portion of the Town, covering 44.3 square miles using 214.17 miles of water main to supply both domestic and firematic use. Currently there are 1,526 fire hydrants within the district. The Riverhead Water District currently serves over 36,000 customers, 30,000 in Riverhead and 6,000 in the Towns of Southold and Southampton. In addition to the Water District, there are two small private suppliers serving manufactured homes located off Forge Road. All other residents and businesses are supplied by private wells.

The Riverhead Water District maintains 12 supply wells that have a total pumping capacity of 19 million gallons per day. In addition, it maintains five storage facilities that have a combined storage capacity of 4.25 million gallons. The quality of the water is considered to be very good, as it meets all federal and state drinking water standards. The saltwater intrusion problems of the North and South Forks of Long Island are not a problem in Riverhead.

As the district has continued to expand and grow, it has planned on the construction of additional water supply and storage facilities. The aquifer system beneath the Town is of sufficient size to allow for the continued growth within the Town. Additional supply wells will be needed in the future. These wells will need to be located in the western portion of the Town where the aquifer system is deeper allowing full sized wells to be built.

The Riverhead Water District has been able to expand its boundaries and increase its water supply capabilities without increasing the cost of water to its customers. The cost of water has remained unchanged for the past 17 years at \$1.00 per thousand gallons. The water rate is one of the lowest on Long Island. The District has been able to maintain this low cost of water by continuing to operate as a very efficient utility and by establishing a key money fee for all new development within the district. The key money fee is used to construct new water supply facilities for new consumers without placing the added cost on the existing District residents.

Currently, the SCWA and the Riverhead Water District work together to assist each other on a need basis. There are already two metered cross-connects which allow interchange of water, the Southold part of the SCWA being the major beneficiary. The SCWA would like to add two cross-connects to the existing system: one at the Brookhaven-Riverhead border on Route 25; the other at the Southold-Riverhead border on Sound Avenue. This would assist the SCWA in serving Southold.

Nationally, the trend is toward consolidation of water services. Small water districts are being absorbed into large entities. Larger organizations have a greater competitive advantage, because of lower per-unit administrative and capital costs. Also, because of more restrictive National Water Standards, all districts have increasing costs related to testing-monitoring, treatment, and technology. These costs are relatively easier to absorb for a larger entity. As an example of the consolidation trend, American Water Works has grown into a major national water purveyor that serves 16 million people in 29 states. American Water itself is currently being purchased by RWEAG.

The major advantage of a small, local water district is that it can be more attuned to local needs. Because it is directly accountable to Town government, and thus local constituents and voters, the Riverhead Water District has a special interest in providing a reliable, high-quality supply of water to its residents. The Riverhead Water District has been, and will continue to be able to meet the water supply needs of the entire Town over the next 20 years.

TELECOMMUNICATIONS

Telephone and the Internet

As a former Bell Company, Verizon operates and maintains the telephone wires that run throughout Riverhead and is responsible for delivering basic telephone service (i.e., dial tone) and dial-up internet service to the Town's households and businesses. As new buildings are built, Verizon is required to link new buildings into the telephone system. As a result of the deregulation of the telecommunications industry in the 1990s, telephone customers can now choose different service providers for both local and long-distance calling.

A number of companies, such as Easy Access and Direct TV, are now also offering high-speed DSL connections in the Riverhead area. The DSL network is still in the process of being expanded nationwide, and there may be parts of Riverhead (as in every city and town) where DSL is not currently available. DSL speeds can vary widely, depending on the service package,

but residential DSL is typically about 30 kb/second, whereas business DSL can reach as high as 125 kb/second.¹

Cable

Riverhead's primary cable provider is Cablevision, which offers both basic cable (with multiple television channels) and digital cable (offering a larger number of channels at a higher quality). However, digital cable is not currently available everywhere in the Cablevision system, and some parts of Riverhead may not yet be serviceable. Cablevision and other companies also offer internet cable service in some parts of the Town. Cable internet connections can typically upload data at speeds of 150 kb/second, consistently one of the fastest connections available. By way of comparison, a typical residential DSL line has a speed of about 30 kb/second, and a dial-up 56k modem has a speed of 6 kb/sec.

Cellular Communications

Over the last decade, cities and towns nationwide have been inundated with applications for cellular antennae, which are used to provide continuous service to the users of cell phones and other wireless devices. Cellular companies have particularly targeted areas in major metropolitan centers and along major highways, where their customers travel. Although cellular antennas have been installed primarily upon towers on private property, the Town has recently encouraged installation upon water district water towers and standpipes. The Town expects to receive more and more applications for cellular towers in coming years, particularly for areas along the Route 58, Route 25, and Sound Avenue corridors. As such, the Town has and will continue to encourage the co-location of antennas on existing towers.

Because cellular technology is relatively new, its potential health impacts are uncertain. Reports were circulated in the late 1990s suggesting that cell phone use could be linked to cancer or other health problems, but those reports were never confirmed. It is unknown whether residents living in proximity to a cell tower could be subject to some of the same health hazards, if such hazards do in fact exist.

¹ www.cable-modem.net.

10.3 GOALS & POLICIES

Goal 10.1: Ensure that Riverhead's homes, businesses, and institutions are provided with adequate, reliable, high-quality electric, natural gas, cable, and telecommunications services.

Policy 10.1A: Continue to require new subdivisions to install electric, natural gas, telephone, and cable television lines in the beds of new roadways and to provide new lots with connections.

This policy is already standard practice for the Town and ensures a basic level of utility service to Town residents and businesses.

Policy 10.1B: Strongly encourage the expansion of the latest internet technologies throughout Riverhead.

High-speed internet services provide residents and businesses with crucial connections to the World Wide Web, which provides a wealth of information, services, and business opportunities. Through high-speed services, the ability of residents and businesses to take full advantage of the internet is increased.

Policy 10.1C: Pursue the construction of an electric power generator at EPCAL to provide less expensive electric power at EPCAL and to customers town-wide.

Goal 10.2: Ensure that Riverhead's homes, businesses, and institutions are provided with an adequate, reliable, high-quality supply of drinking water.

Policy 10.2A: Continue to expand the Riverhead Water District and the district's capacity, as necessary, to serve current and future Riverhead residents.

Policy 10.2B: Continue to monitor the water supply provided through the Riverhead Water District and strive for high standard of water quality.

Currently, the Town's water district is considered to have high-quality water. The Town should continue to ensure that this high standard is maintained into the future.

Policy 10.2C: Require adequate buffers around public wells, in order to reduce the potential for negative impacts on well systems or groundwater.

Policy 10.2D: Require that private wells are sited and built so as to avoid the risk of being negatively impacted from nearby development.

Policy 10.2E: Require that septic systems, package treatment plants, and other discharge-to-ground wastewater systems are sited and built so as to avoid the risk of negatively impacting public or private wells.

As discussed in Chapter 4, the Natural Resources Conservation Element, the location and design of septic systems should also be such that groundwater and surface water resources are protected.

Goal 10.3: If possible, expand areas around downtown Riverhead, Enterprise Park, and the hamlet centers that can be served by sewer.

Policy 10.3A: With changes to zoning districts in downtown Riverhead and along Route 58, explore the feasibility of expanding the boundaries of the Town's sewer district.

It has been determined that the land area within the sewer district boundaries, if built out under current zoning, would use up the remaining capacity of the sewage treatment plant. The Proposed Land Use Plan in Chapter 2, the Land Use Element, includes a rezoning for certain areas within the sewer district, possibly resulting in reduced sanitary sewer flow from those flows forecasted by Malcolm Pirnie, Inc. in 1990. The Malcolm Pirnie forecast should be revisited to discover potential excess sewer district capacity.

Policy 10.3B: Consider the feasibility of expanding the Town's sewage treatment, taking into account the nitrate flushing dynamic in the western end of the Peconic Estuary.

As noted, Riverhead's treatment plant discharges effluent into the Peconic River. Nitrates are not as effectively flushed from this area as compared to others, due to its location at the western edge of the estuary. Another option is to explore the expansion of sewage capacity using a combination of ground and surface water discharge.

Policy 10.3C: Continue to explore the need and feasibility of an expanded sewage treatment plant for Enterprise Park.

The Town has established a second sewer district to collect and treat effluent from Enterprise Park. The Town is exploring the possibility of expanding the former facility that served the original site from a capacity of 62,000 gallons per day (gpd) to 500,000 gpd.

Policy 10.3D: Suspend the collection and treatment of wastewater generated by out-of-district users.

By contrast, the Riverhead Sewer District currently collects and treats wastewater generated by Suffolk County facilities located within the Town of Southampton. The average daily flow processed from these facilities is estimated at 200,000 gallons per day.

The Riverhead Sewer District should convince the County of Suffolk to be in a position to collect and treat this wastewater by the end of the contract term, which would provide capacity for necessary development within the Town of Riverhead, particularly work force housing.

Goal 10.4: Encourage energy conservation and efficient use of utility infrastructure and services.

Policy 10.4A: Encourage water saving plumbing devices to be utilized town-wide.

This would make more efficient use of the capacity of the Town's sewage treatment plant or private package treatment plants.

Goal 10.5: Ensure that the physical infrastructure associated with utility services is respectful of the Town's natural, scenic, and historic resources.

Policy 10.5A: Require all new utility lines to be installed underground.

This is intended not only to reduce visual blight, but to promote public safety. Overhead wires, in particular, can pose safety hazards to residents.

Policy 10.5B: Work with utility providers to underground existing above-ground utility lines.

Although this is a costly undertaking, there may be cost-effective ways to move utility lines underground over time. As roadway widening and improvement projects occur, requiring the movement of utility poles, utility providers could take advantage of the roadway work to underground the lines. Facilitating access to underground lines for maintenance purposes should also be addressed.

Policy 10.5C: Add cellular towers to the Type I list pursuant to § 61-14 of the Town Code and require the preparation of an Environmental Impact Statement (EIS) to support special permit petitions for new cellular towers.

The addition of new cellular telephone antennas to the existing network is necessary to fill service gaps. In the review of special permit petitions for the construction of cell towers to house new antennas, the Town Board should determine the dimension and location of service gaps and verify the public need to fill such gaps through the SEQRA process.

Policy 10.5D: Strive for increased gray water irrigation on active recreational fields and golf courses.

The Town is currently participating with Suffolk County in a study to assess the feasibility of gray water irrigation on Indian Island Golf Course. In the event that such application of treated wastewater is environmentally acceptable, a pilot program should be pursued at the golf course

and other suitable sites. Other sites that should be considered include Town parks and private and public golf courses Townwide. This policy would result in the reduced discharge of treated wastewater into the Peconic Estuary, reducing the potential for long-term environmental impacts to surface waters.

Policy 10.5E: Explore the feasibility of expanding tertiary treatment of the Town's sewage treatment plant.

The Town currently does tertiary treatment for nitrates only.

Goal 10.6: Continue to provide a high-quality solid waste disposal program.

Policy 10.6A: Continue to review the quarterly tonnage reports that track the amount of residential household waste and recyclables generated throughout the six (6) solid waste collection districts in Riverhead.

Policy 10.6B: Work with private property owners to review the annual performance of solid waste pickup done for commercial and multi-family sites by contracted haulers.

Goal 10.7: Continue to provide a high-quality recycling program that strives to reduce the amount of solid waste that Riverhead sends to landfills.

Policy 10.7A: Prepare an updated solid waste management plan to be approved by the NYS Department of Environmental Conservation.

Policy 10.7B: Continue curbside pick-up of newspaper, mixed paper and white paper as part of the list of recyclable items that the Town picks up in residential areas.

Policy 10.7C: Consider adding expanding the list of recyclable items that the Town will require to be picked up by private haulers on non-residential sites.

Policy 10.7D: In conjunction with the approved solid waste management plan, explore the feasibility of requiring the recycling of building debris or materials.

Policy 10.7E: Continue to review the annual performance of recycling and leaf pick-up, and if necessary, consider adjusting pick-up schedules to better serve the public.

Policy 10.7F: Continue to work with State and County officials to monitor and improve the recycling program as necessary.

New York State reached its goal of 40 to 42 percent recycling by 1997, which was established in the 1987 New York State Solid Waste Management Plan. The Town should continue to strive for a 40 to 42 percent recycling rate, consistent with statewide goals. If necessary, the Town can consider applying for State grant funding, under the Municipal Waste Reduction and Recycling Program. Examples of the types of projects that can be funded by the grant include: waste reduction capital, planning, and promotion costs; recycling equipment; and recycling structures and materials recycling facilities.

Goal 10.8: Continue to mine the former Town landfill and prepare a reclamation plan.

Policy 10.8A: Continue to pursue State funding for mining.

State funding applications have been filed for the \$2 million State matching funds. These funds are for landfill closures and landfill reclamation is an approved closure method under 6NYCRR part 360. The Riverhead site does not require any remediation as it is not a hazardous waste site and thus not a priority site by definition. The New York State DEC approved closure plan for the Town's landfill is the landfill reclamation work plan, which is being implemented.

Goal 10.9: Consider development standards for solid waste management facilities.

Policy 10.9A: Develop setback requirements between solid waste management facilities and adjacent uses.

Setbacks may be different depending on the land use, groundwater flow, wind direction, etc.

Policy 10.9B: Develop site plan requirements for solid waste management facilities.

Buffers, landscape plans, building design types, odor controls, debris controls, fencing, etc., should be considered for this type of land use.

Goal 10.10: Require special permits for all solid waste management facilities.

Policy 10.10A: Consider limiting tonnages of materials imported from outside the Town's six collection districts.

This can be done during the special permit process. Communication and coordination with the DEC would be necessary.

Goal 10.11: Ensure that the Solid Waste Management Plan identifies geographic locations which could support solid waste facilities.

Policy 10.11A: Identify locations for private facilities including transfer stations, compost operations, materials processing, etc., and do not allow applications to be made as non-nuisance industries or wholesale businesses.

Policy 10.11B: Identify possible locations for municipal facilities for leaf composting, yard waste, recycling bins and battery drop offs.

Policy 10.11C: Consider more residential STOP dates or more permanent drop off facilities.

Cooperative effort with the Fire Districts could accomplish this policy,

11. Parks and Recreation Element

11.1 VISION STATEMENT

Parks and recreational facilities provide Riverhead residents and outdoor enthusiasts regionwide with opportunities to exercise, engage in team sports, and to access and experience the natural environment. Parks also provide balance to the built-up areas of the Town, adding to the visual character and quality of life in the community and enhancing property values. The Town should expand and improve parks in all parts of Riverhead and should establish a greenway system that links these parks together.

Riverhead residents love their parks and open space areas. In focus group discussions, participants cited many of the varied recreational activities that they engage in on a regular basis: sailing, canoeing, kayaking, fishing, hunting, swimming, hiking, bird watching, biking, golf, tennis, horseback riding, and all sorts of team sports. They also cited Stotzky Park, State and County parks, and other recreational facilities as community assets.

Riverhead has a variety of unique parks, recreational facilities, and beaches. What makes Riverhead so special is that the parks are strung together by 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. Moreover, parks are such an attractive amenity that they can bolster property values for nearby residences.

Riverhead is fortunate to have not only Town parks and schoolyards, but 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.

11.2 SUMMARY OF BACKGROUND RESEARCH

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.

The Town has several other notable parks and recreational facilities. Grangebel Park is situated along the Peconic riverfront, and the Downtown Revitalization Strategy calls for expansion of the park. The George Young Community Center in Jamesport provides an indoor venue for recreational programs. South Jamesport Park and the Wading River Community Park provide playing fields and other recreational facilities, similar to Stotzky Park except smaller in scale. South Jamesport Park also has one of the few publicly accessible beaches on the Riverhead shore of Flanders Bay. Wading River Beach, Reeves Beach, and Iron Pier Beach are Riverhead's public beaches on the Sound.

When school sports facilities are not being used by students and school teams, they are often used by residents, particularly school children and their parents, for recreational purposes. There are seven school sites located within the Town boundaries. One of them, the Wading River Elementary School, is part of the Shoreham-Wading River School District; the remaining six are part of the Riverhead Central School District. School facilities are discussed in Chapter 12, the Community Facilities Element.

The Recreation Department sponsors recreational programs, exercise sessions, crafts and dance lessons, and sports activities in the parks, the George Young Community Center in Jamesport, and in the school gyms.

EVALUATION OF PARK NEEDS

Amount of Parkland

Currently, Riverhead has a relatively large amount of parkland for 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 2000.¹ 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 school yards alone are counted — 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. In the focus groups, participants noted that recreational facilities were overcrowded.

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, the Land Use Element, the Town's total ultimate population is be expected to reach about 48,400 to 49,100. 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 40.0. The ratio of Town parkland and schoolyards would be reduced from 6.6 to about 3.2. This suggests that at buildout, the Town will still have an adequate amount of overall parkland, but a deficient amount of Town parkland.

To meet NRPA standards for Town parks, Riverhead will need to add another 75 to 250 acres of active parkland in the future, 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 and other funding sources available to purchase open space for the purposes of recreation.

¹ Based on a population of 27,680, as reported in U.S. Census of 2000. Source: www.census.gov.

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 school yard.

Park Type

Residents need a mix of community parks / recreational facilities, schoolyard parks, and small neighborhood parks, each of which serves a different function:

- **Neighborhood Parks.** Neighborhood parks are generally less than 5 acres in size and provide a local place for residents to stroll, visit with neighbors, walk the dog, and take the kids to use the playground. Neighborhood parks have lawns, trees, playgrounds, and walkways, but typically do not have large recreational facilities like 90-foot baseball fields. Smaller facilities (softball fields, bocce courts, etc.) may be provided. Neighborhood parks serve nearby residents who are within a 5-minute walking distance of the park (about a 1/4-mile or 1,300 feet).
- **Schoolyard Parks.** Schoolyard parks have playing fields, tennis courts, basketball courts, and other recreational facilities that primarily attract residents from the surrounding neighborhood. They can range in size from about 5 to 20 acres. Schoolyard parks provide more space and a wider range of facilities than neighborhood parks. If the park is too far to reach on foot, people may drive or bike.
- **Community Parks / Recreational Facilities.** Community parks are generally 20 acres or more in size, and they have unique recreational facilities that are not found elsewhere in the community (e.g., a swimming pool, a golf course, a "regulation" soccer field, etc.). For most residents, driving would be the most convenient ways to reach this type of facility.

Table 11-1 organizes the Town's parks into these functional categories. Riverhead High School, Riverhead Middle School, and the Pulaski School are technically schoolyards, but they actually function as one large community park. Located adjacent to one another, they have a large combined land area and unique facilities (in particular, a track) that attract

residents during non-school hours. Grangebel Park and Lombardi Memorial Park serve as community parks, not because of their size or facilities, but because of their prominent location in downtown and their important influence on the Town's image. Because there are so few publicly accessible beaches in Town, parks with significant beach frontage end up functioning as community-wide parks during the summer.

Table 11-1 Existing Parks and Recreational Facilities, by Function

<i>Community Parks / Recreational Facilities</i>	<i>Schoolyard Parks¹</i>	<i>Neighborhood Parks</i>
-Stotzky Memorial Park	-Wading River Community Park	-Reeves Park Beach
-Grangebel Park		-Millbrook Gables Park
-Lombardi Memorial Park	-Aquebogue School	-Bear Estates Park
-George Young Community Center	-Riley School	-Unity Park
-South Jamesport Park	-Roanoke School	-Horton Avenue
-Iron Pier Beach	-Wading River School	-private parks
-Wading River Beach		-parks in new subdivisions ¹
-Pulaski School		
-Riverhead Middle School		
-Riverhead High School		
-Indian Island County Park		
-Murphy County Park		
-Wildwood State Park		
-Baiting Hollow NYS Conservation Area		
-Policeman's Park		

¹ The Town's zoning ordinance requires major residential subdivisions to provide 5 acres of parkland for every 100 lots and requires that all individual parks be no smaller than one acre in size.²

Table 11-1 suggests that Riverhead has an abundant number of community parks. The list of community parks 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 schoolyard and neighborhood parks. As noted, however, there are neighborhood parks that have been set aside as part of subdivisions or are maintained jointly by homeowners as private parks. In the future, the issue is not so much to ensure that enough neighborhood parks be provided, but that any neighborhood parks that are provided be placed in the best locations and be well-designed and well-maintained. Focus group participants called for additional small- and moderate-size parks and community centers in hamlet centers (i.e., in Wading River).

² If a subdivision would result in inadequate park space, then the Planning Board could allow the developer to pay a fee in lieu of providing park acreage.

Recreation Facility Needs

As noted, the evaluation of national standards suggests that Riverhead needs additional land for active recreation facilities. This is consistent with the result of the focus groups, in which residents cited the need for fishing piers, night-time (i.e., lit) playing fields and courts, a senior recreational facility, an indoor playing facility, and restrooms in Town parks. During the Citizens Action Committee (CAC) meeting of January 30th, 2001, some participants also cited the need for an indoor pool. The Town's Recreation Director confirmed the need for an indoor gym facility that provides space for wintertime sports activities. Currently, indoor programs and lessons provided by the Recreation Department at the Armory Building and the Town's schools must be juggled around the schedules for other activities.

Few additional recreational facilities can be squeezed into Stotzky Park, without removing popular picnic areas, lawns, and trees.³ 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 survey the community relative to priority needs and to develop and plan for this 62-acre area. The Town has received a grant funding from the New York State Department of Parks to pay for both planning and implementation tasks. It is anticipated that the new facility will include soccer and lacrosse fields, a playground, tennis courts, a volleyball court, hiking and exercise trails, a picnic area, bocce courts, chess tables, and parking.

Greenways

While Riverhead has an abundance of farmland and open space, it has little in the way of greenways. In community meetings, residents expressed great interest in creating a comprehensive greenway system that would connect the parks, nature reserves and historic sites located throughout the Town. Greenways are corridors of protected public or private open space that link together parks and other natural or cultural features for conservation, recreation, or transportation purposes. A network of greenways provides a coordinated system of seamless connections between parks, preserved open space, nature reserves, wildlife habitat areas, beaches and public waterways, recreational facilities, historic sites, and public transportation hubs. A greenway can take the form of a manmade trail on an abandoned railroad line, a bikeway running alongside a scenic road corridor, or a linear strip of open space that increases public access to a river or stream corridor. Greenways are typically publicly owned parcels of land, but they also incorporate private open space that is managed for the protection of ecologically sensitive habitats under voluntary agreements with property owners.

Greenways improve the overall quality of life and sense of place in a community by providing not only recreation and non-motorized transportation opportunities, but also environmental and cultural resource protection. Trails and bikeways, two of the most

³ Interview with Jane van de Thoon, Recreation Department, September 11, 2000.

common forms of greenways, create new opportunities for outdoor recreation and encourage a healthy lifestyle. By connecting community, schoolyard and neighborhood parks with natural resource areas, greenways promote walking and hiking, along with running and biking. Moreover, greenways encourage non-motorized transportation, create walkable communities, and provide waterfront access.

The environmental and cultural benefits of greenways are numerous. Greenways protect natural habitats and wildlife refuges, minimize habitat fragmentation, improve air and water quality, and reduce the impacts of flooding in floodplain areas. For instance, riverine greenways capture runoff and filter-out pollutants, while providing habitat and migration routes for wildlife. Greenways situated along scenic road corridors are central to preserving the rural and visual character of a community. Similarly, greenways enable better access to areas of cultural heritage and historic precedence and integrate them into the public park system.

There are several areas in the Town of Riverhead that would be ideal places for greenways. Listed below and illustrated in Figure 11-1 are three potential areas for public greenways:

- *Sound Avenue* – Signed and striped bicycle paths can potentially run along Sound Avenue to provide recreation opportunities and protect the scenic character of the corridor;
- *Peconic River* – Greenways running along the Peconic River would increase waterfront access and preserve open space;
- *Greenways linking Wildwood State Park to the Central Pine Barrens Core Preservation Area* – The western portion of the Town contains a group of non-contiguous State, County, Town, and privately owned parks. Greenways could link these parks together and create an integrated public park system.

Waterfront Access

Public access to the waterfront is a major issue. In Riverhead, public access is currently limited to a few locations on Long Island Sound, Flanders Bay, the Great Peconic Bay and the Peconic River. There are some current efforts underway to improve public access to the waterfront. Iron Pier Beach recently underwent a multi-million dollar restoration that included a new boat ramp, a raised parking lot, a new concrete sea wall, a new bathroom, a small concession area, a gazebo, and a drainage pond to collect stormwater runoff.

Access to the water and the waterfront in New York State is governed by the “public trust doctrine,” which states that the foreshore and underwater lands are held in trust by the State or the local government for the benefit of the public. The foreshore is defined as the area between mean high tide and mean low-tide. When the tide is in, the general public may use the water covering the foreshore for boating, bathing, fishing, or other lawful purposes. When the tide is out, the foreshore may be used to reach the water for those purposes or to lounge or

recline thereon.⁴ All underwater and foreshore areas along Riverhead's shorelines (Long Island Sound, the Great Peconic Bay, and Flanders Bay) are owned by the State.

Increasing development pressures along the shorelines of the 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.

Riverhead can learn from the experiences of other Long Island towns that have also sought to improve public access to the waterfront. In the Town of Oyster Bay in Nassau County, a number of initiatives have helped maintain public access to the waterfront. Several publicly owned sites have been secured over time — such as the Tobay Beach and JFK Wildlife Sanctuary — which provide formal public access to the waterfront. Currently, the *Comprehensive Management Plan for the Long Island South Shore Estuary Reserve* calls for an increase in property acquisition along the shore and for the establishment of "linear linkages" between preserved sites.⁵

⁴Town of Southold, Draft Local Waterfront Revitalization Program, July 2001.
www.northfork.net/southold, downloaded August 2001.

⁵ South Shore Estuary Reserve Council, *Comprehensive Management Plan for the Long Island South Shore Estuary Reserve*, April 2001.

Figure 11-1: Potential Greenway Locations to be considered.

Back of Figure

Other Park and Recreation Needs

During focus groups on parks and recreation, participants cited a number of other needs. Many parks have inadequate parking for pedestrians and bicyclists. Participants also cited the need for additional security and enforcement at parks and beaches. There have been problems with violation of beach rules and loose dogs at parks and beaches. Some participants suggested that park rules be posted, so that users are informed about what activities are permitted in the parks.

Maintenance was identified as a need as well. In particular, focus group participants said that facility upgrades were needed in Stotzky Park (picnic areas, playground equipment), and that the bulkheads in Grangebel Park needed to be improved. The replacement of the deteriorated bulkhead is currently being planned, using a combination of \$1 million in grant funds through the Community Development Department and the Town's Recreation Development fees. A total of \$1.4 million will be spent by the Town to improve the park.

In addition, bulkhead replacement is proposed for the Peconic Riverfront east of Peconic Avenue in conjunction with an extension of the pedestrian boardwalk and a new bicycle path to connect the north and south fork bicycle facilities. The Community Development Department has secured \$2 million in grant funds for this project.

11.3 GOALS & POLICIES

Goal 11.1: Provide adequate, well-maintained outdoor and indoor recreational facilities.

Policy 11.1A: Continue the expansion of Stotzky Park onto the adjacent 8 acre parcel (SCTM: 600-125-1-5.2).

Since the Riverhead Skate Park officially opened on 11 May 2002, Stotzky Park has had limited space for additional sporting facilities, such as ball fields and playing courts. Additional facilities will be needed in the future, as the population continues to expand. As part of the Suffolk County Greenways Program, the county legislature in April 2001 authorized the acquisition of the vacant 8 acre parcel abutting Stotzky Park on the east (SCTM 600-125-1-5.2), to provide for the expansion of recreational uses and parkland. Under this program, the Town of Riverhead is responsible for the construction of the proposed Little League fields and park maintenance.

Policy 11.1B: Proceed with plans to design and develop a 62 acre community park in Enterprise Park, and set aside a significant portion of the park for active recreation facilities.

The Town of Riverhead was awarded \$350,000 in grant funding through the New York State Environmental Protection Fund Program for the provision of recreational facilities and park

improvements on 62 acres of public lands at Enterprise Park. In addition, the Town appropriated \$350,000 in Town funds for the design and improvement of the park. The project is being planned and developed by the Town of Riverhead Community Development Agency (CDA), with the input from the Riverhead Recreation Committee and Recreation Department staff. The CDA is in the process of requesting proposals from engineering and landscape architecture and design firms for the development of the 62 acre community park. In addition, the Town Board is prioritizing the park improvements to determine the facilities that are most urgently needed. Since the Town is expected to need additional recreational facilities in the future, the newly planned Town recreational park in Enterprise Park should provide playing fields, courts, and other amenities. This is consistent with the Town's preliminary vision for the park, which is expected to include soccer and lacrosse fields, a playground, tennis courts, a volleyball court, a picnic area, bocce courts, and chess tables.

Policy 11.1C: Continue to monitor the use of parks and recreational facilities, and identify future lands that can be acquired and used for recreational purposes.

As noted, the Town may require at least 75 acres and as much as 250 acres of additional parkland for recreational facilities in the future. The Town should continue to monitor use patterns, in order to assess exactly how much land will be required and when new facilities may be needed. The best sites would be those located in hamlet centers, in the downtown area, or adjacent to schools. Sites in proximity to preserved open space areas, having waterfront access points or greenway connections, or with attractive scenic vistas should also be considered. The Town should consider purchasing and reserving preferred parkland sites in advance of development.

Policy 11.1D: Add more schoolyard parks to the Town's parkland inventory, where appropriate.

As noted, the Town has a large number of community parks, but fewer moderate-size schoolyard parks. Schoolyard parks provide active recreational facilities, particularly basketball courts, tennis courts, and playing fields (like community parks), but they are generally smaller and oriented to local neighborhoods. That is, they are not so large that they would attract residents from all over Riverhead.

Policy 11.1E: Continue working with the Armory and the school districts in order to allow Riverhead residents to use their recreational facilities.

The Town currently makes use of the Armory and school facilities for both indoor and outdoor sporting activities. In some neighborhoods, the school yard is the nearest recreational facility, and children make use of the playgrounds and playing fields after school hours. Riverhead residents should continue to have the option to use school yard facilities when they are not in use for school purposes.

Policy 11.1F: Explore the feasibility of building a Town gym for indoor fitness and recreation, as well as an indoor pool.

Currently, the Recreation Department relies on the Armory, the George Young Community Center, and school facilities for the use of indoor recreational space. The Recreation Department often runs into scheduling conflicts with the Armory and the schools, which sponsor their own events and programs. As the population continues to increase, there will be more demand for indoor sporting and fitness activities, and scheduling conflicts will likewise increase.

The Town should consider the feasibility of building a gym (i.e. an indoor facility with multi-purpose playing courts and activity rooms) that would provide dedicated space for the Recreation Department's programs. A Town gym should be centrally located and could be co-located with other public facilities, such as a police substation, a school, a branch library, or a community center.

The Town should also look into the feasibility and practicality of building an indoor pool facility. The Riverhead YMCA proposal includes an indoor, Olympic-size swimming pool, and if built, it would not be practical for the Town to build a duplicate pool elsewhere. Also, although the Riverhead Central School District does not currently have a pool, it may make sense for the district to consider developing a pool in the future, particularly if a new high school is built. Such a facility could then be used by school swim teams, as well as the general public. Barring the development of a YMCA or school swimming facility, the Town should consider building its own public pool.

Policy 11.1G: Explore the feasibility of installing outdoor lighting on existing or future sporting facilities, in order to allow nighttime use.

During public meetings, residents discussed the need for outdoor lighting in conjunction with tennis courts, soccer fields, football fields, and other similar facilities. The Town should consider installing outdoor lighting on either existing facilities or new facilities that may be built in the future. Outdoor lighting should be designed such that glare is directed away from adjacent properties, and if necessary, vegetated buffers should be used to reduce glare impacts.

Policy 11.1H: Explore the feasibility of building an additional community center, either in the downtown area or in the western part of Town.

As noted, residents cited the need for additional community center space. The existing center is in the Jamesport area, inconveniently located for residents in the western part of Town. A location in the Wading River, Calverton, or downtown areas should be contemplated.

Policy 11.1I: Explore the feasibility of expanding State and County park space in Riverhead.

Work with State and County officials to explore the feasibility of expanding existing parks or establishing new parks. By adding parkland, State and County agencies can simultaneously conserve open space and scenic views, protect natural resources, and provide greater recreational opportunities for residents. Because the Town is not responsible for maintaining State and County parks, they provide a relatively low-cost amenity to the community. Moreover, the value of residential property located near parkland is typically increased, strengthening neighborhoods.

Policy 11.1J: Strive for a high standard of maintenance and cleanliness at all Town parks.

During focus groups and CAC meetings, participants cited Grangebél Park and the Wading River Community Park as having the most immediate maintenance needs. Improvement needs at these and other Town parks should continue to be identified periodically. The Town should continue to program improvements to Town Parks annually, preparing the annual budget.

Policy 11.1K: Help the Peconic YMCA and another similar organization to identify a suitable site in Riverhead.

It has become apparent that Riverhead is a viable community to support a self sustaining YMCA. The Town should provide assistance with respect to identifying the most appropriate location for the facility.

Goal 11.2: Promote neighborhood parks.

Neighborhood parks are located in proximity to the places where people live, creating more opportunities to walk or bike to nearby recreational sites. Neighborhood parks, moreover, are particularly well-suited to the needs of young children, older adults, and seniors. Lacking the active recreation facilities sought out by teenagers and young adults, neighborhood parks provide a quieter location, where children can play and adults can stroll, read, and relax.

Park requirements for new residential subdivisions are described in § 108-97-B(14) of the Zoning Code. Under these requirements, subdivisions are required to provide five acres of park space for every 100 building lots. Developers are required to provide this park acreage within the subdivision in parcels no less than one acre in size. These provisions have already resulted in open space parcels being set aside in new subdivisions. In addition to setting aside park space, developers or applicants should provide a park maintenance plan in the subdivision review process and demonstrate the measures that will be taken to keep the park space in good repair.

Policy 11.2A: Establish design guidelines for neighborhood parks.

A neighborhood park should have adequate pedestrian and bicycle access from subdivision streets; paved walkways and bikeways; lawns for recreational activity; attractive, park-like landscaping; and benches. Small recreational facilities, like a playground or a softball field, may be provided as well. However, in general, large sporting facilities that attract a larger amount of recreational activity — like regulation baseball fields, soccer fields, and skate parks — should be avoided in order to maintain the majority of the park for strolling and other passive recreation. A well-designed park would also help bolster property values and would increase the willingness of property owners to use and pay for the park.

Policy 11.2B: Restrict park dedication within the Agricultural Protection Zone (APZ).

In order to maximize the preservation of farmland within the APZ, the Planning Board should not require park set-asides in the approval of subdivisions within the APZ.

Goals 11.3: Establish a public greenway system with walking and hiking trails, along with bicycle lanes and bikeways.

A public greenway system would provide recreation and non-motorized transportation opportunities, while protecting ecologically sensitive areas and preserving open space. Greenways would expand upon the recreational opportunities available to community residents and tourists, and would complement the Town's efforts to promote tourism. (See Chapter 7, the Economic Development Element) Potential greenway locations to be considered are shown on Figure 11-1.

As discussed in Chapter 9, the Transportation Element, Sound Avenue is a bucolic country road with scenic views of historic homes and farms. Designated as an historic corridor by the State in 1974, Sound Avenue is an ideal place for greenways. In particular, striped bicycle lanes and/or bike paths running along Sound Avenue would expand recreation opportunities and preserve the scenic character of the corridor. Since Sound Avenue runs in an east-west direction across the Town, it provides sufficient access to Town beaches, community parks private campgrounds, and public golf courses. Greenways would promote alternative modes of transportation to the automobile and increase pedestrian access to these areas.

Areas along the Peconic River are ideal settings for greenways because they would provide access to the waterfront and preserve open space. Under New York State's *Wild, Scenic, and Recreational Rivers Act*, the Peconic River is designated as "scenic" west of the LIRR bridge (located west of the Long Island Expressway), and "recreational" between the LIRR bridge and the dam in Grangebelle Park in downtown Riverhead. New development along the riverfront is strictly limited, and if development is permitted at all, it is likely to be subject to permit approval by the State's Department of Environmental Conservation (DEC). "Trails," "bridges" (provided they are for non-motorized recreational use), and "private or public

roads" are all permitted, with a DEC permit.⁶ In sensitive resource areas (i.e., stream corridors and wetlands), greenway paths would be setback a minimum of 50 feet from the edge of the resource, in order to minimize human impact.

Another ideal place for greenways is in the western portion of the Town where there are several non-contiguous State, County, Town, and privately owned parks. Through a series of trails and bike paths starting at Wildwood State Park and terminating at existing trails in the Central Pine Barrens Core Preservation Area in the Towns of Southampton and Brookhaven, greenways would enhance recreation opportunities and act as links between Riverhead's parks and wildlife habits.

As Figure 11-1 illustrates, the greenway could begin at the entrance of the Wildwood State Park and run alongside Hulse Landing Road. It could then turn left and hug the northerly side of Sound Avenue adjacent to County protected farmland. The greenway could continue along Sound Avenue until it reaches the Boy Scouts of America Camp, located south of Route 25. Trails and/or bike paths could cross the camp property and enter the DEC property that abuts the camp on the south. The greenway could potentially link up to the Calverton Mountain Bike Trail, which is situated on the southeast portion of the DEC property. Finally, the greenway could cross the Pine Barrens Core Area on Enterprise Park at Calverton (EPCAL), and possibly connect to the Paumanok Path, which includes several separate trails that traverse the wilderness of the Pine Barrens. In particular, the western portion of the Pine Barrens Trail, which runs 15 miles from Route 25 in Rocky Point to Schultz Road in Manorville, is an ideal location for a link to the network of greenways in Riverhead.

Policy 11.3A: Prepare a five-year greenway development plan, and update the plan periodically until the greenway system is completed.

The five-year plan would identify and designate all on-road and off-road greenways, and provide a detailed implementation plan that outlines appropriate maintenance and management practices for the public greenway system. While the Town should use publicly owned land for the designation of greenways, it should also explore opportunities for voluntary agreements with property owners that would increase the amount of public greenways. Any liability issues could be dealt with at this time. The development plan should encourage voluntary participation through trail easements, dedications, and/or cooperative agreements, and specify what properties or easements meet the criteria for designation in the public greenway system. Voluntary participation efforts in the greenway system should be coordinated with efforts for farmland and open space preservation. Designation of private lands in the greenway system should be based on the following criteria:

⁶ New York State Department of Conservation, *Wild, Scenic, and Recreational Rivers Permit Program*, <www.dec.state.ny.us/website/dcs/wsrr/wsrr02.html>.

- *Connectivity.* The property would connect existing recreation parks, trails, natural resource areas, and/or scenic corridors, or it would complete a critical segment of a newly planned greenway.
- *Threat of Development.* The property would be under development pressure and/or a commonly used trail in danger of being eliminated.
- *Receptive Property Owner.* The property owner would be willing to place an easement on the property.
- *Scenic Quality.* The property would have scenic views of natural or historic features, such as farmland, woodlands, wetlands, bodies of water, historic farmhouses, or cemeteries.
- *Natural Resources.* The property would contain wetlands, creeks, or streams; significant habitat areas; endangered or threatened plant or animal species; or groundwater recharge capabilities.

The development plan should define minimum engineering, design, and safety standards for greenways. The design of a particular greenway could take a variety of different forms, depending on whether it is located on a roadside shoulder, along a waterfront area, in a freestanding easement, or elsewhere. The Town should adopt uniform standards that address the common elements of any greenway and ensure the safety of pedestrians, bicyclists, and other users. Design standards should address signage, trail paving, pavement striping, drainage, maintenance, landscaping, bike path width and alignment, sight lines, and other engineering and design features. Standards should be established prior to designation, so that the Town knows the amount of land needed to accommodate a typical greenway. Standards for greenway bicycle paths should be consistent with Town standards for on-street bicycle lanes.

Policy 11.3B: Allow new major subdivisions to provide required park space in the form of a greenway.

As noted, new subdivisions in Riverhead are already required to provide park space. The Town should allow subdivisions to provide a portion of the required park space in the form of a linear greenway, provided that the greenway meets established standards, is accessible to the general public, and fits into the adopted greenway plan.

Currently, if the Planning Board deems that the required parkland would be inadequate and unsuitable for use as a park, then the developer can pay a fee in lieu of providing the park space. The fees are then deposited into a special fund. The Town should consider allowing the developer to use this fee to purchase a greenway easement or improve a greenway near the subdivision. This provision would help bolster the greenway system and would ensure that subdivisions without neighborhood parks have access to a nearby greenway.

Policy 11.3C: Designate major greenway entrances, where parking is provided and greenway maps are posted. Post roadway signs that direct motorists to major greenway entrances.

Not all Riverhead residents would live within walking or biking distance of a greenway, and they would be expected to drive to a major greenway entrance, park their cars, and walk or bike from there. Also, out-of-town visitors would most likely arrive by car. In order to accommodate these users, there must be adequate off-street parking for greenways in designated locations. This parking could potentially be provided through shared parking arrangements with the owners of existing commercial parking lots in business districts. At all other entrances, on-street parking should be permitted but off-street parking should not be provided. Roadway directional signs should direct motorists to entrances where parking is available. Pedestrian and bicycle access should be convenient and safe at all entrances.

Goal 11.4: Coordinate park development with open space preservation.

Policy 11.4A: Conversion of the KeySpan property.

In 2003, the State of New York and KeySpan entered into an agreement whereby the State would purchase the development rights from approximately 518 acres of agricultural land on the site and would purchase in fee title of the woodlands and disturbed area for inclusion in the State park system.

Given the uniqueness of the property and its remote location, the Town should work with the State to improve the property to support the Town's tourist economy, elaborated in Chapter 7, the Economic Development Element, of this plan. Such improvements could include a lodge, equestrian center, or a public beach. Further, the Town and State should explore ways in which such recreational facilities could be franchised in order to provide that revenue lost to the Town of Riverhead by the State purchase of the KeySpan property. In the event that the property is not conveyed to the State, the property should be developed in accordance with the Transfer of Development Rights (TDR) legislation, which could support a mixed-use development of residential development and tourist related facilities.

Policy 11.4B: Provide incentives to homeowners associations or neighborhood corporations for establishing and maintaining public trails through open spaces areas in clustered subdivisions, when appropriate.

According to § 108-90-A through C of the Zoning Code, clustered subdivisions can either dedicate open space to the Town or create associations or corporations to own and maintain the open space areas. The Town would have the right to create trails through dedicated open space, but not through association/corporation-owned space. Incentives could be used to entice associations and corporations to provide and maintain trails. Incentives can be in the form of property tax benefits to all property owners in the association or corporation. As an

alternative, the Town could agree to pay for a portion of open space maintenance, in exchange for opening up the trail to public access.

Goal 11.5: Improve access to community parks.

Policy 11.5A: Explore the feasibility of expanding the parking lots at Iron Pier Beach, Wading River Beach, Stotzky Park, and other community parks.

Parking demand at beaches and community parks at times exceeds lot capacity. Additional parking spaces would provide residents and tourists with better access to community parks and recreational facilities. If expanding existing parking lots beyond their current footprints is unfeasible, re-striping is a way to derive more spaces from the existing paved area, provided that the width of each stall is not reduced.

Policy 11.5B: Extend greenway connections to community parks.

As stated above, greenways would promote alternative modes of transportation, such as walking and biking, and provide better access to community facilities. Pedestrian trails and bicycle lanes and/or bike paths would help alleviate the parking problems at community parks and beaches.

Goal 11.6: Improve public access to waterfront areas.

Policy 11.6A: Ensure that an existing public right-of-way that provides waterfront access is not obstructed as a result of private development.

There are public right-of-ways throughout Riverhead that give access to waterfront areas. In some cases, those access points have been grown over and no longer have the appearance of a public right-of-way. The Town should endeavor to identify all such right-of-ways and ensure that they are kept free and clear, continuing to provide access to the waterfront.

Policy 11.6B: For large subdivision applications for properties that have frontage on the Great Peconic Bay, Flanders Bay, the Peconic River, or Long Island Sound, consider requiring developers to provide an access point to the waterfront for the purpose of providing access to the water, pursuant to New York State's "Public Trust Doctrine."

The general public has the right to use the water surrounding Riverhead, as well as the foreshore (the area between the mean high-tide and mean low-tide). To safeguard that right, the Town should require that access points to the waterfront be provided. These access points should provide people with the ability to reach the waterfront for the purpose of boating, fishing, and swimming. However, the Town cannot require developers to dedicate or otherwise provide access to beach areas above the mean high tide line for use by the general

public. Vehicle access to beach areas should be maintained within the designated areas, pursuant to Chapter 48 of the Town Code.

By "large subdivisions", this policy does not mean all "major subdivisions", which are defined in the Town zoning code as any subdivision with 5 or more proposed lots and/or where a new street or street extension is involved. The policy is intended to apply only to large-scale subdivisions, in which significant pieces of open space or farmland are being converted into residential neighborhoods. The Town should determine an appropriate definition of a "large subdivision," based on the sizes of currently vacant parcels along waterfront areas. However, the minimum size should be no less than 15 to 20 lots, so as not to create an undue burden on the owners of small lots. On such small-size parcels, provision of public access to the waterfront would be more likely to complicate overall site planning.

Policy 11.6C: For large subdivision applications for properties that have frontage on the Great Peconic Bay, Flanders Bay, the Peconic River, or Long Island Sound, provide incentives for developers to provide a publicly accessible promenade, park, beach, and/or trails along the waterfront.

Many Riverhead subdivisions have been designed such that some of the resulting properties extend right up to the water, with a private beach or seacliff. While these properties have wonderful waterfront views and access, other properties in the subdivision and the public at large are cut off from the waterfront. Public access to the beach and the waterfront should be maintained to the greatest possible extent. This helps bolster property values not only for a few properties, but for the subdivision as a whole, because the entire neighborhood ends up having access and proximity to the water.

The Town should encourage developers to set aside publicly accessible land along the water's edge for the purposes of beachfront recreation, with regular access points from local roads. One type of incentive could be a density bonus that would allow the construction of additional housing units. Another incentive could be in the form of greater flexibility in terms of site planning, bulk, or other subdivision requirements.

Policy 11.6D: Work with other agencies towards acquisition of lands for parks or nature preserves.

The Town of Riverhead entered into an agreement with the Nature Conservancy to prioritize parcels to be purchased by the Town for open space values.

Policy 11.6E: Explore the feasibility of expanding and improving existing boat ramp facilities.

Because cars have to pull up to a boat ramp to unload, boat ramps require adequate space for automobile movements. With increasing demand for waterfront access and public access to the Sound currently limited to three sites, back-ups at Town boat ramps are expected to

increase. The Town recently completed a renovation of the boat ramp at Iron Pier Beach and residents in the Wading River area have cited the need to restore the ramp at Wading River Beach as well. Further improvements and expansions may be needed in the future.

Policy 11.6F: Explore the feasibility of building a public marina on Long Island Sound.

Currently, there is no public marina on Long Island Sound, and the construction of a marina could enhance the public's ability to use the Sound.

Policy 11.6G: Continue to provide a high-quality facility at East Creek.

The site currently provides the only public boat ramp and docking facility on Riverhead's bayside. In addition, a municipal pump out station is located at East Creek. Some participants of the CAC meetings cited maintenance as an ongoing concern at this site. The Town and the State should continue to ensure that the facility maintains a high level of quality services. Similarly, as stated in Chapter 4, the Natural Resources Conservation element, the Town should pursue the acquisition of a marine pump-out vessel, with the financial assistance of the State, County, or federal agencies, if possible. This would minimize the potential for boats improperly discharging their wastewater directly into the Sound or the Peconic Estuary

Goal 11.7: Enhance funding mechanisms for parks.

Policy 11.7A: Consider the feasibility of establishing park districts throughout Riverhead.

A park district would own and operate private parks and would have the authority to collect fees from residents living within the district for purposes of park operation, maintenance, and security. Riverhead already has private homeowners' associations that own and maintain private parks and beaches, but so far, this mechanism has been utilized primarily in conjunction with new subdivisions. This policy suggests that larger districts could be established independent of the subdivision process, as in Southold. The Town of Southold has four park districts, the oldest of which — the Southold Park District — was established in 1907. Encompassing most of the Southold hamlet, the four parks within the district are the private property of the residents who reside within the district. All who use those parks are subject to the rules and regulations set forth by the district's board of commissioners. Use of the parks is free to district residents and their guests, although non-residents can obtain permits to use them.⁷

⁷ Town of Southold, *Guide to Southold's Parks & Beaches: Park District Beaches*, <southoldtown.northfork.net/Parks_Beaches.htm>, visited June 2002.

Policy 11.7B: In conjunction with large subdivisions (see Policy 11.6A) and clustered subdivisions, consider requiring the establishment of a Homeowner's Association to own, operate, and maintain neighborhood parks and to collect fees from residents living within the subdivision for the purposes of park operation, maintenance, and security.

While neighborhood parks are attractive from a user's perspective, they can be more costly for the Town to maintain, as compared to larger parks and recreational facilities. Currently, in the Town's zoning ordinance, clustered subdivisions can create associations or corporations to own and maintain open space areas, but it is not required. A Homeowner's Association should be established for large subdivisions that are clustered or otherwise required to set aside open space or park land. The association would collect fees from homeowners and would have the ability to decide whether open space areas would be made accessible to the general public or whether use would be limited to residents.

Policy 11.7C: Explore the feasibility of requiring out-of-town residents to obtain permits to use any Town park or recreational facility.

This is already done for Town beaches, but the permit requirement could potentially be expanded to other parks as well. The downside of this policy is that it could discourage use of Town facilities by potential tourists, contrary to the goals of Chapter 7, the Economic Development Element. To this end, the Town should monitor the use of Town parks and recreational facilities by out-of-town visitors, in order to determine whether use levels are such that permits and the related fees are warranted.

12. Community Facilities Element

12.1 VISION STATEMENT

Because community facilities protect public safety and enhance the quality of life in Riverhead, they should be improved and/or expanded to meet growing needs. At the same time, the Town should seek opportunities for the efficient and multiple use of facilities, in order to limit increases in costs. New facilities should be conveniently sited in or near residential neighborhoods and hamlet centers, where they can easily accessed by residents and contribute to the sense of community.

12.2 SCHOOLS

The Town of Riverhead has three separate school districts, shown on Figure 12-1: (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), six of which are located in Riverhead. Only one of the schools in the Shoreham-Wading River School District is located in Riverhead. That school is located 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.

RIVERHEAD CENTRAL SCHOOL DISTRICT

Additional classrooms are needed to accommodate population growth in the CSD between 2000 and 2009. In June 2000, Western Suffolk BOCES completed a *Long Range Planning Study* for the CSD. Tables 12-1 and 12-2 compare school capacity with enrollment, both for 1999 and 2009 (projected). Currently, many of the schools in the CSD are operating at or over capacity; that is, they are overcrowded. 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.

In the 2001-2002 school year, the CSD reorganized the grades in order to use its space better and therefore relieve some of the overcrowding problem. Fourth graders were moved from the Pulaski Intermediate School to the elementary schools, such that the K-3 schools were converted into K-4, with full-day kindergartens. Sixth graders were moved to Pulaski from the Middle School. 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.

Figure 12-1: Community Facilities

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Table 12-1: School Capacity and Enrollment

	<i>Functional Capacity 1999</i>	<i>Enrollment June 2003</i>	<i>Enrollment vs. Capacity</i>
Aquebogue Elementary (K-3)	301	448	149%
Phillips Elementary (K-3)	473	532	112%
Riley Elementary (K-3)	413	593	144%
Roanoke Elementary (K-3)	346	369	107%
Pulaski Intermediate (5-6)	575	776	135%
Riverhead Middle (7-8)	996	715	72%
Riverhead High (9-12)	1288	1387	108%

Sources: Riverhead Central School District, June 2003; Western Suffolk BOCES Office of School Planning & Research for the Riverhead Central School District, Long Range Planning Study, June 2000 - Final Report.

Table 12-2: Projected School Capacity and Enrollment, 2009

	<i>Planned Functional Capacity 2009</i>	<i>Projected Enrollment 2009</i>	<i>Enrollment vs. Capacity</i>
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.

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 Boces report has determined that 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.

SCHOOLS: GOALS & POLICIES

Goal 12.1: Provide adequate land for school expansions or new schools, while ensuring that school buildings fit into their surrounding neighborhoods.

Policy 12.1A: Continue working with the school districts to identify appropriate sites for new schools.

The four schools in the downtown area, all of which will face a shortage of classroom space in the near future (i.e., within the next ten years), have difficult land constraints. Although the Pulaski School could potentially accommodate additions in its side yards, the High School, the Middle School, and the Roanoke School have no additional room to expand.

Beyond 2012, population levels will continue to grow, as will the school-age population. There will be two countervailing demographic trends in coming years. On the one hand, the senior population will grow, as the baby boom generation enters retirement. At the same time, many people reaching retirement age may move away to more affordable parts of the State or the country, because seniors tend to have more limited incomes. As seniors move, families with young children will continue to be attracted to Riverhead, because it has a housing stock popular with families (single-family detached homes) and the good schools and recreational amenities that families want.

For these reasons, it is uncertain exactly how many school children may need to be accommodated in local schools in 2020 or 2040. Nevertheless, additional school sites will be

needed, and the Town should be proactive in identifying potential school sites. The Town may want to consider purchasing and banking sites that could be used for school, recreational, or other public purposes in the future.

Policy 12.1B: Encourage the Riverhead Central School District to consider expanding downtown school sites before developing new schools in outlying locations.

The four downtown schools are located in the geographical center of the Riverhead CSD, which includes a large portion of the northern part of Southampton Town. The downtown location is convenient for students, who can easily walk to Main Street shops, Pulaski Street, Stotzky Park, or the downtown Library after school.

Policy 12.1C: Work with the school districts to explore the feasibility of purchasing vacant parcels or open space/farmland sites adjacent to existing school sites.

The Wading River Elementary School, if an expansion becomes necessary, would not have room to expand on its current site, but the large vacant site next to the school could be set aside for a future expansion project. Vacant sites next to other schools should be identified and considered for potential purchase as well.

Policy 12.1D: If school expansions are undertaken, ensure that the design of the additions is consistent with the design of the original building.

The Pulaski School has an attractive facade from the early 20th century that contributes to the civic character of downtown. It lends a beautiful impression to the street. To the greatest extent possible, the front facade should not be altered or obscured from view.

Policy 12.1E: Work with the school district to ensure that the architectural design of school buildings is compatible with the surrounding neighborhood.

Policy 12.1F: Ensure that the school districts reduce or mitigate traffic impacts resulting from school expansions or new school development, to the greatest possible extent.

Goal 12.2: 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.

Policy 12.2A: Work with the school districts to identify appropriate sites for new schools in downtown and in hamlet centers.

Because the downtown location is ideal for many reasons, a new school would be well-sited in the downtown area. There are several large vacant sites in the vicinity of Stotzky Park, as well as sites on East Main Street. If downtown sites are not available or feasible, sites near the business districts of Jamesport, Calverton, Aquebogue, or Route 25A should be

considered. In these locations, schools would be well-located relative to student populations and would contribute to the civic character of those centers.

Policy 12.2B: Continue working with the Riverhead Central School District to determine the feasibility of locating a new high school in the vicinity of Enterprise Park at Calverton.

From a land use planning perspective, schools should be ideally located in downtown or the hamlet centers. However, for a several reasons, it makes sense to consider locating a new high school facility in Enterprise Park.

- First, because the land is currently owned by the Town, it could be offered at a reasonable price to CSD, saving the taxpayers who live in the CSD a significant sum.
- Second, the school site could be located next to the Central Pine Barrens Core Preservation Area, Robert Cushman Murphy Peconic River County Park, and the newly proposed Town park (see Chapter 11, Parks and Recreation Element). The location of a new school in this particular place provides great educational and recreational opportunities for students.

Nevertheless, there are two potential constraints that could make the siting of high school in the Calverton area less than ideal. First, the school would be located on the western edge of the CSD district, meaning that some high school students would have travel about 15 miles through Town to reach the site. Some students would be bused, but others would be driven by their parents, guardians, or friends, and still others would drive their own cars. The Town should make certain that the CSD has a workable transportation scheme that prevents undue traffic impacts on Town roads and ensures the safety of students traveling those distances.

Second, there is still ongoing discussion about the potential for an active airfield supporting the commercial and industrial uses to be developed at Enterprise Park at Calverton, even though the airport referendum was defeated in November 2001. The Town should consider the possibility that an airfield could have negative impacts on an adjacent school. The Town should make sure that the high school is so situated that children are not placed at risk. In particular,

1. The high school should not be located within the crash hazard zone for the airport, as determined by the Federal Aviation Administration (FAA). These zones are typically found at the beginning and end of runways.
2. The high school should not be located within high noise-impact areas, as determined by the FAA and in accordance with the FAA's guidebook *Land Use Compatibility and Airports: A Guide for Effective Land Use Planning* of September 1999. Areas impacted by high noise levels are not just the immediate areas around the airport, but those areas within the runway flight path.

12.3 LIBRARIES

RIVERHEAD FREE LIBRARY

The Riverhead Free Library is a "free association library," which is chartered under the Board of Regents of the State of New York to operate as a public library. A "free association 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.

The Library building, conveniently located in downtown, recently underwent an expansion and upgrade. The total size of the building was expanded from 19,000 to 30,000 square feet. New offices, study rooms, meeting rooms, book stacks, and storage facilities were added. Another expansion will probably not be needed for many years. However, as the population grows, additional Library space may eventually become necessary.

Resources and Programs

Professional librarians and library volunteers are on-hand in the Library to help patrons find the materials they need. In addition to the large on-site book collection, the Free Library participates in the Suffolk County Cooperative Library System, which allows patrons to borrow books from other libraries. Tanger Mall recently made a donation to the Library, for use in compiling a "wellness" collection. These funds are being used to purchase books on cancer, a cancer database, and to staff a "cancer room" in the Library.

Through a Gates Foundation Grant, the Library has been able to buy new hardware and software for the computer lab, which currently has ten computers and offers internet access. The Library offers internet training to seniors and allows school-age children to use the internet for research projects. The Library maintains a web site with searchable electronic databases.

The Riverhead Free Library also sponsors programs, events, and courses, functioning as a quasi-community center. The Library hosts more than 500 programs, events, and courses during the year. Programs have included children's storytelling, defensive driving courses, cooking classes, and training for U.S. Census volunteers. The Library also sponsors games and other events for seniors.

The Library basement has several activity rooms, one of which contains a small performance space, and another of which contains a kitchen for cooking classes. The Library also has a children's room, a crafts room, a quiet study room, and several meeting rooms. Central Suffolk Hospital sponsors seminars in the Library meeting rooms, and community groups use

the activity rooms for their meetings and functions. There are plans to add a café to the Library as well.

In the future, as more and more Library resources become available online, many people will be able to access Library materials from the comfort of their own home. However, the internet will never fully replace the Library, which provides resources that are unavailable online, such as hard-copy materials, original and historical documents, and research assistance from experienced librarians. Also, the Library will continue to play a strong role as a community center.

Parking

The Free Library currently has 115 parking spaces, which are usually adequate. However, during summertime (when school is out) and special events, it is not unusual for the Library to experience a parking shortage. In the future, population expansion will attract more visitors and lead to more frequent parking shortages. The Downtown Revitalization Strategy calls for additional municipal parking to be developed along Court Street. More parking in the area would benefit the Library, because patrons could park there when the Library lot fills up.

OTHER LIBRARIES

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.

LIBRARIES: GOALS & POLICIES

Goal 12.3: Provide adequate library space.

Policy 12.3A: If additional Library space becomes necessary, work with the Riverhead Free Library to consider expanding the downtown site.

While the downtown site has little space left, one of the adjacent properties could potentially be purchased and used to accommodate an expansion. A second floor could also potentially be added. The advantage of expanding the Library building is that all Library resources would be concentrated in one place, promoting efficiency, saving costs, and creating "one-stop" convenience. Also, because of its central location, the existing site is convenient to most Riverhead residents. It also adds to the sense of community and civic role in downtown Riverhead. Parking shortages could worsen as the result of an expansion, so consideration would also have to be given to the availability of parking on-site and in adjacent areas.

Policy 12.3B: As an alternative to expanding the downtown Library site, work with the Riverhead Free Library to consider establishing branch libraries in other parts of Riverhead.

Although branch libraries would be more expensive to operate and maintain, the Library could achieve cost efficiencies by co-locating branch libraries with schools, community centers, fire stations, and other public facilities. Branch libraries have significant advantages. They provide residents with some local Library resources (such as hard-copy books, magazines and newspapers, internet access) and a quieter alternative to the busier central Library. Also, developing branch libraries could eliminate the need to undertake a difficult or costly expansion of the existing downtown Library.

If branch libraries are developed, they should be located in hamlet centers, next to schools, or near senior living facilities. The majority of library users are school children and senior citizens, many of whom do not have access to car. Branch libraries in these locations would be more easily accessible to people who need to reach the Library on foot, by bike, or via transit. Another concept to explore is to give the branch Library its own unique theme, targeted to a user group. For example, a branch library could become the “kids’ branch” that specializes in programs and books for elementary school children.

Goal 12.4: Continue to expand library services and programs.

Policy 12.4A: Encourage the Riverhead Free Library and the Baiting Hollow Free Library to continue expanding library collections and providing special programs in areas of interest to Riverhead residents.

The Riverhead Free Library currently provides an array of programs for seniors and children, and it has unique collections, such as the center for cancer research.

Policy 12.4B: Encourage the Riverhead Free Library to expand the role of the Library as a community center.

The library already functions as a community center, with programs appealing to all age groups. The library's "community center" role should continue to be expanded.

Policy 12.4C: Encourage the Riverhead Free Library to explore the feasibility of leasing Library space and facilities to telecommuters and work-at-home professionals.

With the growth of the second-home population, ever-increasing LIE traffic, and the trend toward telecommuting, more people than ever before are working out of a home office one or more days each week. While many workers have faxes, computers, and internet connections at home, they often lack amenities such as photocopy machines, reference materials, teleconferencing capabilities, and meeting rooms. The Riverhead Free Library should consider using a portion of the downtown facility or any future branches as business

technology centers, where telecommuters or work-at-home professionals can use a portion of the Library as a workspace. The Library could consider charging professionals for the use of specific services, such as the use of meeting rooms, classrooms, computers, internet connections, printers, and photocopiers. In considering this idea, the Library should take into account the demand for such services, the amount of space that could be dedicated to such uses, possible fees, and any potential impact on other services provided by the Library.

12.4 TOWN OFFICES AND FACILITIES

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

Although Town Hall has served Riverhead's needs very well for many years, office space is currently at a premium. Town Hall was built in the early 1970s, when the Town's population was about 18,000 to 19,000 residents. As of the year 2000, the population had increased to nearly 28,000 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, as the population grows to those levels forecasted in the Land Use Element of this Comprehensive Plan.

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.

TOWN OFFICES AND FACILITIES: GOALS & POLICIES

Goal 12.5: Consider a variety of options for increasing space for Town Hall offices, while ensuring that Town Hall remains in the downtown area.

Policy 12.5A: Explore the feasibility of relocating the Police Department to another site and use the vacated space to expand Town Hall offices.

As discussed in Section 12.4, office space at the Police Department is also currently at a premium and the department could be better served by a new building in a non-downtown location, where access for patrol vehicles may be easier.

Policy 12.5B: Consider the feasibility of building or renovating a "landmark" building in downtown Riverhead in the vicinity of the County Courthouse, including the Roanoke School, to serve as a new Town Hall or to provide space for "satellite" Town Hall offices.

The Riverhead Central School District is considering closing the Roanoke School due to its small size and relocating those students to another facility. As a landmark building in the center of downtown, the Roanoke School would be an ideal location for a new Town Hall. The Town should work with the Riverhead CSD to explore the feasibility of utilizing the Roanoke School as a new Town Hall, in case that building is no longer needed for school purposes.

Another option is to utilize a portion of the Roanoke School or another building as a satellite office, while keeping the main Town Hall facility in its current location at 200 Howell Avenue. In this scenario, the remainder of the satellite building could be used for other public purposes, such as a community center, a teen center, a senior center, or a Town museum.

Policy 12.5C: If Town Hall is moved to a new facility, develop a plan for the reuse of the existing Town Hall facility.

The facility could be reused for either public or private purposes. There are currently plans to utilize the former senior citizen nutrition center located on Howell Avenue to accommodate Town Hall offices or the Justice Court. Office campuses are found along East Main Street, so one option is to sell the facility to an investor/developer for the purpose of converting it into private-sector office space. Other options include: expansion of the Police Department into the facility, and/or establishment of a second senior center, and/or establishment of a community center. Whatever the use, the Town should not move from the site unless there is a clear plan in place for disposing of or reusing the site, lest the facility were to lie vacant for an unwarranted period of time.

Policy 12.5D: Locate all Town Hall satellite offices in downtown, even if those offices are not in a single building.

Town offices, if not located in Town Hall itself, should still be located in downtown. This ensures greater ease of communication and coordination between various Town offices. It also ensures that people requiring Town services do not have to make circuitous trips to various offices in different parts of the Town. Also, keeping these Town offices in downtown would reinforce the civic role of downtown Riverhead.

Policies 12.5A through 12.5C provide various options for how Town Hall offices could continue to be maintained in the downtown area. If necessary, the Town could also consider leasing privately owned space in downtown, whether in a second-floor space above a Main Street shop, in a freestanding converted home in the Office/Courts District, or in one of the office campuses along East Main Street.

Goal 12.6: Ensure adequate space for Town maintenance facilities.

Policy 12.6A: If any new sites become necessary in the future, consider locations easily accessible to major arterial roads.

This facilitates road maintenance work and snow plowing tasks. It would also make those facilities easier to access by residents (e.g., for the purpose of dropping off brush and leaves).

Policy 12.6B: Ensure that existing and new Town maintenance facilities minimize impacts surrounding areas.

Any new facilities abutting a residential use should be buffered with some combination of berms, vegetation, and fencing, in order to reduce off-site impacts. Ideally, facilities should not be located on local residential streets, but on collector arterial roads in non-residential areas. This would reduce the exposure of residential neighborhoods to truck activity. Also, recycling storage and sale bins are just some of the uses that may be found on a Town maintenance facility, and such uses are inappropriate in a residential area.

12.5 POLICE

The Riverhead Police Department provides patrol and detective services throughout the entire Town. The Police headquarters is located at 210 Howell Avenue, behind Town Hall, and it 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.

The department has 74 officers, plus 33 additional civilian staff members. According to Riverhead's Police Captain, the department is understaffed. Each police officer is responsible for handling an excessive number of calls, creating a drag on response times and follow-up on reported crimes. Outdated technology (i.e., manual system of records management) also makes the department less efficient.

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.

POLICE: GOALS & POLICIES

Goal 12.7 Continue to ensure the safety of Riverhead residents and employees by maintaining adequate response times and service levels.

Policy 12.7A: If necessary, consider the feasibility of expanding the police headquarters, or moving the headquarters to an alternate location in a larger building.

Moving the police station could potentially solve several problems. First, it could provide more space for the department because a larger building could be built. Second, the existing building could provide spillover space for Town Hall offices.

Policy 12.7B: As an alternative to expanding or moving the police headquarters, consider establishing substations in hamlet centers and business districts.

Substations provide additional places for Townspeople to go in case of emergencies, and could provide a base from which officers can do walking or biking patrols. Substations are most useful in major activity centers such as a shopping center or a hamlet center, where there is a great deal of foot traffic. Building substations can help avoid the difficulty of expanding the Howell Street site, which would be difficult or costly to expand.

The Town should identify parcels that could be purchased for use as police substations, particularly in hamlet centers (i.e., Route 25A in Wading River, Jamesport), and major business centers (i.e., downtown, Tanger Mall, Enterprise Park).

Goal 12.8: Ensure the safety of Riverhead residents and employees in case of a terrorist attack or other form of violent attack.

Policy 12.8A: Develop an emergency response plan that coordinates the efforts of the Police Department, the fire districts, the Volunteer Ambulance Corps, and Town departments in the event of a terrorist attack.

As part of this plan, the Town should consider two scenarios: one where Riverhead or a nearby town is attacked; and another where New York City is attacked. In the unlikely event of an attack in or near Riverhead, the Town should consider establishing emergency shelters that provide temporary housing for displaced families. In case of an attack on New York City or another employment center where some Riverhead residents may be working, the plan should include strategies for helping Riverhead families contact their loved ones or emergency relief/assistance agencies. The plan should also consider ways to help evacuate Riverhead residents from those employment centers or to provide police, fire, or ambulance assistance to those places.

Policy 12.8B: Coordinate the town's emergency response plan with federal, State, and County plans.

The federal government is currently developing strategies to improve and coordinate emergency response. The Town should work with all other public agencies to ensure a coordinated response.

12.6 FIRE

Riverhead is divided into four fire districts: Jamesport, Riverhead (downtown area), Wading River, and Manorville. District boundaries are shown on Figure 12-1. 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 equipment inventory includes 3 pumpers, 1 tanker, 1 rescue truck, 2 police vans, 1 brush truck, and 1 boat. The district has one employee who oversees the operation of the facility, and 85 volunteers serve as fire fighters.

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.¹ 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.

¹ Discussion with Jamesport Fire District, Chairman of the Board, June 1, 1999.

The district is currently building a new training facility near the intersection of Cross River Drive and Northville Turnpike. The district currently has a shortage of training space for its 180 volunteers. 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. Some participants in the CAC meetings expressed concern about the location of a training facility in an agricultural and residential area. Fire training facilities have simulation drills with live (albeit controlled) fires, which could have visual, noise, air quality, and other impacts on adjacent areas.

The district's fire-fighting equipment is relatively new, as most vehicles were purchased within the last 8 years. Equipment levels are generally adequate to serve existing development. The district has 4 pumpers, 1 tanker, 1 rescue truck, 2 police vans, 3 brush trucks, 1 hook-and-ladder, and 1 combined pumper/hook-and-ladder. The district has 7 paid employees.²

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 has 5 employees and an all-volunteer fire-fighting force.³ 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.⁴

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. The district has 5 pumpers, 1 tanker, 2 police vans, 3 brush trucks, and 1 combined pumper/hook-and-ladder. However, future development at Enterprise Park may require additional facilities and equipment.

Enterprise Park lies within the district and is served by the Manorville headquarters. Prior to the closing of the runways, the site was entirely served by its own government-run fire-

² Discussion with Riverhead Fire District, Supervisor, June 1, 1999.

³ Discussion with Wading River Fire District, District Manager, June 14, 1999.

⁴ Letter from the Wading River Fire District to the Riverhead Town Master Plan Committee c/c Fire Marshall Bruce Johnson, January 5, 2002.

fighting squad, as required by the Federal Aviation Administration (FAA). Currently, the Manerville 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 volunteer districts (Manerville and Wading River both rely on volunteer firefighters, primarily), 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 Connections

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.

Coordination

The various fire districts in Riverhead coordinate with one another through two organizations: the Town Fire Chief's Council and the Town Fire District's Council. The Town Code requires detailed building plans and plans for major subdivisions be provided to the Fire Districts. The plans need to show the location of doors, windows, and walls, and they need to indicate the presence of utilities and flammable materials. The Town should continue working, through the Fire Marshall, to ensure that fire districts have all the information they require.

Staffing

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 for several reasons:

- 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.

FIRE: GOALS & POLICIES

Goal 12.9: Ensure that Enterprise Park has adequate fire fighting services.

Policy 12.9A: Continue working with the Manorville Fire District to ensure that adequate fire-fighting services, with adequate response times, are provided at the Enterprise Park at Calverton.

Establishment of a new fire substation in or adjacent to Enterprise Park has been proposed. However, as noted, establishment of a new station may not make sense, if volunteers are not available in the immediate area.

Policy 12.9B: Explore methods available to require developers to finance the construction of a substation at EPCAL.

The need for a fire substation in Enterprise Park would be generated primarily by new commercial development on the site. Thus, since the future developers of the site will be the primary beneficiaries of the new substation, consideration should be given to developers to assist in the provision of a new fire station.

Goal 12.10: Maintain adequate response times and service levels.

Policy 12.10A: Continue to work with the Riverhead Fire Marshall and fire districts to ensure that subdivision and site plans provide adequate street connections and access points for emergency fire vehicles.

Subdivisions should have adequate street connections in order to facilitate access for emergency fire vehicles. In particular, the number and length of cul-de-sac streets ought to be

limited; at least two access points should be provided to a subdivision; and at least one through-street should be provided (i.e., a street that links two major streets, or which connect a major street with an adjacent subdivision). Typically, a street grid is easier to navigate than a curvilinear street pattern, but a grid need not be required, as long as adequate access points and connecting streets are provided. These standards should be made part of the new highway specifications currently being prepared by the Planning Board.

Policy 12.10B: Continue to ensure that Fire Districts receive detailed site plans, building plans for new buildings within their districts, as well as plans for major and minor subdivisions.

The Town's fire districts use site plans to plot fire-fighting and rescue strategies. Detailed site plans should show the location of all exterior and interior walls, doors, and windows and should indicate the presence of utilities and flammable materials. Copies of plans should be forwarded to the appropriate fire district upon issuance of a Building Permit. Fire districts should also be notified of changes in land use, where there is no addition or reconstruction.

Goal 12.11: Ensure that fire fighting facilities fit into the surrounding areas.

12.7 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 has three ambulance bays, staff rooms, and offices, but is already too small to meet the current level of calls, which reached nearly 2000 in 1999. The facility needs at least one more bay, additional storage and office space, training classrooms, parking, and space for equipment and uniform cleaning, which are required under OSHA standards. 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 has only one bay and 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), 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

Traffic and Property Access

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 respond to an emergency.

Senior Housing

The Town's large senior population is expected to grow even bigger in the future, as the baby boom generation enters retirement. Senior housing — while it is a critical need — 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 calls (emergency and non-emergency) many ambulance corps have been charging for services rendered.

Staffing

Both the RAD and the Wading River EMS are all-volunteer organizations. However, the trend Countywide has been toward the use of non-for-profit paid paramedics for emergency services. Due to work, childcare, and travel demands, volunteers are difficult to find and may not be able to respond to emergencies during weekdays. Also, some volunteers are teenagers who eventually leave for college, and some others are older adults or retirees whose age may eventually prevent them from serving. Paid positions may help create more stability and reliability in the emergency response services.

AMBULANCE: GOALS & POLICIES

Goal 12.12: Maintain adequate response times and service levels.

Policy 12.12A: Consider establishing a new ambulance facility in Enterprise Park.

In conjunction with new development, a new ambulance facility may be needed there. If determined to be necessary, the site should be located in an area such that it can also serve the western portion of the RAD area. As noted in Section 12.6, volunteers generally do not live in the Calverton area, and thus, a substation there would not necessarily help improve response times. The Town should continue working with the RAD to evaluate future needs.

Policy 12.12B: Identify a long-term strategy for expansion or replacement of the Osborn Avenue ambulance facility.

The RAD and the Town should work together to develop a long-term strategy for expansion or replacement of the facility. Although the site, as currently configured, may not be able to accommodate an expansion, there are adjacent underutilized sites that could potentially be purchased to create room for an expansion.

Goal 12.13: Improve emergency access and ambulance circulation.

Policy 12.13A: As part of subdivision and site plan review, discourage circuitous streets, driveways, and parking lot designs.

Elimination of circuitous streets and driveways will allow easier emergency access. This does not mean that a street grid must be built in new residential subdivisions. However, excessively looping or confusing streets should be discouraged. Also, the length and number of cul-de-sacs in a subdivision should be limited, and at least one through-connecting street should be required. All these provisions will help reduce response times in the case of an emergency.

Policy 12.13B: Concentrate senior housing and nursing homes in central locations.

Senior housing generates a greater need for emergency response services than non-age-restricted housing. Thus, it makes sense to locate senior housing in places where emergency response services and medical facilities are more concentrated, particularly in the downtown area. Ideal locations for senior housing are in downtown and hamlet centers.

Policy 12.13C: Explore the need for expanding emergency roadway shoulders Townwide.

Emergency shoulders allow vehicles to more easily pull over in case of an oncoming emergency vehicle. This issue is further discussed in Chapter 9, the Transportation Element.

Goal 12.14: Improve funding mechanisms for ambulance services and work to reduce the need to respond to non-emergency calls.

Policy 12.14A: Consider charging patients for ambulance services.

These fees would supplement the money contributed to the RAD and the Wading River Fire District.

Policy 12.14B: Consider requiring senior housing and residential health care facilities (i.e., nursing homes, assisted living senior housing) to provide their own non-emergency ambulance services.

Such facilities are typically the greatest generators of non-emergency calls.

12.8 HEALTH AND MENTAL HEALTH SERVICES

HEALTH SERVICES

Central Suffolk Hospital serves the Riverhead area and is centrally located near the intersection of Route 58 and Roanoke Avenue. The Hospital runs an emergency room and provides specialized medical services, such as surgery, radiation therapy, geriatric care, and

child birth. The Hospital helps staff the Suffolk County Clinic, which provides primary care and prenatal care to people who lack health insurance. Many people without insurance also use the Hospital emergency room as a de facto primary care center. By law, the Hospital cannot turn away anyone who goes to the emergency room seeking treatment.⁵

Because of increasing health care costs and the shift to managed care, administrators at Central Suffolk Hospital — like all hospitals throughout the country — have had to become more strategic with regard to financial planning. Central Suffolk Hospital has worked to protect its "customer" base by establishing local affiliated doctor's offices throughout the Riverhead area. Affiliated doctors refer their patients to the Hospital for blood work, x-rays, surgery, and other procedures. This strategy has helped keep the Hospital financially solvent, while other hospitals throughout the country have closed or merged.

In the mid-1990s, the Hospital formed a joint parent company with Eastern Long Island Hospital in Greenport and Southampton Hospital in Southampton. This new parent company appoints the boards of the three hospitals, approves capital budgets and master plans, and negotiates with health care providers. This coordinated venture helps the three hospitals achieve economies of scale and save costs, because they now share a single laboratory and warehouse, as well as some administrative responsibilities.⁶

MENTAL HEALTH SERVICES

Mental health is a growing concern for many Americans, and growing numbers of people are seeking out mental health services and/or taking medication to address problems like depression or anxiety. As discussed in Section 12.12, people with developmental disabilities receive treatment from institutions, hospitals, group homes, and outpatient services. People who are not mentally disabled but who nonetheless suffer from chronic mental illness usually obtain mental health services from private practicing psychiatrists or psychologists on an outpatient basis. In addition, some public and non-profit organizations provide affordable outpatient services.

The Riverhead Mental Health Center provides mental health services with sliding scales which are available for people without health insurance. In addition, the Veterans' Affairs office provides a mental health clinic in Riverhead, and the Family Service League of Suffolk County provides a variety of mental health services for families and children.

⁵ Interview with Joseph Turner, Central Suffolk Hospital, September 11, 2000.

⁶ When the parent company was formed, the U.S. Justice Department found that the new company would not result in "restraint of trade" for hospital services on the East End.

HEALTH AND MENTAL HEALTH SERVICES: GOALS & POLICIES

Goal 12.15: Improve access of low-income households to free or affordable health and mental health services.

Policy 12.15A: Work with the Suffolk County Clinic and local service providers to expand outreach to immigrant farm workers and their families with regard to health and mental health services.

Seasonal farm workers and their families often have no health insurance, and as a result, they receive minimal health care and typically no mental health services. Some take advantage of free health care services at the Suffolk County Clinic, and others use the hospital emergency room as a de facto primary care unit. Because many farm workers are immigrants who speak little English, they are often unaware of the services that are available to them at the Clinic. The Town should work with Clinic staff and local service providers to inform immigrant farm workers about their opportunities for obtaining health care and mental health services.

Policy 12.15B: Explore the feasibility of sponsoring a health services shuttle that links transit-dependent patients with Suffolk County Clinic, Central Suffolk Hospital, the Riverhead Mental Health Center, and doctor's offices.

Another limitation on obtaining adequate health care is transportation. People without cars are often unable to get to the doctor, the clinic, or the hospital, unless they take the bus, whose routes or schedules may not be convenient. County paratransit services require advance reservations and will only take people to destinations within a 3-/4-mile distance of Suffolk County Transit bus routes. The only alternative to the bus or paratransit currently is a taxi, which often requires a long wait and a steep fare. An on-call shuttle service would provide a low-cost, relatively efficient alternative to a bus or taxi. The Town should conduct a feasibility study in order to determine the demand for such a service, the appropriate user fee, and the overall cost of operation.

Goal 12.16: Improve the Town's ability to address health and human services needs throughout the community.

In 2001, the Town Board established a Human Services Advisory Board to assess the services provided by the Town and other agencies. The Advisory Board surveyed local service providers working in health care, senior services, youth services, mental wellness, and other human service fields.

Policy 12.16A: Consider establishing a Department of Health and Human Services with credentialed staff in the areas of health services, as well as senior and youth services.

Programs that could be handled or coordinated by such a department could include at-risk youth intervention and adult day care, among others. The department would serve as a liaison between the Town and local service providers, and it could help coordinate the independent functions of those agencies. On an ongoing basis, the department would play a critical role in identifying human service needs and securing grant funding.

12.9 CHILD CARE

Similar to most other communities, Riverhead parents have a difficult time finding adequate, affordable child care. Although there are several child care facilities in Riverhead, most are filled to capacity, and openings are rare. In the future, population increases will only increase the need for child care services, resulting in a lack of options for parents and increasing costs.

There is a particular shortage of infant care services. Only one facility offers infant care for children six weeks old, and that facility is full. There are more opportunities for older children. Most of the child care facilities in Riverhead accept children who are over 18 months old. The Town's two Head Start programs provide education and care for children between three and five years old. An after-school program takes in school-age kids at the end of the school day, but this program is also full.

Parents who work in agro-business (particularly migrant workers) have seasonal child care needs that are going unmet. The Agri-Business Child Development Center is working to develop a free child care program for these seasonal workers. In 2001, the Center came forward with a proposal to build an eight-classroom, 7,000-square foot facility for 76 children from 6 months to 6 years of age. The facility would be located on Doctor's Path near Northville Turnpike. In addition, some parents who work evenings and weekends (i.e., waitresses, shopkeepers, nurses) have difficulty finding odd-hour child care.

Finding affordable day care is difficult for many families. Infant care, in particular, is offered at a premium. Several churches in Riverhead are developing child care programs for low-income households.⁷ The proposed Peconic YMCA would also potentially provide affordable child care and babysitting services, as well as a pre-school.⁸

⁷ Phone interview with Carol Slippen, Counselor at the Child Care Council of Suffolk County, June 22, 2000.

⁸ Joe van de Wetering, Proposed Peconic YMCA Information Packet.

CHILD CARE: GOALS & POLICIES

Goal 12.17: Increase child care options.

Policy 12.17A: Allow small day care centers (six children or less) to be established in single-family detached homes as an accessory use.

The Town's zoning ordinance already allows day care facilities (seven children or more) by special permit in most residential and commercial zones. Allowing such large day care centers through special permit is appropriate since there are particular recreational and safety needs associated with these facilities. For example, automobile traffic and circulation ought to be regulated in detail, in order to prevent danger to youngsters.

At the same time, the zoning ordinance should allow the resident of a single-family home to establish a small day care center of six children or less in his or her household. This would allow a stay-at-home parent to care for other children, in addition to his or her own, and to receive payment for the service. Such a facility would still have to be licensed by the State and should still be subject to approval of a special permit, so that the Town can ensure safety and adequate parking. Allowing in-home day care could potentially increase the available day care services in Riverhead and help relieve the Town's current shortage of facilities.

Policy 12.17B: Allow day care centers to be established in places of worship as an accessory use.

Religious facilities often have community rooms and adequate parking to support a child care facility. Also, many parents would like to have the option to leave their children in a faith-based facility. The facility would still need to be licensed.

Policy 12.17C: Organize a forum of major employers to discuss job/parenting conflicts and potential solutions.

The purpose of the forum would be to generate ideas and initiatives for reducing job/parenting conflicts. Ideally, all employers would be willing to provide or subsidize child care, but as an alternative, employers could allow employees to have flex-time schedules, to work at home, or to have other flexible working arrangements. The forum should also identify actions that the Town could undertake in order to improve child care opportunities, especially infant care (children less than 1 year old).

Goal 12.18: Promote affordable child care.

Policy 12.18A: Actively solicit child care facilities that serve low-income families, or provide evening or weekend child care, or offer infant care.

Infant care and evening and weekend child care are costly services, because of the special care needs of infants and the odd hours. Low-income families have particular difficulty paying for such services, even though they are the more likely to require them. Many low-income occupations (i.e., waitresses, shopkeepers, cashiers, nurses) require people to work irregular hours; these people often need evening and weekend child care. Low-income women are also less likely to have maternity-leave benefits and therefore are more likely to require infant care. The Town should actively seek out organizations that offer specialty services like weekend care, evening care, and infant care and help them set up facilities in Riverhead.

12.10 YOUTH

Riverhead does not have a youth center, but the proposed Peconic YMCA would provide a forum for youth programs and activities in Riverhead. In addition to recreational activities, the YCMA would provide opportunities to participate in team sports and offer education on issues like alcohol and drugs. It would also offer a day camp in the summer and a teen center.

Riverhead schools work with social service agencies to offer youth-oriented educational and awareness programs. The Suffolk Network on Adolescent Pregnancy runs after-school programs, and the Community Awareness Program runs school education programs on alcohol and drug addiction. The Cornell Cooperative Extensive runs the 4-H program, which educates school-age children on issues of teen pregnancy, substance abuse, environmental concerns, and consumer and nutrition issues.⁹

In response to the national epidemic of school shootings, Family Service League started the Anti-Violence Program in 2000 to teach young children (first graders) how to manage anger and solve problems without resorting to violent behavior. This trial program may be expanded to older children, depending on the initial results.¹⁰

Even the best early intervention programs are not foolproof. If a youngster becomes pregnant, develops an alcohol or drug addiction, or exhibits particularly hostile behavior, the child at that point needs individual assistance. The Family Service League and other organizations provide assessment, crisis intervention, counseling, and advocacy services.

⁹ Peconic Community Council web site, www.pccouncil.org/directory.html.

¹⁰ Interview with Bernadette Gilday and Larry Weiss, Family Service League, June 28, 2000.

YOUTH: GOALS & POLICIES

Goal 12.19: Provide additional after-school activities for school-age children.

Policy 12.19A: Help the Peconic YMCA to identify a suitable site in Riverhead.

A portion of a site on Riverside Drive was initially set aside for the Peconic YMCA, as part of a proposed condominium project. As of summer 2001, it was uncertain whether the condo/YMCA project would meet with Town approval. In spring and summer 2002, another site in the Indian Island County Park was being considered, although it was uncertain whether the County would allow the use on parkland. Town should work with the Peconic YMCA to identify a feasible site, preferably in the downtown area or a hamlet center, so that the site is centrally located and easily accessible from most parts of Town. The YMCA should be in a location that is or can be well-served by transit and accessible by bicyclists and pedestrians.

If no downtown site is deemed suitable, other locations to be considered include sites adjacent to existing schools or Enterprise Park. While not as centrally located as other potential sites, a site at Enterprise Park would be located near the Town's new 60-acre, community-wide park (see Chapter 11, the Parks and Recreation Element), creating the possibility for shared use of the two recreation facilities. It would also be located near the potential new high school site (see Section 12.2), Peconic River County Park, and the Core Preservation Area of the Central Pine Barrens. Also, the Calverton location would offer the financial incentive of the "Empire Zone", which provides tax credits and incentives for new businesses. The Town could consider offering land to the YMCA at no cost or a reduced cost.

Policy 12.19B: Explore the feasibility of establishing a Riverhead youth center.

The need for a youth center will only increase as the population continues to grow. Between 2000 and 2010, the number of teenagers in Riverhead is expected to increase significantly, as the children of baby boomers grow up. Although the Peconic YMCA would have some youth-oriented programs, a Town youth center could serve as a clearinghouse for the full range of youth services and programs. In particular, the youth center could provide a location for 4-H programs, information on youth services, mentoring or big-brother/big-sister programs, counseling sessions, summer classes and activities, sports outings, and social events.

Goal 12.20: Promote youth educational and intervention programs.

Policy 12.20A: Encourage the Riverhead Central School District and other school districts to continue working with social service agencies to provide intervention and education programs.

The cooperative effort between Riverhead schools and local social service agencies has been extremely effective. The Town should encourage the school district to continue, monitor, and continually improve programs for youth.

12.11 SENIOR CITIZENS

Senior citizens make up a large portion of the Town population and have special needs, due to their frail health. Many seniors choose Riverhead as a retirement home, because of the proximity to East End attractions and the relatively affordable housing, compared to other East End towns. In 1999, about 30 percent of the population was over the age of 55, compared to 22 percent countywide. In 2000 to 2020, the senior population is expected to increase, as retirees continue to move in, and as life expectancy increases.

Seniors require access to a range of housing types and health services, from independent living (for those in good health) to community living, to assisted living, to nursing homes (for those in the poorest health). Senior housing is discussed in Chapter 8, the Housing Element. Seniors also require outpatient medical services, convenient access to shopping, opportunities for socializing, and transportation. The Town already has several facilities and programs that serve the elder population. As the senior population grows, additional services and facilities will be needed.

Riverhead has no congregate care or assisted living facilities. This is a significant gap in services, as seniors who require intermediate-level care (between independent living and a nursing home) would have to leave Riverhead. There are only two nursing homes in Riverhead: the skilled nursing facility at Central Suffolk Hospital (60 beds) and the Riverhead Nursing Home (181 beds).¹¹ These facilities typically operate near capacity, so additional nursing home facilities may be required in the future as well. Also, Riverhead lacks a hospice, and there is a need for such a facility in order to provide care to people in the last stages of life. The nearest facility is the East End Hospice in Westhampton Beach.

SENIOR CENTER

The Riverhead Senior Center, which is funded through the Town, provides a variety of programs and services for senior citizens, including:

- *Adult day care.* Three days per week; for frail elderly and seniors diagnosed with early Alzheimer's Disease or related dementia.
- *Computer lab.* Free computer training and access to high speed internet service.

¹¹ Intercounty Health Facilities Association, Inc., *Consumer Resource Directory* pamphlet.

- *Dial a Ride*. Free transportation within the Riverhead Town limits for seniors without transportation.
- *Home Chore*. Minor home repairs for Riverhead homeowners.
- *Home Aid*. Housekeeping, shopping, laundry, errands for a fee.
- *Meals on Wheels*. Hot noontime meals delivered weekdays to homebound seniors unable to cook for themselves.¹²
- *Recreational Activities*. Group-oriented events and games.

According to staff members at the Senior Center, inadequate transportation is a major concern of senior citizens. Many seniors lose the ability to drive and must rely on either family members with cars, transit, or free services like dial-a-ride. Some senior living communities, including Riverhead Landing, provide free shuttle service throughout the Town, but demand for the shuttle service has reportedly outstripped the availability. The proposed Peconic YMCA would be oriented to seniors, as well as other groups.

SENIOR CITIZENS: GOALS & POLICIES

Goal 12.21: Continue to provide adequate household, meal, and transportation services for senior citizens.

Policy 12.21A: Expand Adult Day Care, Dial a Ride, Home Chore, Home Aid, and Meals on Wheels services through the Riverhead Senior Center.

As senior citizens live longer and long-term care becomes more expensive, more seniors will choose to live independently, whether or not they are able to perform daily functions on their own. Some senior citizens will choose to live with family members, who can provide some care, but many adult family members also have work and child care responsibilities and cannot provide senior citizens with the full attention they require. This means that seniors will require more in-home services, particularly for meals, household chores, and errands. The services currently offered at the Center may need to be expanded to meet the increases in demand.

Policy 12.21B: Continue to offer a variety of social activities, programs and meals, along with support services at the new Town Senior Center on Shade Tree Lane in Aquebogue.

On October 28, 2002, the Town opened a new and improved Senior Citizens Center on Shade Tree Lane in Aquebogue. The new center offers additional recreational space and more accommodations than the old senior nutrition center located on Howell Avenue. Meals are prepared on site and served daily, and the new center can seat up to 180 persons in the dining

¹² Town of Riverhead, *Senior Citizens' Programs and Services* brochure.

room. While there has been discussion of establishing a satellite senior center, no plans have been considered.

12.12 SPECIAL NEEDS POPULATIONS

PEOPLE WITH DEVELOPMENTAL DISABILITIES

Developmentally disabled patients who live outside group homes (discussed in Chapter 8, the Housing Element) require outpatient services, including medical, therapeutic, educational, and counseling services. Social service agencies like East End Disability Associates, Inc. already provide a range of services, including case management.¹³ Case managers work with outpatient developmentally disabled persons to find and coordinate services for them. The County Center also sponsors mental health clinics, and agencies like Synergy Center provide vocational training and drop-in counseling for people with development disabilities.¹⁴ The trend of deinstitutionalization suggests that the need for outpatient services will continue to grow.

PEOPLE WITH HIV OR AIDS

With the advent of protease inhibitors, people with HIV and AIDS have much longer life expectancies. As a result, while HIV/AIDS is still life-threatening, it is also a chronic condition that people live with for many years. Riverhead does not have an organization that specializes in providing services or counseling to people living with HIV or AIDS, although the Riverhead Health Clinic and Central Suffolk Hospital do treat people with HIV and AIDS. Other Towns on the East End have a variety of AIDS service organizations, advocacy groups, and referral agencies. Major service organizations include:

- *The East End AIDS Wellness Project (EEAWP)*. Started in 1993, the EEAWP is located in Sag Harbor. In collaboration with Southampton Hospital, it provides support, advocacy, and case management for HIV-positive people. The program is based in office space donated by the Village of Sag Harbor.
- *The East End HIV/AIDS Center*. Located in East Hampton, the Center provides outpatient medical care, psychiatric services, and medical service for people with HIV or AIDS.
- *Long Island Association for AIDS Care (LIAAC)*. Located in Huntington Station, LIAAC is a multi-service agency offering case management, crisis intervention, support groups, meal delivery, respite care, legal clinic/advocacy, and prevention education.

¹³ Peconic Community Council web site, www.pcccouncil.org/directory.html.

¹⁴ Mental Health Association of Suffolk County, *Directory of Mental Health Services*, p. 24-25.

The Suffolk County Clinic provides testing for HIV and other sexually transmitted diseases (STDs). Treatment for STDs is also available there. Unlike HIV, most other STDs have a cure and are not life-threatening. Housing is a critical need for people with HIV or AIDS. Many people live with the disease for years, but are nonetheless unable to work — making it very difficult to pay basic living expenses. HIV/AIDS housing is discussed in Chapter 8, the Housing Element.

SUBSTANCE ABUSERS

Riverhead does not have any in-patient facilities for substance abusers, and many of the in-patient facilities in other East End towns have closed. Managed care has reduced the funding for in-patient centers, and the State's reduction in Medicaid recipients has limited those who are eligible for in-patient care. Seafield Center in Westhampton Beach is one of the last remaining for-profit, in-patient treatment centers on the East End. Southampton still funds a recovery center in Hampton Bays.

As in-patient centers have closed, the trend has been toward outpatient services. The Suffolk County Department of Health Services is the primary provider of outpatient rehabilitation and detoxification services in the Riverhead area. It is located just south of downtown Riverhead in Southampton. It is one of the only facilities of its kind on eastern Long Island.

VICTIMS OF DOMESTIC VIOLENCE

The victims of domestic violence require a variety of services: from psychological support, to emergency housing, to legal assistance, to childcare. The Suffolk County Coalition Against Domestic Violence provides confidential support groups and counseling for the victims of domestic violence. The organization also runs a 24-hour hotline. Nassau/Suffolk Law Services for Low Income Legal Assistance has a Riverhead office located on West Main Street in downtown. The agency runs a Domestic Violence Project that provides legal aid to victims. The County also offers domestic violence referrals.

SPECIAL NEEDS POPULATIONS: GOALS & POLICIES

Goal 12.22: Continue to support community living in Riverhead.

Riverhead is required by federal law to allow group homes to be built in residential neighborhoods, as discussed in Chapter 8, the Housing Element. Transportation and accessibility are issues that all group homes struggle with.

Policy 12.22A: Ensure that group homes make transportation services available to residents.

Many special needs patients may not be able to drive or take public transportation to their service providers. As a condition of approval, the Town should require group home operators to make transportation service available to residents, who may need to travel beyond the group home for outpatient services, doctor appointments, shopping, or other needs. Moreover, some residents may require physical assistance in traveling or specialized vehicles, and a group home-sponsored service should be able provide such assistance, as appropriate to the group home population.

Goal 12.23: Provide additional out-patient services or walk-in services for special needs populations.

Policy 12.23A: Consider working with Suffolk County and Central Suffolk Hospital to explore the feasibility of establishing an HIV/AIDS clinic and/or service organization in Riverhead.

HIV cases are still on the rise nationwide. Moreover, because of recent advances in HIV/AIDS treatment, HIV is no longer a "death sentence." It is a manageable, chronic disease, meaning that people may live with HIV a long time, requiring household help, meal services, and constant health care. A clinic and/or service agency would help provide needed services to people with HIV or AIDS.

Policy 12.23B: Work with Suffolk County to explore the feasibility of establishing a detoxification clinic and/or addiction recovery agency in Riverhead.

Because in-patient facilities are few and far-between, out-patient services are necessary to assist people in their recoveries from alcohol or drug addiction. A clinic would supplement the services provided by the County.

Policy 12.23C: Work with Suffolk County and local non-profit service providers to expand outreach efforts for the victims of domestic violence.

Victims often feel ashamed to come forward, or they are prevented from doing so by their abusers. Improved outreach efforts can encourage victims to seek out help. Spanish-language counselors and information should also be made available.

13. Appendices

This volume is composed of all the appendices of the *Proposed Comprehensive Plan for the Town of Riverhead, Draft for Public Review* of July 2002. The appendices include extensive background information consulted in preparation of the Proposed Plan. Additional information is included in the text of the Proposed Plan itself, which is available under separate cover. Copies of the Proposed Plan can be obtained by contacting the Town of Riverhead Planning Department at (631) 727-3200.

The following appendices are included herein.

- Appendix A: Agriculture.
- Appendix B: Natural Resources.
- Appendix C: Scenic and Historic Resources.
- Appendix D: Economic Trends.
- Appendix E: Population and Housing Trends.
- Appendix F: Parks and Recreational Facilities.
- Appendix G: Transportation.

Appendix A: Agriculture

A.1 HISTORY OF AGRICULTURE IN RIVERHEAD

Since the earliest settlements, agriculture has been a mainstay of Riverhead's economy. The first settlers grew just enough food to survive. However once basic survival was assured, they began growing grains to sell to communities in New England. They also cultivated fruits and vegetables and raised livestock to feed their own families and for local trade. In the 18th century, intensive farming led to the depletion of the soil. By about 1810, farmers adjusted their practices and began fertilizing their fields with fish scrap from local fisheries and later imported manure from New York City stables.

Throughout its history, farmers in Riverhead have grown a variety of crops, the best known of which are potatoes and cauliflower. Potato production began in 1700's, but did not become a standard crop until the mid-1800's, when the introduction of the railroad enabled farmers to send their crops to more distant markets. The result was a food-producing economy that closely resembles farming today. In 1867, John W. Duryee of Mattituck introduced cauliflower to Suffolk County. That same year the Suffolk County Agricultural Society distributed a pound of cauliflower seed among its members. With the resounding success of this experiment, Riverhead established its second major commercial crop.

Historically, Riverhead farmers have grown such crops as flax for linen thread, wheat, rye and other grains, corn and vegetables, and fruits of all sorts. Specialty products such as cranberries have also contributed to the agricultural economy. In 1893, twenty years after the first seven "Peking" ducks were imported from China, duck farms were flourishing in Riverhead. Duck production peaked just after World War II when there were almost 800 duck farms in Suffolk County, raising two-thirds of all ducks produced in the United States.

The 20th century brought other changes to Riverhead's farming economy. Truck farming enabled the production of specialized crops such as berries, fruits, and other produce that required even faster transportation to market. The potato industry, which had grown immensely with the coming of the railroad, continued to be strong. Cauliflower production peaked in 1949, with 5,500 acres planted locally.

By 1990, cauliflower acreage had dipped to 200. Meanwhile, farmers were experimenting with new crops such as cabbage, beets, and sprouts. While the number of acres in agriculture has decreased since the days of potato and cauliflower production, alternative crops such as grapes, sod and greenhouse growing — which provide high profits on fewer acres — have maintained Suffolk County's role as the state leader in agricultural production.

A.2 DECLINING AGRICULTURAL LANDS

Between 1950 and 1992, farmland in Suffolk County decreased 71 percent, from 123,000 acres to 35,000 acres. (See Table A-1.) According to the Suffolk County Planning Department, farmland continues to decline at a rate of 1,289 acres per year. Yet, as the amount of farmland has declined in Suffolk County, the Town of Riverhead's share of agricultural land has increased. In 1968, Riverhead had 30 percent of the County's farmland (19,550 acres), but in 1996, despite a 9 percent drop in the Town's agricultural acreage, Riverhead had 38 percent of the County's farmland. These figures indicate that Riverhead plays a critical role in the protection of prime agricultural lands in eastern Long Island. In both 1968 and 1996, Riverhead had the largest number of farmland acres in Suffolk County.

Table A-1: Change in Farmland Acreage, 1968-1996

	1968	1996	Change in Total Acres 1968-1996		
			Number	Percent	Annual 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	- 2,100	- 17.6%	- 75.0
County Total	64,400	46,141	-18,259	- 28.4%	-652.1

Source: Suffolk County Planning Department.

Figure A-1: Agricultural Lands by Crop

Back of Figure A-1.

Figure A-2: Agricultural Status

Back of Figure A-2.

Figure A-3: Protected Land

Back of Figure A-3.

A.3 ECONOMIC CONTRIBUTION OF AGRICULTURE

Agriculture plays an important role economically in Suffolk County. The County has lead New York State historically in a variety of agricultural categories and continues to lead in the market value of agricultural products sold. In 1997, the reported total market value for crops in Suffolk County was \$160,784,000 — an average of \$276,993 per farm¹. Suffolk County leads all New York State counties with an average sales per farm figure of \$227,874 — almost three times the State average. In 1997, Suffolk County accounted for 6 percent of total State farmland.²

In 1992, an economic input-output model was used to estimate the impact of Suffolk County's farming industry. The study results indicated that 8,000 jobs are created and \$241 million dollars added to the economy as a result of the local farming industry. With one third of the County's remaining farmland located in Riverhead, much of this money benefits the Town of Riverhead.³ Additionally, studies by the American Farmland Trust have shown that farmland — in contrast to residential development — brings more to municipalities in taxes than it requires in services.

Important agricultural products in Suffolk County include: nursery and greenhouse products, potatoes, rye, cauliflower, broccoli, pumpkins, and spinach. A growing part of the County's agricultural economy is the wine industry, which contributes \$30 million to it's the local economy.⁴ Suffolk County has the largest premium wine industry of any county in the United States outside of California. The wine industry has the potential to bring further economic benefits to Riverhead through increased agro-tourism.

A.4 WINE INDUSTRY IN EASTERN LONG ISLAND

The Long Island wine industry was born in 1973, when the Hargrave Vineyards planted its first vines; this operation produced its first bottle in 1977. Based on extensive research and a nationwide search, the owners of Hargrave Vineyards found that the North Fork offered the ideal climate and soil conditions for growing the vinifera grapes used in producing the high quality wines of France, Italy, and California. During the 1970's and 1980's, additional vintners began converting potato fields to vineyards and producing high quality wines. As of 2001, eastern Long Island had 23 wineries and 1,600 acres of vineyards, which produced 500,000 gallons of wine, or nearly 3 million bottles each year. While this output accounts for only 2 percent of the State's total wine production, Long Island wines account for 90 percent of the State's premium wine sales.

¹ 1997 Census of Agriculture - County Data. USDA, National Agriculture Statistics Service. 1997.

² Ibid.

³ *Southampton Tomorrow, Southampton Comprehensive Plan Update*. Town of Southampton, NY. 1998.

⁴ Suffolk County Planning Department. www.co.suffolk.ny.us/planning.

Today, the Long Island wine industry has become recognized as a premier wine producing region (unlike the upstate New York region, which relies primarily on hybrid grape varieties), gaining national as well as international recognition. After the wines produced in California, Washington, and Oregon, Long Island wines vie with Virginia and Texas wines for recognition among high quality American wines.

The Long Island industry features two federally recognized wine appellations: “North Fork” and the “the Hamptons.” Of the two, the North Fork is the more established. Of the 23 wineries operating on the East End, 17 are found on the North Fork, due to historical and climatological factors. While separated by only a few miles, the North Fork climate differs significantly from that of the South Fork. The South Fork is often blanketed by fog, which is formed when prevailing winds moving up the East Coast encounter warmer land temperatures on Long Island. This fog dissipates as the air moves over land, and the air gains warmth as it moves over the warm waters of Peconic Bay. As a result, North Fork vineyards have the benefits of a warm, dry climate, lighter soils, a longer growing season and crops subject to fewer diseases. The North Fork, unlike the South Fork, is able to produce premium red varieties.

Overall, the wine industry presents an excellent opportunity for economic development in Riverhead. Vineyards provide an economically viable use for agricultural open spaces and enhance the region’s rural image and attractiveness for tourists. In addition, the peak season for winery tours is the autumn harvest season, and wine industry experts on Long Island and in other states such as Ohio and Virginia report that the wine industry extends the summer tourist season by 8 to 10 weeks.

While the Long Island wine industry is constrained by the region’s small scale, the region derives an advantage from its close proximity to New York City, which is one of the world’s foremost wine consumption markets, and which provides the home base for leading wine industry publications and writers, many of whom spend vacations on the eastern Long Island. This provides an advantage to Long Island vintners in enhancing the image and reputation of Long Island wines, and will help ensure the continued growth of the industry. According to industry experts, the Long Island industry should be capable of penetrating far larger segments of the New York wine market. While many of New York’s high-profile restaurateurs feature Long Island wines, less prestigious restaurants offer a huge potential for expansion.

ECONOMIC TRENDS AND IMPACTS

While per capita wine consumption has been declining at a moderate rate, overall consumption is increasing, due to population growth. Also, the domestic industry’s share of the market has been rising, and national demand has shifted away from generic “jug” wines to higher-priced, non-generic, premium table wines.

The average price of Long Island wines is \$9 per bottle, and annual sales of \$27 million generate \$2 million in sales tax revenues. One winery estimates that it receives as many as

10,000 visitors each week during the summer tourist season. The wine industry accounts for nearly 50 percent of total agricultural sales in the area, and generates year-round employment opportunities for labelers, laboratory technicians, salespersons, and tour guides; one North Fork vintner claims that there are very few families in the neighboring Town of Southold in which no family member works for one of the wineries.

Statistics from other wine producing regions show additional economic benefits of the wine industry. In Virginia, each dollar spent on wine injects \$4.19 into other sectors of the local economy, and the corresponding multiplier for new job generation is 7.09. The wine industry contributes significantly to the Virginia's tourism business, with 3 percent of all visits oriented toward winery tours, and 5 percent of all visits including wine tours as part of travel plans.

A.5 AGRICULTURE IN RIVERHEAD TODAY

Suffolk County and the Town of Riverhead represent an agricultural economy on the urban fringe. The transformation from commodity-based production to (mostly) land intensive production of high value crops that can be differentiated in the market is underway in many urban fringe areas in New York State and in fact represents a kind of agricultural resurgence. There are several important components to this change.

A. The transformation from commodity production to specialty crop production requires additional labor.

Given the low unemployment rate in Riverhead and the region in general, a lack of available labor may, at some point, represent a constraint to continued growth. However, Riverhead's low unemployment rate may mask underemployment and/or discouraged workers. Furthermore, if agriculture remains profitable, it may be able to compete for workers from other industries. Today, Riverhead farmers rely, in part, on migrant labor to meet their needs during the busiest seasons. Interns represent another labor source.

B. The transformation from commodity production to specialty crop production may contribute positively to the agricultural economy.

This will depend, in large part, on the capacity of farmers to employ more information and management intensive approaches to production. Farmers will need to have the financial capital to invest in modern technologies. This transformation will depend as well on continued growth in consumer demand for specialty products, such as local wines and organic produce.

C. Diversification of agricultural production will increasingly include service provision in tourism, recreation, and education.

Farms may strive to become diversified through direct marketing (e.g. roadside stands, pick your own) or activities such as farm vacations, school field trips, riding lessons, hay rides, wine tasting events, or farm tours. There are two reasons for this trend. First, services provide an additional income opportunity to farmers who face ever-higher costs of production. Second, consumers rank access to Long Island Sound and the Atlantic Ocean as their number one most popular vacation setting, followed in third place by rural destinations. There is both a “push” and a “pull” factor likely to lead to increased viability of and interest in natural resource-based tourism, recreation, and education experiences.

D. Agricultural diversification into specialty products and agro-tourism can lead to increased vertical integration of farm operations (with a wider scope of activities relating to the product on site).

Specific examples are found in many of the North Fork wineries. Vertical integration includes processing, packaging and shipping, and/or on-site sales. Additional opportunities for vertical integration are likely to emerge, and there will be an increasing need to accommodate related uses and infrastructure on farms.

E. Diversified agricultural activity with a significant service and processing component will require new approaches to land use regulation.

Since “agriculture” is composed of diverse activities, land use regulations and preservation programs should be designed with enough flexibility to allow farms to remain competitive.

A.6 FARMLAND AND DEVELOPMENT PRESSURES

The combination of strong economic growth, the scarcity of land, and the intense housing demand on Long Island create pressure for new development. With a conversion rate of 1,454 acres per year over the last ten years, County farmland is under particular pressure for development. Changing agricultural trends, the decline of the family farm, and increasing land values are also exerting pressure on farmers to sell or develop their land. Taxes also exert some financial pressure on farmers, but the available information suggests that tax burdens for Riverhead farmers are manageable. Although Suffolk County farms pay \$3.4 million in property taxes annually or \$96 per acre, the third highest per acre tax in New York State, Suffolk County farms spend the smallest percentage of their farm expenses on property taxes compared to any other County in New York State.⁵

Housing development is now leapfrogging from Brookhaven, over the Pine Barrens region, into Riverhead. The Pine Barrens Protection Act established a 50,000-acre core

⁵ Suffolk County Agricultural Protection Plan. Suffolk County Planning Department. June, 1996.

preservation area in which residential development is precluded in order to allow for aquifer recharge, and provides for the transfer of development rights to areas outside the core. The Pine Barrens region is partly located in southwestern Riverhead and also spans large areas of Brookhaven and Southampton.

Development pressure is also spreading north from Southampton, due to overflow demand for both year-round and seasonal housing. The South Fork has relatively little land left for development, and some households are getting priced out of the wealthy neighborhoods in and around the Hamptons.

The approximately 3,000 new residential units built in Suffolk County each year represent a demand for at least 3,000 developable acres annually.⁶ Riverhead's farmland is desirable for development because it is flat and mostly cleared. Between 1990 and 1996, the Town of Riverhead was the fastest growing town in Suffolk county.

A.7 AGRICULTURAL PRESERVATION

Efforts to protect and sustain agriculture in eastern Long Island are evident at the State, County and local levels. These efforts take effect at two levels — those programs that work *directly* to preserve or purchase agricultural lands, and those that work *indirectly* by supporting farmers and farming as an occupation and a way of life. For example, a purchase of development rights program (PDR) preserves agricultural land directly by purchasing the right to develop on that land; right-to-farm laws work indirectly by legally protecting the farmer's right to engage in farming practices.

Additionally, there are programs that work directly to preserve open space in general. These programs target a variety of kinds of open space — from farmland, to recreational lands, to environmentally critical areas. Although such programs can appear to work against the preservation of agricultural lands (e.g., the Drinking Water Protection Program/Pine Barrens Protection) by placing added development pressure on existing farmlands, these programs are evidence of the broad level of concern throughout Long Island communities for the need to balance growth and quality of life issues.

The variety of State, County and local efforts aimed at preserving farmland and other kinds of open space are best understood as diverse efforts directed toward a common goal. Using a variety of different tools provides more options for farmers and government agencies wishing to preserve land and thereby increase the likelihood of saving open space.

⁶ Suffolk County Agricultural Protection Plan. Suffolk County Planning Department. June, 1996.

PRESERVATION TOOLS — STATE LEVEL

Sales Tax Extension Program

(Direct: Agricultural Lands and Open Space)

Authorized by legislature and subject to voter approval; extends the sales tax starting in 2001. Would run until 2013, funded annually depending on the economy and sales tax revenue. Several separate and dedicated accounts:

- Farmland for continued purchase of development rights (projected total \$62 million)
- Drinking Water and Open Space for land acquisitions including the Peconic Estuary and the South Shore Estuary Reserve (projected total \$114 million)

Farmland Protection Program

(Direct: Agricultural Lands)

This program directly supports preservation of farmland through purchase of development rights. Grants are awarded to town or county farmland boards for 75 percent of the funds needed to purchase development rights; the municipality provides the remaining 25 percent. Selection criteria include: whether there is significant development pressure on a particular piece of property; whether the farm is economically viable; and whether the farm is close to an ecological resource or an adjacent protected farm. In 2000, Suffolk County was awarded over \$5 million. Since the program was introduced in 1996, more than \$7 million has been dedicated to farmland protection projects, nearly half the total program allocation Statewide.

Farm Link & Farm On Programs

(Direct and Indirect: Agricultural Lands)

Matches retiring farmers with people who would like to own a farm. In many cases, new farmers cannot afford the expense of buying an operating farm. This program gives them a chance to work a farm and learn from an expert as they build up enough equity in the farm to eventually buy it. This program is designed to ensure that working farms continue to function as working farms, thus keeping agricultural lands out of development, even as farmers age.

New York State Agricultural Development Program

(Indirect)

The program coordinates policies, plans and actions of State agencies, commissions, and committees in order to strengthen the State's agricultural resources and promote the State's

agriculture industry. The new law authorizes the State Department of Economic Development to approve demonstration projects designed to improve the marketing, processing, storing, and manufacturing of agricultural products. A key focus of the program will be the significant untapped agricultural resources in the State. These resources present economic development opportunities to promote growth while enhancing the economic well being of farm communities through job creation and job retention.

Included in the program is the development of financing mechanisms for the establishment, retention, diversification, and expansion of new and existing value-added agricultural products. Effort will also be made to determine if any regulatory barriers impede the development, retention, diversification, or expansion of the agricultural resources industry. According to State Senator Nancy Lorraine, the program “will help farmers refine specialty niches, enhancing the State’s reputation for agricultural quality and innovation.” By working to preserve an agricultural economy, this program helps farmers maintain their farms, thus supporting efforts to preserve and protect active farmland.

State Agricultural Districts

(Indirect)

Farmers can ease financial pressures by joining a State Agricultural District for a renewable 8-year period, with the effect of lowering the farmers’ tax bill. Agricultural Districts do not protect farmland over an extended period of time, but do provide temporary protection from development pressure. This tool works best in conjunction with other farmland preservation and protection strategies. One drawback of this program is that it increases land speculation.

“Grow New York” Program to Fund Agricultural Economic Development

(Indirect)

This \$500,000 agricultural economic development grant program is designed to create jobs, boost the rural economy and help New York’s 39,000 farms thrive. It provides one-to-one matching funds for demonstration projects, feasibility analyses, and project research aimed at addressing New York’s agricultural development needs and opportunities. The “Grow New York” Program offers producers and processors new opportunities to expand, diversify and develop market niches that will meet the increasing consumer demand for fresh, quality agricultural commodities and specialty foods.

Other State-level Initiatives Passed as Part of the 2000/2001 Budget:

(Indirect)

- Farmers Markets Grant Program: \$200,000
- Farmland Viability Program: \$200,000

- Pride of New York Marketing Program: \$300,000

Community Supported Agriculture

(Indirect)

This approach to sustaining farmers and farmland works by strengthening ties between working farms, the local economy, and non-farming residents. A farmer calculates the farm's expenses, including salaries, and sells shares to the number of families needed to support the farm. The farmer benefits by having the income guaranteed up-front without waiting for the harvest, and the risk of crop failure is spread among all shareholders. Shareholders benefit by having a supply of fresh vegetables throughout the season at wholesale prices. The Peconic Land Trust has operated a CSA project at its Quail Hill Preserve in Amagansett since 1989.

On-Farm Composting

(Indirect)

This program integrates farms and farmers into the local economy through the recycling of resources. Started in 1995 by the Cornell Cooperative Extension and the Town of Riverhead Highway Department, this program diverts large quantities of leaves from the Town landfill to growers willing to accept them.

Regional Markets

(Indirect)

In November of 1999, Governor Pataki signed legislation creating the Long Island Regional Market. Describing the benefits of these new markets, the Governor stated, "agriculture and commercial fishing have been integral components of Long Island's economy and its history. This legislation will help ensure they will always be an important part of Long Island's future. The establishment of a regional market not only will provide the region's farmers and fishermen a local market to sell their wares, it will give Long Island consumers direct access to world-class agriculture and fish products." The creation of regional markets helps to keep dollars in the local economy and builds an economic infrastructure that helps support area farmers.

PRESERVATION TOOLS — COUNTY LEVEL

Suffolk County Farmland Purchase of Development Rights Program

(Direct: Agricultural Lands)

The first such program in the United States, the Suffolk County Farmland Purchase of Development Rights program, was created in the early 1970's for the purchase of acquiring development rights to working farms. As of 1996, about \$40 million had been spent to preserve 7,000 acres.

Community Greenways

(Direct: Agricultural Lands and Open Space)

Authorized in 1998, this program sets aside \$62 million for several purposes:

- *The Open Space component* of this program (\$20 million) targets drinking water protection parcels, stream tributaries, greenbelt and habitat enhancement.
- *The Active Recreation component* (\$20 million) authorizes the County to buy land for active recreation purposes; a town, village or community group is required to design, build and maintain the improvements. Golf courses are specifically excluded.
- *The Farmland component* (\$20 million) is targeted for purchase of development rights on active farms, provided another level of government covers 30 percent of the cost of acquisition. This program is expected to preserve 2,000 acres.
- Finally, \$2 million is set aside for the construction of a natural history interpretive center to be built at an indeterminate site.

Land Preservation Partnership

(Direct: Agricultural Lands and Open Space)

Created to acquire land, in partnership with a town or village, for various purposes, not including active recreation. Costs are split 50-50. Development rights and conservation easements can be acquired. As of 1996, funding level of \$9 million in County dollars.

Suffolk County Open Space Program

(Direct: Open Space)

Created in 1986, this program was designed to acquire land under development pressure that cannot be clustered, rezoned, or partially developed. Generally, lands acquired are managed as passive open space. As of 1996, \$144 million had been spent to preserve 5,000 acres.

Drinking Water Protection Program

(Direct: Open Space)

This program targets the acquisition of open space critical to the protection of the region's groundwater drinking supplies. As of 1996, \$35 million had been spent annually to acquire

12,000 acres, mostly in the Pine Barrens. Since the inception of the program in 1987, over \$220 million has been spent on acquisitions.

Review of Tax Lien Properties for Environmental Value

(Direct: Open Space)

Tax lien parcels are reviewed for environmental evaluation after redemption period has expired to determine if the County should retain these parcels for open space/park/municipal purposes or sell them at auction. In 1999, over 350 acres were transferred to Department of Parks, Recreation, and Conservation.

Right-to-Farm Law

(Indirect)

Designed to conserve, protect, and encourage the use of agricultural land for the production of food and other agricultural products. Agricultural activities such as irrigating, spraying, fertilizing, and tractor use do not constitute a nuisance if they are consistent with good agricultural practices and were established prior to surrounding nonagricultural activities. Approved by Suffolk County Legislature in 1982.

PRESERVATION TOOLS — LOCAL LEVEL

Transfer of Development Rights Program, Town of Riverhead

(Direct: Agricultural Lands and Open Space)

A Transfer of Development Rights (TDR) program has been established in the Town of Riverhead, but its impact has yet to be seen. Similar to the Purchase of Development Rights program, the TDR program also establishes priorities for properties that can be included. At a minimum, the land must be classified by the County as Class 1 or Class 2 Prime Agriculture Soils with a competitive priority determined by:

- Agricultural significance due to open space value, scenic beauty, historic significance, and environmental sensitivity;
- Soil quality and productivity;
- Irrigation needs and water availability;
- Economic value based on size of farmland and capital investment in buildings and production facilities;

- Annual sales for the past 7 years; and
- Contiguity to other County farmland preservation properties.

Prior to the acquisition of development rights, offers to purchase development rights must be presented in a public meeting. In addition, the Farmland Preservation Committee must submit a written recommendation to the Town Board. At that point, the Town Board has 45 days to accept or reject the offer to purchase development rights.

The Farmland Preservation Committee consists of seven (7) members serving staggered two (2) year terms. They consist of four (4) residents currently engaged in the ownership and operation of a farm, one member of the Riverhead Planning Board, the Planning Director of the Town of Riverhead, and one member at large. In its review of prospective purchases, the Committee considers the following criteria: soil suitability for future agricultural use, history or agricultural production, contiguity with other agricultural lands from which development rights have been or are planned to be severed, the appraised value of development rights, and the parcel's frontage on major thoroughfares.

Right-to-Farm Provisions, Town of Riverhead

(Indirect)

Chapter 44 of the Riverhead code addresses Agricultural Land Preservation. It targets the conservation and preservation of prime agricultural lands used in bona fide agricultural production because of their vital role in both the character of the Town and its economy. The code addresses a farmer's right to partake in activities related to farming practice.

PRESERVATION TOOLS — OTHER

- *Donations of Conservation Easements.* (Direct: Agricultural and Open Space)
- *Bargain Sales.* (Direct: Agricultural and Open Space)
- *Rights of First Refusal.* (Direct: Agricultural and Open Space) A signed guarantee that owners will first offer their property to the County before they can sell it to anyone else. Allows the County the option to purchase outright farmlands and other open space under development pressure.

Estate Planning

(Direct: Agricultural and Open Space)

The Peconic Land Trust employs conservation planning and limited development techniques in its work with farmers and other landowners.

AGRICULTURAL PRESERVATION IN RIVERHEAD

Because there are so many State and County initiatives targeted at the preservation of farmland and open space, it may appear that there is no need for additional programs or refinement of existing programs within the Town of Riverhead. However, State and County dollars are spread across many communities; Riverhead stands to receive only a portion of these funds. Since Riverhead taxpayers contribute financially to these preservation programs, it makes sense for the Town to get as much “bang for the buck” by making sure that farmland preservation efforts at the local level take advantage of the synergy of State and County initiatives. This is best accomplished by ensuring that Riverhead’s own programs for preserving farms and farming are effective and workable.

Riverhead is uniquely situated to benefit from agricultural preservation. Relative to other communities on eastern Long Island, Riverhead still has a large amount of contiguous agricultural land. Also, Riverhead has highly productive and lucrative agricultural operations that are an economic asset to the Town. Moreover, those farm operations have the potential for continued growth and success in the future. Finally, Riverhead’s location at the mouth of the Peconic River, where the North Fork conjoins the South Fork, and at the end of the Long Island Expressway creates a unique opportunity for agro-tourism. Agricultural preservation efforts can build upon these assets to both: (1) protect the Town's character; and (2) contribute to the growth of agricultural business.

AGRICULTURAL PRESERVATION IN SUFFOLK COUNTY

It is important for Riverhead to consider its farmland protection strategies in the context of regional issues and characteristics. The issues at play in the region and the character of surrounding towns help identify Riverhead's opportunities and challenges vis-à-vis farmland preservation. These issues and characteristics are not limited to agriculture, but include economics, land use, transportation, natural resources, and others.

An important cornerstone of the regional effort to preserve farmland is the 1996 Suffolk County Agricultural Protection Plan. Because this plan looks at farmland preservation Countywide, it provides valuable information for Riverhead as the Town addresses its own agricultural preservation concerns. The 1970 Nassau-Suffolk Comprehensive Plan targeted 30,000 acres of farmland for preservation.⁷ However, the 1996 plan dropped that target to 20,000 acres, acknowledging that “30,000 acres may still be desirable” but that factors such as land speculation, the rate of farmland conversion, the high cost of acquiring land, and the voluntary nature of acquisition programs made a 20,000-acre target more realistic.⁸

⁷ Suffolk County Agricultural Protection Plan. Suffolk County Planning Dept. June, 1996.
www.suffolk.ny.us/planning/z08GOALS.html

⁸ Suffolk County Agricultural Protection Plan. Suffolk County Planning Dept. June, 1996.
www.suffolk.ny.us/planning/z08GOALS.html

Although the 1996 plan targeted 20,000 acres for farmland protection, it also indicated that there is not enough money to reach that goal. Nearly 7,000 acres of development rights on farmlands in Suffolk County have been acquired, but the additional 13,000 acres will cost more than \$100 million to purchase. At the budgeted acquisition rate of \$1.5 million per year, only an additional 3,000 acres in Suffolk County can be acquired over sixteen years at a cost of \$24 million. If farmland conversion continues at the same rate during that sixteen year period, only 10,000 acres of farmland will remain in Suffolk County — half the currently targeted amount, and about one third of the 1996 target. According to the plan, about 10 times the budgeted amount (or \$15 million per year) is needed over the next 7 years to achieve the goal of 20,000 acres.⁹ If Suffolk County is to accomplish its target, additional preservation techniques as well as thoughtful and creative land use planning will need to be used. It is clear that the efforts of communities like Riverhead will be important in reaching regional goals.

Riverhead does not have to be a sacrificial lamb, preserving farmland for the benefit of the entire County at a cost to itself. Intelligent land use planning can make it possible for Riverhead to benefit and grow economically, while also helping to attain regional goals. In fact, land use planning at the local level that dovetails with larger regional efforts is most successful and effective for all involved. When planning efforts at the local and regional levels work at cross-purposes, everyone loses.

A.8 AGRICULTURAL OPPORTUNITIES AND THREATS

As Riverhead evaluates the best approach to accommodating growth while conserving and protecting its prime agricultural lands, opportunities and threats facing the region and its agricultural producers must be considered.

OPPORTUNITIES

A number of forces support the continued viability of agriculture in Suffolk County, including Riverhead:

1. Suffolk County has a *natural comparative advantage* in agriculture due to its relatively long growing season, fertile soils and high percentage of sunshine.
2. Structural changes in agriculture in Suffolk County have removed relatively unproductive agricultural land from farming leaving a *high percentage of land in cropland*. Seventy-nine percent of the County's total farmland is cropland, compared with sixty-two percent statewide.
3. County farmers enjoy relatively *high revenues from farming activities*. This has allowed a relatively high percentage of farmers, 70 percent, to continue to list

⁹ Suffolk County Agricultural Protection Plan. Suffolk County Planning Dept. June, 1996. www.suffolk.ny.us/planning/z08GOALS.html

farming as their principal occupation at a time when many other regions are experiencing a trend toward part-time farming. In 1997, Suffolk County sales per farm averaged \$276,993 and generated an average of over \$68,000 net cash return per farm¹⁰.

4. *Proximity to markets* is another plus. There are 6.9 million people living in the four Long Island counties and 1.3 million in Suffolk County alone. Retail sales of food in Suffolk County were estimated at approximately \$2.6 billion in 1994.¹¹
5. Riverhead's agriculture is concentrated in *product areas predicted to experience increasing demand* on the urban fringe. Professional planners throughout the northeastern U.S., including New York State, recently predicted that future demand will increase for fresh and/or organic fruits and vegetables, greens, herbs, table grapes, wine, horses, bedding plants, cut flowers, turf/sod, animal boarding, breeding, and training, and wine tasting. All of these products and services are currently produced in Riverhead. In addition, planners anticipate increased demand for mushrooms, goat's meat and milk, lamb, local beef and pork, organic eggs and poultry, specialty cheese, veal, venison, farm retreats, tours and vacations, hay rides, school field trips, and mail or direct food delivery services. These represent areas that may provide further agricultural diversification and income opportunities for Riverhead's agricultural entrepreneurs.
6. *Initiatives occurring at State, County and local levels* (see Section A.7) are indicative of broad levels of support among the public and varying levels of government for the preservation of agriculture and its associated lands.
7. New and increased *marketing and publicity efforts* designed to support regional farms and a farming economy reflect the continued interest in building a strong regional economy with agriculture as a major component. These efforts include many of the State and County programs (see Section A.7), as well as efforts by the Long Island Tourism and Convention Commission, the Peconic Land Trust, and the Long Island Farm Bureau to help inform people of the diversity and availability of farm products in Suffolk County. To assist farmers in selling produce on Long Island, the Peconic Land Trust has sponsored the Long Island Community Markets Program funded by both private and public funds, including a grant from Suffolk County. Farmers markets are currently operating in a number of communities.
8. Willingness on the part of lawmakers to support agricultural preservation through a variety of means is reflected in recent *favorable changes to tax investment laws and State agriculture laws* that have fostered the expansion of horse farms in Suffolk County. Additional initiatives underway at the State level to address threats from property tax burdens include a bill to create circuit breaker tax credits for farmers, as well as Statewide property tax reform.

¹⁰ 1997 Census of Agriculture - County Data. USDA, National Agricultural Statistics Service. 1997.

¹¹ Suffolk County Planning Department.

THREATS

1. Major forces threatening the continuation of farming in Riverhead are *high land values*.
2. High land values are supported by an increasing demand for second homes golf courses/communities.
3. High land values coupled with the *continued reliance in New York State to use property taxes to fund education* increase the opportunity cost for continuing to farm on the one hand and the fixed costs associated with farming on the other, creating a pincer movement likely to:
 - a. Accelerate the need to adopt high value-added strategies to support farm enterprises, and
 - b. Drive more marginal commercial farmers out of business over time if not adequately addressed.

Some farmers have already chosen to “cash out” their holdings in Riverhead in exchange for farm real estate in areas facing fewer development pressures.

4. The continuation of agriculture is also threatened by the *high degree of reliance on rented land* for farming in Suffolk County. In 1992, 15 percent of the County’s farmland was rented, a rate nearly 3 times that for all of New York State and by far the highest rate for any County in New York State. An estimated 60 percent of Suffolk County farmers rent land. Farmland owners who seek rental payments sufficient to cover property tax obligations will force farmers in turn to seek ever-higher value and more land-intensive production methods. As development pressures increase, so do incentives for conversion of rented farmland to alternative uses. Stabilizing land tenure patterns and related costs is one important component of fostering a sustainable and economically viable environment for agriculture.
5. In Suffolk County, the largest production expense is hired labor.¹²

A.9 INSTALLMENT PURCHASE PROGRAM

With the recent passage of State enabling legislation for installment purchase programs, a new mechanism for leveraging funds is available to the Town. An Installment Purchase Program generally works whereby the Town enters into an agreement with the landowner to pay interest and/or interest plus principal payments over a period of years. Installment Purchases have the benefit of reducing tax liability for the landowner along with reducing the total amount of funds required by the Town to ultimately purchase key parcels of land. Installment Purchase Programs differ in duration and intensity, but can leverage significant amounts of money as well as save the Town money in the purchase of development rights.

¹² Suffolk County Agricultural Protection Plan. Suffolk County Planning Dept. June, 1996.

ADVANTAGES TO THE PROPERTY OWNER

1. **TAX-EXEMPT INTEREST.** Semi-annual interest paid on the outstanding balance of the purchase price is exempt from federal, State, and local income taxes to the same extent as interest on the County's general obligation bonds. An opinion of bond counsel on this issue is provided at settlement.
2. **DEFERRAL OF TAXES ON CAPITAL GAINS.** Pursuant to the Internal Revenue Code of 1986, property owners entering into installment purchase agreements for the sale of development rights may, in certain circumstances, defer recognition of capital gain until they actually receive the principal amount of such purchases. As a general rule, installment-sale treatment allows deferral of part or all of a capital gain until part or all of the purchase price is received under an installment purchase agreement, unless the agreement is "readily tradable in an established securities market." Under certain circumstances, the capital gain may be recognized for tax purposes and become taxable if the installment purchase agreement is sold, assigned, pledged, or otherwise transferred. Therefore, properly structured, an installment purchase agreement can be used to avoid immediate recognition of capital gain. No opinion as to these matters is provided by bond counsel or the County. Property owners should consult with their tax advisors regarding these possible tax attributes.
3. **TRANSFERABILITY.** The installment purchase agreement is a negotiable instrument, and property owners are permitted to securitize and sell their interests in installment purchase agreements at settlement or later.
4. **BETTER ESTATE PLANNING.** Because installment purchase agreements can be transferred, they offer flexibility in estate planning. They can be placed into marital trusts or used in connection with various estate-planning techniques. Additionally, separating the development rights from the land and making the agreement transferable allows the property owner's heirs to sell their interest in the agreement rather than in the land in order to pay estate taxes.

ADVANTAGES TO GOVERNMENTAL UNIT

A securitizable tax-exempt installment-purchase offers several advantages to a governmental unit. These advantages include:

1. **LEVERAGE.** Governmental organizations, such as a municipal government, use dollars to be realized over 30 years to preserve open space today, while it is still available. By making semiannual tax-exempt interest payments over 30 years and lump-sum principal payments in 30 years, governmental units pay for preservation over the period during which their citizens enjoy the open space.
2. **DISCOUNT PURCHASES.** Because of the value of benefits offered over a 30-year period, landowners should be willing to sell their land(s) or easements at prices as low as 50 to 60 percent of appraised value.

3. **SIMPLICITY OF FUNDING.** Governmental units would still need to publicize their programs, identify participants, and negotiate prices for the lands or easements being acquired. Once that process is completed on the local level, however, preservation is in place: no waiting for State approval of funding, no worry about whether the program will have enough money, no drawn-out bond sale.

EXAMPLE OF INSTALLMENT PURCHASES

A table showing the *Securitizable Tax-Exempt Installment-Purchase Open-Space Financing Program Assumptions for Cashflows Advantages* is presented below (Table A-2, excerpted from Evergreen Capital Advisors and Howard County, MD). Each installment purchase agreement into which Howard County enters has a term of approximately 30 years. Every 2 years after execution, the County pays a portion of the purchase price (usually \$5,000) with the remaining amount of the purchase price paid in a lump sum at the end of the agreement.

In addition, the County pays semi-annual interest on the outstanding balance of the purchase price. The interest rate is determined at closing on the agreement, and is no less than the prevailing interest rate on certain long-term U.S. Treasury obligations. However, Howard County's current policy is that the interest rate on any agreement will be no less than 6.5 percent regardless of rates on U.S. Treasury obligations at closing. Principal and interest payments are made by check sent directly to each property owner.

Table A-2: Cashflow Assumptions

	<i>Developer Cash Purchase of Land</i>	<i>Installment Purchase of Easement</i>
Prorata Basis in Farmland (per acre)	\$577	\$577
Prorata Basis in Easement (per acre)	\$923	\$500
Prorata Basis in Contribution (per acre)	\$0	\$423
Basis in Land (per acre)	\$1,500	\$1,500
Value of Farmland (per acre)	\$2,500	\$2,500
Value of Easement (per acre)	\$4,000	\$4,000
Total Land Value (per acre)	\$6,500	\$6,500
Sale Price (per acre)	\$6,500	\$2,167
Total Acreage	150	150
Total Sale Price	\$975,000	\$325,050
Closing Costs @ 5%	(\$48,750)	\$0
Capital Gains Tax	(\$245,438)	\$0
Replacement Housing	(\$150,000)	\$0
Total Costs Paid at Closing		
Net Proceeds Invested	\$530,813	\$325,050

Income Tax Rate - Federal	31%	31%
State and Local	7%	7%
Capital Gains Tax Rate- Federal	28%	28%
State and Local	7%	7%

As a general rule, installment-sale treatment allows deferral of part or all of a capital gain until part or all of the purchase price is received under an installment purchaser agreement, unless the agreement is “readily tradable in an established securities market.” However, under certain circumstances, the capital gain may be recognized for tax purposes and become taxable if the installment purchase agreement is sold, assigned, pledged, or otherwise transferred. Therefore, properly structured, an installment purchase agreement can be used to avoid immediate recognition of capital gain. No opinion as to these matters is provided by bond counsel or the County. Property owners should consult with their tax advisors regarding these possible tax attributes.

Value of Landowner’s Advantages

Cashflows in Table A-3 show that a \$2,167 per acre installment-purchase of easements (54 percent of their appraised value) allows a hypothetical farmer to realize the same value as from a \$6,800 per acre land sale to a developer, given the assumptions illustrated below. This analysis assumes that the farmer selling his land pays from proceeds:

1. Closing costs equal to five percent of proceeds;
2. A capital gains tax equal to 35 percent of the net appreciation in his land; and
3. \$150,000 for replacement housing.

The remaining proceeds are assumed to be invested in a long-term tax-exempt bond yielding 6.75 percent. Although most homeowners are entitled to roll the proceeds of house sales into the purchase of new houses without incurring capital gains tax, this analysis assumes that the sale price is allocated to the land, since the house will probably be destroyed after sale in order for development to occur.

Federal tax law restricts an investor’s ability to claim-tax exempt interest when he uses the project financed with tax-exempt obligations. For this reason, lands could only be purchased from farmers who would no longer farm such lands, even as tenants. Such installment-purchases might be attractive to farmers who want to continue living in and owning farmhouses that were subdivided out of the installment-purchased lands, or to farmers who wish to leave their farms altogether and live elsewhere. Such installment-purchases would also be attractive to owners of environmentally sensitive lands or lands to be used for parks.

Table A-3: Developer Cash-Purchase of Land - Cashflows

<i>Year</i>	<i>Gross Proceeds</i>	<i>Total Costs at Closing</i>	<i>Net Proceeds Invested</i>	<i>Investment Income @ 6.75%</i>	<i>Value of Charitable Deduction</i>	<i>Net Farm Income</i>	<i>Present Value Factors</i>	<i>Present Value at 6.75%</i>
0	\$975,000	(\$444,188)	\$530,813					
1				\$35,830			0.9368	\$33,564
2				35,830			0.8775	31,442
3				35,830			0.8220	29,454
4				35,830			0.7701	27,591
5				35,830			0.7214	25,847
6				35,830			0.6758	24,212
7				35,830			0.6330	22,681
8				35,830			0.5930	21,247
9				35,830			0.5555	19,904
10				35,830			0.5204	18,645
11				35,830			0.4875	17,466
12				35,830			0.4567	16,362
13				35,830			0.4278	15,327
14				35,830			0.4007	14,358
15				35,830			0.3754	13,450
16				35,830			0.3517	12,600
17				35,830			0.3294	11,803
18				35,830			0.3086	11,057
19				35,830			0.2891	10,358
20				35,830			0.2708	9,703
21				35,830			0.2537	9,089
22				35,830			0.2376	8,514
23				35,830			0.2226	7,976
24				35,830			0.2085	7,472
25				35,830			0.1953	6,999
26				35,830			0.1830	6,557
27				35,830			0.1714	6,142
28				35,830			0.1606	5,754
29				35,830			0.1504	5,390
30				566,642			0.1409	79,850
								530,813

Table A-4: Installment Purchase of Easement - Cashflows

<i>Year</i>	<i>Gross Proceeds</i>	<i>Total Costs at Closing</i>	<i>Net Proceeds Invested</i>	<i>Investment Income @ 6.75%</i>	<i>Values of Charitable Deduction</i>	<i>Net Farm Income</i>	<i>Percent Value Factors</i>	<i>Present Value @ 6.75%</i>
0	\$325,050							
1			\$325,050	\$26,004	\$85,235	\$6,800	0.9368	\$110,575
2				26,004		6,800	0.8775	28,787
3				26,004		6,800	0.8220	26,966
4				26,004		6,800	0.7701	25,261
5				26,004		6,800	0.7214	23,664
6				26,004		6,800	0.6758	22,168
7				26,004		6,800	0.6330	20,766
8				26,004		6,800	0.5930	19,453
9				26,004		6,800	0.5555	18,223
10				26,004		6,800	0.5204	17,071
11				26,004		6,800	0.4875	15,991
12				26,004		6,800	0.4567	14,980
13				26,004		6,800	0.4278	14,033
14				26,004		6,800	0.4007	13,145
15				26,004		6,800	0.3754	12,314
16				26,004		6,800	0.3517	11,536
17				26,004		6,800	0.3294	10,806
18				26,004		6,800	0.3086	10,123
19				26,004		6,800	0.2891	9,483
20				26,004		6,800	0.2708	8,883
21				26,004		6,800	0.2537	8,321
22				26,004		6,800	0.2376	7,795
23				26,004		6,800	0.2226	7,302
24				26,004		6,800	0.2085	6,841
25				26,004		6,800	0.1953	6,408
26				26,004		6,800	0.1830	6,003
27				26,004		6,800	0.1714	5,623
28				26,004		6,800	0.1606	5,268
29				26,004		6,800	0.1504	4,935
30		(\$87,513)	351,054	754116.07		6,800	0.1409	38,096
								\$530,820

Appendix B: Natural Resources

B.1 WATER RESOURCES

Eastern Long Island is a geographic area defined in large part by its proximity to and relationship with water. These water features — from Long Island Sound to the Peconic Bay system — are formative landscape features that help define the geography and personality of Riverhead (see Figure B-1). The region's water resources are important to the people of Riverhead as natural resources of great beauty, as well as economic resources.

Many of the individual communities of eastern Long Island, including Riverhead, are blessed with considerable shoreline frontage. In Riverhead, the Town's northern and southern boundaries (which are considerably longer than its eastern and western boundaries) are defined by water features. To the north is Long Island Sound, and to the south, the Peconic River and the Peconic Estuary system.

Less visible but equally important are the below-ground water resources contained in Long Island's aquifers. The water in these aquifers provides drinking water for many Long Island communities, including Riverhead. The water in these aquifers is filtered through the porous soils of the Central Pine Barrens area, a portion of which lies within the boundaries of Riverhead.

Other key water resources in the Riverhead include non-coastal surface waters, such as ponds and intermittent streams, which represent unique habitat zones supporting important plant and animal populations.

ECONOMIC IMPORTANCE

In Riverhead, many local residents depend on water resources for employment and income. For example, fishermen need to have high-quality water resources. Fish and shellfish must be safe to eat and must occur in high enough abundance so that fish populations are sustainable. Small business owners are also tied to the region's water resources. Their livelihood depends on residents and visitors, many of whom are drawn by the beauty and quality of the Town's water bodies. Property values are also tied to water resources and their quality. Property in coastal communities is generally perceived to be highly attractive, therefore increasing its value.

SCENIC AND RECREATIONAL CONTRIBUTIONS

Water resources also contribute to the scenic quality of a community, while providing diverse recreational opportunities. These aspects of water resources — scenic quality and recreational opportunities — are, in turn, economically beneficial because they improve the

overall quality of life and attract people to live, work and recreate in the community. This helps build a strong economic base.

Views of and across water bodies can contribute to scenic vistas. The unique plant and animal communities found in and near water bodies also contribute to the landscape. High quality water bodies play an important role in creating the habitat to support the distinctive plant and animal populations that are so critical in conveying the unique regional character and setting of a community. When these regionally characteristic plant and animal populations are lost or destroyed due to insensitive development practices or invasive species, a community loses a large part of its distinctive “sense of place.”

Physical access to water — both public and private — is an important component of the recreational aspect of water resources. Recreational activities associated with water resources — such as boating, fishing, swimming, and observing nature — all require the ability to get in, on, or near the water.

In Riverhead, important scenic and recreational water resources include Long Island Sound, the Peconic River, and the Peconic Estuary system (which includes the Peconic River and Flanders Bay). All are unique scenic amenities that provide recreational opportunities as well as economic benefits to the Town.

Because existing development, future development, and agricultural practices have the potential — if improperly planned and managed — to harm, degrade, and limit public access to these essential pieces of Riverhead’s landscape, the impacts of development on scenic and recreational water resources should be taken into account when developing a plan for accommodating future growth within the community.

IMPACTS OF LANDSCAPING PRACTICES AND DEVELOPMENT

Areas where land and water meet — of which Riverhead possesses many — are often seen as highly desirable places to live and work. Yet, these are often the most fragile landscape areas, and because they are so attractive, they are at greater risk from the impacts of human activity. Overuse, insensitive building or design, and poorly conceived planning efforts can compromise the beauty and integrity of these fragile and sensitive areas.

In these areas of interface between land and water, the water bodies (and the scenic, economic and recreational amenities they provide) may be at risk due to the landscaping practices of both homeowners and business owners. Agricultural practices (such as the overuse of herbicides, pesticides and fertilizers) as well as the landscape practices used to maintain large recreational areas such as golf courses, parks, and athletic areas (that also use large inputs of herbicides, pesticides and fertilizers) can also seriously harm a community’s prized water resources.

If a community wishes to retain and build upon the benefits derived from its water resources, the impact of existing and future development in areas close to or hydrologically connected

to a community's essential water bodies needs to be carefully considered. In Riverhead, key water resources include:

- Long Island Sound;

Figure B-1: Water Resources

Back of Figure B-1.

- Peconic River;
- Peconic Bay Estuary, including Flanders Bay;
- Groundwater reserves, specifically in the Central Pine Barrens area; and
- Other important and sensitive surface waters, such as the Coastal Plain Ponds in the southwestern part of Town.

It is important to carefully evaluate the potential impacts of human activity on the Town's water resources, so as to ensure the continued scenic quality and economic vitality of the community.

ESTUARINE RESOURCES

Long Island Sound

Long Island Sound is about 110 miles long from east to west and is about 21 miles across at its widest point. More than 8 million people live within its watershed. According to research commissioned by the Long Island Sound Study, more than \$5 billion is generated annually in the regional economy from boating, commercial and sport fishing, swimming and beach going associated with the Sound.¹³ The ability of the Sound to support these activities depends on the quality of its waters, living resources and habitats — all of which are affected by the amount and type of development that occurs along the borders of the Sound and throughout its watershed. Communities along the north shore of Long Island, including Riverhead, are closely tied to the Sound and its overall health and visual character.

An Estuary of National Significance

Long Island Sound is an estuary, a place where fresh and salt water mix. Like other estuaries, Long Island Sound is rich in fish, shellfish, and waterfowl. It provides feeding, breeding, nesting, and nursery areas for diverse animal and plant life and is an important component of the overall landscape and economy of the region.

In 1987, as part of the National Estuary Program (NEP), Long Island Sound was designated an "Estuary of National Significance." Two years earlier, in 1985, the Sound's importance had been formally recognized by citizens and government through the formation of the Long Island Sound Study (LISS), a cooperative endeavor focused on analyzing and correcting the Sound's most pressing environmental problems.

As part of that effort, a group of stakeholders — known as the LISS Management Conference — first met in 1988 and has continued to work together collectively to implement the *Comprehensive Conservation and Management Plan for Long Island Sound* (CCMP), which was released in 1994. The group of stakeholders working on this project

¹³ See "References," at the end of this "Findings" section.

includes citizens, environmental groups, businesses and industries, academic institutions and local, State, and federal governments. Seven important issues concerning Long Island Sound and its present and future well being have been identified by the LISS Management Conference group:

- Low Dissolved Oxygen (Hypoxia)
- Toxic Contaminants
- Pathogen Contamination
- Floatable Debris
- Living Resources and Habitat Management
- Land Use and Development
- Public Involvement and Education

The first four items listed above – *Low Dissolved Oxygen*, *Toxic Contaminants*, *Pathogen Contamination*, and *Floatable Debris* – represent undesirable conditions that can occur in Long Island Sound, each of which is tied in some way to human activity and/or development practices and impacts. Some of these conditions and their development-related impacts are described more fully below. The living resources and habitat of the Sound, and related development impacts, are described in more depth in Section B.3. The final two items — *Land Use and Development* and *Public Involvement and Education* — represent two action areas where Towns like Riverhead can make a difference in preserving and protecting Long Island Sound.

Low Dissolved Oxygen (Hypoxia)

Just as people need oxygen to breathe, so do marine organisms. The oxygen used by marine organisms is “dissolved” in the water in which they live; when the level of dissolved oxygen falls below a certain point, the organisms become stressed. They may become ill, die or move to more oxygen-rich waters, thus decreasing the health and vitality of the water body.

One of the major contributing factors to low dissolved oxygen is the release of nitrogen from land-based sources, such as sewage treatment facilities, storm water runoff and agriculture. Designated by LISS as the priority water quality problem in the Sound, hypoxia — or low dissolved oxygen — results from a combination of natural and human-induced events. Nitrogen sources such as sewage treatment plant effluent, storm water runoff from residential, agricultural, and downtown areas, and atmospheric deposition over-fertilize the Sound, fueling the growth of algae. These microscopic plants ultimately sink to the bottom and decay, depleting oxygen in the bottom waters and leading to potentially serious consequences for marine life.

Hypoxia is an issue of concern for Riverhead and its residents because Long Island Sound is an important scenic and economic resource for the Town. This concern will continue to inform current and future planning and development along the northern shore of Riverhead

Toxic Contaminants

Of the 55,000 chemicals being used today, many are poisonous and toxic. In high concentrations, some of these substances can kill marine life. Others can have more subtle effects on behavior and reproduction or may impact intricately balanced food webs. Additionally, toxic substances can accumulate at high levels in the tissue of marine organisms, creating a health risk for seafood consumers.

Land use and the manufacture, use, and disposal of everyday products all contribute contaminants to our water systems. It is important to understand the relative contributions of various sources of toxic substances in order to develop effective strategies for protecting the Sound. Management strategies are most cost effective when they are preventative. Once contamination occurs, cleanup is extremely costly and difficult. In the Long Island Sound area, sewage treatment plants appear to be a major source of copper pollution, while much of the lead contamination comes from areas of urban runoff.

Fortunately, pollution controls and changes in manufacturing trends have decreased the amount of contaminants discharged in Long Island Sound and have resulted in decreased concentrations of contaminants in the surface sediments. Although the most serious problems with toxic contamination are located in the western portion of the Sound, increasing development pressures on the eastern end of the Sound could put the western part of the Sound at greater risk.

Pathogen Contamination

Pathogen contamination occurs as a result of disease-causing bacteria and viruses that can enter Long Island Sound from inadequately treated human sewage and domestic and wild animal wastes. Another source is the discharge of sewage from boats. Studies conducted in Long Island Sound and other estuaries around the country have confirmed that boats can be a significant source of fecal coliform bacteria in coastal waters, particularly in areas with high boat densities and low hydrologic flushing. Swimming beaches and shellfish beds may be closed if coliform levels exceed designated thresholds.

Some of the primary sources of pathogens to the Sound are older sewer systems that overflow during rainfalls (called combined sewer overflows), failing septic systems, illegal connections to storm sewers, sewage treatment plant malfunctions and vessel sewage discharges. People can become sick by swimming in waters contaminated by pathogens or by eating raw or partially cooked shellfish that contain pathogens. As a result, pathogen contamination can seriously affect the region, economically and socially. Although the most serious problems with toxic contamination are located in the western portion of the Sound, increasing development pressures on the eastern end of the Sound, could put the western part of the Sound at greater risk.

Benefiting Riverhead and Its Residents Through Best Use of Taxpayer Dollars

Taxpayer dollars have been and will continue to be invested in the Sound to deal with issues such as nitrogen pollution, sediment contamination, habitat degradation and loss, and the health and abundance of living resources. New York State citizens have shown their support for efforts to protect and improve the quality of their natural resources through legislation such as the 1996 Clean Water/Clean Air Bond Act, which was proposed by Governor Pataki and approved by New York voters. The act included \$200 million for projects to address the priorities identified in the CCMP, including the reduction of nitrogen releases. To date, \$83.2 million has been committed for projects to upgrade and improve sewage treatment plants, restore critical aquatic habitat, purchase open space, and reduce non-point sources of pollution.

Taxes paid by Riverhead residents support these and other programs at the federal, State, and regional level. Riverhead should optimize the use of its residents' tax dollars by ensuring that the Town's comprehensive planning efforts dovetail with ongoing and future efforts to protect and maintain the quality of eastern Long Island's natural resources. The Town and its residents stand to benefit from these programs. Protecting and maintaining the area's natural resources results in economic, scenic, recreational and ecological benefits that will boost the town's overall quality of life.

The Peconic Estuary

Many of the issues identified above for Long Island Sound are also of concern for the Peconic Estuary system. In fact, the Peconic-based issues may be even more significant for Riverhead and its residents since the majority of the Town's waters drain into the Peconic River and Peconic Bay system.

Riverhead is at the western end of the estuary system, where the waters are poorly flushed compared to waters further east. The dynamics of flushing mean that just as the western end of the Long Island Sound has more severe water quality problems than the eastern Sound, so the western end of the Peconic Estuary system has the potential for significant and lingering water quality problems.

However, although there is a downside to being located at the western end of the estuary system, there is a benefit as well. Because the overall flow of water through the system is west to east, Riverhead is in a better position to influence and maintain water quality in its adjacent waters, than communities further east. These more eastern, or "downstream," communities are sited along waters whose quality is affected by the inputs, activities, and land use policies of many communities. Therefore, they have less control over impacts to their adjacent water bodies. In contrast, the western portion of the estuary absorbs the impacts of only two communities: Riverhead and Southampton.

As noted earlier, many of the critical issues for Long Island Sound (low dissolved oxygen, toxic contamination, pathogen contamination, floating debris) are also critical issues for the Peconic River and Bay system. Both water systems are estuaries, and both abut already

developed areas or areas expected to accommodate increasing levels of development in the near future.

As estuaries, both Long Island Sound and the Peconic Estuary System are transition zones between land and sea, freshwater and saltwater and therefore extremely sensitive to the impacts of human activity and development. These parts of the landscape (including both land and water areas) are fragile environmentally and sensitive to disturbance. Careful land use planning and wise landscaping practices — by homeowners, the business community and governmental entities — coupled with effective outreach and education is essential.

What Is an Estuary?

An estuary is a partially enclosed body of water that is formed where freshwater from rivers and streams flows into the ocean. Estuaries are characterized by the mixing of freshwater and salty seawater. Although influenced by the tides, estuaries are protected from the full force of ocean waves, winds, and storms by reefs, barrier islands, or fingers of land, mud, or sand that define an estuary's seaward boundary. Estuaries are found in a variety of shapes and sizes and are described by many different names — including bays, lagoons, harbors, inlets, and sounds — all found within Riverhead's coastal environment.

The tidal, sheltered waters of estuaries support unique communities of plants and animals specially adapted to life at the edge of the sea. Estuarine environments are among the most productive on earth, creating more organic matter each year than comparably sized areas of forest, grassland, or agricultural land. 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.

Estuaries provide many benefits, from contributing to the economic base of a community to providing education and recreational opportunities to important ecological and environmental functions.

Economic Benefits

Tourism, fisheries, and other commercial activities depend on the richness of natural resources in estuaries. The protected coastal waters of estuaries also support important public infrastructure, serving as harbors and ports vital for commercial and recreational boating and associated activities. As the following facts and figures indicate, estuaries are critical to the economic life of many communities. If the health of estuaries is harmed, estuarine communities — like Riverhead — suffer economically.

- Estuaries provide habitat for more than 75 percent of America's commercial fish catch, and for 80 to 90 percent of the recreational fish catch.¹⁴
- Estuarine-dependent fisheries are among the most valuable within regions and across the nation, worth more than \$1.9 billion in 1990, excluding Alaska.¹⁵
- Nationwide, commercial and recreational fishing, boating, tourism, and other coastal industries provide more than 28 million jobs.¹⁶

Educational and Recreational Benefits

Estuaries also are important in providing opportunities for recreation, education, the acquisition of scientific knowledge, and the experience of nature and beautiful surroundings. Boating, fishing, swimming, surfing, and bird watching are some of the numerous recreational activities people enjoy in estuaries. In many places, estuaries are considered the cultural centers of coastal communities, serving as focal points for local commerce and recreation.

Habitat for Wildlife

Estuaries are critical for the survival of many species. Birds, mammals, fish, and other wildlife depend on estuarine habitats as places to live, feed, and reproduce. Estuaries provide ideal spots for migratory birds to rest and refuel during their journeys. And many species of fish and shellfish rely on the sheltered waters of estuaries as protected places to spawn. Hundreds of marine organisms, including most commercially valuable fish species, depend on estuaries at some point during their development.

Other Benefits

The wetland areas found along the fringes of many estuaries contribute to the overall quality of life in many communities because of the important ecological functions they perform. These wetland areas filter water from upland areas, cleansing it of sediments, nutrients and other pollutants, ultimately releasing cleaner and clearer water to larger bodies of water. Wetland plants and soils also act as a natural buffer 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.

¹⁴ *Coastal Challenges: A Guide to Coastal and Marine Issues*, a publication of the National Safety Council's Environmental Health Center, prepared in conjunction with Coastal America, February, 1998.

¹⁵ *Estuaries of the United States: Vital Statistics of a Natural Resource Base*, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, October, 1990.

¹⁶ *Coastal Challenges: A Guide to Coastal and Marine Issues*, a publication of the National Safety Council's Environmental Health Center, prepared in conjunction with Coastal America, February, 1998.

The Peconic Estuary System

The Peconic Estuary System is one of 28 estuaries in the National Estuary Program (NEP), administered by the U.S. Environmental Protection Agency. The estuary was accepted into the program as an “Estuary of National Significance” in 1992.¹⁷

The Peconic Estuary is located at the eastern extremity of Long Island, between the North and South Forks. With 340 miles of coastline, the Peconic Estuary System is made up of over 100 distinct bays, harbors, and tributaries spanning more than 110,000 acres of land and 121,000 acres of surface water.

In addition to the surface waters of the Peconic River and the Peconic-Flanders Bay systems, the Peconic Estuary system includes Gardiner’s Bay and a portion of Block Island Sound. It also includes what is known as the “storm water runoff-contributing watershed” and the “groundwater contributing area.” All these areas are connected hydrologically by the flow of water through the system and are sensitive to impacts from development.

Especially important for the Town of Riverhead are the Peconic River and Flanders Bay. These two bodies of water form the southern shoreline of the Town. Like the estuary system overall, the Peconic River is an extremely fragile water resource and vulnerable to many of the same land use-related impacts. The water of the river, and whatever impacts it absorbs, is carried downstream and into the estuary system. The shores of Flanders Bay contain a relatively large (800 acre) undisturbed salt marsh complex. The area is considered a very productive marine ecosystem that serves as an important nursery for a variety of fish and shellfish.

Although the Peconic estuary system is characterized generally by high water quality that provides the public with many important benefits, rapid development of the surrounding area threatens water quality and other important resources associated with the estuary¹⁸.

The Economic Value of the Peconic Estuary

As part of a project to help the Peconic Estuary Program (see below) and coastal managers determine priorities for managing and protecting the estuary, the Department of Environmental and Natural Resource Economics at the University of Rhode Island has assessed the economic value of the Peconic Estuary. As part of that study, 29 estuarine-dependent sectors were identified. These sectors are those areas of the economy that are supported by services or products attributed to the estuary.

¹⁷ See “References,” at the end of this “Findings” section.

¹⁸ The National Estuary Program. *Coastlines: Information About Estuaries and Near Coastal Water* (August 1999, Issue 9.4). National Estuary Program, U.S. Environmental Protection Agency, 1999.

For the Peconic Bay, these included over 1,000 establishments which employ more than 7,000 people, pay wages in excess of \$117 million and have total annual revenues of over \$400 million. According to the study, overall estuarine-dependent economic activity conservatively accounted for a minimum of 20 percent of the local economy. As a group, tourism and recreation establishments dominate and comprise over 80 percent of the identified estuarine-dependent economic activity.¹⁹

The Peconic Estuary Program

The Peconic Estuary Program (PEP) is part of the National Estuary Program and is an alliance of federal, State and local interests working together to preserve and protect the Peconic Estuary System and its natural resources. PEP is sponsored by the U.S. Environmental Protection Agency (USEPA), the New York State Department of Environmental Conservation (NYSDEC) and the Suffolk County Department of Health Services (SCDHS). The SCDHS operates the program and provides day-to-day management as well as technical and administrative support.

In September 1999, a group of stakeholders — known as the PEP Management Conference and including citizens, technical experts, and federal, state and local officials — developed a draft Comprehensive Conservation and Management Plan (CCMP) designed to protect and preserve the Peconic Estuary System. The Management Conference will continue to work towards effective implementation of the plan. The three committees that compose the Management Conference — the Citizens Advisory Committee, the Local Government Committee, and the Technical Advisory Committee — will be integral to the long-term management process. The participation of local governments, including the Town of Riverhead, will also be crucial to the implementation process, especially in terms of land use, zoning, and non-point source control programs.

What Are the Priority Issues Facing the Estuary?

The CCMP has identified five priority management issues facing the estuary:

- Brown Tide;
- Nutrient Pollution;

¹⁹ Grigalunas, Thomas A. and Jerry Diamantides. *The Peconic Estuary System: Perspective on Uses, Sector and Economic Impacts*. (February 1996; unpublished technical report submitted to the Peconic Estuary Program); Opaluch, James J.; Thomas A. Grigalunas, Jerry Diamantides, Marisa Mazzotta and Robert Johnston. *Recreational and Resource Economic Values for the Peconic Estuary System*. (February 1999; unpublished technical report submitted to the Peconic Estuary Program); The National Estuary Program. *Coastlines: Information About Estuaries and Near Coastal Water* (August 1999, Issue 9.4). National Estuary Program, U.S. Environmental Protection Agency, 1999.

- Threats to Habitat and Living Resources;
- Pathogen Contamination; and
- Toxic Chemicals.

The Management Conference also identified the need for public education and outreach, financing, and a framework for the long-term management of the estuary.

Issues and concerns associated with the *Brown Tide* and *Nutrient Pollution* are described below. *Threats to Habitat and Living Resources* are described in the Section B.3. Issues associated with *Pathogen Contamination* and *Toxic Chemicals* are similar to those described for Long Island Sound above.

The Brown Tide

The Brown Tide is a serious problem plaguing the Peconic Estuary. An algae bloom caused by a small and historically unknown species (*Aureococcus anophagefferens*), the Brown Tide was first detected in June 1985 and has occurred off and on since then. Its onset, duration, and cessation have been unpredictable. The impacts of the recurring Brown Tide blooms are widespread, having a serious effect on natural resources, the local economy, the general aesthetic value of the estuary and possibly to regional tourism. Although advances have been made regarding the identification and characterization of the brown tide organism and its growth needs, the causes of the brown tide are not known.

The Brown Tide has been particularly devastating to the shellfish resources of the estuaries. In the Peconic Estuary, the scallop harvest accounted for 28 percent of the U.S. landings in 1982 with a dockside value of \$1.8 million dollars. By 1988, the scallop harvest had dropped from pre-brown tide levels of 150,000 to 500,000 pounds per year to only 300 pounds per year. By 1994, the scallop population had rebounded but was then hit with a brown tide in 1995 that caused significant scallop mortality.²⁰

In 1992, the Suffolk County Department of Health Services released the Brown Tide Comprehensive Assessment and Management Program Report (BTCAMP) in response to the Brown Tide problems. The BTCAMP study recommended that a host of pollution abatement strategies be pursued in the Peconic Bay area, including:

- Upgrading of the Riverhead Sewage Treatment plant;
- Stricter zoning;
- Restoration of wetlands and eelgrass beds;
- Storm water runoff management;

²⁰ Peconic Estuary Program, Office of Ecology. *Draft Comprehensive Conservation and Management Plan – September 1999*. Suffolk County Department of Health Services,, September 1999, Riverhead: New York.

- Boating and marina controls; and
- Further monitoring of water quality and the Brown Tide

Nitrogen and the Peconic Estuary

Prior to the establishment of the Peconic Estuary Program, the ground and surface water quality of the Peconic Estuary and its surrounding watershed was studied in some depth. The primary emphasis at that time was on the western estuary, including the Peconic River and Flanders Bay — the area of the estuary bordered by the Town of Riverhead.

At that time, significantly elevated nitrogen concentrations were found along the North Fork (typically 5 to 7 mg/l). These elevations were attributed to agricultural and residential influences, resulting in part from the fertilizers used in these areas.

At that time, studies also found that the groundwater in the Peconic River was of relatively high quality. This was attributed to that fact that much of that land draining into the river was at the time vacant — consisting primarily of undeveloped land, parkland or nature preserves. As land in the Peconic River watershed becomes more highly developed, the Peconic River and its associated waters will be increasingly at risk. Because of its quantitative input of freshwater to a poorly flushed area, the Peconic River's role is very important. If quality of the ground water in the river corridor degrades, the impacts on Flanders Bay could be serious.

Studies also revealed another area of concern. There is the need to control point source — most notably nitrogen — loading in the estuary from the municipal sewage treatment plant whose discharge location is at the mouth of the Peconic River.

The PEP has adopted a “no net increase” nitrogen loading policy for the tidal Peconic River and Flanders Bay. This nitrogen level “freeze” is being implemented through point source discharge permits for the three sewage treatment plants in the area. In the river corridor, land use controls, a public education and outreach campaign, and demonstration projects are critical parts of the management strategy.

AQUIFER AND GROUNDWATER RESOURCES

Central Pine Barrens Area

The Central Pine Barrens is an important landscape feature for Long Island and its inhabitants because it is essential to maintaining the sole natural source of drinking water for over two and half million residents of Long Island. The drinking water for much of Long Island is drawn from this aquifer system. This system is regularly replenished by rainwater, which falls within the Pine Barrens region and then infiltrates through the soil and then into the aquifer below, which holds and distributes the water. The water percolates downward to these lower layers through a hydrological phenomenon known as “deep flow recharge.” It

is because the soils in the Pine Barrens area are so porous that they work so well storing and distributing the rainwater that falls over the area. This water — which begins as rainwater and is eventually stored in the aquifer — is the source of drinking water for most of Long Island’s residents, including those who live in Riverhead.

The Central Pine Barrens once covered approximately 250,000 acres in central Suffolk County. However, due to landscape changes wrought by development, the ability of portions of the original area to serve their original ecological function as aquifer recharge areas has been diminished or lost. As a result, the Central Pine Barrens area now consists of less than half its original area, covering approximately 100,000 acres of relatively undeveloped land.

The soil features that make the Central Pine Barrens an ideal area for groundwater recharge also make the drinking water supply especially vulnerable to the risk of pollution. Because the soils are so permeable, they are not as capable of filtering or degrading contaminants as well as some other soils. Thus, contaminants can enter, and in sufficient quantity, contaminate the aquifer system.

In addition to its importance as a groundwater recharge area, the Pine Barrens area contains an unusually high concentration of species that have officially been classified as endangered, rare, or otherwise subject to the protection of federal laws. The Pine Barrens area contains over 300 species of vertebrate animals, 1,000 species of plants, and 10,000 species of insects and other invertebrate animals, many of them rare and restricted to pine barrens or other similar areas. Among the more endangered species inhabiting the Pine Barrens are the Tiger Salamander, the Red-Shouldered Hawk, the Northern Harrier, and the Mud Turtle.²¹

How have citizens expressed their desire to preserve and protect the Pine Barrens?

Because of the importance of the Long Island Pine Barrens to the citizens and residents of New York State and Suffolk County, laws and policies that recognize the ecological significance and fragility of the area have been adopted at a variety of government levels in order to protect it from the negative impacts of development. The following is a list of some of the key policies and laws that has been formulated at the federal and State levels:

- The EPA designated the underlying Long Island aquifer a “sole source aquifer” after noting that the aquifer system is the principal source of drinking water for Nassau and Suffolk Counties and is highly vulnerable to contamination. (1978)
- The Long Island Regional Planning Board released a comprehensive waste treatment plan (“the 208 study”). It included the mapping of an area known as “Hydrogeologic Zone III,” which closely matches in outline the area of the Central Pine Barrens. The plan indicated that this zone should be protected from contamination through land use restrictions and other controls.

²¹ See “References,” at the end of this “Findings” section.

- The New York State Legislature adopted the first in a series of enactments designed to protect the Pine Barrens by amending the Environmental Conservation and Public Health Laws to provide for special review of business, commercial, and industrial uses in Suffolk County, with a view toward preserving the purity of the groundwater. (1974)
- The State Legislature adopted the Landfill Law, which prohibits the placement of new landfill sites in Zone III and most of the Central Pine Barrens. (1984)
- The State Legislature authorized the Department of Environmental Conservation to prohibit land uses involving hazardous wastes in certain portions of Long Island because of the “direct relationship that exists between land use activities and the quality of the groundwater reservoir beneath.” (1983)
- A Statewide framework for water resource planning was established and the Department of Environmental Conservation issued a report, the Long Island Ground Water Management Plan, which singled out the Long Island Pine Barrens for protection. (1984)
- State legislation enacted the Sole Source Aquifer Special Groundwater Protection Areas Law (codified as article 55 of the Environmental Conservation Law). The Central Pine Barrens area in the Towns of Brookhaven, Riverhead, and Southampton was included as one of nine listed Special Groundwater Protection Areas.

Laws to protect the Central Pine Barrens area and its resources have also been adopted at the local level. Suffolk County has adopted laws that:

1. Encourage towns and villages within the Pine Barrens Zone to develop “unified policies” with regard to land uses within that zone (Local Law 7, 1984).
2. Designate the Central Pine Barrens as a critical Environmental Area pursuant to State Environmental Quality Review Act (Local Law 24, 1987).
3. Create a Pine Barrens Wilderness and a Water Protection Preserve (Local Law 40, 1987).
4. Establish funding mechanisms for projects to protect the drinking water (Local Law 35, 1988).

More recently, the interests of citizens have been expressed through local planning efforts including the adoption of the Long Island Pine Barrens Protection Act of 1993, which initiated a process for regional planning and permitting which continues today. The plan officially defined the Central Pine Barren area at the junction of the Towns of Riverhead, Brookhaven, and Southampton and also:

1. Created a five member Central Pine Barrens Joint Planning and Policy Commission.
2. Formed an Advisory Committee.
3. Mandated the production and adoption of the *Central Pine Barrens Comprehensive Land Use Plan* (which was adopted in June 1995).

What is the Central Pine Barrens Comprehensive Land Use Plan?

The *Central Pine Barrens Comprehensive Land Use Plan* came about as a result of the 1993 legislation (see above). Among its responsibilities, the Joint Planning and Policy Commission was charged with overseeing the creation and implementation of a comprehensive land use plan for the Central Pine Barrens aimed at protecting and preserving valuable Pine Barrens resources. The *Central Pine Barrens Comprehensive Land Use Plan* is this plan.

The Plan identifies two regions within the Central Pine Barrens — the Core Preservation Area and the Compatible Growth Area. The Plan regulates land uses in these areas with the goal of managing development in a way that preserves and protects the Pine Barrens' ecological and hydrological resources. Successful implementation of the Plan will protect a significant portion of eastern Long Island's deep recharge watershed. It will also result in the protection of a large contiguous forest within the Core Preservation Area. In the Compatible Growth Area, new development "will be directed in a compact, efficient and orderly pattern."

The **Core Preservation Area** consists of 55,000 acres (4,720 in Riverhead). Within this area, the Plan is designed to protect the critical ecological and hydrological functions of the Pine Barrens. This is achieved by:

- Preserving the Core Area in its natural state;
- Promoting compatible agricultural, horticultural, and open space uses; and
- Minimizing impacts on the Core Area by prohibiting or redirecting new development

The **Compatible Growth Area** consists of 47,500 acres (5,484 in Riverhead). Within this area, the plan is designed to:

- Discourage piecemeal and scattered development; and
- Encourage appropriate patterns of compatible residential, commercial, agricultural and industrial development

Within the Compatible Growth Area, the Plan aims to accommodate regional growth in an orderly way and to accommodate a portion of the development redirected from the Core.

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. As part of the strategy to reach this goal, a transfer of development rights (TDR) program called the Pine Barrens Credit Program has been created. Through this program, landowners with property in the Core Preservation Area may transfer the right to develop a parcel in the Core to another more suitable parcel.²²

²² For further information, see the *Central Pine Barrens Credit Program Handbook*, published by the Central Pine Barrens Joint Planning and Policy Commission, February 1994.

Finally, an important aspect of the plan is the component describing the “Standards and Guidelines for Land Use”. Consistent with the goals of the Plan to protect and preserve irreplaceable Pine Barrens resources while accommodating appropriate use and development, these standards and guidelines regulate land use in the Central Pine Barrens. Created to ensure that new development is consistent with the goals of the Act and the Plan, the Plan provides clearly defined and efficient review procedures.

These standards and guidelines are important to the people of Suffolk County, including Riverhead, because they are designed to protect their long-term interests — safe, available drinking water, and essential natural resources for the benefit and enjoyment of all.²³

The Central Pine Barrens area is an important natural resource area for Riverhead and its residents because of its role in providing healthy drinking water to Long Island residents. Development in, or hydrologically connected to, the Pine Barrens area, could jeopardize those resources. The Central Pine Barrens also provides important scenic and recreation benefits to the Town.

B.2 SOILS AND TOPOGRAPHY

The soils, topography, and terrain of Riverhead are important natural resources and features not only because of their specific physical and chemical character, but also because these physical and chemical properties underlie and define the unique visual character of the town.

For example, the kind of soils in a particular area determines the type of land use that can be accommodated. Some soils are well suited to farming; others are not. Some soils can readily accommodate residential development, but may limit the density of that development. Soils affect the visual character of the Town because of the kinds of land uses that can be accommodated. Soils well suited for farming, when preserved for agricultural use, create areas with the broad open expanses and scenic rural character that are so highly valued by Riverhead residents.

Other soils are extremely fragile, or may support rare or unique plant and animal communities. On or near soils like these, any building or development has the potential to alter the soils and the communities they support in irreparable ways. In addition to their fragility and ecological importance, these types of soil are often key in defining the visual character of a region. For instance, the beach soils, escarpment soils, muck soils, and tidal marsh soils of the Town of Riverhead occur mostly along the interface between land and water, areas that contribute strongly to Riverhead’s unique sense of place.

²³ For further information, see Chapters 4 and 5 in Volume 1 of the *Central Pine Barrens Comprehensive Land Use Plan*.

GEOLOGICAL FORMATIONS OF LONG ISLAND

Over time, a variety of forces have shaped and continue to shape the landscape of Long Island. These forces include the advance and retreat of glaciers many thousands of years ago; the weathering action of rain that slowly erodes the landscape over time; the movement of soil particles through the landscape by rivers and streams; and the shifting of landforms created by the movement of large water bodies, particularly those that are tidally influenced. The most prominent landforms in Suffolk County are:

- Two hilly ridges (called moraines) that extend in long strips from west to east;
- Two gently sloping outwash plains that fall to the south of each moraine;
- Eroded headlands found along the northwestern shore of the county;
- Barrier beaches of the south shore; and
- Tidal marshes.

The moraines and outwash plains were formed by the action of glaciers. Countywide, elevation ranges from almost 400 feet at West Hills to sea level. The weathering effect of rainfall that has occurred over many hundreds, even thousands of years, has slowly eroded hills and other upland features throughout the county. Meanwhile, the barrier beach and tidal marshes have probably been formed in relatively shorter time frames by water movement and particle deposition, from streams, rivers, oceans and bays.

Figure B-2: Soil Map

Back of Figure B-2

Glacial Landforms of Riverhead

The advance and retreat of glaciers played a primary role in forming the soils and landforms of Long Island. The Wisconsin stage, the last of four major glacial stages, produced Long Island Sound as well as many of the significant topographic features apparent on Long Island today. In Suffolk County, as well as Riverhead, glacial landforms define the overall landscape character and correlate strongly to the existing soil associations.

Moraines

During the earlier part of the Wisconsin stage, the glacier moved south across what is current-day Long Island. The glacier acted much like a bulldozer, pushing a complex mix of soil and glacial debris ahead of it. When the glacier retreated, the pile of debris was left behind, forming an extensive, irregular, hilly mound called a moraine. This moraine, known as the ***Ronkonkoma moraine*** extends in a long band from the Nassau County line (near Smithtown) to Montauk Point. Part of this moraine passes through Riverhead, along the southern edge of the Town, in the area of course-textured, excessively drained soils just north of the Peconic River. This area corresponds to the Plymouth-Carver Rolling and Hilly soil associations described below.

Following this period of glacial retreat, the glacier advanced one last time. However, with this final advance, the glacier did not advance as far south before beginning its retreat. Once again, the bulldozer effect of the glacier left behind a hilly pile of morainal debris. In Suffolk County, this second moraine — known as the ***Harbor Hill moraine*** — forms the northern shore of the county, extending in a long band from the western edge of the county all the way to Orient Point. In Riverhead, this morainal landform is found along the northern edge of the Town, in the hilly strip that borders Long Island Sound. This area corresponds to the Carver-Plymouth-Riverhead soil association described below.

Outwash Plains

Each time the glacier reached its southern limit, it began to melt. As the glacier melted, streams flowed south away from the glacier and its morainal deposits. These “meltwater” streams carried large amounts of sand and gravel that were deposited in a more or less flat plain, forming broad relatively flat landscape features known as outwash plains.

There are two outwash plains in Suffolk County. One outwash plain lies between the Ronkonkoma moraine and the Atlantic Ocean. This outwash plain, which extends along the southern edge of the county, does not pass through Riverhead. The other outwash plain lies between the Harbor Hill moraine and the Ronkonkoma moraine. In Riverhead, this outwash plain occupies the majority of the Town’s land area, extending from west to east in a broad band across the entire town. This central landform, framed by the Harbor Hill moraine to the north and the Ronkonkoma moraine to the south, forms the agricultural core of Riverhead. This area corresponds to the Haven-Riverhead soil association described below.

Riverhead Soils

Seven important soil types found in Riverhead are described below. The first set of three soil types is key to understanding the overall geographic makeup of the Town. These soils cover the largest overall land area within Riverhead and occur in three bands that run parallel to Long Island Sound. The second set of four soil types represents a combination of unique or especially fragile soil types that are essential to Riverhead's unique identity as a coastal community. These four soil types cover a much smaller percentage of land within Riverhead and are generally found in pockets or narrow strips along or near the coastal edges.

Primary Soil Associations

There are three primary soil associations found in Riverhead (See "Riverhead Soils Map," next page). Each of these soils was created by a different geologic event. Each of these soils is characteristically different from each other. Each of these soils is made up of different kinds of particles, in differing amounts, and therefore, each has different "capabilities." These soils and their capabilities are described below. In addition to the three primary soil associations, other important Riverhead soils are the beach, muck, escarpment, and tidal marsh soils described below.

Carver Plymouth Riverhead Association (Harbor Hill Morainal Area – North Shore)

- These soils are described as "deep, rolling, excessively drained and well-drained, coarse textured and moderately coarse textured soils on moraines."
- This association is located mainly along the north shore adjoining Long Island Sound. The area characterized by this soil association is typically rolling, with slopes ranging from nearly level to steep. In the eastern part of the area covered by these soils, a low ridge or a series of narrow parallel ridges is dominated by strongly sloping soils.
- The rolling landscape, many wooded areas, and nearness to water make soils in this association highly desirable as sites for estates. The eastern part of the area covered by these soils (including Riverhead) is wooded or the sites have summer homes on them. The general trend in land use is toward housing and recreation.
- The sandy texture and steep slopes make the soil much of this association poorly suited to farming. Slope is the dominant limitation to use of these soils as building sites.²⁴

²⁴ U.S. Department of Agriculture, Soil Conservation Service, in cooperation with Cornell Agricultural Experiment Station, *Soil Survey of Suffolk County, New York*, 1975.

Where is the Carver-Plymouth-Riverhead Association in Riverhead?

These soils are located in a band across the northern edge of the Town.

What are these soils suited for?

These soils are not well suited to farming. These soils can accommodate development, with some limitation due to the hilly topography.

What precautions need to be taken?

Residential and any other development in this area should be sensitive to the limitations of the soil. Grading and clearing of land should be minimal in order to prevent erosion and loss of scenic qualities contributed by the topography. Although desirable location for homes, care needs to be taken to preserve the essential rolling and wooded character of these soils.

Haven-Riverhead Association (Outwash Plain Area – Central Agricultural Zone)

- These soils are described as “deep, nearly level to gently sloping, well-drained, medium-textured, and moderately coarse textured soils on outwash plains.”
- This association occurs mainly in the northern part of Suffolk County. This association is found on outwash plains. These soils are characteristically nearly level and have short gentle slopes along shallow drainageways. Some areas are pitted by steep-sided kettle holes. Slopes range from 1 to 12 percent.
- Most of the areas covered by this soil association have been cleared. Moving east from the Brookhaven-Riverhead Town line, the soils in this association make up the largest area of farmland in Suffolk County.
- Mostly, these soils are gently sloping to nearly level. They have moderate to high available moisture capacities. Crops respond well to applications of lime and fertilizer. These factors make this association one of the best farming areas in the County. Because drainage is good in these soils, and they can be excavated with ease, this association also has excellent potential for housing developments and similar uses. In places where the soils have a high water table or are strongly sloping, limitations are more severe for most non-farm uses.²⁵

Where is the Haven-Riverhead Association in Riverhead?

These soils are located in a wide band across the central area of the Town.

²⁵ U.S. Department of Agriculture, Soil Conservation Service, in cooperation with Cornell Agricultural Experiment Station, *Soil Survey of Suffolk County, New York*, 1975.

What are these soils suited for?

These soils, which are extremely well suited to agricultural use, these prime agricultural soils are located in the central core area of Riverhead. Because they are relatively flat and relatively clear of trees, they are also considered attractive for development.

What precautions need to be taken?

Because these soils are desirable for both farming and residential development, valuable agricultural lands and open space could be permanently lost to residential development. The Town needs to carefully consider the implications of converting farmland to residential development and develop policies that provide opportunities for residential development without destroying the overall integrity and long-term sustainability of agricultural lands.

Plymouth-Carver Association, Rolling and Hilly (Ronkonkoma Morainal Area – South)

- These soils are described as “deep, excessively drained, coarse-textured soils on moraines.”
- These soils are part of the Ronkonkoma moraine. They are characteristically strongly sloping to steep, with slopes ranging from 8 to 35 percent.
- Typically, these soils have a characteristically poor cover of scrub oak, white oak, and pitch pine. Only a small part of this association has ever been farmed, and many of these areas have been allowed to revert to brush.
- The soils of this association are coarse and droughty. Permeability is rapid. Natural fertility is low to very low. These factors make them very poorly suited or only fairly well suited to most crops commonly grown in the County. The use of these soils for housing developments or similar non-farm uses is severely limited due to steep slopes on much of the area and the difficulty of establishing and maintaining lawns and landscape plantings. Areas of soils that have a high water table severely limit the use of some areas for sewage effluent disposal. Rapid movement of water and wastes from cesspools and septic tanks can contaminate ground water supplies beneath the rapidly permeable soils of the association.²⁶

Where is the Plymouth-Carver, Rolling and Hilly Association in Riverhead?

These soils are located in a narrow band along the southern edge of the town, bordering the Peconic River and Flanders Bay.

What are these soils suited for?

²⁶ U.S. Department of Agriculture, Soil Conservation Service, in cooperation with Cornell Agricultural Experiment Station, *Soil Survey of Suffolk County, New York*, 1975.

These soils are not well suited to farming because water passes through them so quickly. The development potential of these soils is very limited because of the terrain, soil permeability, and water table. This is a relatively fragile zone.

What precautions need to be taken?

Residential and any other development in this area should be sensitive to the limitations of the soil and terrain. It is best suited to passive recreation and limited residential development. Density of development should be limited and the Town's zoning code and design and construction standards should address the fragile nature of this area.

Special Riverhead Soils

Other important Riverhead soils are the beach, muck, escarpment, and tidal marsh soils described below. These soils are important because of their fragility and uniqueness. They support unique plant and animal communities characteristic of eastern Long Island, and they also contribute strongly to the Town's visual character and sense of place. These soils are found mostly along the coastal edges of the Riverhead, on the narrow interface between land and water. Measures should be taken by the Town to preserve and protect these soils from the impacts of development.

Beaches (Bc)

Beach soils are made up of sandy, gravelly, or cobbly areas that develop between dunes and escarpments and the line of water at mean sea level. The slope of beach soils is nearly level in most areas but it is as much as 16 percent in some places on the Atlantic shore. All the beaches along Long Island Sound are very gravelly and cobbly. A few very large boulders that rolled down from the adjoining bluffs of the Harbor Hill Moraine are present. The Atlantic Ocean beaches are sandy except for a few small areas near Montauk Point. In most places, beaches on the bays are sandy, but varying amounts of gravel are mixed with the sand.²⁷

Escarpments (Es)

- Escarpment soils are made up of bluffs that have slopes greater than 35 percent. Most of the areas characterized by this soil type occur along the north shore, but a

²⁷ U.S. Department of Agriculture, Soil Conservation Service, in cooperation with Cornell Agricultural Experiment Station, *Soil Survey of Suffolk County, New York*, 1975.

few are near Peconic Bay and along the Atlantic coastline near Montauk Point. Areas also occur along the coastline of offshore islands.

- Soil horizons have not formed in this actively eroding material. Except for a few scattered areas, this unit is devoid of vegetation. Generally, the slopes are uniform with very little dissection, except on the more resistant material around Montauk Point and on parts of Gardiner's Island. The height of the escarpments ranges from about 20 feet to more than 100 feet.
- Along the north shore of Long Island, the material in the escarpments is sand. Many escarpments have large boulders embedded in the soil, which roll to the beach as the escarpment erodes.
- Escarpments are used as habitat by some species of songbirds.²⁸

Muck (Mu)

- Muck soils are made up of very poorly drained organic soils that have formed from partly decomposed or almost completely decomposed woody or herbaceous plants. The areas are nearly level and occur in the bottom of closed depressions or kettle holes and along some larger streams. Most areas are found along the Peconic River and near Montauk in depressions that are irregular in shape. A few areas, however, are between tidal marshes and areas of better drained upland soils.
- Muck is made up of 16 to 48 inches of spongy, black, or dark-reddish organic material over loose sand and gravel. The amount of partly decayed plants in the organic layer varies. The water table is at or near the surface most of the year. Typically, the surface is covered by several inches of water late in winter and in spring.
- Mapping of this land type includes small areas that are muck to a depth of more than 48 inches and a few areas of fresh-water marsh along the Peconic River that are under water throughout the year.
- Muck is suited to cranberries in some places; however, most areas are small, and it is not economically feasible to develop them. Almost all of this land type is in woodland or marsh grass. It is better suited to habitat for wetland wildlife than to other uses.²⁹

Tidal Marsh (Tm)

- Tidal marsh soils are made up of wet areas that occur throughout the County around the borders of calmer embayments and tidal creeks. These level areas are not

²⁸ U.S. Department of Agriculture, Soil Conservation Service, in cooperation with Cornell Agricultural Experiment Station, *Soil Survey of Suffolk County, New York*, 1975.

²⁹ U.S. Department of Agriculture, Soil Conservation Service, in cooperation with Cornell Agricultural Experiment Station, *Soil Survey of Suffolk County, New York*, 1975.

inundated by daily tide flow, but they are subject to flooding during abnormally high moon or storm tides.

- Tidal marsh soils have an organic mat on the surface that ranges from a few inches to several feet in thickness. The organic mat overlies pale-gray or white sand. In many places, the profile of the marsh is made up of alternating layers of sand and organic material that has developed as a result of sand being deposited on the organic mat during abnormally high storm tides.
- These very poorly drained areas are not suitable to any kind of farming. They are best suited to use as habitat for types of wildlife.³⁰

Where are Beach, Escarpment, Muck and Tidal Marsh soils in Riverhead?

Primarily, these soils are located in narrow bands along the interface between landforms and water bodies — along the shoreline of Long Island Sound, the Peconic River, and Flanders Bay.

What are these soils suited for?

These soils are not well suited to either farming or development of any kind, and sensitive to alteration and disturbance. They also tend to support sensitive or fragile plant and animal communities. They are best suited to passive recreational use.

What precautions need to be taken?

Due to the fragility of these soils and the plants and animals they support, no development should occur on these soils. Also, development on adjacent areas should be adequately set back to avoid negative impacts to these soils and should be conducted in a manner that minimizes negative impacts to these soil areas. Riverhead's zoning code and design and construction standards should be modified as needed.

B.3 PLANTS AND ANIMALS

In addition to soil and water resources, the natural plant and animal communities found within the Town's borders are another important part of Riverhead's natural resource framework.

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 visualized as a “web” or “community.” The individual species are part of a larger, interrelated whole that involves complex relationships between many species and their

³⁰ U.S. Department of Agriculture, Soil Conservation Service, in cooperation with Cornell Agricultural Experiment Station, *Soil Survey of Suffolk County, New York*, 1975.

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 at risk, its broader habitat must be adequately protected from adverse impacts in order to ensure that species' continued existence.

Are all plants and animals desirable natural resources?

From a natural resources perspective, some of the plants and animals found within Riverhead are considered valuable and desirable. These are the plants and animals described as “native,” or indigenous to the region. These species are important for a number of reasons — they are part of the region's natural and environmental heritage and they also provide scenic and recreational benefits.

Other plants and animals — including many agricultural weeds and an increasing number of garden and ornamental species — can be extremely problematic in natural areas. These problem species, one example being the popular landscaping plant Norway Maple (*Acer platinoides*), readily escape into natural areas, eventually choking out native plant and animal communities. Because they are so easily transferred by wind, water, or birds, and because they spread so aggressively, the impact of these plants can be severe.

Why are native plants and animals important to Riverhead?

Communities like Riverhead value their native plants and animals — and the broader communities of which they are a part — for many reasons. Overall, native plants and animals are an essential part of the ecological, scenic, historic, and economic fabric of the community.

These species may be important ecologically because they are rare or special, or they may be important to other valued species as food and habitat. Native plants and animals are also important as educational and scientific resources. Humans may also rely on them economically and as a food source. For instance, the fish, shellfish, and crustaceans of eastern Long Island are an important component of the regional economy. Additionally, native plants and animals are part of the scenic and recreational amenities of a region. They provide opportunities for enjoying and observing nature. These plants and animals are also an essential part of the community's regional heritage. They play a role in conveying the distinct “sense of place” that makes a community like Riverhead special and unique.

Finally, native plants and animals (and the ecosystems of which they are a part) perform important and often under-appreciated “functions and services” to human communities. In eastern Long Island, the Pine Barrens region (with its distinctive soils and vegetation) plays an important role in absorbing and filtering the water that the region depends on for its drinking water needs. The vegetative communities that make up Eastern Long Island's wetlands and marshes act as filters, removing pollutants and sediments from water as it flows into sensitive waterways such as the Peconic Estuary system.

This filtering process keeps water bodies like the estuary clean, making them better environments for fish and other wildlife. As a result, fish and bird populations are more likely to remain sustainable and will be safer for human consumption. Native wetland areas also provide an important benefit to human communities by acting as a sponge to absorb the surge of excess water that comes with storms and flooding. This helps avoid the economic losses associated with storms and flooding. Thus, the loss and degradation of area of native plants and animals can have serious impacts on the economic infrastructure and overall health of human communities.

How can valued plants and animals be protected from development impacts?

In many instances, human activity disturbs the equilibrium of these natural communities. Activities associated with building and development and with common landscape maintenance and design practices can negatively impact natural areas. For example, hydrology and soil conditions may be altered so that opportunistic species flourish at the expense of native plants and animals.

The natural environment of Long Island, including Riverhead, has a variety of unique and highly productive ecosystems, some aquatic and some terrestrial. These ecosystems include a diverse array of living resources, from microscopic plants and animals; seaweed; economically important fish, shellfish, and crustaceans; birds, sea turtles; marine mammals; and plants associated with aquatic habitats; to the many plants, insects, amphibians and mammals associated with the region's terrestrial habitats.

The following section highlights some important natural resource issues and concerns regarding certain plant and animal species and communities in Riverhead. This overview is by no means comprehensive. Instead, it is intended to give a sense of the types of issues and problems that need to be addressed as Riverhead plans for future development.

Riverhead: At the Heart of the Peconic Region

Riverhead is part of a broad area in eastern Long Island known as the Peconic Region. This region encompasses the watershed of the Peconic Estuary, and spans an area from the Pine Barrens at its western edge to the easternmost tips of the North and South Forks.

Important for its natural resources, the Peconic Region provides habitat for one of the highest concentrations of rare plants and animals in the State. Of these species, 21 are globally rare. Additionally, beaches in the Peconic Region provide habitat for two federally endangered shorebirds: piping plovers and roseate terns.

Located within the Peconic Region is the Long Island Pine Barrens. A low, flat forest on nutrient-poor, glacially deposited, sandy soils, the Pine Barrens includes a globally rare natural community of Dwarf Pine Trees and supports a wide variety of species including the Coastal Plains Buck Moth and the Harrier Hawk.

The Peconic Region also includes the watershed for the Island's longest river, the Peconic. Other important natural resources in the Peconic Region are the Coastal Plain Ponds, with their insectivorous plants and white cedar swamps, as well as the four interconnected bays that link the Peconic Estuary to the Atlantic Ocean. The salt marshes and submerged eelgrass beds found within estuary give food and shelter to commercially important fish and shellfish. Sea turtles, such as the Kemps-Ridley, seals, whales, and countless shorebirds also use the estuary for breeding or feeding grounds.

PLANTS AND ANIMALS OF THE PECONIC REGION ESTUARIES

Riverhead's estuarine environment — which includes the Long Island Sound estuary system and the Peconic Estuary system — support unique communities of plants and animals specially adapted to life at the interface between land and water. Estuarine environments are among the most productive on earth, creating more organic matter each year than comparably sized areas of forest, grassland, or agricultural land. 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 productivity and variety of estuarine habitats results in abundant and diverse wildlife and plant communities. Shore birds, fish, crabs and lobsters, marine mammals, clams and other shellfish, marine worms, sea birds, and reptiles are just some of the animals that make their homes in and around estuaries. These animals are linked to one another and to an assortment of specialized plants and microscopic organisms through complex food webs and other interactions.

Estuaries are subject to both freshwater inputs from rivers and tidal inputs from the ocean. They provide important habitat, as well as spawning and nursery grounds, to a wide variety of marine organisms, most notably:

- Shellfish, such as bay scallops, hard clams; and
- Fish such as bay anchovy, Atlantic silverside, scup, (also called porgy), summer flounder (also called fluke), winter flounder, windowpane flounder, weakfish (also called grey sea trout), and tautog (also called blackfish).

One of the most important underwater habitats of estuary systems are areas of eelgrass, such as those found along the edges of the eastern end of the Peconic Estuary. These eelgrass beds provide food, shelter, and nursery grounds to many marine animals including worms, shrimp, scallops and other bivalves, crabs, and fish.

Commercially Valuable Fish in Long Island Estuaries

Long Island Sound produces some of the best shellfish in the nation. Oysters are the dominant commercial shellfish. However, commercial and recreational shellfishers also

harvest hard clams (or quahogs), soft-shell clams (or steamers), bay scallops, blue mussels, surf clams and razor clams. At the end of the 19th century, oyster farming had developed into a major industry in Long Island Sound. Today, after a long period of decline, the Sound's oyster industry is once again one of the largest in the nation. The Sound's oysters are marketed throughout the country, and their high quality commands a premium price. The oyster is, by far, the most economically important shellfish harvested from Long Island Sound.

American lobster is one of the most important and valuable seafood products harvested in New York and Connecticut. Long Island Sound's lobster fishery was the third largest in the country behind Maine and Massachusetts, earning a dockside value in New York alone of over \$29 million in 1998.³¹

However, the health of the Long Island Sound lobster industry is now in question. Lobster fishermen and dealers began reporting dead and dying lobsters in their gear in the western third of Long Island Sound in mid-September of 1999. Continuing through 1999 and 2000, the die-off was unprecedented in scope and catastrophic to the lobster fishery.

Scientists are unsure what is causing the lobsters to die in the western Sound, although all the dead lobsters had the same protozoan parasite called *Paramoeba*. Research is under way to determine whether changes in weather conditions (such as storms or average temperature fluctuations), pollutants in the water or sediments, hypoxia (lack of oxygen), dietary change, or management practices (such as dredging and pesticide applications) could have weakened the animals so that they became susceptible to diseases and parasites.

Threats to Long Island Estuaries

Conservation and management plans for eastern Long Island's two primary estuary systems — Long Island Sound and the Peconic Estuary System — have identified key concerns for the region's estuaries:

- Low Dissolved Oxygen (Hypoxia)
- Toxic Contaminants
- Pathogen Contamination
- Floatable Debris
- Brown Tide
- Nutrient Pollution

All of these are areas of concern for the plants and animals of the estuary systems. In addition to these problem areas, attention has been called to the need for wise land use

³¹ See "References," at the end of this "Findings" section.

planning and development policy coupled with education and outreach. Both of these action areas will be critical to ensuring the long-term health of the estuaries.³²

Estuarine and Coastal Birds

There are more than 125 species of birds, mainly waterfowl, water birds, and raptors that rely on the estuary systems of eastern Long Island for food and habitat. Bird populations in and near eastern Long Island vary seasonally. In winter, mergansers, scaups, scoters, mallards, black ducks, loons, cormorants, and Canada geese are found in large concentrations. Spring brings the annual migration of a wide variety of plovers, terns, sandpipers, waterfowl, herons, egrets, and songbirds. During the summer months, birds are busy tending their nests and young. Fall, once again, brings masses of birds migrating along the coast to southern wintering grounds.

The Peconic Bay region is considered an “Important Birding Area” (IBA) by the New York State Audubon Society. An IBA is a site providing essential habitat to one or more species of breeding or non-breeding birds. According to the Audubon Society, the area is an important breeding area for colonial waterfowl including: American Oystercatchers (10 pr. in 1996, 6 percent of State population); Piping Plovers (18 pr. in 1996, 7 percent of State population); Common Terns (9 pr. in 1996); Least Terns (369 pr. in 1996, 12 percent of state population); Black Skimmers (1 pr. in 1996). In addition, ospreys nest in the Peconic Bay region and forage in the wetlands. The area is also important as a wintering and staging area for waterfowl, loons, and grebes, particularly Common Loons, Canada Geese, American Black Ducks, scap, Long-tailed Duck, and Red-breasted Mergansers.

Osprey Nesting Adults

Ospreys are fish-eating birds of prey that live throughout the world. The availability of fish, water conditions, and health of the environment directly affects the health, reproductions, and nesting success of osprey populations. Because they are high in the marine and coastal food web, ospreys are important indicators of the health and integrity of the water bodies where they live. As an example, the osprey population around Long Island Sound fell sharply during the 1950's and 1960's due to the effects of pesticides, particularly DDT. Since the ban on DDT, which occurred during the 1970's, and the placement of nesting platforms in wetlands all along the Sound, the osprey population has been making a recovery.

Least Tern

³² Long Island Sound Management Conference. *The Comprehensive Conservation and Management Plan for Long Island Sound*. Long Island Sound Management Conference, September 1994; The Peconic Estuary Program. *Comprehensive Conservation and Management Plan for the Peconic Estuary System*. Peconic Estuary Program Management Conference, 1999.

The least tern is likely to be seen in eastern Long Island from May to early August. They were hunted to near-extinction for the hat trade in the 1800's. Numbers rebounded after hunting was banned. More recently, disturbances, loss of habitat, and habitat degradation are affecting the population of Least Terns in eastern Long Island. The Least Tern population has fluctuated over the last 15 years, with relatively lower numbers present during the late 1980's and the early 1990's. Overall, between 1985 and 1997, there has been no statistically significant trend. The Least Tern is listed as a Threatened Species by New York State. Least Terns are found on the shorelines of bays, the Sound, and the ocean. Approximately 1,500 to 2,000 pairs of least terns nest on Long Island.³³

Piping Plover

Piping plovers are small shorebirds that nest on beaches, often with least terns. Their nesting and reproduction are threatened by human intrusion, storm tides, and predators. Since protection and monitoring efforts began in 1984, nesting success has improved, resulting in more returning adults in subsequent years. The piping plover is listed as a Threatened Species by the federal government. For habitat, piping plovers require large undisturbed open sandy beaches with access to shallow waters for feeding. Long Island beaches are home to approximately 200 nesting pairs, the largest piping plover population on the Atlantic coast.³⁴

Threats to Tern and Plover Populations

The populations of Piping Plovers and Least Terns are lower than they've ever been. The development and recreational use of the species' essential habitat — Long Island's beaches — is the cause of their decline. Specific threats include:

- *Loss of Habitat.* Due to commercial, residential, and recreational development, the amount of coastal habitat available for nesting and feeding has decreased.
- *Human Disturbance.* Both eggs and the young birds are very well camouflaged, putting them in danger of being stepped on or otherwise disturbed by humans. Off-road vehicles pose a serious threat. Consistent use can degrade and destroy habitat.
- *Sunbathing.* Even innocent sunbathing can have its effects on the birds; if the beach is crowded with people, feeding is interrupted and young birds may not get the nourishment they need to survive. Those that do survive need to be strong enough for the long migration south.
- *Pets.* Dogs roaming unleashed disturb the birds. Cats prey on chicks and adults at night.

³³ See "References," at the end of this "Findings" section.

³⁴ See "References," at the end of this "Findings" section.

- *Predators.* Predation is a major factor limiting nesting success at many Long Island sites. Predators such as foxes, gulls, crows, raccoons, and skunks feed on eggs, young plover, and tern chicks. Picnic waste attracts predators to the beach.

Eelgrass

Eelgrass is an aquatic plant that grows in shallow water generally less than 10 feet deep, and is found in temperate coastal bays and estuaries around the world. Eelgrass provides critical habitat for shellfish and fish. Its long blades create a miniature aquatic jungle that provides a hiding place for many juvenile fish. Without this nursery habitat, many young fish would not be able to escape from predators.

Eelgrass performs other important functions, including bottom stabilization and nutrient cycling. Eelgrass is very efficient at capturing nutrients from the water column and helps to reduce eutrophication (a buildup of nutrients). The roots stabilize the sediment and the plants themselves slow currents and allow suspended sediments to settle out — all of which helps improve water quality. The Long Island Chapter of The Nature Conservancy highlighted the importance of eelgrass in 2000 by naming it “Species of the Year.”

In the Peconic Estuary, eelgrass is mostly found east of Shelter Island. Anecdotal evidence indicates that eelgrass once existed in Flanders Bay. These eelgrass beds no longer exist due to brown tide, excess nutrients, and a disease which decimated populations in the 1930's. Eelgrass grows very slowly and can take years to expand even one foot.

Threats to Eelgrass Beds

Eelgrass beds are declining in the Peconic Estuary. Although the exact causes are not known, it is believed that the beds have been impacted by the effects of brown tide and poor water quality conditions, including high levels of nitrogen and suspended sediment (which are often side effects of human development, building and other activities). Other factors causing declines in eelgrass include wasting disease, dredging and filling operations, and disturbance by powerboats. Loss of eelgrass beds may also result in the elimination of other species that rely on the beds for habitat.

Plants and Animals of the Central Pine Barrens

Another important area in eastern Long Island for native plant and animal populations is the Central Pine Barrens. The center of the Central Pine Barrens area is a mosaic of regionally distinctive (and in some cases globally rare) communities. Found within the Pine Barrens area are pitch pine and pine-oak forests, coastal plain ponds, marshes and streams. In addition to its importance as an area of groundwater recharge, this region contains one of the greatest concentrations of endangered, threatened, and special concern plant and animal species in New York. The pine barrens constitute a unique forest ecosystem, found only on Long Island, southern New Jersey and in a few other places.

Birds in the Central Pine Barrens

The Central Pine Barrens is the largest pine barren ecosystem in New York and hosts State-listed species like breeding Common Nighthawks and Whip-poor-wills.³⁵ The area includes the last remaining viable grassland bird community on Long Island, with breeding Upland Sandpipers, Vesper Sparrows, and Grasshopper Sparrows. Other characteristic species found in the Central Pine Barrens area include: Brown Thrashers, Blue-winged Warblers, Pine Warblers, Prairie Warblers and Field Sparrows.

Figure B-3: Significant Plant & Animal Communities, page 1

³⁵ Common Nighthawk (*Chordeiles minor*) and Whip-poor-will (*Caprimulgus vociferous*) are both on New York State's list of Special Concern species. Special concern species are defined as "Any native species for which a welfare concern or risk of endangerment has been documented in New York State."

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Figure B-4: Significant Plant & Animal Communities, page 2

Back of Figure B-4

The Calverton Ponds Preserve

Contained within the Central Pine Barrens area, and located within the boundaries of Riverhead, is Calverton Ponds Preserve, a 350-acre assemblage of pine barrens and coastal plain ponds that comprises one of the rarest and most fragile wetland ecosystems in North America. The preserve is cooperatively owned and managed by The Nature Conservancy and Suffolk County Parks.

Calverton Ponds 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. The ponds are home to several rare amphibians, fish and insects, including Tiger Salamanders, and banded sunfish.

Coastal plain ponds are characterized by nutrient-poor, acidic water and gently sloping shores. 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.

Threats to Coastal Plain Ponds

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 activities such as building and development could alter the normal hydrological conditions of the ponds and thereby significantly endanger these communities. Since building and development located at some distance from these ponds has the potential to alter groundwater conditions, extreme care needs to be taken in the kind development that is permitted in areas hydrologically connected to the coastal plain ponds within the pine barrens region.

Other Significant Plant Communities

In addition to the plant and animal species and communities described above, there are several other significant native plant communities in Riverhead that are valuable natural resource assets to the community.

These communities have been identified and are tracked through GIS and other systems by the New York Natural Heritage Program (see “Significant Plant and Animal Community Locations,” next page). As described earlier, these communities are important not only

ecologically and scientifically, but because they are what helps distinguish Riverhead as a community with a unique “sense of place.”³⁶

Table B-1: Plant Communities in Riverhead

Community Name	Acres in Riverhead
Maritime Beech Forest	97
Coastal Oak-Beech Forest	410
Coastal Plain Pond	3
Coastal Plain Pond Shore	162
Coastal Plain Poor Fen	10
Pine Barrens Shrub Swamp	26
Pitch Pine-Oak Forest	500

Threats to Significant Native Plant Communities

Threats to these communities include:

- Displacement from filling;
- Cutting of trees;
- Spread and invasion of non-native species;
- 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);

³⁶ For more information, see “Ecological Communities of New York State” and the addendum “Newly Described Communities by the New York Natural Heritage Program Since 1990” (published by the New York Natural Heritage Program, New York State Department of Environmental Conservation.) Both documents are available at the New York State Natural Heritage Program at <www.dec.state.ny.us/website/dfwmr/heritage>. Reschke, Carol. *Ecological Communities of New York State*.

- Impacts from fertilizer use, weeding, and mowing;
- Erosion; and
- Changes in plant and animal communities due to changes associated with storm water runoff.

B.4 REFERENCES

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Central Pine Barrens Joint Planning and Policy Commission, *Central Pine Barrens Comprehensive Land Use Plan*, Volume 1: Policies, Programs and Standards & Volume 2: Existing Conditions, approved in final form June 28, 1995, amended May 1, 1996.

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Appendix C: Scenic and Historic Resources

C.1 POTENTIAL FUNDING SOURCES FOR CONSULTANT SERVICES AND/OR VOLUNTEER PROGRAMS

A variety of organizations and grants are identified that can provide funding or guidance in obtaining funding to support volunteer-based documentation efforts. This list is by no means comprehensive, and funding opportunities for other types of historic preservation activities may also be available from these and other organizations.

PRESERVATION LEAGUE OF NEW YORK, <WWW.PRESERVENYS.ORG>

Dedicated to the protection of New York's diverse and rich heritage of historic buildings, districts, and landscapes. It actively encourages historic preservation by public and private organizations, agencies, and individuals in local communities.

Conferences and workshops sponsored by the League provide preservation activists, property owners, and community groups with the tools they need to protect their irreplaceable architectural heritage. The quarterly newsletter, *Preservation News*, and technical/professional updates, *Preservation Network News*, offer substantive information on timely historic preservation issues. The League also publishes technical bulletins with easy-to-understand answers to questions regarding local preservation laws, the State Historic Preservation Act, sources of funding for preservation projects and many other topics. They also offer a number of other excellent and useful publications.

Grants administered by The Preservation League of New York:

- *Preserve New York*, a Grant Program of the Preservation League of New York and the New York State Council on the Arts. Provides support for three types of projects: cultural resource surveys, historic structure reports, and historic landscape reports. Grants range between \$3,000 and \$15,000.

RURAL NEW YORK HISTORIC PRESERVATION GRANT PROGRAM

Provides support for small, locally based projects. Goals are to: protect the built and natural environments of small towns, villages, and rural areas; strengthen local groups and institutions; improve local economies; and preserve the landscape and cultural values of the State's rural communities. Municipalities, not-for-profit organizations, and citizens groups working on rural preservation projects are eligible to apply. Projects eligible for funding include: building and design studies, surveys and public awareness, technical assistance or

circuit rider programs. Special emphasis is given to economic development activities and downtown revitalization. Grants do not exceed \$5,000.

NATIONAL TRUST FOR HISTORIC PRESERVATION, <WWW.NTHP.ORG>

The National Trust for Historic Preservation provides leadership, education, and advocacy to save America's diverse historic places and revitalize our communities. As part of the wide range of programs and activities it offers, The National Trust provides technical and financial assistance to State and local organizations. It also sponsors a consulting program on heritage tourism. The National Trust is a source of grants and loans through five funding programs. The applicant group must be a not-for-profit organization or a public agency and a member of the National Trust. Some programs require the recipient to match the award dollar for dollar. Grants administered by The National Trust for Historic Preservation:

- *Preservation Services Fund.* Provides financial assistance for consultant services, feasibility studies, public programming, and heritage education activities. Grants can be as large as \$5,000, with an average of \$1,000 to \$1,500.
- *Johanna Favrot Fund.* Provides support to not-for-profit organizations and governmental agencies. The project must involve a National Historic Landmark. Eligible activities include consultant services, production of educational materials, and conference or workshop costs. Grants range from \$2,500 to \$8,000.
- *National Preservation Loan Fund.* Provides support to not-for-profit organizations and governmental agencies. The project must involve a National Historic Landmark. Eligible activities include consultant services, production of educational materials, and conference or workshop costs. Grants range from \$2,500 to \$8,000.

NEW YORK STATE OFFICE OF PARKS, RECREATION, AND HISTORIC PRESERVATION, <NYSPARKS.STATE.NY.US/HIST>

Certified Local Government (CLG) Subgrants

These grants are awarded only to CLG communities. Eligible projects include historic resources surveys and designations; public education programs, commission training; planning studies; and publications. Grants generally range from \$3,000 to \$20,000 and can fund up to 100 percent of total project costs. A match is not required but is encouraged. Provides support for three types of projects: cultural resource surveys, historic structure reports, and historic landscape reports. Grants range between \$3,000 and \$15,000.

C.2 LOCAL, REGIONAL AND NATIONAL HISTORICAL SOCIETIES AND ORGANIZATIONS

FEDERAL AND STATE ORGANIZATIONS

Organizations that Can Provide Advice and Assistance with Documentation and/ or Funding

- New York State Office of Parks, Recreation and Historic Preservation, <nysparks.state.ny.us/hist>.
- New York State Office of Parks, Recreation and Historic Preservation Field Services Bureau, <nysparks.state.ny.us/field/welcome>.
- Society for American Archeology (SAA), <www.saa.org>.
- National Trust for Historic Preservation (NTHP), <www.nthp.org>.
- Advisory Council on Historic Preservation, <www.achp.gov>.
- Preservation League of New York, <www.preservenys.org>.

LOCAL/REGIONAL HISTORIC RESOURCE ORGANIZATIONS

The organizations listed below may be useful for networking, collaboration, guidance and information.

Friends for Long Island's Heritage
1864 Muttontown Road
Syosset, NY 11791
Phone: (516) 571-7600

Other Address:
PO Box 144
West Sayville, NY 11796
Phone: (631) 854-4971

Commentary: Operates a large number of museums and historical sites throughout Long Island.

New York Folklore Society
PO Box 764
Schenectady, NY 12301
Phone: (518) 346-6617
<www.nyfolklore.org/about/about.html>

Society for Preservation of Long Island Antiquities
161 Main Street
Cold Spring Harbor, NY 11724
Phone: (631) 692-4664

Commentary: Maintains four historic house museums, school discovery programs, gallery with changing exhibits, publishes books on related subject.

Suffolk County Historical Society
300 West Main Street
Riverhead, NY 11901
Phone: (631) 727-2881

Commentary: Collects, preserves and interprets the history of Suffolk County and its people. Maintains a research library, a manuscript repository, a museum, and a variety of programs and activities.

Wading River Historical Society
North Country Road
Wading River, New York 11792
Phone: (516) 929-4802

OTHER HISTORICAL SOCIETIES IN SUFFOLK COUNTY

The organizations listed below may be of interest for networking and for collaborative purposes in developing local/regional historic themes and connections.

Amagansett Historical Society
P.O. Box 7077
Amagansett, NY 11930
Phone: (516) 267-3020

Amityville Historical Society
170 Broadway
Amityville, NY 11701
Phone: (516) 598-1486

Bellport-Brookhaven Historical Society
31 Bellport Lane
Bellport, NY (516) 286-0888

Bohemia Historical Society
P.O. Box 67
Bohemia, NY 11716
Phone: (516) 244-2707

Bridgehampton Historical Society
Main Street
Bridgehampton, NY 11932
Phone: (516) 537-1088

East Hampton Historical Society
101 Main Street
East Hampton, NY 11937
Phone: (516) 324-6850

East Islip Historical Society
East Islip, NY
Phone: (516) 581-1384

Greenlawn-Centerport Historical Association and Museum
31 Broadway
Box 354
Greenlawn, NY 11740
Phone: (516) 754-1180

Huntington Historical Society
209 Main Street
Huntington, NY 11743
Phone: (516) 427-7045

Irish Family History Forum
PO Box 67
Plainview, NY 11803-0067
Phone: (516) 616-3587

Italian Genealogical Group
7 Grayon Drive
Dix Hills, NY 11746

Other Address:
Bethpage Public Library
47 Powell Avenue
Bethpage, NY

Jewish Genealogical Society of Long Island
37 Westcliff Drive
Dix Hills, NY 11746-5627

Other Address:
Plainview-Old Bethpage Public Library
999 Old Country Road
Plainview, NY

Lake Ronkonkoma Historical Society
PO Box 2716
Lake Ronkonkoma, New York 11770
Phone: (516) 467-3152

Lindenhurst Historical Society
PO Box 296
Lindenhurst, NY 11757
Phone: (516) 957-4385

Other Address:
215 S. Wellwood Avenue
Lindenhurst, NY 11757

Lloyd Harbor Historical Society
Lloyd Harbor Road
Lloyd Harbor, NY 11743
Phone: (516) 424-6110

Mattituck Historical Society
Route 25 at Cardinal Drive
P.O. Box 766
Mattituck, NY 11952
Phone: (516) 298-5248

Miller Place Historical Society
1720 William Miller House
Box 651
N. Country Road
Miller Place, NY 11764

Montauk Historical Society
Montauk Highway
Montauk, NY 11954
Phone: (516) 668-5340

Moriches Bay Historical Society
Chet Swezey and Montauk Highway
Center Moriches, NY 11934
Phone: (516) 878-1776

Northport Historical Society
215 Main Street
Northport, NY 11768
Phone: (516) 757-9859

Oyster Bay Historical Society
20 Summit Street
P.O. Box 297
Oyster Bay, NY 11771
Phone: (516) 676-7077

Oysterponds Historical Society
Village Lane
P.O. Box 844
Orient, NY 11957
Phone: (516) 323-2480

Port Jefferson Historical Society
115 Prospect Street
Box 586
Port Jefferson, NY 11777

Puerto Rican-Hispanic Genealogical Society
25 Ralph Avenue
Brentwood, NY 11717

Rocky Point Historical Society
<www.buoy.com/rphs/index.html>

Sag Harbor Historical Society
P.O. Box 1709
Sag Harbor, NY 11963
Phone: (516) 725-5092

Sayville Historical Society
P.O. Box 41
Sayville, NY 11782
Phone: (516) 563-0186

Other Address:
39 Edwards Street
Sayville, NY 11782

Shelter Island Historical Society
PO Box 847-24
North Ferry Road
Shelter Island, New York 11964

Smithtown Historical Society
Route 25A
Smithtown, NY 11787
Phone: (516) 265-6768

Southampton Historical Society
17 Meeting House Lane
Southampton, NY 11968
Phone: (516) 283-2494

Southold Historical Society
Main Road & Maple Lane
Southold, NY 11971
Phone: (516) 765-5500

Other Address:
P.O. Box 1
Southold, NY 11971

Stirling Historical Society
Main Street
Greenport, New York
Phone: (516) 477-0099

Stony Brook Historical Society
Box 802
Stony Brook, New York 11790

Three Village Historical Society
PO Box 76
E. Setauket, NY 11733
Phone: (631) 751-3730
<members.aol.com/TVHS1/index.html>

Wading River Historical Society
North Country Road
Wading River, NY 11792
Phone: (516) 929-4082

William K. Vanderbilt Historical Society
Box 433
Oakdale, NY 11769

Yaphank Historical Society
Yaphank Avenue and Main Street
Yaphank, NY 11980
Phone: (516) 924-3401

C.3 HISTORICAL TRENDS

ETHNIC HISTORY

Although there are a variety of ethnic backgroundsexisting in the Town today, the histories of only three groups — Native Americans, European colonists, and African Americans — have been even partially documented. More research on these and other ethnic groups is needed and can be incorporated into the documentation and survey work to be conducted by volunteer groups and individuals.

Native Americans

Before the coming of the English to the East End of Long Island, the Indians that occupied the land from Wading River to Orient Point were known as the Corchougs. “Their villages were at places now called Aquebogue, Cutchogue, Mattituck and Hashamomuk.”³⁷ These places had access to fresh water and to salt water landings.

At Aquebogue, the village site of the Corchougs and today of Riverhead, the Indians had access to Flanders Bay, which provided a connection to the other villages of their tribe. They could also go by canoe to the villages of the Shinnecocks, the Montauks, and the Manhassets at Canoe Place, East Hampton, and Shelter Island.

Throughout the 1700’s and well into the 1800’s, Native Americans still lived in and around Riverhead. It is impossible to say exactly when they disappeared as a statistically important portion of the population in the Town.

Further research into Native American history would be fruitful, especially in terms of whether and how their landscape management practices, such as burning of certain natural areas, may have affected the development and survival of certain fire-dependent natural communities.

European Settlers

The history of European colonists — mostly of British origin — is well-documented in secondary sources. Descendents of founding families can be found within Riverhead today. Later groups, however — including Polish, Irish and Italian — are not as well documented. Further research into these areas is necessaryto further expand this theme. This research can be incorporated into the documentation and survey work to be conducted by volunteer groups and individuals.

³⁷ *Riverhead Bicentennial Album*, 6.

African Americans

In 1626, the first group of slaves was brought to New York either directly from Africa or by way of the West Indies. The burgeoning economies of the developing colonies created an intense demand for labor, and black slaves were used to fill this demand. Slave labor ranged from skilled to unskilled and included work as stone cutters, carpenters, blacksmiths, shipbuilders, field hands, seamstresses, and cooks, among others. In Suffolk County, as in other counties, the wide spread use of slave labor accounted for significant contributions to the agrarian and maritime economies.

By the mid-1700's, slaves constituted 15 percent of New York's population, the largest percentage found in the northern colonies. In Suffolk County, at the end of the 17th century, 21.5 percent of Long Island's inhabitants were black. The pattern of slave ownership on Long Island was similar in form to that found throughout the State, with most slave-holding families owning one or two slaves. For example, in the Town of Huntington the ratio of slaves to slave-owners was approximately 1 to 1.5. On the property of wealthy landowners, larger numbers of slaves were found.

By the time of the Revolutionary War, the citizens of New York were beginning to question the morality of slavery. There was an inherent conflict between the principles of bondage and the principles of independence for which they were fighting. This conflict of conscience gradually led to the passing of a series of emancipation laws in the State of New York. The first law, enacted in 1788, permitted manumission (i.e., emancipation from slavery) while providing protection for sick and elderly emancipated slaves. A compromised form of abolition followed with enactment of a 1799 law that freed all slaves born after July 4th, 1799, but continued to hold them in bondage until the women turned 25 and the men 28. Finally in 1817, a law was passed providing for the complete emancipation of all slaves by 1827.

In 1790, the African American population of Suffolk County totaled 2,236. Fifty years later, that number was greatly reduced, however, and those who stayed behind built pockets of ex-slave communities in Amityville, Eastville, Bridgehampton, The Mile Harbor, Huntington, and Greenport to name just a few. These communities continued to make significant contributions to the agrarian and maritime economies of Long Island.

Further research into the history of African Americans in Riverhead is needed, especially since African Americans constitute a sizable portion of the Town's historical and current population. This research can be incorporated into the documentation and survey work to be conducted by volunteer groups and individuals.³⁸

³⁸ Marcus, Grania, B., *A Forgotten People: Discovering the Black Experience in Suffolk County (NY)*.

THE RAILROAD

By 1825, New York City had gained recognition as a major international seaport. One outcome of this development was the strengthening of transportation patterns and systems surrounding the city. A major challenge to this effort was development of a mainland connection to Boston. Since it was perceived as too difficult to build a rail route through Connecticut's varied and often times rough terrain, an alternative land and water route was developed, a significant portion of which included a rail route through Long Island from Brooklyn to Greenport. The Long Island Rail Road (LIRR) thus began its lengthy history on April 24th, 1834, when it received its charter from the New York Legislature. There was however a recurring obstacle in development of the railroad — namely, financial difficulty, which (coupled with the eventual construction of a mainland rail-route) resulted in the short-lived success of the Long Island Rail Road as the preferred route to Boston.

Another factor contributing to the shaky beginnings of the LIRR was the location of the rail bed down the desolate, uninhabited center of Long Island. This route was chosen because it provided an unobstructed path for construction and improved speed. However, when the railroad turned to local ridership for patronage (after the failure of long-haul Boston travel), this choice proved a major error in foresight. Other railroads began to develop in the 1850's to the north and south of the LIRR, servicing and connecting the developing shoreline villages. The competition between railroad companies was fierce and eventually resulted in the merging of the Flushing & North Side lines with the LIRR in 1876. This landmark event set the stage for the eastern extension of the railroad into the Town of Riverhead and Wading River.³⁹

It was not until 1896 that the North Shore Branch was completed with stations at Miller Place, Rocky Point, Shoreham, and Wading River. Many conductors and trainmen came to make this area home permanently, since this was called the “end of the line.”⁴⁰

When the railroad system was finally complete, it had acquired a network of roadbeds that traversed the length of Long Island. Three roughly parallel lines provided the framework stretching from Brooklyn to Montauk Point. Half a dozen cross road intersections linked these main lines into the metropolitan western half of the railroad system with the south shore village connections provided at one-third increments down the linear frame.⁴¹ This inefficient rail design, limited to servicing local ridership, brought financial trouble back to the Long Island Rail Road at the turn of the 20th century.

At this same time, however, the development of the Pennsylvania Railroad master plan was under way, which included as an integral component the purchase of the LIRR. The Long Island line was needed to complete a grand scheme of an all-rail connection between New

³⁹ Kramer, Frederick, *Long Island Rail Road*.

⁴⁰ Wading River, founded in 1671.

⁴¹ Smith, op. cit.

York and the New Haven & Hartford Railroad Company. In 1900, the Pennsylvania Rail Road acquired the majority stock from the LIRR for \$6,000,000. This transaction ended the 132-year history of the independent line.⁴²

The primary freight carried by the railroad was agricultural products. As summer tourism increased in the early part of the century, passenger traffic also became important for the railroad. Starting in the late 1920's, the Sunrise Special featured a through parlor car from Washington D.C. and Pullman sleeper service from Pittsburgh. Even with the great increase in the summer population, there was not enough railroad travel to warrant continuation of the Wading River Branch of the LIRR. In October 1927, steam service was suspended and a trolley system implemented. By the 1930's, even the trolley service was discontinued.⁴³

INDUSTRIES

The industrial development of Riverhead is a major theme for the Town. Although it is clear that agriculture was the major industry in the Town's development, other industries were also significant. Due to the strategic location of the Town, at the head of the Peconic River, Riverhead became the place for mills — gristmills, sawmills, and fulling mills. Other industries included tanneries and poultry. Further research and documentation of the history of the Town's industries should be completed to allow for a complete understanding.

Agriculture

Agriculture has been a mainstay of Riverhead's economy from its earliest settlement. Once settlers were assured of their survival in their new homes, the first farmers in the Riverhead area grew grains to sell to communities in New England. They also cultivated fruits, vegetables, and livestock to feed their families as well as trade locally. Intensive farming in the 18th century led to the depletion of the soil. It wasn't until about 1810 that farmers began fertilizing their fields with fish scrap from local fisheries.⁴⁴

Throughout the Town's history, Riverhead farmers have grown a variety of crops, such as flax for linen thread, wheat, rye and other grains, corn, and vegetables and fruits of all sorts. But the best known are potatoes and cauliflower. Potato production began as early as the 1700's but did not become a standard crop until the mid 1800's, with the coming of the railroad, which enabled transport to urban markets. Return shipments on the rail lines contained tubs of manure from New York City streets and stables for Long Island farmers to use as fertilizer on their fields.

⁴² Ibid.

⁴³ *Wading River, Founded in 1671*.

⁴⁴ *Journey Through Time*, 28.

In addition to potatoes, cauliflower and duck became major cash crops in the 1800's, also fueled by the presence of the railroad. In 1867, John W. Duryee of Mattituck introduced cauliflower to Suffolk County. That same year, the Suffolk County Agricultural Society distributed a pound of cauliflower seed among its members as an experiment. The experiment proved a success and Riverhead discovered its second major commercial crop. Duck farms flourished as well. The first seven "Peking" ducks were imported from China in 1873, and within twenty years Long Island and the water fowl were synonymous. By 1898, Riverhead boasted the world's largest duck farm.⁴⁵ Duck production reached its peak just after World War II when there were approximately 788 duck farms in Suffolk County, raising two-thirds of all ducks produced in the United States.

The automobile further improved the ability of Riverhead farmers to reach their markets. By the 1920's, Long Island was turning to truck farming and such specialized crops as berries, fruits, and other produce that needed fast transportation. The potato industry in the northeastern townships had grown immensely with the coming of the railroad, and greater expansion was now possible in other areas. Experiments were conducted with new crops such as cabbages, beets, and sprouts.⁴⁶ Cauliflower production peaked in 1949, with 5500 acres planted locally. (By 1990, however, the average had dipped to 200).⁴⁷ Calverton made a specialty of growing "that indispensable delicacy, the cranberry."

As of 1992, there were about 20,000 acres of farmland in production in Riverhead. While the number of acres has decreased since the days of potato and cauliflower production, alternative crops such as grapes, sod, and greenhouse vegetables, which require fewer acres but yield higher profits, have maintained Suffolk County as the leading agricultural producer in New York State.

Timber

The most important industry on the eastern Long Island in the second half of the 19th century was the cordwood business. Firewood was in great demand, not only in New York City, but all along the Hudson River as well. Much of the cutting was done during the winter months. The wood was then hauled to the landing by sled. Along Sound Road, near the Wading River Landing, as much as 3000 cords of wood were sometimes stacked. At half-tide, the sloops approached the shore, using the "Lay Ashore Rock," located just east of the Landing and a landmark well known by seamen, to indicate when the tide was right. Horses were driven into the water along side the boats and the cordwood was transferred to the sloops. When the flood tide came, the boats would float out again heavy with commerce.⁴⁸

⁴⁵ Between Ocean and Empire: An Illustrated History of Long Island.

⁴⁶ Smith, op. cit.

⁴⁷ Journey Through Time, 29.

⁴⁸ Wading River, founded in 1671.

Ice Harvesting

Local farmers had for years been filling their own small icehouses to keep milk and food cool. By the 1800's, the demand from cities for ice to cool their perishables coupled with a bigger demand from the ice cream companies (in Riverhead, Reid Ice Cream Co.) resulted in a growing market for ice. The Peconic River, with its large quantity of clean, clear water, was a natural, convenient, and economical choice. Icehouses were built near the millponds along the Peconic River.

In 1886, the Suffolk County Ice Company built the largest icehouse on the Peconic River. Located at the Forge, it was situated close to the side of the railroad and was 300 feet long, 80 feet wide and 60 feet high, with a capacity of approximately 30,000 tons of ice.⁴⁹ In April 1922, the huge icehouse experienced a dramatic and unfortunate end. A spark from a passing train started a fire in the nearby woods and with strong wind blowing, the house caught ablaze. The fire lasted several days. Once extinguished, it left behind an enormous block of ice (about 75' x 50' x 40'), which remained for several months into the summer.

Manufacturing

Riverhead's location at the mouth of the Peconic River made it the logical site for water-powered mills. The earliest reported mill was a sawmill constructed by James Horton and John Tucker in about 1659. Riverhead has the oldest flourmill in the State of New York. The Hallett Brothers flour mill dates back to the early years of the Island. Records from April 14th, 1693 state that the Town of Southampton granted John Wick the use of the stream known as Little River on condition that he establish a fulling mill and full cloth for the Town and Southold. Two years later, John Parker and his heirs obtained the privileges that Wick appears to have neglected. Parker built the mill in 1696.⁵⁰ One hundred years later, mills dotted the length of the river and included a number of sawmills, iron forge, fulling mills, and gristmills. By 1870, a molding and planing mill, paper mill, wagon jack manufactory, the J. H. Newins and Son cigar factory and Earle's organ factory were added to the list of already expanding mills along the Peconic.

Shipbuilding

Shipbuilding and the outfitting of ships became a thriving industry in the towns of Northport, Sag Harbor, Port Jefferson and Sterling (now known as Greenport) during the early to mid 1800's. Many young men moved to these towns where the pay was better and where far more economic opportunities existed than at home on the farm. A small shipyard located near the public beach in Wading River built many of the produce sloops active in shipping along the

⁴⁹ Lapham, Elisabeth. *Echoes From the Past*, 7.

⁵⁰ The Boroughs of Brooklyn and Queens, Counties of Nassau and Suffolk, Long Island 1609-1924, 727.

Long Island Sound coast. Riverhead shipyards along the north bank of the Peconic built larger boats, many of which carried passengers to and from eastern Long Island.⁵¹

Summer Vacationing

The summer resort industry began to flourish during 1860's, spurred in part by the expansion of the LIRR. Further research and documentation is needed, including identification of relevant structures and sites, determination of their integrity, and assessment of their significance.

C.4 HISTORIC RESOURCES SURVEY LISTINGS

The following lists, from page D-16 through page D-38, are from the New York State Office of Parks, Recreation, and Historic Preservation.

⁵¹ Wading River, founded in 1671.

Appendix D: Economic Trends

D.1 RETAIL TRENDS

POPULATION GROWTH AND RETAIL DEMAND

Between 1970 and 2000, Riverhead's population grew about one percent per year on average, a relatively moderate rate of growth. Riverhead's population is expected to increase dramatically over the next 10 to 20 years, fueled by ongoing employment growth in western Suffolk County, including Riverhead. The expansion of the suburbs from the west, and the lack of affordable housing in the Hamptons to the east are prompting residential development in Riverhead.

As the population has grown and continues to grow, retail development has grown and will grow in kind. In addition, Riverhead's retail draws from a tourist regional clientele, to achieve a net inflow of retail dollars. In 1998, Riverhead residents spent approximately \$138 million in non-gasoline products. However, in the same year, Riverhead's stores had retail sales in excess of \$310 million, far surpassing the expenditure of the residents alone.

Seasonal and tourist populations contribute to the higher-than-expected retail sales figures. In addition to about 6,500 second-home residents, Riverhead attracts about 4,100 houseguests and 2,100 campers during the summer and can accommodate up to 1,200 motel guests per night, not to mention day-trippers. The seasonal population not only adds to the population base, but also brings in a larger disposable income level that can benefit Riverhead stores. Riverhead year-round residents have lower median incomes than residents in other Suffolk County towns, on average, (\$40,200 in Riverhead vs. \$65,400 Countywide). Riverhead's second-home residents tend to have higher incomes than the County average (to afford a second home in Riverhead, a household would need an income of at least \$170,000⁵²). Thus, although they may stay in Riverhead only half the year or less, they generate nearly as much retail spending, especially on dining out.

But a doubling of Riverhead's spending potential still doesn't account for the power of its retail sector. Clearly, Riverhead taps into the population of other towns, especially for comparison retail spending, such as on clothing, appliances, and furniture. The County has a population of about 1.4 million, and the five East End towns have a combined population of about 112,000, a substantially retail larger market than Riverhead alone. Between second-home households and vacationers, the population of the five East End towns nearly triples during the summer months from about 112,000 to 311,000.

⁵² Town of Riverhead, *Revitalization Strategy for Downtown Riverhead*, August 2000.

For some residents in Southampton, Southold, and Brookhaven, Route 58 is their closest and largest shopping district. For Southold residents, Route 58 is their only full-service shopping district — one that they must pass by as they travel off of the North Fork peninsula. Tanger Mall taps into an even larger regional market, drawing people on excursion shopping trips from as far away as Nassau County and New York City.

RETAIL SUPPLY FACTORS

Over the last four decades, Route 58 has had the location and visibility to attract retailers, the land to accommodate most commercial development, and the road capacity to absorb the increases in traffic. Route 58 is Riverhead's largest and most important commercial center, providing essential convenience shopping (grocery stores, drug stores, hardware stores), comparison shopping (Tanger Mall), auto sales, gas stations and auto repair centers, restaurants, personal and professional services, and agricultural products and supplies. In the resident survey conducted in summer 1999, 68 percent of the respondents said they usually go to Route 58 for groceries, and 52 percent usually go there for quick errand shopping. Also, 46 percent said that Tanger Mall was their primary destination for clothing and furnishings.

Route 58's success had several consequences for Riverhead. On the positive side, Route 58 absorbed all the commercial sprawl that would otherwise have spread to the Town's rural corridors. On the negative side, Route 58 destroyed conventional shopping downtown, replacing Main Street with strip malls.

Today, the Business-zoned sites along Route 58 are nearly all developed, although retail demand continues to grow. It is inevitable that every Industrial-zoned or Office/Service-zoned parcel along Route 58 will eventually be targeted for commercial development through use variances or rezoning. Rather than allow parcels to convert in a haphazard fashion, a thoughtful, comprehensive rezoning could provide structure to the inevitable trend.

Conventional retailers are less interested in sites beyond Route 58 because they are less centrally and prominently located, and therefore have smaller potential trade areas. For example, only 15 percent of the survey respondents do their grocery shopping somewhere in Riverhead other than Route 58. Specialty retailers, however, will gravitate to historic centers, especially downtown. In these places, space is less expensive, more eclectic, and therefore more suitable for entrepreneur-driven restaurants, boutiques, antique stores, “mom and pop” businesses, etc.

Beyond Route 58, the hamlet centers, and downtown, vast tracts of land area are presently zoned Business. This zoning is a leftover from the 1970's, when the Town's population buildout was expected to exceed 150,000 people. The commercially zoned areas were thought to be necessary to disperse grocery stores, drug stores, and other necessity shopping throughout the Town.

Since then, the planned residential densities have been reduced, and the population buildout has been shrunk to less than 60,000 people. The smaller population buildout suggests that Riverhead is over-zoned for commercial development outside Route 58, downtown and the existing hamlet centers. If Riverhead's expansive commercial zoning remains intact, the low levels of demand will attract small, scattered, marginally profitable businesses in a strip style pattern. A more clustered zoning pattern would limit commercial sprawl and strengthen business activity in the hamlet centers.

D.2 TOURISM

TOURIST ATTRACTIONS

Downtown Cultural Attractions

Downtown Riverhead already has a number of cultural attractions that appeal to tourists. The recently built Atlantis Aquarium has been a huge success since its opening in summer 2000, and expansion plans are already underway. Aquarium visitors can be seen walking up and down Main Street and patronizing the local shops and restaurants. Other downtown cultural attractions include the Suffolk County Historical Museum, the Long Island Railroad Museum, the East End Arts Council, and Levitt Music Hall. In addition, as of 2001, there was a proposal to build a Science Center children's museum on West Main Street, and there was an ongoing proposal to restore the Suffolk Theater. Annual downtown events, including the Country Fair, the Polish Fair, the Blues Festival, and the Community Mosaic, have also been successful in attracting visitors.

While these attractions and events have had an extremely positive impact, downtown has not reached its full potential as a tourist attraction. Some storefronts still remain vacant, and many others have not experienced significant patronage by tourists or visitors. The *Downtown Revitalization Strategy*, which was completed in September 2000, lays out an economic development plan for building up the downtown tourism engine. While continuing to develop downtown attractions, the Strategy calls for cultivating "market niches" oriented to tourists, so that downtown shops, services, and restaurants can better capitalize on the increasing tourist traffic.

Long Island Wine Country

The first vineyard on the East End was planted in 1973, and since then, the North Fork of Long Island has become one of the most widely recognized and appreciated wine regions in the country and has even gained an international reputation. There are now more than 20 vineyards on the East End, with nearly 2,000 acres of land in production. Most vineyards are clustered along Route 25 and Sound Avenue, roughly between downtown Riverhead and Greenport, although there are a few vineyards on the South Fork as well.

In the mid- to late-1990's, the East End wine country started attracting significant tourism traffic for the first time. The success of the Napa Valley wine country in northern California in the 1980's established the model for wine country tourism. Following in the footsteps of Napa, the East End vineyards and wineries developed Napa-style tourist facilities and activities, such as guided tours, wine tasting, wine sales, eateries, gourmet delis, and gift shops. Many also have banquet facilities for parties, weddings, business functions, and other events.

The Long Island Wine Council and the North Fork Promotion Council have been extremely active in promoting tourism in the wine country, through their web sites and published brochures. The *Long Island Wine Country* brochure circulated by the Wine Council is directed toward the residents of Long Island, New York City, New Jersey, and Connecticut, enticing them to make day or weekend trips. The brochure specifically points out that the journey to the Long Island wine country, unlike a trip to Napa Valley, is "delightfully short".

The success of wine country tourism is not just a matter of high-quality wine. It is also a matter of good transportation. While the North Fork may be a "delightfully short" distance away, the roads leading to the North Fork are notoriously congested, particularly during the summer months. Traffic gridlock can deter some visitors from exploring the wine country and could thus dampen the success of wine country tourism. However, road widening in the wine country could be detrimental to the area's rural character, therefore detracting from the wine country experience.

As the road-widening issue suggests, rural character is a key concern. Part of the success of Napa Valley is not only that it has active vineyards and wineries, but that it has maintained its rural character that is appealing to tourists. Vineyard-bound tourists are delighted by landscapes of planted vines, dotted with estates and winery buildings, and interspersed with undisturbed open space areas. Limiting sprawl may be an important goal Townwide, but it is absolutely critical in the wine country in order to maintain tourist appeal.

A final concern with wine country tourism, from Riverhead's point of view, is how to ensure that there are beneficial spillover effects from wine country tourists. In Napa and Sonoma counties, the small rural hamlets in the midst of the wine country — communities like Calistoga, St. Helena, and Sonoma — have repositioned themselves for tourism, with restaurants, specialty shopping, gourmet food stores, bed-and-breakfasts, inns, and events. In Riverhead, both Jamesport and downtown could be repositioned for tourism in a similar way.

Other Agro-tourism

Wine country tourism falls into the more general category of agro-tourism. Agro-tourism is any agricultural activity that attracts tourists who are interested in touring, learning about, or participating in that activity. In addition to vineyards and wineries, there are farms in Riverhead and Southold that provide tours, allow visitors to pick-their-own produce, and sell a variety of locally grown and homemade products, from baked goods, to canned goods and

preserves, to cut flowers. The best example in Riverhead is Woodside Farm in Jamesport, which grows blueberries, peaches, and other fruits. Tours are offered, and farm products are sold.

There may be additional agro-tourism concepts that could be explored for Riverhead in the future, based on national and international models. In the western United States, "dude ranches" have been popular for more than 100 years. Traditionally, the hallmark activities on a dude ranch have been horseback riding, participation in cattle drives, and overnight camping "on the range". More and more, however, the most successful dude ranches provide opportunities for all sorts of outdoor activities that appeal to a wider range of visitors. These activities include fishing, hunting, hiking, swimming, river rafting, crafts workshops, mountain biking, and hayrides. Also, dude ranches provide a variety of social activities, from square dancing to cookouts. "Farm experience" vacations often provide children's programs, making them popular with families. Thus, "dude ranches" are not primarily agricultural in their orientation, functioning, in fact, more like a summer camp with agriculture and/or husbandry as one of its components.

Another concept that could be explored in Riverhead is the concept of "agro" bed-and-breakfasts. Such a bed-and-breakfast would be similar to a normal bed-and-breakfast, with the exception that a portion of the food offered to guests would be produced on the premises. This concept has been developed extensively in northern Italy. Family farms there provide overnight accommodations as well as dinner and breakfast to travelers. The meals often feature homemade bread, sausage, wine, and cheese, as well as fresh fruit, vegetables, and eggs produced on-site. With the growing popularity of organic produce, there may be an untapped market for such accommodations.

Theme Park Attractions

Theme parks cater to children and families, one of the largest segments of the travel market. According to the Travel Industry Association of America, one in every five domestic trips include children under 18 years old, and nearly all of those trips are leisure-oriented. Some of the most popular activities that parents do with their children on leisure trips include shopping, engaging in outdoor recreation, visiting cultural attractions like museums and historic sites, and going to amusement or theme parks.

Theme parks need several essential factors in order to be successful. They need to provide activities and events that are appealing to children. They also need to provide an activity that parents know will be rewarding for their children, providing either an educational experience (implying cultural or historic attractions), a fun experience, or both. Also, they need to have excellent access and visibility, ideally from a major highway.

Riverhead already has one of the most popular and successful theme parks on Long Island — Splish Splash. This 40-acre park, which is open for business between Memorial Day and Labor Day, features water rides and swimming, as well as family-oriented shows. There are two other theme parks on the East End: the Animal Farm and the Long Island Gamefarm.

Located in Manorville, both of these animal parks are located within a short driving distance of Splish Splash, off the Long Island Expressway (LIE). With the only concentration of theme parks on the East End, the Calverton/Manorville area has cornered the market on this particular tourism niche.

With the opening of Enterprise Park at Calverton (EPC), there may be an opportunity for adding another theme park attraction in Riverhead. The NWIRP Disposal and Reuse Plan for the site designates a 400-acre parcel in the northwestern corner of the property for a theme park or a series of smaller recreational attractions. Located midway between Splish Splash and Manorville, a theme park in this attraction would fit into and strengthen the Calverton/ Manorville theme park niche.

One issue to consider with theme parks is how to encourage spillover economic impacts on surrounding areas. Often, theme parks are designed to be worlds of their own, such that people can arrive in the morning, spend the entire day within the park, and leave in the evening. People can eat all their meals in the park, and the parks may offer gift stores or other shops as well. Many parents with young children *prefer* such an environment, because of the additional security and supervision implied, and thus, theme parks should continue to be outfitted with such amenities. Nevertheless, there may be opportunities to entice theme park visitors to visit other parts of Town, patronizing other attractions and businesses. The Town should work with theme park operators to encourage such cross-fertilization.

Active Outdoor Recreation

Parks and recreational facilities not only serve local residents, but they often attract out-of-town visitors as well. According to the Travel Industry Association of America, "adventure" travel (such as off-road mountain biking) and biking vacations are on the rise. A vast majority of Americans engage in recreational sporting activities while on vacation, with tennis and golf being among the most popular.

Equestrian riding is also experiencing a resurgence in popularity. Although most of the horse barns, equestrian clubs, and riding academies on Long Island are located on the South Fork or in Brookhaven, Riverhead has several such facilities throughout Town.⁵³ In addition, the second largest annual horse show on Long Island — the North Fork Classic — is now held on a 100-acre portion of EPC.⁵⁴ These trends suggest that Riverhead can use its parks and recreational amenities as a way of attracting tourists and generating tourism-related business.

Riverhead has a variety of parks and recreational facilities. As discussed in the Parks and Community Facilities Element, there are approximately 1,940 acres of Town, County, and State parks within the Town boundaries, plus an additional 920 acres of land in the form of

⁵³ <www.longislandhorse.net>, visited December 19, 2001.

⁵⁴ Bob Liepa, "The Heart of Horse Country," *The Times Review*, <www.timesreview.com>, visited December 19, 2001.

public golf courses. Riverhead's parks and open spaces allow for a wide range of recreational activities. During focus groups, Riverhead residents stated that they engaged in the following activities on an ongoing basis: sailing, canoeing, kayaking, fishing, hunting, swimming, hiking, bird watching, biking, golf, tennis, horseback riding, and all sorts of team sports.

It should also be noted that Riverhead's parks are strung together by a vast network of open space (farmland, meadows, and woodlands), which provide a scenic setting for biking, hiking, horseback riding, running and other outdoor sports. The scenic beauty of Long Island Sound, Peconic Bay, and the Peconic River are also attractive places for engaging in water sports like swimming, sailing, kayaking, and canoeing.

Currently, the Town has plenty of parkland to accommodate both residents and tourists. As discussed in the Park and Community Facilities Element, the Town has approximately 71 acres for every 1,000 residents. This figure — which includes Town, County, and State parks — is much higher than the national standard of 6.5 acres per 1,000 that is recommended by the National Recreation and Park Association (NRPA). In addition, there are three public golf courses, as well as several private golf clubs.

However, the Town is lacking some other important facilities that would be particularly attractive to tourists. In particular, Riverhead has little in the way of walking or hiking trails, nor biking paths and lanes. The Town is also lacking in terms of active recreational facilities like tennis courts, swimming pools, and playing fields. Tourists may have an interest in using such facilities, particularly those tourists whose overnight accommodations do not provide recreational facilities.

Beaches

Trips to the beach are one of the most popular forms of tourism. According to the Travel Industry Association of America, nearly one in ten domestic leisure trips involves going to a beach, and beach visits are even more frequent among people who are on vacations of seven nights or more. Riverhead has five public beaches that attract numerous visitors during the summer months: Wading River Beach, Wildwood State Park, Reeves Park Beach, Iron Pier Beach, and South Jamesport Park. There are also numerous private beaches on the Sound and Flanders Bay.

Despite the attractiveness of Riverhead's beaches, the Town should not focus on beaches as major tourist attractions. The primary beach destinations on the East End have traditionally been on the south shore of the island: Fire Island, West Hampton Beach, and other locations in the towns of Southampton and East Hampton. Because these beach environments are so well known and so well tooled for beach recreation, Riverhead would have difficulty competing for beach-bound tourists. For this reason, Riverhead should focus on alternate forms of tourism, as discussed in the other sections of this chapter — cultural attractions, agro-tourism, and active recreation.

This conclusion does not obviate the need for beach improvements and enhanced beach parking. The Town's public beaches will always draw a following, and the Town should ensure that those beaches are attractive and accommodating to tourists. However, from an economic development perspective, the Town's resources would be best spent promoting other forms of tourism.

OVERNIGHT ACCOMMODATIONS

Tourists require overnight accommodations. Riverhead, in particular, will require additional hotel space over time, as the tourist market increases in volume. Unlike the South Fork, which caters to households with second homes spending the whole summer, the North Fork's emerging tourist industry caters more toward day-trippers and weekend travelers. These tourists rely primarily on hotel accommodations or bed-and-breakfast inns, or they may stay with friends or relatives, but they do not typically have vacation homes. Those who look to Riverhead for seasonal accommodations are typically seeking out housing that is more affordable than what can be found on the South Fork.

Hotels and Motels

The largest hotel in Riverhead is the Ramada Inn East End, located adjacent to Tanger Mall, on Route 25. This hotel caters to a wide range of people, from tourists seeking an inexpensive alternative to the South Fork, to out-of-town business travelers. The Ramada Inn benefits enormously from its visibility and easy access from the LIE. There are also several small hotels and motels scattered throughout Town. Two of them are located on Flanders Bay and are successful as a result of their location near the beach and their views of the ways. The first is Dreamers Cove Motel in Aquebogue, and the second is Motel on the Bay in Jamesport. Both of these hotels are relatively small in size, with 18 rooms each.

In the future, additional hotel space is likely to be needed in Riverhead, due to increasing tourist traffic. New hotel space should be provided in locations and designed in a manner that are appealing to tourists. Currently, the Town's zoning provisions for "county inns" provides for moderate-size hotel space in areas throughout Riverhead. This has the potential to allow for hotel development in or adjacent to places that are popular with tourists — beaches, marinas, hiking trails, equestrian facilities, or golf courses.

Cottages

There are several places in Riverhead that offer summer cottages (for example, J&S Reeves Summer Cottages in Aquebogue; Woodcliff Park and Cottages in Baiting Hollow; Moore's Cottages in Jamesport). These cottages provide a lower-cost alternative to more expensive summer rentals on the South Fork of the island. In the future, there may be some additional room in the Riverhead market for similar types of cottage rentals, particularly if they are of the less expensive variety. The South Fork has cornered the market on expensive, up-

scale summer homes and rentals, but there may be an opportunity to provide a more affordable version in Riverhead.

Summer cottage rentals require unique settings, ideally adjacent to open waters where visitors can go swimming or sailing, and quaint, charming architectural styles that evoke a feeling of repose. Proximity to beaches, marinas, and other outdoor recreational opportunities is also important. Some of the older, smaller, historic homes along Flanders Bay — in Jamesport or Aquebogue — or in downtown Riverhead could be converted into summer rentals.

Bed-and-Breakfast Inns

A bed-and-breakfast inn is typically defined as a private residence, where the live-in owner provides overnight accommodations and a meal to a traveler. There are several bed-and-breakfast inns found throughout Riverhead. Bed-and-breakfasts are preferred by many tourists, who enjoy the experience of staying in a residence, as opposed to a hotel.

Bed-and-breakfast inns are typically found in historic Victorian houses, Arts and Crafts homes, or farmhouses, which evoke old-style domestic charm. Many are filled with antiques and artwork. For this reason, historic preservation, which encourages the adaptive reuse of historic homes, is an important policy direction for the Town.

Like a summer cottage, a bed-and-breakfast can benefit from proximity to either beaches or outdoor recreation facilities, as visitors are attracted by the serene setting. However, bed-and-breakfasts can also fit into a more built-up environment, such as downtown Riverhead and Jamesport, where there are restaurants, entertainment venues, and shopping, and where there are opportunities for visitors to circulate on foot.

Country Clubs, Resorts, and Spas

Country clubs, resorts, and spas provide another unique form of overnight accommodation for East End tourists. These facilities provide hotel rooms in combination with a variety of private recreational facilities and health-oriented activities. These could include golf courses, tennis courts, swimming pools, running tracks, health clubs, marinas, or therapeutic facilities that offer massages, mineral pools, or mud baths. Often, restaurants, bars, and entertainment facilities are provided as well within the resort. Typically, country clubs, resorts, and spas are located on a campus, providing a private, quiet, and relaxing environment, picturesque views, and access to open space. Such facilities are geared toward rest and relaxation, with an emphasis on customer comfort and service.

Riverhead currently does not have any resorts or spas, and although there are several golfing country clubs, they do not have overnight accommodations. However, there is a potentially strong market for such facilities. They would cater to the vineyard tourists eager to enjoy a scenic, serene experience in the countryside. Also, they are geared toward short visits, concentrated on weekends and during the summertime. Moreover, there is little in the way

of resorts, spas, or overnight country clubs in Southampton or East Hampton, so Riverhead could carve out a niche in this particular form of accommodation.

Banquet and Convention Facilities

There is also demand for banquet and convention facilities in Riverhead and other parts of the East End. Banquet facilities provide opportunities for holding private parties, such as weddings, and convention facilities provide space for meetings, events, and expositions of various sizes. Banquet facilities are often provided in conjunction with hotels, resorts, spas, bed-and-breakfasts, wineries, or country clubs. Convention halls are often provided in conjunction with hotels as well.

The most popular and successful banquet facilities are those that take advantage of a picturesque or characteristic setting, with views of open space, water bodies, marinas, farmland, or historic buildings. People often are willing to pay a premium for such settings, because they provide a beautiful backdrop for photographs and an evocative setting for important personal events or family gatherings (e.g., weddings).

The success of a convention facility is typically less dependent on scenery. For convention centers, the more critical prerequisites are excellent access, a central location, and facilities of an adequate size. There is a proposal to allow convention facilities on the EPC site, which would be an ideal location, because of the easy access to and from the LIE and the large land area available to create a sizeable facility.

TOURIST-ORIENTED RETAIL

There are two locations in Riverhead where tourist-oriented shops, restaurants, entertainment, and events should be concentrated: downtown Riverhead and Jamesport. Tourists typically seek out charming, quaint, historic centers that offer a unique mix of stores, and they tend to avoid conventional malls and strip centers. They must also be located in proximity to a major tourist attraction.

Downtown and Jamesport are the only business centers in town with all of these qualities. Downtown has a traditional Main Street with turn-of-the-century buildings and a long waterfront park along the Peconic River. It has a variety of cultural attractions, including the popular Atlantis Aquarium. Jamesport is located in the North Fork wine country, it has a cluster of historic buildings that form a traditional hamlet center. The retail mix in both places can be improved in order to tap into a greater share of the tourism market.

It should be noted that Tanger Mall and the "destination retail" cluster planned for the western end of Route 58 would also attract tourists and other out-of-town visitors. Nevertheless, whereas downtown and Jamesport would primarily function as cultural or rural attractions, with shopping and restaurants being secondary, Tanger Mall functions as a destination in itself. This means that Tanger Mall and the "destination retail" cluster require a different approach, from an economic development perspective.

D.3 OFFICE AND INDUSTRY

Until the early 1990's, the Long Island economy depended heavily on the defense industry. During the economic boom of the mid- to late-1990's, the economy shifted from a reliance on the defense industry and to a variety of service and light industrial sectors, such as high-tech manufacturing, business and professional services, biotechnology, computers, and electronics.⁵⁵ The high-tech industry experienced a slow-down nationwide in 2000 and 2001, but the service industry remains very strong, both nationally and on Long Island.

The service sector⁵⁶ is currently one of the largest elements of the Suffolk County economy. It generated roughly \$18.8 billion in sales in 1998, representing 26 percent of the County's \$72.1 billion economy. Throughout the 1990's, the major locus of office growth was in western Suffolk County, particularly in the towns of Brookhaven, Huntington, and Islip. Riverhead, by way of comparison, had relatively little office growth during this period.

This is not to say that Riverhead's service sector has been unsuccessful. On the contrary, Riverhead's service sector is extremely profitable, generating more than \$500 million in annual sales, about 28 percent of the Town's \$1.9 billion economy. Nevertheless, compared to the County as a whole, Riverhead has a relatively small share of service businesses. As of 1998, the County overall had 15,300 businesses in the service industry, while Riverhead had only about 440 such businesses.

The manufacturing sector is a much smaller piece of the County and Town economies. Manufacturing represents only about 7.2 percent of the County economy and 6.9 percent of the Town economy, in terms of annual sales. Again, as with the service sector, the manufacturing sector is heavily concentrated in the western part of the county. In 1998, Riverhead had about 45 manufacturing businesses, whereas the County as a whole had more than 3,000 businesses.

DEMAND FOR OFFICE AND INDUSTRIAL SPACE

The service sector relies on office space. Because of the Long Island's rapidly growing service industry, the demand for office space is expected to grow as well. In particular, future demand is expected to attract more and more businesses to Riverhead, for several of reasons.

- First, as land becomes scarcer and more expensive in the towns to the west, more and more businesses will explore Riverhead for new business locations.

⁵⁵ Long Island Association, <www.longislandassociation.org>, visited December 20, 2001.

⁵⁶ Includes sectors with NAICS codes 60-67, 73, 80, 81, 87. There are depository institutions; nondepository credit institutions; security/commodity brokers and services; insurance carriers; insurance agents, brokers, and service; real estate; holding and other investment offices; business services, health services, legal services; and engineering, accounting, and related services.

- Second, although Riverhead is about 15 to 20 miles east of the more developed areas of the county, the Long Island Central Pine Barrens area restricts development for much of that stretch. This means that despite Riverhead's distance from existing business centers, it is next major location available for significant office and industrial growth.
- Third, Riverhead has a great deal of developable land available for office and industrial development, particularly in the former Calverton NWIRP site and adjacent areas next to the LIE.

Based on recent trends, Riverhead is likely to experience a greater demand for office space than industrial space. However, the future of the high-tech manufacturing sector is uncertain. It is possible that high-tech manufacturing (i.e., computers, electronics) could rebound from the current recession and continue to grow. Riverhead's land use regulations should be flexible enough to accommodate both office and industrial development, provided that environmental performance standards and site planning standards are met.

ENTERPRISE PARK AT CALVERTON

Enterprise Park at Calverton (EPC) is uniquely suited for office and industrial development, because of its central location and convenient access from the LIE. Also, the site is already outfitted with some of the essential infrastructure necessary for large-scale development, including sewers and electricity. Moreover, development on the EPC site can easily be made to fit into the Town's rural landscape. As a single compound with an enormous land area, EPC can be surrounded with wide setbacks and densely vegetated buffers that screen office and industrial development and their parking lots from the surrounding residential and rural areas.

EPC has the added advantage of public ownership. Because the majority of the site is still publicly owned, the Town has a unique opportunity to effectuate the appropriate development of the site. The Town can hold onto the property until development pressures are ripe and the best development proposal is put forward. The Town is under no pressure or obligation to sell the site in the short run, as there is no shortage of land elsewhere in town for private development. When land is ultimately conveyed to a private developer, the Town can use its status as the original owner to negotiate for specific improvements or site design requirements on the property.

OTHER OFFICE AND INDUSTRIAL SITES

The Town has set aside an enormous land area to accommodate more than ample office and industrial development for many years to come. In addition to EPC, there are large areas zoned for industrial and office development adjacent to the LIE and along Route 58, as well as smaller sites in the eastern part of Town. The available land area is so large, in fact, that it could actually be problematic. Although it is important to make enough land available for office and industry, an excessive supply of land could result in sprawling, disconnected office

and industrial sites. This could have a very detrimental impact on traffic patterns in Town and could mar the scenic landscapes for which Riverhead is well known.

Tenants do want large land areas and good access, but it is also beneficial to be located in business clusters, where there is greater access to business and employee amenities. These amenities include business support services (printing and binding services, financial advisors, professional consultants, shipping services, and so on), convenience shopping and eateries, public transportation, conference and hotel facilities, and security. Thus, the Town should reduce its industrial and office zoning and concentrate office and industrial development in a few strong business clusters. This conclusion, once again, suggests that EPC is an ideal place for office and industrial development. In addition to EPC, areas adjacent to the LIE would be well suited for office and industrial development.

Small-scale professional offices, such as doctors, dentists, small law firms, accountants, social workers, and so on, need not be isolated on such large campuses. In fact, because of their smaller size, they can fit quite well into the downtown area, the hamlet centers, and even some commercial strips like Route 58 and Route 25A.

ENVIRONMENTAL AND SITE PLANNING STANDARDS

While continuing to allow office and industrial development in appropriate locations, the Town must balance development with environmental conservation, open space preservation, and good site planning. Riverhead's zoning regulations can be strengthened in terms of environmental protection. Industrial and office development should be required to meet performance standards for noise, emissions, effluent, and glare. Performance standards are flexible, in that they allow a wide variety of industrial uses, provided that the off-site impacts can be limited or contained.

Office and industrial development should also be subject to stringent standards for open space preservation, site planning, buffering, and landscaping. Similar to the situation with the EPC site, most of the parcels in the office and industrial zones are large enough that large areas of open space can be preserved. Those preserved open space areas could continue to be used for agriculture, through rental agreements between the office/industrial proprietor and local farmers, or they can be maintained as woodlands or meadows, serving as habitat areas for plants and animals. Wide setbacks and densely vegetated buffers should also be provided. Riverhead's relatively flat landscape makes such buffers absolutely critical, because without them, there would be nothing to prevent a new office or industrial buildings from being seen from miles away, ruining the Town's scenic quality.

Parking lots in these areas should also be subject to stringent landscaping standards, in order to prevent the development of vast expanses of asphalt, which can contribute to problems with regard to storm water runoff and flooding.

D.4 AGRICULTURE

As discussed in the Agricultural Element, agriculture plays an important role in the economy of the Town and the County. Historically, Suffolk County has lead New York State in agricultural production and sales. In 1997, the reported total market value for crops in Suffolk County was approximately \$161 million. In 1992, an economic input-output model estimated that 8,000 jobs are created and \$241 million dollars added to the economy as a result of the local farming industry. With one third of the County's remaining farmland located in Riverhead, much of activity benefits the Town of Riverhead.

Important agricultural products in Suffolk County include: nursery and greenhouse products, potatoes, rye, cauliflower, broccoli, pumpkins, and spinach. A growing part of Suffolk County's agricultural base is the wine industry, which contributes \$30 million to the economy. Suffolk County has the largest premium wine industry of any county in the U.S. outside of California. The wine industry has the potential to bring further economic benefits to Riverhead, through increased agro-tourism, as discussed in Section D.2.

While wineries are on the rise and produce farms continue to be productive, livestock has been a declining portion of Riverhead's agriculture industry. About 50 years ago, Riverhead was a major center of duck production. Just after World War II, there were almost 800 duck farms in Suffolk County, raising two-thirds of all ducks produced in the U.S. Today, there is only one duck farm left in Riverhead — Crescent Duck Farm in Aquebogue — and only a handful of other duck farms throughout Long Island. Still, the Long Island duck industry is extremely profitable, taking in about \$18 million annually.⁵⁷ There are also a number of farms that raise livestock (cows and pigs) as well as chickens, although these make up a smaller portion of the agricultural industry.⁵⁸

Nursery and greenhouse products are a growing portion of the agricultural sector. Nurseries and greenhouses typically specialize in growing decorative plantings for landscaping purposes or vegetable plants for small private gardens. This sector of the economy has grown in conjunction with suburban development all over Long Island. After sites are cleared and built with new buildings, they are replanted with nursery-grown trees, shrubs, and other plants. In addition, nurseries and greenhouses grow and sell cut flowers year-round.

⁵⁷ Steve Wick, "It's a Tall Tail, but True: Born as a Creature of Commerce, the Big Duck Grew to Symbolize Long Island," <www.lihistory.com>, visited December 19, 2001.

⁵⁸ U.S. Census of Agriculture: Suffolk County, New York, 1992, as cited in the *Suffolk County Agricultural Protection Plan*, June 1996.

Appendix E: Population and Housing Trends

E.1 POPULATION AND HOUSEHOLD COMPOSITION

According to Table E-1, the two largest age groups in Riverhead are children between 5 and 14 years old and adults between 35 and 54 years old. This pattern suggests that Riverhead is a popular place to live among couples with young children. There is sharp drop-off in the population after age 19, reflecting the fact that teenagers graduate from high school and move away during the college and post-college years. Also, there is sharp drop-off in population after age 64, suggesting that many older adults choose to relocate after retirement.

Table E-1: Population by Age Group in the Town of Riverhead, 2000

	2000	
	<i>Number of Residents</i>	<i>Percent of Total</i>
Under 5 years	1,706	6.2%
5 — 14 years	3,724	13.5%
15 — 24 years	2,626	9.4%
15 — 19	1,452	5.2%
20 — 24	1,174	4.2%
25 — 34 years	3,284	11.9%
35 — 44 years	4,535	16.4%
45 — 54 years	3,887	14.0%
55 — 64 years	2,811	10.2%
65 — 74 years	2,540	9.2%
75 — 84 years	1,923	6.9%
85 years and over	644	2.3%
Total	27,680	100.0%

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

The age distribution in Riverhead is also partly reflective of the baby boom generation. People born immediately after World War II, between 1945 and 1960, were between 40 and 55 years old as of the year 2000. This partially explains the large number of people in the

35 to 54 age bracket and also explains the fact that the median age in 2000 was 37 years old. In the future, as the baby boom generation enters retirement, the number of Riverhead residents in the 35 to 54 age range may drop, with a corresponding increase in the number of retired senior citizens. At the same time, as baby boomers age, they may move out of town in large numbers if they are unable to find age-appropriate housing.

Consistent with the analysis of age groups, a large number households in Riverhead are composed of married couples with children, as shown in Table E-2. However, an even larger number of households consist of married couples without children. These are either couples who do not have children or 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, senior citizens who live with their adult children, cohabitating extended families, and so on.

Table E-2: Households by Type in the Town of Riverhead, 2000

	<i>Number of Households</i>	<i>Percent of Total</i>
<i><u>Family Households</u></i>		
Married Couples with Children Under 18	2,289	21%
Other Married Couples ¹	3,515	33%
Other	1,484	14%
<i><u>Non-family Households</u></i>		
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).

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

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

In addition to "family" households (people related by blood or marriage), over 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. "Other Non-family Households" include many different types of living arrangements, but particularly roommates (unrelated adults who live together for the purpose

of sharing living expenses) and cohabiting unmarried couples. There are relatively few households of this type in Riverhead.

On average, Riverhead has approximately 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.

As shown in Table E-3, the majority of households in Riverhead are owner-occupied. The predominant development trend in Riverhead for many years has been single-family 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, in addition, have been divided into smaller rental units.

Table E-3: Households by Occupant in the Town of Riverhead, 2000

	<i>Number of Households</i>	<i>Percent of Total</i>
Owner-occupied	8,288	77%
Renter-occupied	2,461	23%
Total households	10,789	100%

Sources: U.S. Census Bureau, Profile of General Demographic Characteristics, 2000, <www.monmouthplanning.com>.

E.2 EXISTING STOCK OF AFFORDABLE HOUSING

Much of Riverhead's privately developed housing stock in Riverhead is affordable. In particular, the older neighborhoods in the vicinity of downtown have smaller housing units on smaller parcels that are generally more affordable than newly developed units in rural subdivisions. The housing on the western edge of town tends to be less affordable. Housing demand there is quite intense, because a large number of prospective homebuyers spillover from Brookhaven.

Riverhead has a large stock of age-restricted housing that is affordable for senior citizens, as well as subsidized housing for people with developmental disabilities and people living with HIV or AIDS, as well as shelters for homeless people.

The Town of Riverhead has been working with the County and with the Long Island Housing Partnership to increase the supply of affordable housing in Town. In June 2001, the Town approved a special permit for a long-planned project sponsored by the Housing Partnership

to build 13 affordable owner-occupied single-family housing units in the downtown area. The Housing Partnership obtained approximately \$775,000 in federal and state grants to cover the bulk of the construction costs for the project, called "Millbrook Gables". The resulting units will have a market value of about \$160,000, but will be sold for approximately \$83,000 to \$111,000.⁵⁹

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 in Riverhead. These provide housing at a range of prices and rents. Glenwood Park on Old Country Road offers mobile homes for sale at \$149,000. Seniors are responsible for monthly mortgage payments on the mobile home, the rent for their parcel, and the property taxes for the parcel (passed on by the park manager).⁶⁰ The total payments on such a home would be somewhat less than the total payments (mortgage, plus taxes, plus maintenance) on a typical single-family detached home in Riverhead.⁶¹

Seniors with more limited incomes would not be able to afford mobile homes. The John Wesley Village and Riverhead Landing apartments are age-restricted units that provide housing opportunities for individuals with maximum income levels of about \$30,000. John Wesley Village also has HUD-subsidized units, for which there is a three- to five-year waiting list. As Riverhead attracts more second-home buyers who are being priced out of the Hamptons, housing values will continue to climb, and the need for affordable senior housing will only increase.

Riverhead Landing, a recently built retirement community, is also available to low-income seniors. Riverhead Landing has met with overwhelming success. Apartments were reserved even before construction was completed, reflecting the strong overall demand for senior housing.

PEOPLE WITH DEVELOPMENTAL DISABILITIES

The de-institutionalization of people with developmental disabilities has resulted in a critical housing need for those groups, while housing options are limited. Many patients who leave institutions have nowhere to go, or go back to family members who are ill equipped to care

⁵⁹ Kelly, Tim, "It's a Go for Gables Homes," *The News Review*, June 14, 2001.

⁶⁰ Interview with Judy Doll, Director of Riverhead Senior Center, June 28, 2000.

⁶¹ Median housing values were \$158,000 in 1990. Assuming that housing values increased approximately 1.5% per year between 1990 and 1999, median housing values are estimated to be about \$180,000 in 1999. As of January 2002, information from the 2000 census on housing values was not available.

for them. To prevent this problem, the State has adopted a temporary moratorium on the closing of County hospitals.

The preferred living environment is a "community living" group home, where someone with a developmental disability can obtain appropriate services and professional attention, while still living in a typical residential setting. Group homes are required by federal law to be permitted in residential neighborhoods. In Riverhead, many group homes have been established in the downtown area.

PEOPLE LIVING WITH HIV OR AIDS

With the advent of protease inhibitors, people with HIV and AIDS have much longer life expectancies. As a result, while HIV and AIDS are still life-threatening, it is also a chronic condition that people live with for many years. Although people taking the protease inhibitors may be healthy enough to continue living, they may not be well enough to continue working. At the same time, they have increasing health care costs. Thus, they are often in need of inexpensive housing, the cost of which can be covered through their fixed incomes.

The federal government plays a major role in providing housing opportunities for people living with HIV or AIDS. The Housing Opportunities for Persons with AIDS (HOPWA) program HOPWA provides housing assistance and supportive services for low-income people with HIV/AIDS and their families. State and local governments can be eligible for receiving HOPWA funds. The Town of Riverhead could be eligible to receive some of the funding that goes to New York State.

HOPWA funds are primarily intended to benefit low-income persons with HIV or AIDS and their families, especially those who are homeless or at risk of becoming homeless. Funds can be used to build a broad range of housing types, including emergency shelters, shared housing, apartments, single room occupancy units (SROs), group homes, and housing combined with supportive services. Funds can also be used for a variety of housing-related expenses, social services, and program development costs such as:

1. Housing information and resource identification;
2. Purchase, rehabilitation, conversion, lease, and repair of housing;
3. New construction for SROs and community residences;
4. Paying rent, mortgages, and utility payments;
5. Paying housing operating costs;
6. Technical assistance;
7. Administrative expenses; and
8. Supportive services, such as health care, mental health services, chemical dependency treatment, nutritional services, case management, and help with daily living.

Households receiving rental help or living in housing funded under the program are obligated to pay a portion of the rent, based on their income.⁶²

HOMELESS PEOPLE

Based on the increasing demand for beds in emergency shelters throughout the U.S. over the course of the 1990s, the problem of homelessness is thought to have increased markedly.⁶³ According to social service workers in Riverhead, some homeless people are known to live in the downtown area,⁶⁴ although the exact number and condition of homeless people in Town is uncertain.

Estimating the number of homeless people in a given area is not an exact science. In many cases, homelessness is a temporary circumstance, rather than a permanent condition. The number of people who experience homelessness at any one time may fluctuate greatly, depending on local economic conditions, seasons, business cycles, housing construction trends, and so on. Moreover, homeless people are less often in the public eye. With decreasing tolerance of loitering, they are often skirted away by police officers, property owners, or residents. They may hide in backyards and alleyways to avoid detection, or they may live out of their cars or makeshift structures in secluded locations. Also, because of the harsh Long Island winters, people who are chronically homeless for long periods of time are thought to migrate in and out of Riverhead with the seasons. As a result, conducting outreach to homeless persons, estimating their numbers, and understanding their needs is extremely difficult.⁶⁵

There are a variety of housing opportunities for homeless people. Persons who are homeless or in danger of becoming homeless can apply for assistance at one of the County's Social Services Centers, one of which is located on East Main Street in the downtown area. There are shelters throughout the County, including two in Riverhead: Love'M Sheltering in Calverton (permanent housing and emergency shelter) and Madonna Heights/Peconic Heights in downtown (for women). There are also various soup kitchens and food pantries throughout Riverhead, several of which are operated through religious institutions.⁶⁶ In addition, there are some hotels and motels throughout the County that provide ongoing housing for individuals and households, in exchange for financial assistance from County, State, federal, or private funding.⁶⁷

⁶² U.S. Department of Housing and Urban Development, <www.hud.gov>, visited December 28, 2001.

⁶³ National Coalition for the Homeless, <www.nationalhomeless.org>, visited January 7, 2002.

⁶⁴ Interview with Bernadette Gilday and Larry Weiss, Family Service League, June 28, 2000.

⁶⁵ Interview with Bernadette Gilday and Larry Weiss, Family Service League, June 28, 2000.

⁶⁶ Nassau-Suffolk Coalition for the Homeless, <www.nsch.org>, visited January 7, 2002.

⁶⁷ Suffolk County Legislature, "Tonna's Bill to 'Clean Up' Emergency Housing is One Step Closer to Becoming Law," August 23, 2001, <www.co.suffolk.ny.us/legis/press/>, visited January 7, 2002.

E.3 EXISTING HOUSING REGULATIONS AND PROGRAMS

As noted, Riverhead has long had a supply of relatively affordable housing, compared to surrounding communities. However, with increasing development pressure and housing demand spilling over from adjacent towns, the Town has taken several steps to increase affordable housing opportunities in Riverhead and to support low- and moderate-income households.

In 1980, the Town created the Residence Redevelopment Community RDC District to create opportunities for affordable housing. This floating district allows multi-family residences "for moderate/low income persons or handicapped, including social, health care, or other supportive services and facilities, to be owned and operated for such purposes". The zone is not currently designated anywhere on the Town's zoning map, but it can be designated by the Town Board. So far, the RDC District has not been used.

A number of other zoning districts in Riverhead provide relatively affordable housing, by virtue of allowing higher-density development. The Town does not *require* housing units in these districts to be affordable to low- and moderate-income households as defined under State regulations, but higher-density units (townhouses, single-family houses on small lots, apartments) are typically less expensive than large-lot single-family homes, the predominant housing type in Riverhead. The following zones allow for relatively high-density density housing:

- *Multi-family Residential Professional Office Zone.* Allows 3 to 4 units per acre in the form of multi-family residential condominiums. Areas currently zoned are located on the north side of Route 25A in the Route 25A business district.
- *Residence Retirement Community District.* Allows multi-family residences "for aged persons over the age of fifty-five (55) years or handicapped, including social, health care, or other support services and facilities, to be owned and operated for such purposes." There is no limit as to the number of housing units. Based on the minimum lot area of 15 acres and the maximum building area of 30 percent, a building of approximately 196,000 square feet could be built. If 10 percent of the building area is used for common spaces, and residential units are 800 square feet on average, then such a building could contain approximately 220 units, resulting in an average density of 15 units per acre. Currently zoned areas include two sites along Middle Road, east of Roanoke Avenue, and another site along Sound Avenue, east of the Route 25A business district.
- *Residence C District.* Allows single-family housing on 1/2-acre lots (2 units per acre), half the size of the one-acre lots permitted in the Residence A and Agricultural A districts. Also, allows single-family residences to be converted into two-family residences, which could result in average densities being increased to 4 units per acre.

Areas currently zoned are found around downtown Riverhead, along Route 58, along Route 25 in Aquebogue, and along the shores of Long Island Sound and Flanders Bay.

- *Residence D District.* Allows single-family housing on 1/2-acre lots (2 units per acre), half the size of one-acre lots permitted in the Residence A and Agricultural A districts. Areas currently zoned are found around the Jamesport hamlet center.

The Town's Community Development Department offers a Home Improvement Program for low- and moderate-income households. Low- and moderate-income homeowners in need of emergency home repairs or improvements necessary for the health and safety of the residents are eligible for funding. The department also offers loans for handicapped access renovations under this program. Local soup kitchens also receive funding from the Department of Community Development.

Appendix F: Parks and Recreational Facilities

Existing park and recreational sites are listed in Table F-1.

Table F-1: Existing Parks and Recreational Facilities in Riverhead, 2001

<i>Park Name</i>	<i>Acreage</i>	<i>On-site Recreational Facilities</i>
<u>State Parks</u>		
Wildwood State Park, North Wading River Rd, Wading River	771.8	Beach, campgrounds, trailer hookups, trails
New York State Conservation Area, Beach Way, Wading River	77.3	Access by permit only
East Creek Marina, Peconic Bay Blvd, Jamesport	17.9	Docking facility, boat ramp
Total	867.0	
<u>County Parks</u>		
Indian Island County Park, Cross River Dr, Aquebogue	284.2	Campgrounds, trails, fishing, picnic areas
Robert Cushman Murphy County Park, River Rd, Manorville	634.0 ¹	Trails, boating, fishing, hunting, biological research center
Total	918.2	
<u>Town Parks</u>		
Stotzky Memorial Park, Pulaski St, Downtown	30.1	Softball & Little League fields, tennis courts, playgrounds, skate park, picnic
Grangebél Park, Peconic Ave, Downtown	3.2	Picnic area, walking trails, riverfront
Lombardi Memorial Park Roanoke Ave, Downtown	0.2	Gazebo
Jamesport Community Center, South Jamesport Ave, Jamesport	3.0	Indoor meeting hall, gazebo
South Jamesport Park, Town Beach Rd, Jamesport	18.5	Tennis courts, basketball court, picnic area, beach
Wading River Community Park, Bayberry Rd, Wading River	7.0	Softball field, tennis/handball courts, bocci, basketball, & shuffleboard courts
Reeves Park Beach, Park Rd, Roanoke	19.5	Beach, boat ramp
Iron Pier Beach, Pier Rd, Northville	61.4	Beach, boat ramp
<i>Town Parks (continued)</i>		
Wading River Beach, Creek Rd,	12.0	Beach, boat ramp

Table F-1: Existing Parks and Recreational Facilities in Riverhead, 2001

<i>Park Name</i>	<i>Acreage</i>	<i>On-site Recreational Facilities</i>
Wading River		
Total	154.9	
<u>School Recreational Facilities²</u>		
Aquebogue Elementary School	1.3	
Riley Elementary School	3.8	
Roanoke Elementary School	1.0	
Pulaski Intermediate School	6.8	
Riverhead Middle School	2.5	
Riverhead High School	9.3	
Wading River Elementary School	2.3	
Total	27.0	
<u>Public Golf Courses</u>		
Calverton Links, Edwards Ave	176.1	18 hole course
Indian Island Country Club, Riverside Dr	158.0	18 hole course
Long Island National Golf Club, Northville Tnpk	159.2	18 hole course
Swan Lake Golf Club, River Rd, Calverton	430.7	18 hole course
Total	924.0	
<u>Private Institutions</u>		
Camp Wauwepex, Manorville Rd, Wading River	404.4	Nassau County Boy Scouts
Camp Baiting Hollow, Sound Ave, Wading River	89.9	Boy Scouts of America
Long Island Beagle Club, Edwards Ave, Calverton	149.8	
Babylon Rod & Gun Club Wildlife Reserve, Swan Pond Rd, Calverton	59.2	
Total	703.3	
Total	3,594.4	

1. Estimated portion of the park that lies within the boundaries of the Town of Riverhead.

2. Acreage represents the portion of the school site used for outdoor playing fields and other outdoor recreational facilities. Acreage is estimated by assuming that approximately one-quarter of the total school site is used for outdoor recreation.

STATE PARKS

Riverhead has a major State park, Wildwood, located on the shore of Long Island Sound, and a State conservation area, also on the Sound. Wildwood has some of the longest stretches of

publicly accessible beach in Riverhead and provides a very special waterfront experience for Riverhead residents. The conservation area is accessible via permit only and, because access is restricted, the area has an unspoiled quality that is truly unique along the Sound.

COUNTY PARKS

Riverhead has two significant Suffolk County parks within its boundaries, totaling more than 900 acres. Indian Island County Park is located at the mouth of the Peconic River, a scenic and environmentally rich site. Robert Cushman Murphy County Park is in the Town's southwestern corner, in the Pine Barrens area. The parks have a mix of woodlands and wetlands and both have unique waterfront areas. Indian Island Park fronts onto the lower Peconic River and Flanders Bay, while Murphy Park is situated along the upper Peconic River and a string of small ponds.

Although these parks serve the County as a whole, Riverhead residents have a unique ability to take advantage of them. They not only provide places for recreation (hiking, biking, birding, kayaking, boating), but they also help preserve to the countryside and woodland character of the community.

OTHER RECREATIONAL AREAS IN RIVERHEAD

Riverhead has three large public golf courses, which occupy nearly 750 acres of land. Although public golf courses are open to the general public, they typically charge a fee for use. In contrast, private courses require a membership.

Two Boy Scout camps are located in the Wading River area and amount to almost 500 acres. A small wildlife reserve operated by the Babylon Rod and Gun Club is located in the Calverton area, and the Long Island Beagle Club can be found in Edwards Avenue, north of Route 25. These facilities are generally open to members only, but they are quasi-public in nature, because they serve recreational/educational institutions. Their land is likely to be maintained for open space and recreational uses in the foreseeable future.

PARKS AND RECREATIONAL AREAS NEAR RIVERHEAD

Riverhead is literally surrounded by large areas of open space and parkland. Several large County parks line the southern shores of Flanders Bay and the Peconic River, in addition to the large Riverhead State Conservation Area. Brookhaven State Park and the continuation of Robert Cushman Murphy County Park are located immediately to the west of Riverhead in Brookhaven. Much of the area immediately to the southwest of Riverhead is included in the Pine Barrens Core Preservation Area. On the north side, Riverhead has a long, continuous shoreline along the Sound. The proximity of these areas create provide recreational opportunities for residents.

Riverhead's location on the East End allows residents to reach numerous attractive parks and recreational sites within a short driving distance. The beaches of Fire Island, Southampton,

and East Hampton are world-famous, and the outer reaches of the island — Montauk, Orient Point, Shelter Island, and numerous small hamlets — are popular get-away destinations.

PARK IMPROVEMENTS

In focus groups conducted for the Master Plan, participants cited a number of improvements that are necessary in the Town's existing parks. They said that some of the facilities in Stotzky Park need to be upgraded (picnic areas, playground equipment) and that the bulkheads in Grangebél Park need to be improved.

They also called for public restroom facilities and indoor playing facilities. According to the Recreation Director, the Town needs an indoor gym facility that provides space for wintertime sports activities. Currently, programs and lessons offered by the Recreation Department must be juggled around the schedules for other activities at the Armory Building and the Town's schools.

Other facility needs identified by participants include: fishing piers, nighttime (i.e., lit) playing fields and courts, and a senior recreational facility. Participants also called for additional parks and community centers in hamlet centers (i.e., in Wading River), so that the Town has a multi-level park system, with both Townwide parks like Stotzky and hamlet/neighborhood parks and facilities like the Young Community Center in Jamesport.

EVALUATION OF PARK NEEDS

Currently, Riverhead has a relatively large amount of parkland for population levels. If Town, County, and State parks and schoolyards are taken into account, Riverhead has approximately 71.1 acres of parkland for each 1,000 residents as of the year 2000.⁶⁸ This number is extremely high compared to national standards. 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. Clearly, Riverhead is far above the minimum standard, meaning that it is providing residents with more than enough park space.

However, if Town parks and schoolyards alone are counted — 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 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. This finding is consistent with the results of focus groups, during which participants said that recreational facilities were overcrowded. As the population continues to increase, additional Town parks and schoolyards will be needed. This point is discussed in greater detail below.

⁶⁸ Based on a population of 27,680, as reported in U.S. Census of 2000. Source: www.census.gov.

Park Location

While Riverhead has an adequate amount of parkland, as measured in total acreage, it is also necessary to address the location of parks. Currently, parks are fairly well distributed throughout the Town. Some of the largest parks and open space areas are situated in between the Town's two largest population centers, Wading River and downtown. The largest expanses of parkland are found in Wildwood State Park, Murphy County Park, and Camp Wauwepex, all of which are located in the western part of town. The Pine Barrens Core Preservation Area, similarly, is concentrated in the southwestern part of Riverhead, west of the EPC site. From Wading River, these parks are easily accessed via Sound Avenue or Manorville Road. From downtown, Route 25 and Sound Avenue provide the major connections.

Town parks are well distributed as well. 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 is found 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 were to be built, sites in the western part of Town should be considered first.

Generally, school sites are also well distributed throughout 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. Thus, from a recreational point of view, residents would benefit from having another school site in the eastern part of Town or an expanded yard at the Aquebogue School. However, the primary purpose of a school is not recreation, and for a variety of other factors, it may be preferable to locate the school elsewhere.

Park Type

The amount and location of parkland in Riverhead is not the only issue of concern. Residents need a mix of community parks, schoolyard/neighborhood parks, and small pocket parks, each of which serves a different function:

- *Community Parks.* Community parks attract residents from all over Riverhead, because they offer particularly large open space areas. They also have unique recreational facilities that are not found elsewhere in the community (e.g., a swimming pool, a golf course, a "regulation" soccer field, etc.). Community parks are generally 20 acres or more in size. For most residents, driving would be the most convenient ways to reach this type of facility.

- *Schoolyard/Neighborhood Parks.* Neighborhood parks have playing fields, tennis courts, basketball courts, and other recreational facilities that attract residents from the surrounding neighborhood. They can range in size from about five to twenty acres. Children and their families are generally willing to make use of the local schoolyard or neighborhood park, even if the walk is more than 5 minutes, because it provides more space and a wider range of facilities than a pocket park (described below). If the park is too far to reach on foot, children may ride their bikes, or adults may drive.
- *Pocket Parks.* Pocket parks are generally less than five acres in size and provide a local place for residents to stroll, visit with neighbors, walk the dog, and take the kids to use the playground. Pocket parks have lawns, trees, playgrounds, and walkways, but typically do not have large recreational facilities like baseball fields. Pocket parks serve nearby residents who are within walking distance of the park. Generally, residents would be willing to walk no more than 5 minutes (about a 1/4-mile or 1,300 feet) to a pocket park.

Currently, Riverhead does have a range of pocket, neighborhood/schoolyard, and community parks. Table F-2 organizes the Town's parks into the functional categories outlined above.

Table F-2 Existing Parks and Recreational Facilities, by Function

<i>Community Parks</i>	<i>Schoolyard/ Neighborhood Parks¹</i>	<i>Pocket Parks</i>
-Stotzky Memorial Park	-Wading River Community Park	-Reeves Park Beach
-Grangebelle Park	-Aquebogue School	-private parks
-Lombardi Memorial Park	-Riley School	-subdivision parks
-Young Community Center	-Roanoke School	
-South Jamesport Park	-Wading River School	
-Iron Pier Beach		
-Wading River Beach		
-Pulaski School		
-Riverhead Middle School		
-Riverhead High School		
-Indian Island County Park		
-Murphy County Park		
-Wildwood State Park		
-Baiting Hollow NYS Conservation Area		
-East Creek Marina		

Despite the fact the Riverhead High School, Riverhead Middle School, and the Pulaski School are technically schoolyards, they actually function as one large community park. Located adjacent to one another, they have a large combined land area and unique facilities (in

particular, a track) that attract residents from all over Town. Also, Grangebel Park and Lombardi Memorial Park serve as community parks, not because of their size or facilities, but because of their prominent location in downtown and their important influence on the Town's image. Because there are so few publicly accessible beaches in Town, parks with significant beach frontage end up functioning as community-wide parks during the summer.

Table F-2 suggests that Riverhead has an abundant number of community parks. However, the table does not reflect the fact that different community parks serve different functions. Most of the land in community parks is currently given over to open space areas suited to passive recreation, such as biking, hiking, boating, swimming, and walking. Relatively little acreage is available for active recreational facilities like ball fields and playing courts. Thus, the Town will need additional land for active recreational facilities as the population continues to grow.

The table suggests that the Township is deficient in pocket parks, although the information in the table is not complete. There are many pocket parks that have been set aside as part of a subdivision or that are maintained jointly by homeowners as a private park. The Town's zoning ordinance requires major residential subdivisions to provide 5 acres of parkland for every 100 lots and requires that all individual parks be no smaller than one acre in size.⁶⁹ For example, in the subdivision located northeast of the Middle Road/Roanoke Avenue intersection, a 1.5-acre park was set aside and is accessible from both Nadel Drive and Joyce Drive.

Maintenance and security has been a problem in some of these small parks. However, provided that maintenance and security can be addressed, pocket parks are extremely valuable for a variety of reasons.

- First, they are targeted to the needs of young children, older adults, and seniors. While the sporting facilities in the schoolyards, neighborhood parks, and community parks are primarily suited to the interests and activities of school-age children and young adults, pocket parks provide a quiet place for older adults to stroll, read, and enjoy the outdoors. They also provide an ideal place for parents to take their children to play.
- Second, because pocket parks are within walking distance of residential areas, they have the potential to encourage recreational walking and biking, eliminating some car trips from local streets. Thus, if maintenance and security issues are resolved, the Town should continue requiring these extremely valuable neighborhood spaces. Finally, they can bolster property values in the immediate neighborhood.

Schoolyards and neighborhood parks are also low in number, although those that exist are well distributed throughout Town. However, some community parks actually double as neighborhood parks. For example, parks with beaches draw a community-wide crowd during

⁶⁹ If a subdivision would result in inadequate park space, then the Planning Board could allow the developer to pay a fee in lieu of providing park acreage.

the summer months, but in the fall, winter, and spring, they are used almost exclusively by residents in the surrounding neighborhoods. If these are taken into account, then schoolyard and neighborhood parks can generally be considered adequate.

Trails and Bikeways

Riverhead has very little in the way of trails and bikeways, and thus, they are the Town's single greatest recreational need. In community meetings, residents have expressed great interest in creating a network of greenways. The Downtown Strategy called for an expansion of Grangebelle Park, which would include additional trails and bikeways along the Peconic River waterfront.

Trails and bikeways provide an ideal location for some of the most popular forms of exercise and recreation: walking, running, biking, and roller-blading. They can also be used to link together individual parks, creating a comprehensive park system, and they would also connect residential areas with parks, offering an alternative to driving. In the end, trails and bikeways would result in most residents living next to or near a linear park, potentially bolstering property values Townwide.

Stream corridors, rural lanes, the large County and State parks, the shoreline, and the wide distribution of existing parks — combined with open space preservation programs — provide an opportunity for creating these "greenways". In addition, as arterial roads are expanded to accommodate additional traffic, there is the opportunity to use the roadway shoulders for pedestrian and bicycle paths.

OTHER PARK AND RECREATION NEEDS

During a focus group discussion on parks and recreation, participants cited a number of other needs, beyond the need for additional parkland or facilities. One of the biggest problems was access. There is inadequate public access to waterfront areas (Long Island Sound and the Peconic River, in particular), inadequate parking at Town parks and beaches, and inadequate access for pedestrians and bicyclists.

Participants also cited the need for additional security, maintenance, and enforcement at parks and beaches. There have been problems with violation of beach rules and loose dogs at beaches and parks. Some suggested that park rules be posted, so that patrons know upfront what activities are permitted in the parks.

Another issue is the use of land around existing parks. Stotzky Park, for example, is contiguous to a number of industrial and institutional uses to the south and west. These land uses create an unattractive visual impact on the park and partially diminish enjoyment of the park by residents and visitors. The presence of incompatible land uses around an existing park does not mean that the park needs to be moved. Instead, a mix of plantings, berms, and fencing can be used to buffer the park from the problems associated with adjacent land uses.

Appendix G: Transportation

G.1 HIGHWAY SYSTEM

There are approximately 215 miles of roadways in the Town of Riverhead. Of these, 14 miles are County roads, 23 miles are State highways, including the LIE, and the remaining 178 miles are Town roads. A listing of the major State, County and Town highway facilities in the Town is presented in Table G-1.

State Highways in the Town include NYS Route 25, which extends the entire length of the Town, NYS Route 25A, in western Riverhead, and the easternmost two miles of the LIE. Three major roads comprise nearly 12 of the 14 miles of County roadways: (1) County Route 43 (Northville Turnpike); (2) County Route 105 (Cross River Road); and (3) County Route 58 (Old Country Road). County Route 54 (Hulse Landing Road), and County Route 73 (Roanoke Avenue) account for nearly all of the remaining County road miles in the Town.

Existing traffic volume information available from the various agencies was compiled for the purpose of this study.⁷⁰ Average Annual Daily Traffic (AADT) volumes are presented for those facilities where data was available in Figure 9-1 in the Transportation Element (see Chapter 9). AADT represents traffic volumes for any single day in a year, a value typically used in standard transportation planning practice. It should be noted that due to the recreational nature of much of the land use in Riverhead, summer traffic volumes are typically higher than AADT.

LONG ISLAND EXPRESSWAY

The Long Island Expressway (LIE, I-495) is a 6-lane east-west interstate that traverses most of Long Island. The LIE terminates in Riverhead. It extends approximately 1.25 miles into the Town, terminating at County Route 58 (Old Country Road). The LIE is the primary route by which travelers from the west reach Tanger Mall and downtown Riverhead. As originally conceived, the LIE was intended to terminate at County Route 48 in Southold. However, NYSDOT has no current plan to extend the facility beyond its present terminus.

There are no congestion issues related to the LIE in Riverhead. Capacity at present far exceeds demand, and can be expected to continue in the near future. Existing average annual daily traffic volumes (AADT) on the Riverhead segment of the LIE is approximately 18,000 vehicles per day (VPD), significantly below capacity.

⁷⁰ Information was obtained from the NYSDOT North Fork Recreational Travel Needs Assessment, the Long Island Transportation Plan to Manage Congestion (LITP 2000) and the Suffolk County Department of Public Works.

Table G-1: Major Roadways

<i>Route Number</i>	<i>Associated Street Names</i>
NYS Route 25	Middle Country Rd, West Main St, East Main St, Main Rd
NYS Route 25A	Hulse Ave, North Country Rd, Parker Rd
County Route 43	Northville Tnpk
County Route 51	East Moriches Riverhead Rd
County Route 54	Hulse Landing Rd, Wildwood Rd
County Route 55	Eastport-Manorville Rd
County Route 58	Old Country Rd
County Route 63	Peconic Ave, Old East Moriches-Riverhead Rd
County Route 73	Roanoke Avenue (from NYS Route 25 to SC Route 58)
County Route 94	Edwards Avenue South, Nugent Dr, Center Dr
County Route 94A	Center Dr Spur
County Route 104	Quogue-Riverhead Rd
County Route 105	Cross River Dr
Town Route 22	Manor Ln
Town Route 23	Church Ln
Town Route 25	Wading River-Manorville Rd, Schultz Rd, Wading River Rd
Town Route 48	Sound Ave
Town Route 73	Roanoke Ave (north of CR 58)

A considerable amount of the transportation-related input received from the public focused on the LIE. Comments received varied, however, from "do absolutely nothing" to "extend the facility to its originally conceived endpoint at County Route 48 in Southold". Other comments specifically related to entrance or exit ramps at either the NYS Route 25 or County Route 58 interchanges.

As part of the *North Fork Recreational Travel Needs Assessment*, a sub-study of the Long Island Transportation Plan to Manage Congestion (LITP 2000; NYSDOT's long range transportation plan for Long Island), an extensive postcard motorist origin-destination survey was conducted, much of it focused in eastern Riverhead. The results of the survey, which were reviewed for the purpose of this Plan, indicate that many of the motorists surveyed on Route 58 east of the LIE, were destined to the easterly portion of the North Fork, including many who were going to the Cross Sound Ferry Terminal in Orient.

Since, at present, Route 58 and Route 25 essentially function as eastward extensions of the LIE, motorists destined for the North Fork choose between these facilities for the part of their trip in western Riverhead, then either divert to Sound Avenue/County Route 48 or remain on Route 25 for the balance of their trip. The number of these “through-traveling” vehicles, which contribute significantly to the congestion that occurs on the two facilities, can be expected to increase significantly in the future, due to the continuing popularity of the region as a tourist destination, continuing residential development, and the increasing congestion on western Long Island roadways, which will make the ferry a more and more attractive alternative to driving through New York City to reach destinations in New England. At the same time, local traffic volumes on these two facilities can be expected to rise, especially if the Town implements the Master Plan recommendations for increased destination commercial development on CR 58.

The most effective measure to relieve this congestion would be to provide an alternate route for vehicles with destinations east of the Riverhead business districts on Route 58 and in the downtown area. Indeed, in Southold, this alternate route around the hamlet centers exists, in the form of Route 48. Increasingly, Sound Avenue and Middle Road are fulfilling this role in Riverhead Town. However, Sound Avenue in Riverhead is a 2-lane roadway, with significant horizontal and vertical curvature and old growth trees along the south side, resulting in poor sight distance. Shoulders are narrow or nonexistent; there are few if any sidewalks; and agriculture-related businesses such as farm stands with little or no formal access or off-street parking are numerous. Therefore, for safety and aesthetic reasons, diversion of through traffic to Sound Avenue is not desirable.

Middle Road has been suggested as a candidate for this bypass route, and is also experiencing increased traffic as vehicles use it to bypass the westerly portion of Route 58. Middle Road has its current terminus at Route 58 east of Roanoke Avenue, so traffic rejoins Route 58 just west of County Route 105. Middle Road also provides one lane in each direction and would only relieve the western portion of Route 58 and Route 25. In addition, the two roads that connect Middle Road with Route 58 and Route 25, Mill Road and Osborn Avenue, have a northwest orientation, making the connection somewhat circuitous.

Strictly speaking, from a traffic engineering standpoint, the extension of the LIE to either Middle Road or to Route 48 would result in the greatest benefit. The benefit would extend beyond the border of Riverhead, in that through traffic would no longer travel through the hamlet centers in Southold as well.

This concept, if pursued, would have to be spearheaded by NYSDOT and the SCDPW. This facility, if ever built, would take the form of a 4-lane parkway facility, 2 lanes in each direction, separated by a wide planted median. Sufficient right-of-way would be acquired such that a vegetated buffer would be provided, reducing potential noise and aesthetic impacts on adjacent properties. The alignment should be chosen to minimize any potential impact on properties through which it would pass, and no at-grade intersections should be constructed. Rather, a minimum number of interchanges would be developed, perhaps only one at Route

105. Access should be strictly controlled, with no local access permitted along the entire length of the facility. This would help to limit development pressure along the roadway.

Development of such a facility would attract through traffic from both Route 25 and Route 58, as well as from Sound Avenue. The newly available additional capacity on these facilities would have the further beneficial impact of attracting traffic that previously had been seeking alternate routes through residential neighborhoods, since travel time would be improved and congestion reduced on Route 58 and Route 25.

The new facility would be a NYS Highway, and NYSDOT would take over jurisdiction of the entire length of Route 48 in Southold from Suffolk County. In that scenario, the segment of Route 25 between the LIE in the west and Greenport in the east should become converted into a County roadway.

STATE ROUTE 25

NYS Route 25 is a 2-lane east-west highway that extends from western Long Island to the North Fork of eastern Long Island. Approximately 17.5 miles of Route 25 lies within the Town of Riverhead. The easternmost and westernmost portions of Route 25 are relatively undeveloped. In the future, however, demand along the westernmost portion of Route 25 will increase significantly as the EPC site is developed. Route 25 will be the major roadway providing access as it runs along the northern frontage of EPC.

In Riverhead Hamlet, Route 25 is very developed, and serves runs along Main Street in downtown. It is the main route through downtown Riverhead and provides essentially unlimited access to the surrounding area. Congestion regularly occurs along Route 25 in the downtown area due to side friction from parking maneuvers, turning vehicles at intersections, and driveways and pedestrian activity, but not more than can be reasonably expected on a facility of this kind.

The AADT on Route 25 varies throughout the Town, from approximately 7,500 VPD in Wading River, to 10,000 VPD in the downtown area. Where County Route 58 joins Route 25, east of Doctor's Path, the AADT is about 23,000 VPD, and east of County Route 105 it is 15,000 VPD.

State Route 25 — West of the LIE

The westernmost portion of Route 25 in Riverhead will experience significantly increased demand due to the development of EPC. According to the Final Environmental Impact Statement (FEIS) prepared by the U.S. Navy preparatory to turning the property over to the Town, the preferred alternative for the development of this approximately 2,700-acre site envisions a combination of industrial, commercial, aviation and recreational uses, as well as significant open space. Table G-2 presents projected traffic volumes that could be generated by the preferred alternative: 4,000 vehicle trips per hour during the weekday peak hour, and 3,000 trips per hour during the Saturday peak hour.

**Table G-2: New Vehicle Trips on Route 25
Generated by the Preferred Alternative for
the EPC Site**

<i>Time Period</i>	<i>Weekday</i>	<i>Saturday</i>
AM Peak	2,693	n.a.
PM Peak	4,161	n.a.
Peak Hour Enter	n.a.	1,737
Peak Hour Exit	n.a.	3,145
Daily Trips	42,856	33,834

*Source: Department of the Navy Final
Environmental Impact Statement*

On a daily basis, over 42,000 weekday and 33,000 Saturday trips could be generated. Clearly, this has the potential to have major impacts on the transportation system in the vicinity of the property. According to the NYSDOT, an increase in peak hour traffic volumes of 1,000 vehicles might result in the need to widen Route 25. At present, the NYSDOT has no plans for any widening or capacity improvements for Route 25 in Riverhead. In order to examine the impact of this future traffic, the FEIS presented traffic analysis at four locations along Route 25, namely, the intersections at:

- Rocky Point Road;
- Edwards Avenue;
- North Country Road; and
- Manorville Road

The results of this analysis indicate that operating conditions would deteriorate to the extent that unacceptable levels of service (LOS) would prevail during all weekday peak hours at all four locations. With the exception of the intersection of North Country Road, the same deterioration of LOS will occur during the Saturday peak hour. Deterioration to this extent would have far reaching impacts, perhaps extending to the stifling of commercial interest in the site itself. The FEIS goes on to suggest some minor intersection specific widenings at these locations that would serve to marginally improve LOS.

Discussions with representatives of the Planning Department of the NYSDOT indicate that, in order to anticipate and plan for the mitigation of transportation impacts of this

development on both State and local roads, NYSDOT has been willing to fund a Calverton Corridor and Local Roads System Assessment for the Town. The Assessment would:

1. Characterize the impacts of development at and ancillary to the Calverton site;
2. Evaluate and identify improvements to State and local roads that would mitigate these impacts;
1. Evaluate and identify alternative land uses and development patterns that might mitigate or alleviate these impacts; and
2. Discuss potential funding strategies for the local system improvements.

NYSDOT continues to feel this type of study is needed. However, funding that had been available was reallocated elsewhere. It is strongly recommended that the Town contact NYSDOT and urge them to try to locate alternative sources of funding for this study. The Town should be willing to participate financially in the study, perhaps through a local matching program, or by contracting for some of the study requirements on its own, such as traffic data collection.

Furthermore, the Town should ensure that the issue of the redevelopment of this site is given prominent consideration in the recently launched Sustainable East End Development Strategies (SEEDS) study, which is being conducted under the auspices of NYMTC. This organization, NYMTC, is the quasi-public clearinghouse for federal transportation funds for the New York metropolitan region, which includes all of Long Island. The studies should result in a set of strategies for transportation improvements along Route 25 and local roadways in the vicinity of the property, and should identify the means for funding as well.

State Route 25 — LIE to Downtown

On the portion of Route 25 between the LIE in the west and the downtown area, including that segment adjacent to the southerly end of Tanger Mall, capacity deficiencies are not apparent. In the near future, the developer of the Riverhead Centre shopping center intends to install a traffic signal at the intersection of Route 25 and Mill Road. This signal is being installed as part of the developer's off-site traffic mitigation responsibility. As there are sight distance and grade issues at this location, the traffic signal will serve to improve safety at this location.

The Peconic River, which is included on the list of waterways protected by the Wild and Scenic Rivers Act, is in close proximity to this stretch of Route 25. As such, development opportunities are extremely limited, since the Act prohibits most development within 500 feet of a protected river. Therefore, significant new sources of traffic are not likely to materialize in the area, and the sources for increased traffic volumes would lie outside the immediate area and be limited to through vehicles. Therefore, no capacity improvements are likely to be required. In fact, it is questionable whether the Act would permit significant work to be done on the roadway itself. This portion of Route 25 would experience a reduction in traffic volumes, should capacity improvements be made along Route 58.

State Route 25 — Downtown

The downtown portion of Route 25 is literally Main Street, Riverhead. It is lined with shops and businesses for much of its length, essentially built right to the property lines. As is fitting in a downtown area, on-street parking is allowed and should be retained. On-street parking is vital to the businesses that attract short stays, such as newsstands, coffee shops, and so on. These businesses in turn add a sense of bustle and vitality to the downtown area, and attract potential customers for other businesses. This type of activity, however, leads to a certain amount of traffic congestion and, due to the fact that buildings are so close to the street, adding capacity to Route 25 is not possible without having a serious impact. This is particularly undesirable in light of the historic nature of some of the structures.

Congestion is not solely due to the volume of traffic and friction in the area, rather a good deal stems from geometric features, the signalized intersection of Peconic Avenue and Roanoke Avenue being a major contributor. Although there has been discussion of converting these facilities to one-way operation, this is an extremely disruptive measure and is not recommended at this time. Traffic and activity in the downtown area are desirable, unless the congestion leads potential customers avoiding the area and shopping elsewhere due to the inconvenience and lost time associated with it.

Traffic calming measures, which would seek to divert through traffic traveling on Main Street to other facilities, are likely to be ineffective, due to the lack of a logical alternative. Indeed, travel time measurements taken along Route 58 and Route 25 between the LIE and Route 105 indicate that Route 25 has become the faster of the two routes. Essentially, the bypass route, Route 58, has become congested to the point that it is now faster to travel on Rt. 25, the very facility that the bypass was constructed to relieve. Therefore, the solution lies in capacity improvements to Route 58, which would attract through vehicles destined outside the downtown area back to the appropriate facility.

The Cornell Cooperative Extension Headquarters, located on Griffing Avenue at Railroad Street, is being relocated to a site north of the LIRR tracks. Suffolk County intends to use the original site to provide additional parking for the County court facilities, which are to be expanded. The Town is pursuing the concept of extending Court Street to Railroad Avenue as part of this project, which would require the County to allow a small section of the Court Street extension to be built on County property.

In return, the Town would cede a portion of Railroad Street to the County to compensate. Extending Court Street would improve local circulation and access to the parking facilities, which would have a corresponding positive effect on Main Street, in that vehicles destined to the Court facilities could use Court Street rather than Main Street to access the parking area. Appropriate signing on Main Street west of Court Street should be installed to direct traffic to the area.

State Route 25 — East of Downtown

The portion of Route 25 east of the downtown area rarely experiences considerable congestion, except during summer months when Route 58 is congested and vehicles destined for the eastern North Fork are diverting onto Route 25 for their trip. East of the terminus of Route 58, from just west of Route 105 through Jamesport, congestion is more frequent due to the lack of Route 58 as an alternate route. Capacity improvements on Route 58 as discussed in the following section of this plan 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. Again, a certain amount of the congestion occurring in this area is due to the activity at the various roadside attractions, such as farm stands, nurseries, etc. This type of activity is considered desirable.

COUNTY ROUTE 58

County Route 58 is a 2-lane east-west road that extends from the westerly terminus of the LIE eastward to NYS Route 25, a distance of approximately 4 miles, all within the Town of Riverhead. Route 58 was built as a bypass to Route 25. However, increasing congestion — much of it due to active commercial development along the roadway — has compromised its usefulness as a bypass.

Tanger Mall and many retail stores, restaurants, and businesses have access points along Route 58. During peak periods, traffic volumes are high, travel speeds are low; and roadway level of service is poor. Congestion on Route 58 is significant enough that drivers familiar with the area seek out alternate routes through residential communities, bypassing both Route 58 and Route 25. It is expected that commercial and industrial development pressure along Route 58 will continue.

Proposed developments along the roadway include two major home improvement stores (Home Depot and Lowe's), retail stores, a grocery store, restaurants, and a major multiple screen movie theater. To mitigate the impact of these developments, capacity improvements will be necessary in the near term. Depending on the effectiveness of the capacity improvements, traffic calming may be required on local roadways to encourage traffic to return to using Route 58 rather than local roadways. The AADT on Route 58 is approximately 23,000 VPD.

With the ongoing success of Tanger Mall and the impending development of new shopping centers, the western end of Route 58 is burgeoning as a commercial center. In addition, this activity is beginning to attract ancillary uses such as the Applebee's Restaurant, which take advantage of the commerce attracted by these destination uses. Application for a number of other developments of this sort are pending, and driveways are proliferating, most of which allow for full turning movements. Allowing full turning movements creates large numbers of conflicts with through traffic. The eastern portion of Route 58 also supports considerable commercial development.

New commercial development will certainly exacerbate the area's already considerable congestion. Through the County permitting process, some portions of Route 58 have been widened to 4 lanes, but for the most part, the facility provides a single lane in each direction, with various turning lanes. A recent analysis performed for the County indicated that retention of the traffic circle at the Roanoke intersection, after the widening to four lanes, would result in an undesirable increase in accidents at this location. Furthermore, the County is unlikely to agree to undertake the study of any major capacity improvement on Route 58 if the removal of the traffic circle is not to be considered.

OTHER MAJOR ROADS

Middle Road

Middle Road is a 2-lane east-west roadway that extends from Service Road A (the service road north of NYS Route 25 which is approximately 0.25 miles west of the terminus of the LIE) to Doctors Path immediately north of Route 25. All of Middle Road (roughly 4.75 miles) lies within the Town of Riverhead. Because there is currently very little development along Middle Road, existing traffic volumes are low. Drivers familiar with the downtown Riverhead area have begun to use Middle Road as a bypass to congestion on Route 25 and Route 58. For this reason, it is expected that development along Middle Road will increase. If congestion along Route 58 persists, it is expected that Middle Road will become a more utilized bypass road. The AADT is 11,000 VPD.

Sound Avenue

Sound Avenue is a 2-lane east-west roadway that extends from NYS Route 25A to NYS Route 25 in Southold. Approximately 14.5 miles of Sound Avenue lies within Riverhead. Sound Avenue, combined with County Route 48 in Southold forms a major east-west alternative to Route 25 for motorists traveling to points east of Riverhead on the North Fork of Long Island. The AADT on Sound Avenue is 7200 VPD.

Sound Avenue is a two lane Town roadway extending along the north or Riverhead between Calverton and Mattituck. Although the right of way is 66 feet wide, for most of its length the pavement is between 28 and 30 feet wide. Few sidewalks and shoulder areas are provided.

The road is lined with old trees and historic homes, farms, and farm stands. In some cases, landscape features of the homes such as fences and plantings encroach on the Town right-of-way. The road has significant horizontal and vertical curvature, which limits stopping sight distances. In 1974, as part of the upcoming bicentennial celebration, the road was designated a historic corridor by the Department of State Parks and Historic Preservation.

There are no ongoing capacity issues on Sound Avenue. Information from the NYSDOT North Fork Study indicates that traffic volumes are relatively low, on the order of 7,000 VPD in both directions. In recent years, the road has experienced an increase in traffic

volume, in part due to the increasing popularity of the rural North Fork as a tourist destination, and also due to traffic seeking to avoid congestion on Route 58 and Route 25. What little congestion does occur is related to activity at the agriculture-related businesses such as farm stands along the road.

Recently, however, there have been a number of accidents on Sound Avenue, some involving agriculture workers walking or bicycling along the road to and from their places of employment.

NYMTC is presently considering an application by the Town of Riverhead for funding a safety improvement project along Sound Avenue between Route 105 and the Southold Town line. This project will provide for the installation of 5-foot wide shoulders on either side of the road and resurfacing of the existing pavement. These shoulders will allow bicyclists to use the roadway in a much safer manner. NYSDOT supports the project, and funding is likely.

County Route 105

Route 105 (Cross River Drive) is a north-south highway that extends from County Route 104 (Quogue-Riverhead Road) in Southampton to Sound Avenue in Riverhead. It has 4 lanes from Route 104 to Union Avenue and then reduces to 2 lanes from Union Avenue to Sound Avenue. Approximately 4.0 miles of Route 105 is within Riverhead. Route 105 allows high-speed north-south movement and is a north-south bypass to downtown Riverhead. South of NYS Route 25, the AADT on County Route 105 is about 17,000 VPD. North of County Route 43 (Northville Turnpike), the AADT drops considerably to 3000 VPD.

State Route 25A

NYS Route 25A is a 2-lane east-west highway that splits from NYS Route 25 in western Long Island and then runs along most of the north shore of Long Island. Route 25A rejoins Route 25 in Riverhead. Approximately 2.75 miles of Route 25A is within the Town. The point at which they join is immediately north of Enterprise Park at Calverton (EPC). It is expected that one of the main entrances to EPC will be situated at the intersection of Route 25 and Route 25A. The AADT on Route 25A is 15,000 VPD west of Sound Avenue and 7,500 VPD east of Sound Avenue.

County Route 43

County Route 43 (Northville Turnpike) is a 2-lane north-south roadway that extends from Roanoke Avenue in the downtown area to Sound Avenue in the northern part of Town. All 3.5 miles of Route 43 are within Riverhead Town. Vehicles destined to the North Fork from downtown Riverhead can utilize Route 43 to reach Sound Avenue, then use Sound Avenue to travel east. Similarly, northbound vehicles on County Route 105 destined for the North

Fork turn onto Route 43 to reach Sound Avenue. The AADT on County Route 43 is between 3,500 and 5,500 VPD, depending on location.

County Route 73

County Route 73 (Roanoke Avenue) is a 2-lane north-south roadway that extends from NYS Route 25 in the south to Sound Avenue in the north. Roanoke Avenue intersects with County Route 58 at a 4-leg traffic circle that is a familiar sight for both locals and visitors. During peak times, considerable congestion occurs at the traffic signal. The AADT on Roanoke Avenue south of Route 58 is 8,700 VPD, and north of Route 58, the AADT is 10,300 VPD.

Swan Pond Road—River Road

Swan Pond Road is a 2-lane east-west roadway that extends from Wading River-Manorville Road to River Road. All 2.25 miles of Swan Pond Road is within Riverhead. River Road is a 2-lane east-west roadway that extends from Old River Road to NYS Route 25. All 5.0 miles of River Road is within the Town of Riverhead. Swan Pond Road intersects River Road to the south of the EPC site. Swan Pond Road then continues to the east as River Road.

In the 1997 Final Environmental Impact Study (FEIS) for EPC redevelopment, Swan Pond Road combined with River Road is referred to as Grumman Boulevard. Grumman Boulevard will be the major roadway that runs along the southern frontage of EPC. No AADT information is available for Swan Pond Road-River Road.

Wading River-Manorville Road

Wading River-Manorville Road is a 2-lane north-south roadway that extends from River Road to North Country Road. All approximately 4.0 miles of Wading River-Manorville Road is within Riverhead. Wading River-Manorville Road will be the major roadway that runs along the western frontage of EPC. No AADT information is available for Wading River-Manorville Road.

Edwards Avenue

Edwards Avenue is a 2-lane north-south roadway that extends from the LIE to Silver Beach Lane. Approximately 4.0 miles of Edwards Avenue is within Riverhead. Edwards Avenue is approximately 1.25 miles east of the proposed EPC. 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.

Doctors Path

Doctors Path is a 2-lane north-south roadway that extends from NYS Route 25 to Sound Avenue. All approximately 2.3 miles of Doctors Path lies within Riverhead. Middle Road intersects Doctors Path about 125 feet north of Route 25. Route 58 intersects Route 25 about 250 feet west of Doctors Path. Four busy roadways, therefore, meet in very close proximity to each other. The odd geometric configuration of this area combined with high traffic volumes makes certain lane changes and turning movements very difficult. Construction to improve the intersection of these roadways has recently been completed. No AADT information is available for Doctor's Path.

G.2 LONG ISLAND RAILROAD

The Long Island Rail Road (LIRR), a subsidiary of the Metropolitan Transit Authority, provides passenger rail service to Suffolk County, Nassau County, Queens, Brooklyn, and Manhattan. A map of the LIRR is shown in Figure G-1. 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, LIRR passengers can also transfer to Metro North Railroad or the New Jersey PATH trains. Commuters between Long Island and the New York City area often choose to take the LIRR rather than travel by automobile.

The train station in downtown Riverhead is the only LIRR station in Riverhead. It is on the Ronkonkoma (Main) Branch of the LIRR and is located on Railroad Street between Osborn Avenue and Griffing Avenue. The station recently restored by LIRR as part of an historic restoration project. On weekdays, four westbound and three eastbound trains service the Town of Riverhead. On weekends, two westbound and two eastbound trains service the Town of Riverhead.

Because of its distance from New York City and major employment centers in the west, as well as its relatively small population, there are not as many long distance commuters from Riverhead as there are from Nassau County and other areas of Suffolk County. There is, therefore, not as high a demand for the LIRR in Riverhead as there is in some areas.

The LIRR is predominantly a commuter railroad. Information contained in the LIRR's East End Transportation Study indicates that 64 percent of total ridership consists of commuters who ride the railroad daily. Furthermore, station counts performed for that study indicated that only 18 passengers boarded westbound LIRR trains during the weekday AM peak at all the North Fork stations combined (Riverhead, Mattituck, Southold and Greenport), while more than 6,000 boarded at Ronkonkoma alone. Infrequent service no doubt contributes to the low ridership levels, but it is not likely that a significant number of new riders would materialize no matter what the frequency of service.

At the public meetings held for this study, residents of Riverhead did express a desire for more frequent trains and better scheduling of trains than currently exists. The train schedule

is also so infrequent that many passengers cannot make the trips that they desire. For passengers traveling between Riverhead and New York City on the weekends, the schedule is such that it is not possible to travel round-trip on the LIRR in a single day.

Even if demand were to increase to the point where the LIRR felt it was worthwhile to provide additional service to Riverhead, there are basic constraints on the infrastructure that make it difficult and costly to do so. According to the LIRR's East End Transportation Study, 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, a condition referred to as "dark territory".

Figure G-1: Long Island Rail Road

Back of Figure G-1.

In dark territory, 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.

However, the LIRR is planning improvements to the system. The improvements 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. Pilot implementation of the CBTC system is included in the railroad's 2000-2004 capital program, as is the beginning of the installation of the power switches.

On the part of Riverhead Town, it is recommended that the Town implement measures that will support and encourage use of the railroad. The Town has been awarded funding to develop a transportation center in the area between Court Street and Railroad Street, east of Osborn Avenue. Conceptual plans for this center provide increased parking for the railroad station and the expanded County Court facilities, a place for bus stops and shelters as a source of real time information regarding conditions on the transportation system, perhaps through an electronic link to the NYSDOT's INFORM system and other sources of data.

The success of the Tanger Mall has led to some discussion of the construction of a new train station near the center. Construction of a new train station is an extremely expensive and time-consuming process. In addition to station costs, infrastructure such as access roads and parking lots would also have to be provided. In light of the needs of the rest of the LIRR system, it is highly unlikely that this concept would be given any consideration. Furthermore, it is questionable as to what level of ridership could be expected. Instead, the Town should seek to provide bus service between the downtown transportation center and Tanger Mall. A description of the recommended service is provided in Section G.3.

G.3 SUFFOLK COUNTY TRANSIT SYSTEM

Suffolk County Transit (SCT) provides public bus service Countywide. The six SCT bus routes that run through the Town of Riverhead are described below.

- The *S-8A* is the Calverton-Riverhead-Suffolk County Community College (SCCC) route. It runs between Calverton Hills and SCCC East. Stops along this route include Central Suffolk Hospital, downtown Riverhead, and Riverhead County Center. The bus operates on hourly headways, that is the time between buses is one hour. The most recent weekly ridership data available from Suffolk County Transit is for 1999. Weekly ridership on the *S-8A* in 1999 was 770 persons.
- The *S-58*, is the downtown-Route 58-Smith Haven Mall route. It serves East Northport, Smithtown, Selden, Coram, Calverton, and Riverhead. Major stops include Huntington Square Mall, Mayfair Shopping Center, Smithtown Station

(LIRR), Smith Haven Mall, Splish Splash, Tanger Mall, Riverhead Station, and the County Courthouse. The bus operates on hourly headways.

- The *S-62* is the Hauppauge-Smith Haven Mall-Riverhead route. It runs between Hauppauge Industrial Complex and Riverhead County Center. Stops along this route include the government offices in Hauppauge, Smith Haven Mall, and Tanger Factory Outlet Center. Headways are hourly. Weekly ridership in 1999 was 2,215 persons.
- The *S-66* is the Patchogue-Center Moriches-Riverhead route. It runs between the Patchogue railroad station and Riverhead County Center. Stops along this route include Bellport, Shirley, Mastic, and Center Moriches. Headways are hourly. Weekly ridership for this route was not available.
- The *S-90* is the Center Moriches-Riverhead route. It runs between the Center Moriches railroad station and Riverhead County Center. Stops along this route include Eastport, Speonk, Westhampton, and Quogue. Two buses are provided in the AM, approximately 2 hours apart, one during the midday and 3 during the afternoon, again at approximate 2-hour headways. Weekly ridership in 1999 was 449 persons.
- The *S-92* is the Orient Point-East Hampton route. It runs between the Orient Point ferry dock and the East Hampton railroad station. Stops along this route include Greenport, Mattituck, downtown Riverhead, Riverhead County Center, and Sag Harbor. Headways are hourly. Weekly ridership in 1999 was 3,653 persons.

Maps and schedules for each of these routes are presented in Figures G-2 through G-11, except for Route S-58, for which a map and schedule are not available.

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. Reservations must be made one to seven days in advance of the trip by calling the Reservation Office at (631) 491-6500. Both SCT and SCAT operate Monday through Friday, 6:00 AM to 8:30 PM, and Saturday, 7:00 AM to 8:30 PM.

The minimum headway on any route is one hour. During the public outreach effort undertaken for the Master Plan, the long wait between buses was second only to insufficient routes as the reason given for not using bus service. Similar sentiment was expressed in the survey performed for the NYSDOT's North Fork Study.

G.4 BICYCLE AND PEDESTRIAN FACILITIES

Pedestrian and bicycle circulation in Riverhead is limited by a lack of continuous and safe routes. Sidewalks in Riverhead are numerous; however, the only location in which pedestrian traffic is significant is in the downtown area where the sidewalks provided are narrower than

desirable. Bicycle routes in Riverhead are essentially non-existent. The only official bicycle route in the Town is 2 miles of unpaved path in Wildwood State Park.

A map of unofficial bicycle route designations is provided in *Your Guide to Long Island Bikeways*. Although this is a NYSDOT publication, designations shown are the unapproved recommendations of local bicyclists. The New York Metropolitan Transportation Council (NYMTC) provides a map of existing and proposed bike routes in their Regional Transportation Plan.

Plans have been made to improve sidewalks and pedestrian paths in downtown Riverhead. In Grangebel Park, pedestrian paths will be lighted so that safety in the area is improved. No plans have been made to improve existing bicycle facilities in Riverhead. Until roadways are widened to allow for bicycle lanes or until exclusive paths for bicycles are built, travel by bicycle will not be a safe and viable alternative to travel by automobile.

Importantly, NYMTC has recently issued a Request for Proposals (RFP) for the Long Island Non-Motorized Transportation Study, the purpose of which is to develop a comprehensive master plan for existing and proposed non-motorized transportation facilities on Long Island. This plan is to identify and prioritize programs that should be completed in the region that would support pedestrian travel, bicycling, and other non-motorized modes as alternatives and complements to vehicular modes.

G.5 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 County Route 105. Long Island MacArthur Airport (Islip) is the closest airport to the Town of Riverhead that provides passenger service. Islip is located in the Town of Islip in Suffolk County. Kennedy International Airport (JFK) and La Guardia Airport also provide passenger service. Both of these airports are located in Queens County on the western end of Long Island. In the future, it is possible that EPC may re-open some of the airport facilities that currently lay idle there.

G.6 ACCESS MANAGEMENT & TRAFFIC CALMING

ACCESS MANAGEMENT

Access management has been defined as the coordination of access to land and traffic flow, or the practice of optimizing access to land uses while preserving the capacity and safety of traffic on the surrounding roadway network. Roadways perform the dual role of providing access to abutting properties and accommodating through travel. It is important that these roles be balanced and maintained, in that traffic congestion can result when poorly planned development and improperly located driveways cause operations to degrade.

Typically, a well-designed access management plan includes the classification of roadways into various levels of access control. Stricter standards are applied to major streets while local streets have more flexible requirements. In a statewide access management plan, there might be seven levels in the roadway hierarchy: freeway, expressway, strategic arterial, principal arterial, secondary arterial, collector, and local street. Urban areas may have five layers, while rural areas with low traffic volume might allow for three or four. Major streets should serve through traffic, while collector and local roads provide access to property.

Access management on major State and County roadways falls under the purview of those municipalities. However, the Town governments play an important role in how those roadways operate, though their review of site plans under the SEQRA process and the establishment of zoning ordinances. Typically, the State or County cannot deny access to an uncontrolled arterial if it is the sole possible access point to the property.

TRAFFIC CALMING

The concept and practice of traffic calming is known by a number of names across the U.S., including neighborhood traffic management, traffic abatement, and traffic mitigation. Regardless of what it is called, the objective remains the same, namely to reduce the speed and volume of traffic to acceptable levels for the nature and function of the street and bordering activity. The Institute of Transportation Engineers (ITE) defines traffic calming as “the combination of mainly physical measures that reduces the negative effects of motor vehicle use, alters driver behavior, and improves conditions for non-motorized street users.” In addition, ITE states that traffic-calming devices are intended to be self-enforcing, that is, as opposed to devices that are regulatory in nature, such as STOP signs and speed limit signs.

Traffic calming in its varied guises has been implemented in a large number of communities throughout the United States, and even the world. Contrary to what some advocates profess, it has met with mixed success. However, the specific device or strategy implemented usually has precisely the effect on traffic speeds or driver behavior that was intended.

The perceived lack of success of some of the programs has more to do with the expectations of the public rather than the effectiveness of the strategy deployed. A local neighborhood street that is experiencing increased traffic volumes due to vehicles seeking to circumvent congestion on a major roadway will not see reductions in traffic volumes unless the travel time on the short-cut route can be increased to the extent that it is no longer worthwhile taking. This often involves drastic reductions in vehicle speeds, only rarely achievable through self-enforcing traffic calming strategies. Active enforcement of low speed limits is expensive and unrealistic in most communities.

Implementation of unsuccessful projects is not only wasteful of funds, but they undermine the public’s confidence in the usefulness of the entire body of techniques for neighborhood traffic management. Therefore, the most important component of a traffic calming policy is that which educates the public as to expectations for the impacts of the various traffic calming techniques on the targeted behavior. Equally important, the most effective traffic

management strategy is the availability of adequate capacity on the appropriate facility. It is the lack of such capacity that results in the short cutting behavior described previously. The following sections describe the various traffic calming techniques available and provide a discussion of their benefits and drawbacks.

Traffic Circles

Traffic circles are small circular islands located in the center of existing intersections. No other modifications are usually made to the intersection configuration. Typically, traffic circles help in reducing the number of turning and angle collisions and also cause drivers to slow down near the intersection. However, speeds in the middle of the block may increase as some drivers try to make up for time lost going around the traffic circle.

Advantages

- Effectively reduces vehicle speeds at intersection.
- Improves safety conditions.
- Can be visually attractive.

Disadvantages

- Adds a potential hazard to the middle of the roadway.
- Can cause bicycle/vehicle conflicts at intersections due to narrowed travel lanes.
- Can restrict emergency or transit vehicle movement if vehicles are parked illegally near the circle.
- Can increase emergency vehicle response times.

Roundabouts

Roundabouts guide traffic with a raised island built in the center of an intersection to create a one-way circular flow of traffic. A roundabout is placed in an intersection to prevent vehicles from traveling in a straight line. This device is very successful in reducing crash frequency by reducing the number of conflict points and lowering the travel speeds.

Although they are very similar to the traffic circle, vehicles must yield at all entry points to the traffic that is already within the roundabout. The roundabout usually has tapered approaches while the traffic circle does not. The roundabout guides vehicles into the circle in a more efficient manner than the traffic circle.

In roundabouts, the speed at which a vehicle is able to negotiate the circulating roadway is controlled by the location of the central island with respect to the alignment of the entry curb and its size. Traffic circles are designed for higher speeds within the circulating roadway. Also, roundabouts have raised splitter islands on all approaches. These islands are a safety feature separating traffic moving in opposite directions and provide refuge for pedestrians.

Advantages

- Can noticeably reduce speeds.
- Reduces accident potential.
- Reduces the number of conflict points at an intersection.
- Provides an orderly and continuous flow of traffic.
- Clarifies priority and simplify decision-making.
- Increases conspicuity at the intersection.
- Provides landscaping opportunities within circle.

Disadvantages

- Requires a relatively large right-of-way.
- May be restrictive for some larger service and emergency vehicles unless mountable.
- May lose some aesthetic quality due to required safety signing.
- Requires pedestrians and bicyclists to adjust to less traditional crossing patterns.
- May increase accidents until drivers become accustomed to change.
- Requires additional maintenance if landscaped.

Chicanes

Chicanes are devices that alter the linear progression of a vehicle so that the driver must change paths in order to avoid an obstacle. This horizontal alignment change is accomplished by constructing the edge of the travel lane, typically curb extensions, laterally into the initial centerline of the roadway. The alignment change forces a driver around the lateral obstruction at a slower speed. A method of installing chicanes is to have a series of reverse curves along an otherwise straight roadway. Chicanes are typically staggered on opposite sides of the street. They are more effective when used in pairs and placed approximately 500 feet apart.

Advantages

- Can reduce speeds at the chicane location.
- Can reduce speeds on the entire street length if used in series.
- Can be installed for aesthetic purposes.
- Can improve pedestrian safety.

Disadvantages

- May be restrictive for emergency and service vehicles.
- Creates crash potential for drivers.

- Violates driver expectancy if used in isolation.
- Can force encroachment into opposing lane due to carelessly parked vehicles.

Roadway Narrowing

Geometric features such as curbs may be used to narrow a roadway. Modifications of traffic control materials (pavement striping or buttons) can be used to effectively reduce the roadway width. Roadway narrowing techniques are different than chicanes in that the roadway cross-section generally remains constant for a continuous length of the roadway. Adding wider pavement markings, pavement buttons, bike lanes, parking areas, tree planters, or painted or raised medians may narrow lanes.

Advantages

- Provides continuous, visual channelization.
- Can be quickly implemented, depending upon the technique used.
- Creates shorter pedestrian crossing distances.
- Does not negatively affect emergency response times.

Disadvantages

- Requires regular maintenance of narrowing techniques.
- May be unfriendly to cyclists unless appropriately designed.

Speed Tables, Raised Intersections, and Speed Cushions

Vertical changes in roadway surface reduce the speed of vehicles traveling over them. As drivers approach the raised surface, their reaction is to slow down until they have passed over the vertical change. Such vertical changes include speed tables, raised intersections, and speed cushions. Speed tables are elevated plateaus in the roadway with a descending ramp on each side. They may be constructed of asphalt pavers or tiles and placed at intersections or midblock. Typically, speed tables have a 6-foot parabolic approach transition rising to 3 to 4 inches above the existing pavement surface. The flat section of the table is 10 to 12 feet wide. Each speed table extends across the entire width of the roadway.

Raised intersections elevate the entire intersection above street grade to reinforce the character of the area. Raised intersections are used more frequently in commercial areas with high pedestrian volumes, and they are typically constructed of bricks, pavers, or other textured material to draw attention and provide a change in roadway surface. The plateaus are generally 4 inches higher than the surrounding pavement.

Speed cushions cover only a portion of a traffic lane and are designed to limit the vertical deflection of vehicles with wide track widths by allowing these vehicles to straddle the cushions. Vertical deflection for vehicles with smaller track widths is maintained as these

vehicles are forced to ride over the cushions with at least one set of wheels. Speed cushions may be constructed of asphalt, rubber, brick pavers, or concrete.

Advantages

- Reduce speeds.
- Draw attention to intersection and pedestrian areas.
- Can be used on both high and low volume streets.
- Can be aesthetically pleasing.

Disadvantages

- May effect emergency vehicle response times.
- Require additional signage and driver education.

Speed Humps

A speed hump is a raised area in the roadway pavement surface extending transversely across the travel way, perpendicular to the traffic flow. The humps are constructed of paving materials to the height and width specified by local standards. Speed humps are typically installed in a series of at least two humps, spaced at a minimum interval to provide continuity in speed reduction. When designed and installed with proper planning and engineering review, speed humps have generally been found to be effective at reducing vehicle speeds without increasing accident rates. Speed humps have the advantage of being largely self-enforcing and of creating a visual impression that a street is not intended for speeding. The extent to which a series of speed humps will reduce the speed on a particular street is effected by several factors, including the space between humps, the individual driver's perception of comfort, and the type of vehicle being driven. The greatest effect by speed bumps is on drivers exceeding the posted speed limit by more than 10 mph. The trade-off is that they affect all drivers, even those drivers who obey the speed limit. Longer and heavier vehicles such as buses, garbage trucks, and larger fire vehicles will need to slow down over speed humps more than automobiles. Also, there may be an increase in noise when these larger vehicles travel over the speed humps.

Typically, speed humps are 3 to 4 inches high and are approximately 12 to 14 feet wide (longer than the wheelbase of an automobile). Some are rounded so that the highest point is only at the center of the hump, while some humps are square in shape. In either case, speed humps should be constructed so that there is a smooth transition for vehicles traveling at the posted speed.

Within typical residential speed ranges, humps create a gentle vehicle rocking motion that causes some driver discomfort and results in most vehicles slowing to 15 miles per hour or less at each hump and to accelerating to 25 to 30 miles per hour between properly placed

humps in a system. At high speeds, the hump can act as a bump and jolt the vehicle's suspension and its occupants or cargo. Speed humps, generally, have a continuous effect on vehicle speeds if spaced 250 to 800 feet apart. If spacing exceeds 800 feet, speed reduction occurs only at the hump itself.

Advantages

- Reduce speed.
- Do not affect intersection operations.

Disadvantages

- Can slow emergency vehicles and affect emergency response times.
- Can shift vehicle contents.
- May increase noise levels from braking and acceleration at speed humps.
- May increase noise levels from the vehicles themselves.

Rumble Strips

Rumble strips can be treatments on top of the pavement surface including asphalt strips, patterned sections of rough pavement, traffic buttons or dots glued to the pavement, brick paving blocks, or layers of thermoplastic striping material. Rumble strips may also be installed by making grooves in the pavement. To be effective in slowing traffic, rumble strips are placed in groups of 6 to 8 at each location.

Advantages

- May reduce speeds up to 5 mph.
- Creates driver awareness to increase safety.
- Are inexpensive to install and may be removed or changed as necessary when created with thermoplastic materials.

Disadvantages

- May adversely impact bicyclists.
- Are noisy by design and may not be appropriate for neighborhood setting.

While not technically considered traffic calming in the specific definition, since they are not self-enforcing, enforcement techniques are discussed here because they are often considered together.

Conventional Enforcement

Increased enforcement involves use of public safety or police personnel to reduce speeds, using radar and ticketing of violators. Speeds can be appreciably reduced, but usually only as long as enforcement is present. While speeds are reduced, accidents are lower and safety is improved. In order to be effective, enforcement must be long term, which results in high cost for personnel and equipment.

Advantages

- Speeds are reduced.
- Driver awareness increased.
- Safety is improved.

Disadvantages

- Periodic enforcement required to be effective.
- Expensive.

Speed Trailers

Speed trailers, also known as speed display boards or mobile radar trailers, were developed in the 1980's. They use radar to measure the speed of passing vehicles and record and display the speeds to drivers. In some cases, speed trailers are used in conjunction with police officers for enforcement. However, they are mainly used for informational purposes to encourage motorists to voluntarily reduce speeds.

Speed trailers have been shown to be effective in reducing speeds downstream of the trailer. However, after removal, little residual effect is achieved. Used in conjunction with enforcement, a California study demonstrated a carryover alongside and downstream of the trailer for one week after removal of the device. Speeds were reduced by 10 percent alongside and 7 percent downstream of the device.

Advantages

- Public becomes more aware of posted and excessive speeds in given locations.
- May result in increased safety.
- Easily moved from one location to another.
- Good for educational and public relations purposes.

Disadvantages

- Not effective in reducing speeds after removal of the device.

- Limited effect when not combined with automated or conventional enforcement.
- Not practical for multi-lane roadways.

Automated Enforcement

Automated enforcement is traffic law enforcement via the monitoring of vehicles and the later ticketing of vehicle drivers or owners. Vehicles are spotted with radar. A processing unit determines whether the driver of the vehicle has violated a traffic law, and if a violation has occurred, a camera photographs the license plate of the vehicle and/or the driver of the vehicle. The violation is then documented and a ticket sent to the violator by mail. It should be noted that New York State does not at present have statutes in place that would allow for the employment of automated speed limit enforcement.

Automated enforcement is most commonly used to ticket drivers who travel above the speed limit or who run red lights. It allows the police department or enforcing agency to catch traffic law violators without the presence of a policeman and without the inconvenience of pulling a violator off onto the side of the road to issue him a ticket. Enforcing traffic laws by photographing the violation enables the enforcing agency to catch over six times as many violators as police enforcement.

Research indicates that automated enforcement is most effective at reducing the number of vehicles that speed when at least 15 percent of the speeding vehicles travel 10 mph or more above the speed limit. This is the case along Waterside Road. When the percentage of vehicles exceeding the speed limit is not at least 15 percent, automated enforcement only decreases the average and 85th percentile speeds by a few mph. At the location of the radar, the overall speeds of vehicles decrease by about 5 mph. Downstream, the speeds of vehicles decrease by 4 mph.

Advantages

- Detecting and recording information about a large number of speeders
- Reducing the number of police pursuits and resulting confrontations
- Improving traffic flow by reducing rubbernecking at the ticketing site
- Making law enforcement officer time more efficient
- Providing enforcement in areas where roadway geometry makes it difficult
- Increasing traffic safety by reducing accidents and fatalities
- Targeting speeders objectively

Disadvantages

- The violator caught on film is essentially guilty until proven innocent
- Impaired drivers or unsafe vehicles remain on the road because no traffic stop is made

- The violator may forget the details of the event due to the lag time between processing the photo and issuing the citation
- An officer cannot give discretion for an emergency situation
- May be a less effective learning tool than if the violator were stopped and given a citation immediately
- May be considered an invasion of privacy by some citizens
- People who purposely fail to register their vehicle cannot be sanctioned by this system.⁷¹

⁷¹ Texas Transportation Institute, *Handbook of Speed Management Techniques*.

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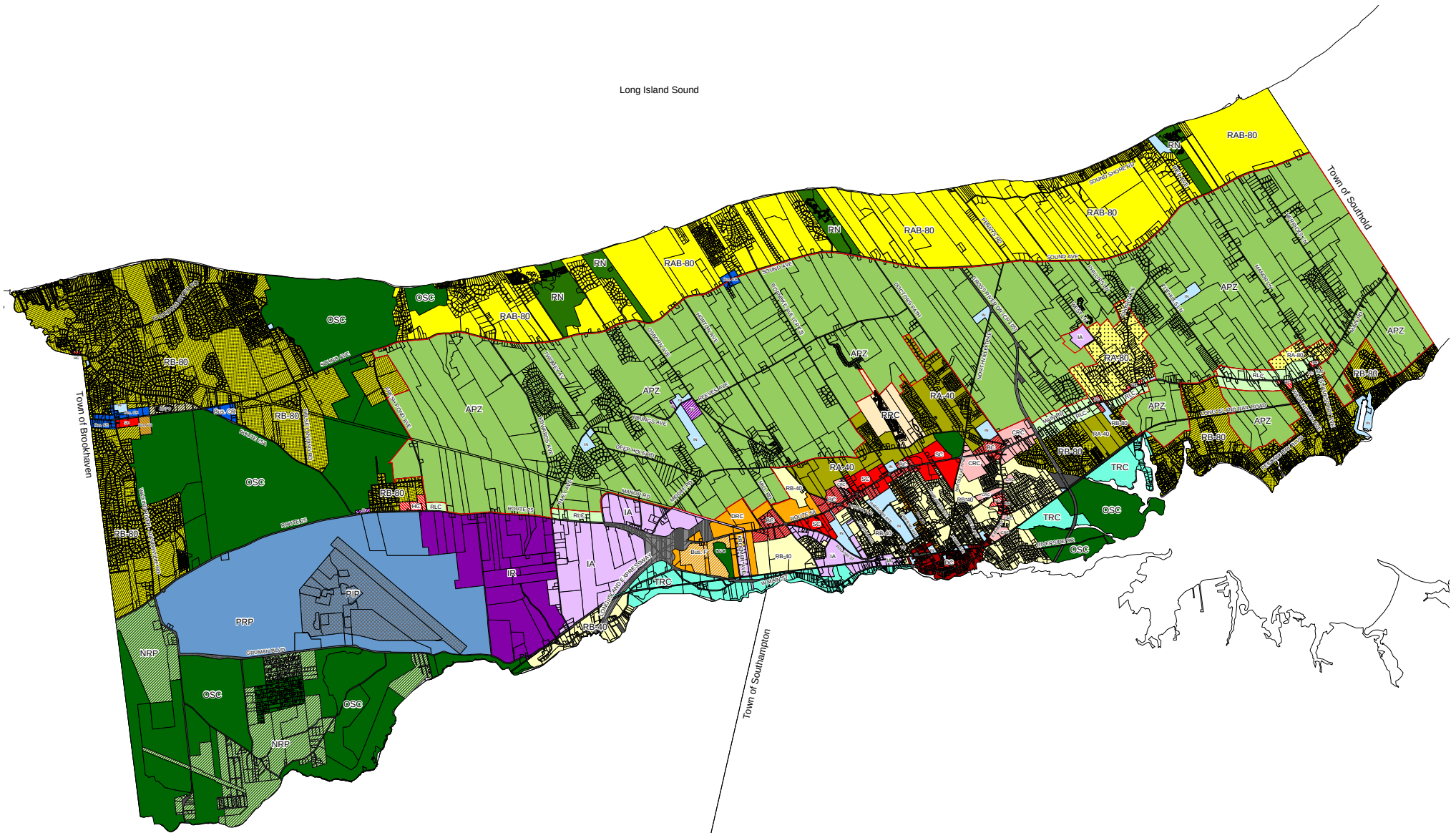
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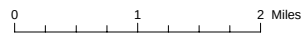
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Long Island Sound



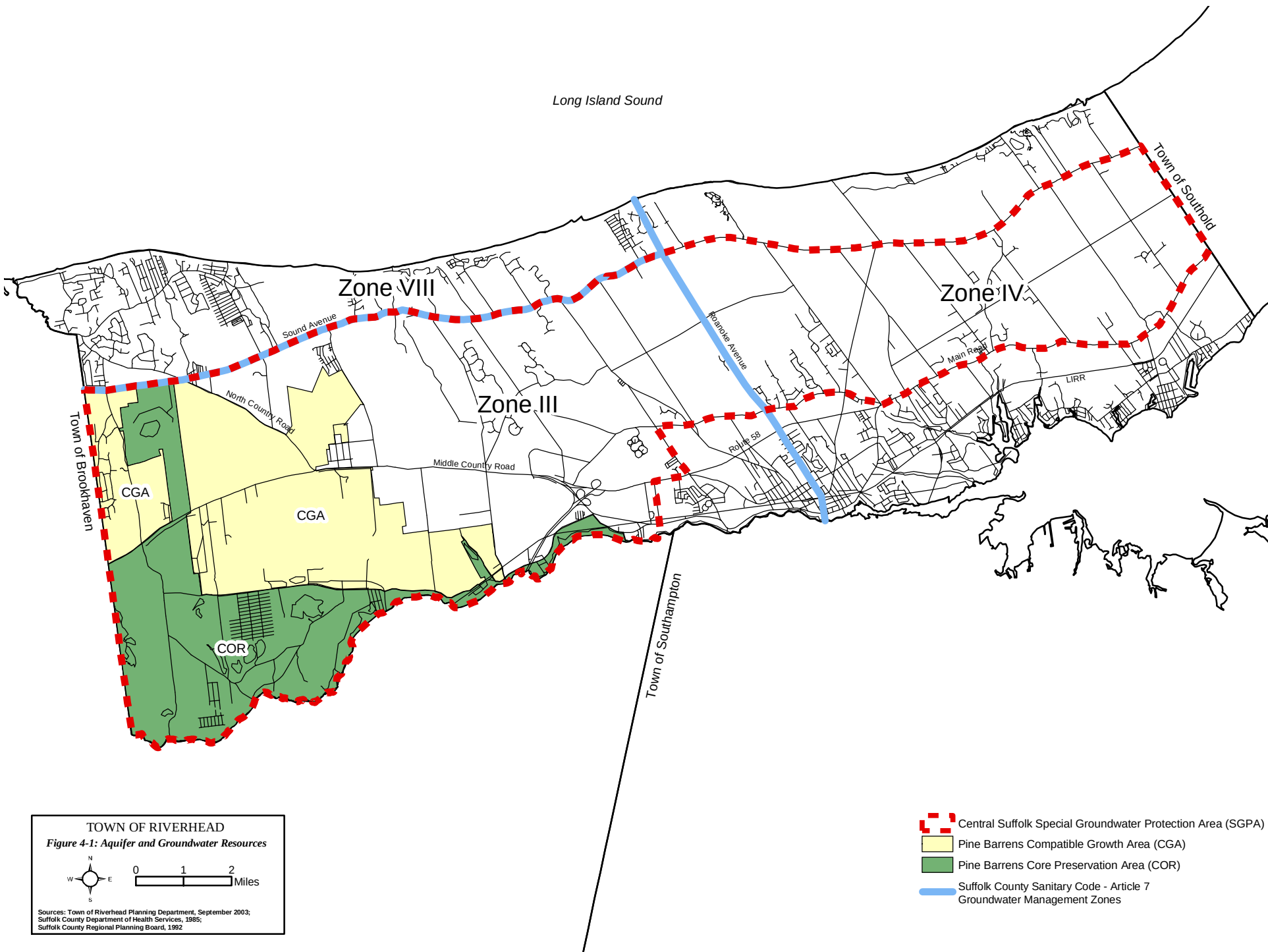
TOWN OF RIVERHEAD

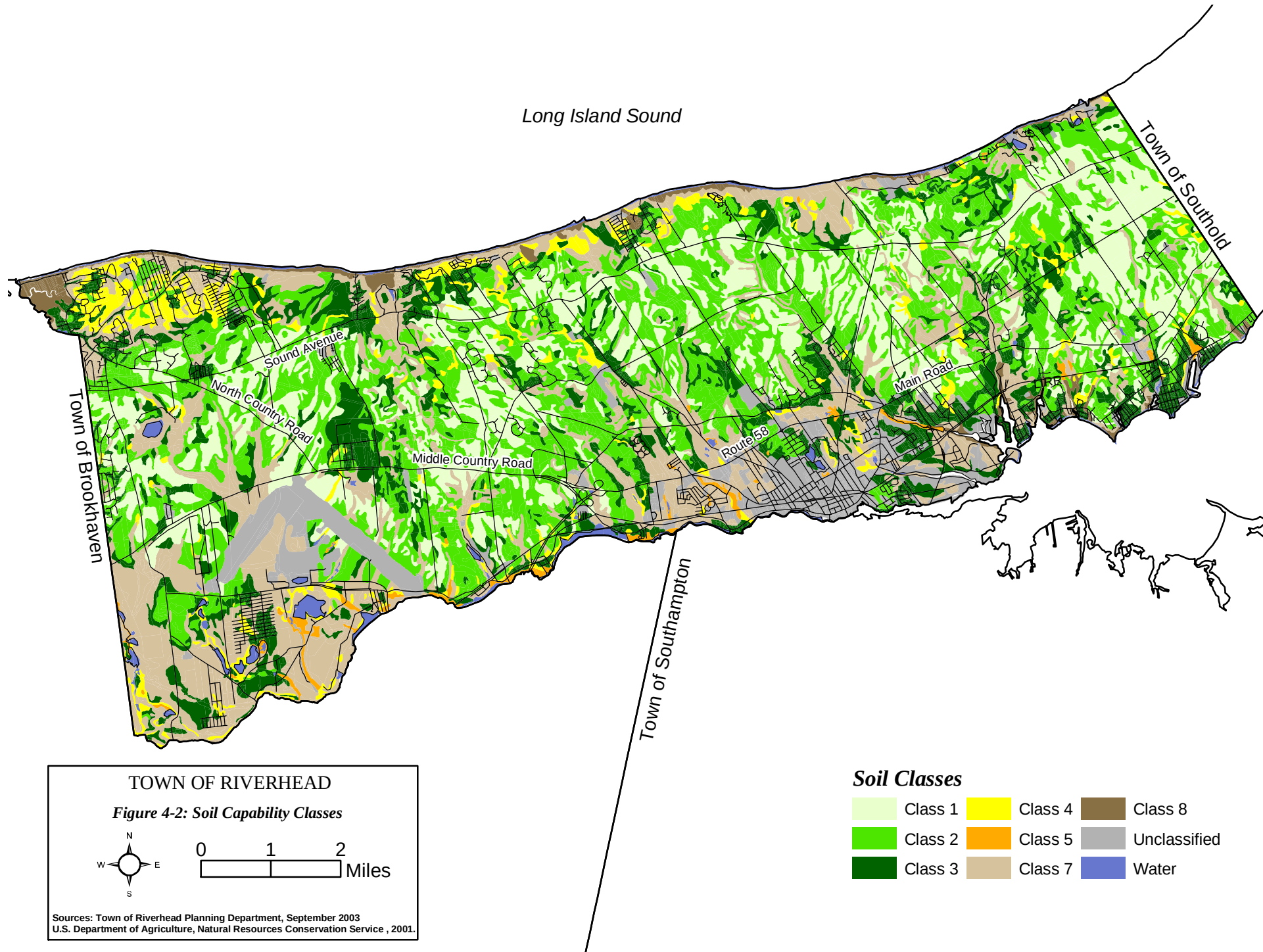
Figure 2-1: Proposed Land Use Plan

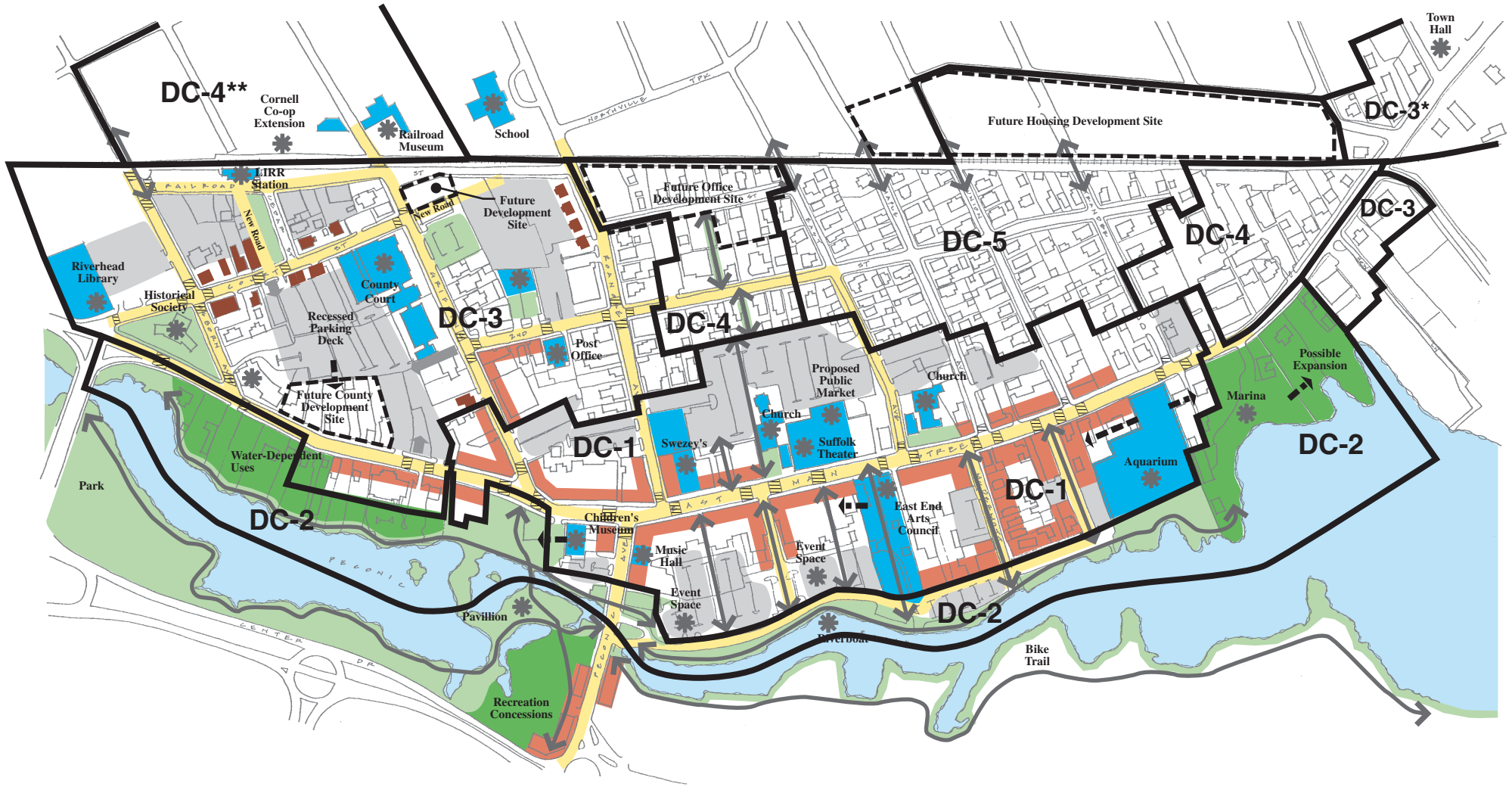


Sources: Town of Riverhead Planning Department, October 2003;
Suffolk County Real Property Tax Service Agency, 2001 - 2003

Residential: RA-80 Residence A-80 (TDR Receiving) RA-40 Residence A-40 (TDR Receiving) RB-80 Residence B-80 RB-40 Residence B-40 RAB-80 Residence AB-80 (TDR Sending & Receiving) RRC Residence RC MRPO Multifamily Residential Professional Office	Recreation, Open Space & Conservation: NRP Natural Resources Protection OSC Open Space Conservation RN Recreation PRP Planned Recreational Park Industrial: IA Industrial A IB Industrial B IR Industrial/Recreational PIP Planned Industrial Park Institutional: IN Institutional	Commercial: DC Downtown Center DRC Destination Retail Center SC Shopping Center BC Business Center CRC Commercial/Residential Campus VC Village Center HC Hamlet Center RLC Rural Corridor TRC Tourism/Resort Campus Bus. CR (Rural Neighborhood Business) Bus. F (Manufacturers Outlet Center) Bus. PB (Professional Service Building)
Agriculture: APZ Agricultural Protection Zone (TDR Sending) Agricultural Protection Boundary		







TOWN OF RIVERHEAD

Figure 6-1: Downtown



Abeles Phillips Preiss & Shapiro, Inc.

DC-1 Main Street

DC-2 Waterfront

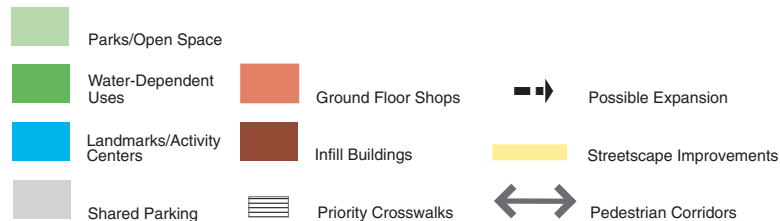
DC-3 Office

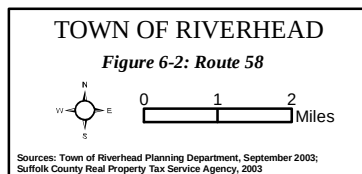
DC-4 Office/Residential Transition

DC-5 Residential

* Continued on Figure 6-8

** Continued on Figure 6-9





Commercial Districts

- BC Business Center
- Bus. F Business F
- DRC Destination Retail Center
- CRC Commercial / Residential Campus



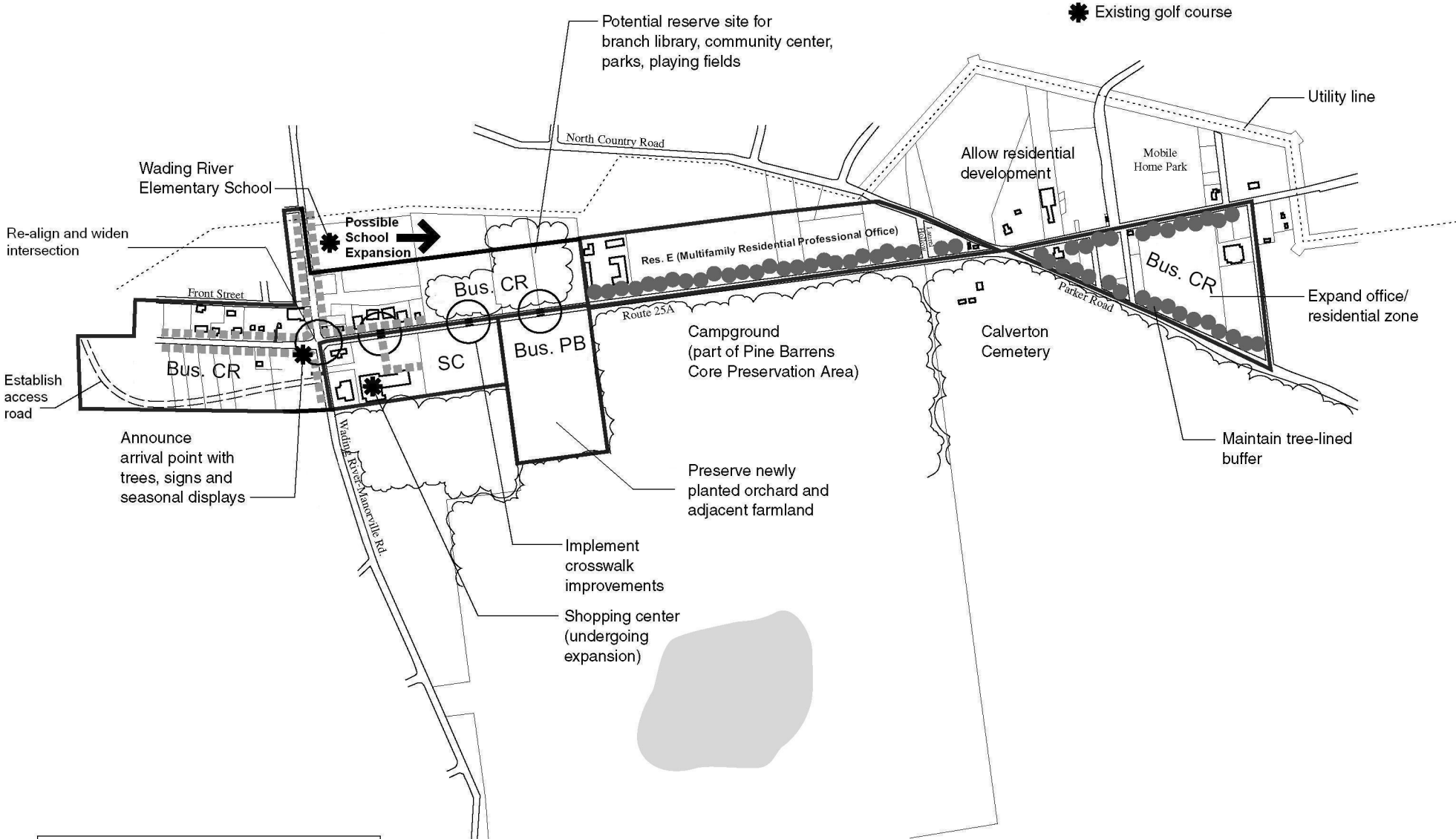
Key intersections: add trees and signs,
 improve crosswalks



Improve curbs, landscaping, signs and lighting
 along Route 58 and major streets leading downtown.



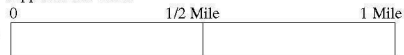
Existing Roadways



TOWN OF RIVERHEAD

Figure 6-3: Route 25A

Approximate Scale



Abeles Phillips Preiss & Shapiro, Inc.

Business CR
Business PB
Residence E

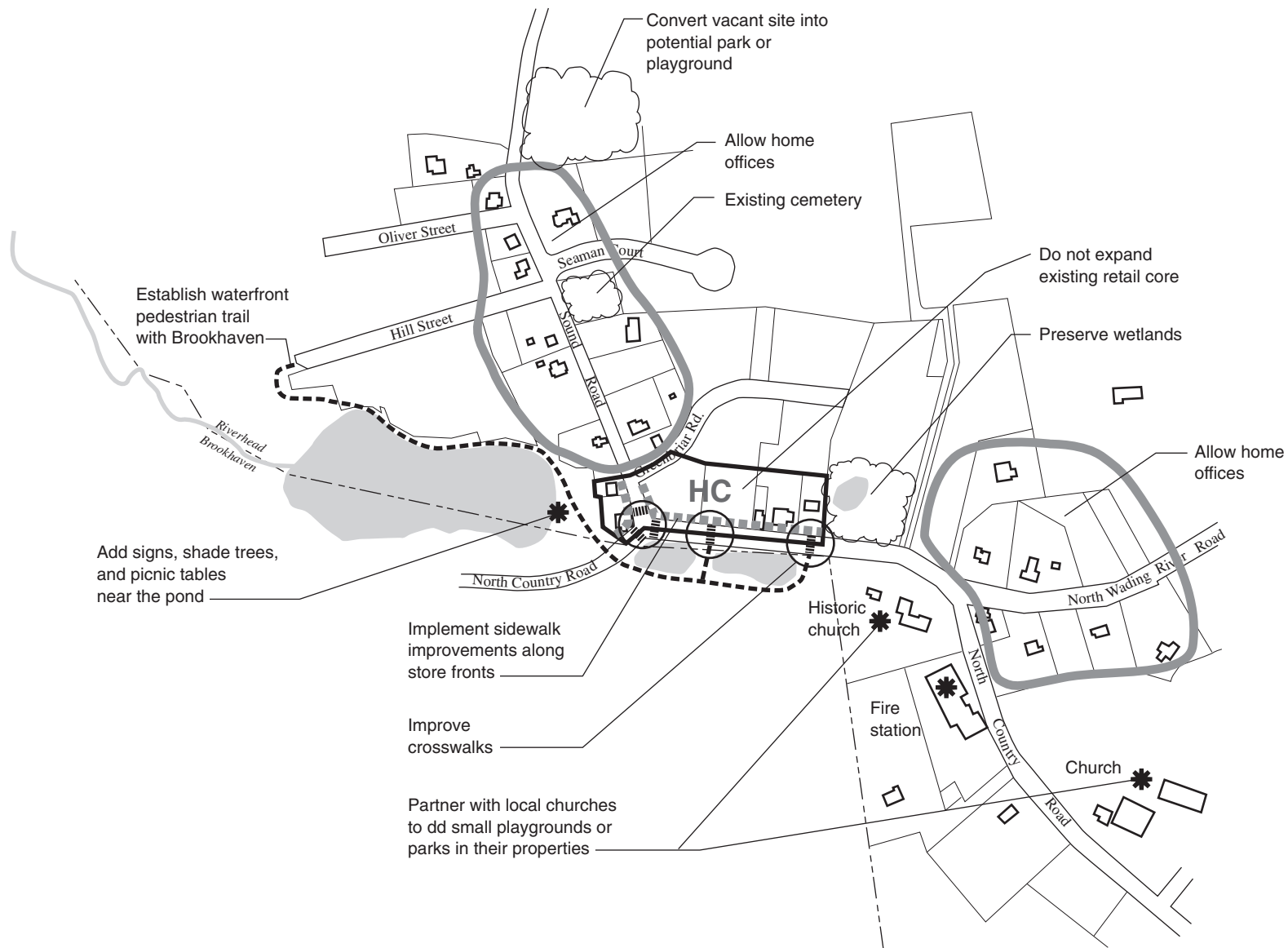
SC

Rural Neighborhood Business
Professional Service Building
Multifamily Residential Professional
Office Zone
Shopping Center



Sidewalk Improvements

Improve crosswalks



TOWN OF RIVERHEAD

Figure 6-4: Wading River

Approximate Scale
0 1/8 Mile



Abeles Phillips Preiss & Shapiro, Inc.

HC

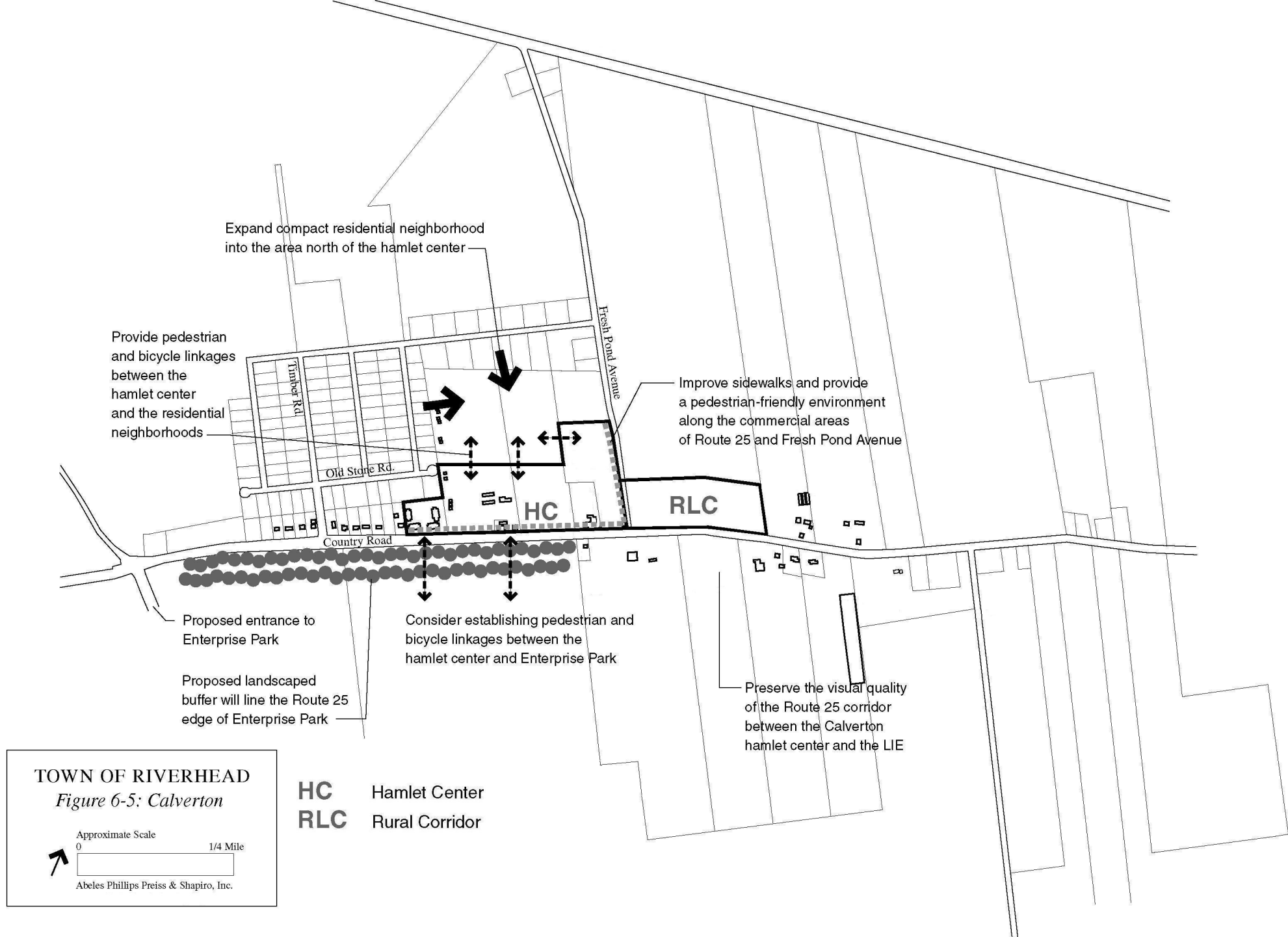
Hamlet Center

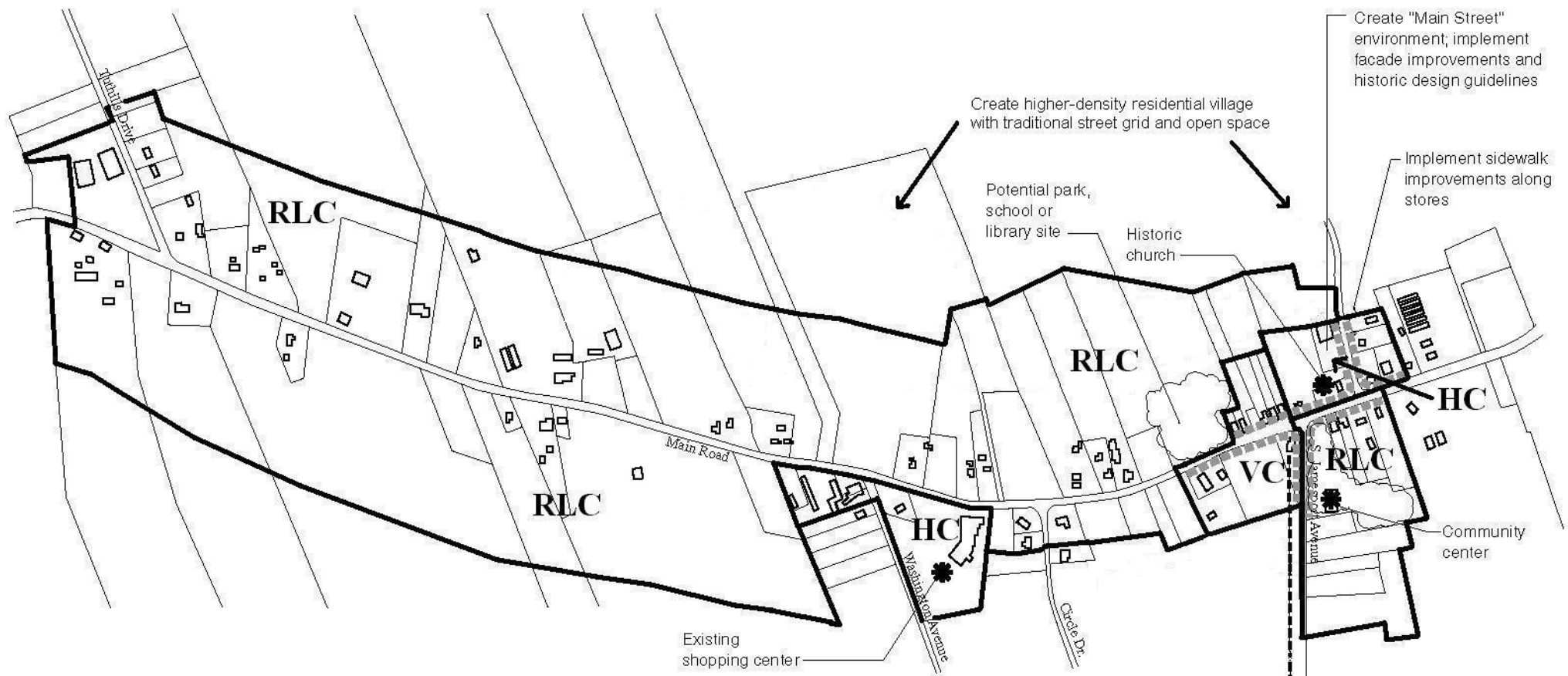


Sidewalk Improvements



Improve crosswalks





TOWN OF RIVERHEAD

Figure 6-6: Jamesport

Approximate Scale
0 1/4 Mile 1/2 Mile



Abeles Phillips Preiss & Shapiro, Inc.

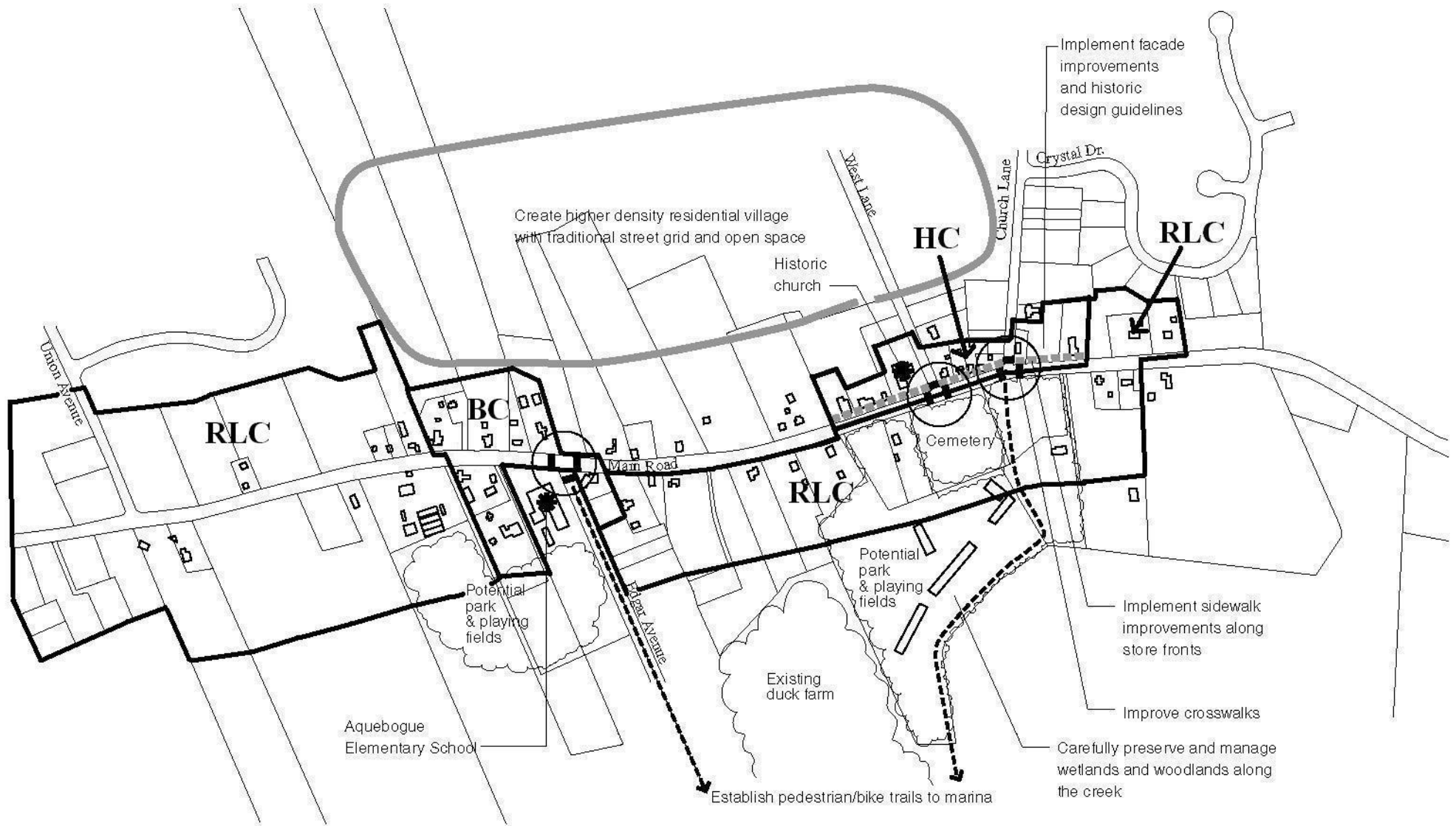
VC Village Center
HC Hamlet Center
RLC Rural Corridor



Sidewalk Improvements

Establish new
train station
and service

Pedestrian/bike
trails to beach



TOWN OF RIVERHEAD

Figure 6-7: Aqueboque

Approximate Scale
0 1/8 Mile 1/4 Mile



Abeles Phillips Preiss & Shapiro, Inc.

BC Business Center

HC Hamlet Center

RLC Rural Corridor



Sidewalk Improvements



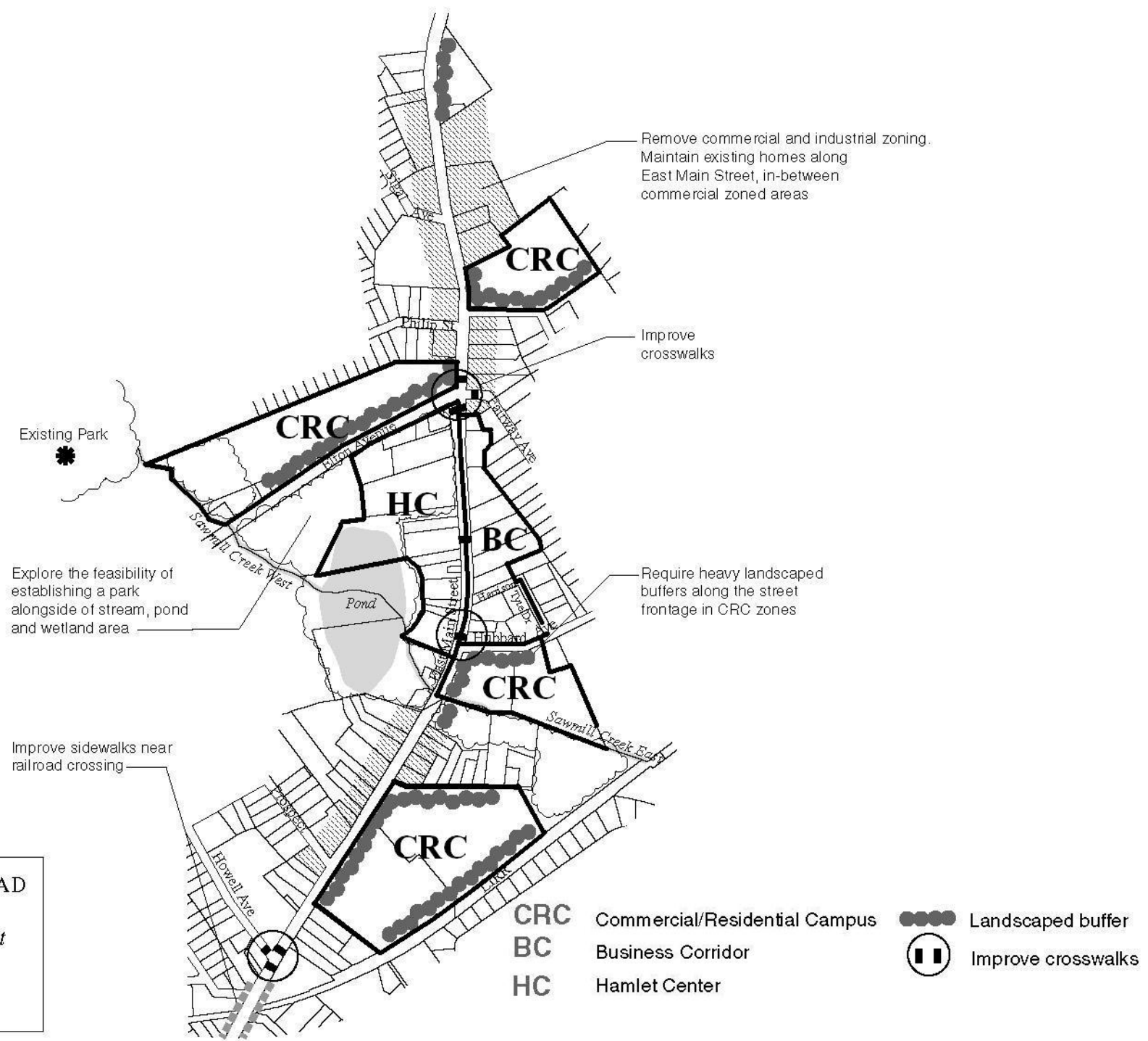
Improve crosswalks

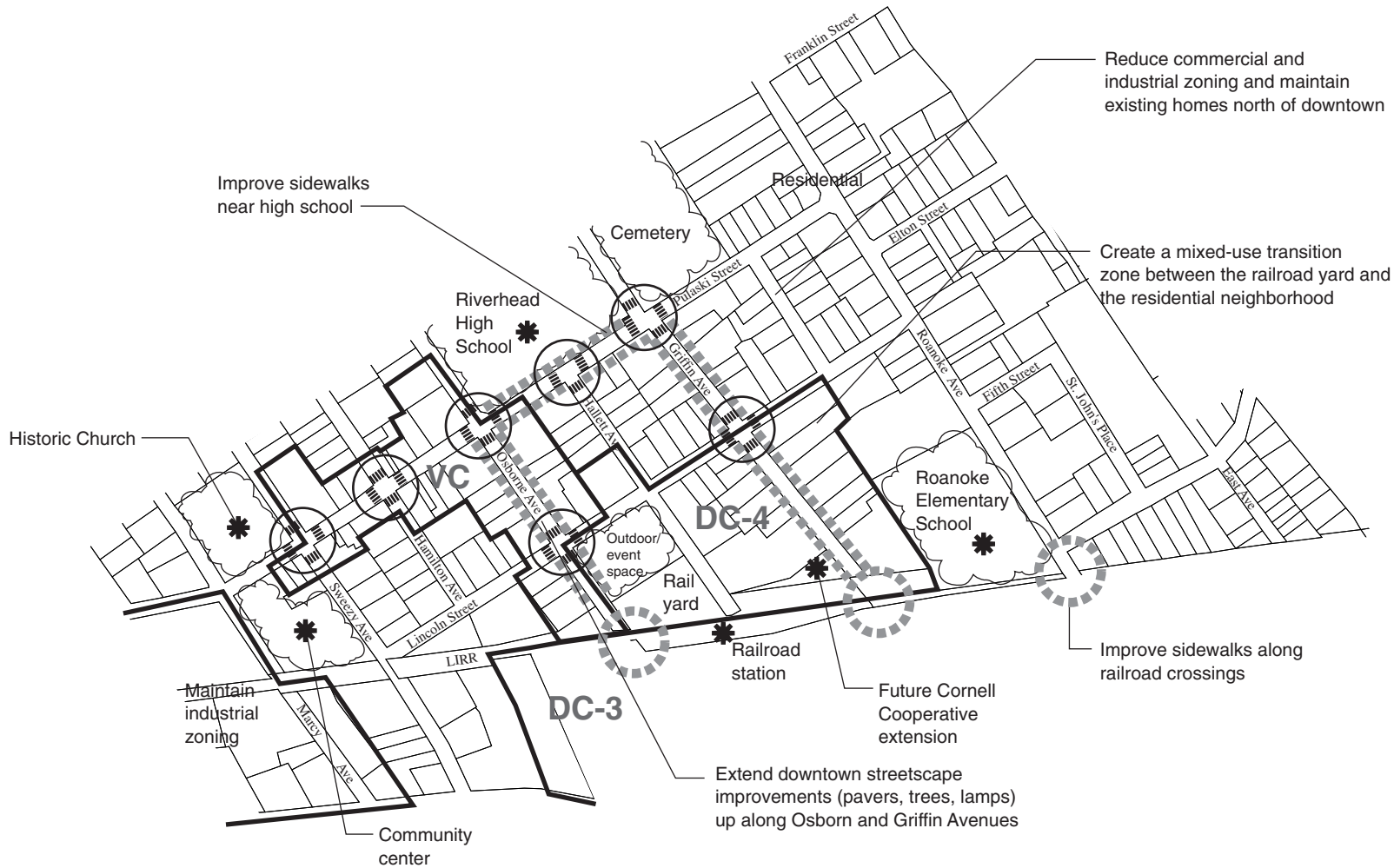
TOWN OF RIVERHEAD
Figure 6-8:
Upper East Main Street

Feet
 0 50 100 200

↑

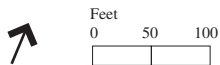
Abeles Phillips Preiss & Shapiro, Inc.





TOWN OF RIVERHEAD

Figure 6-9: Polish Town



Abeles Phillips Preiss & Shapiro, Inc.

DC-3 Downtown Center: Office

DC-4 Downtown Center:
Office/Residential Transition

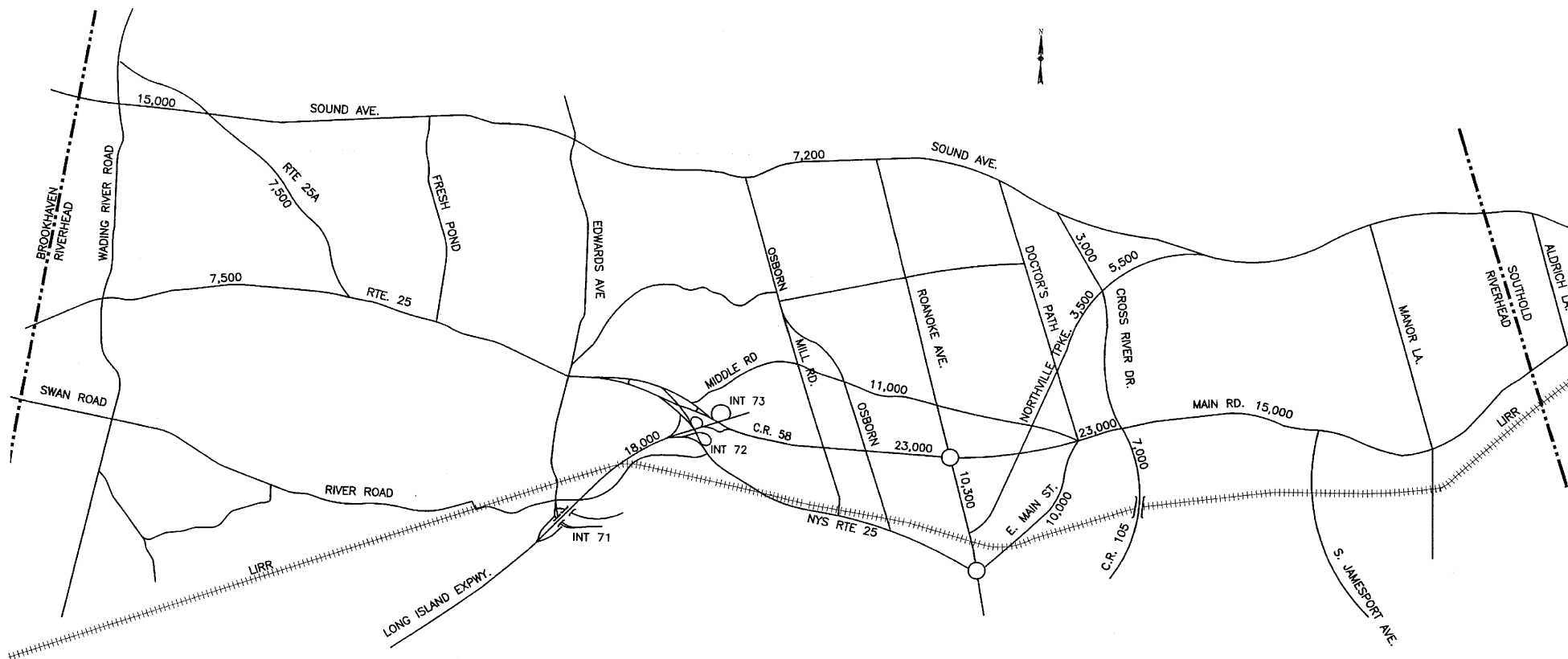
VC Village Center



Sidewalk Improvements



Crosswalk Improvements



(XX) AVERAGE ANNUAL DAILY
TRAFFIC (AADT)
VEHICLES PER DAY

D DUNN
ENGINEERING
ASSOCIATES, P.C.
Consulting Engineers
66 Main Street
Westbury, New York 11591
(516) 336-2400

RIVERHEAD MASTER PLAN

TRAFFIC FLOW MAP

DATE	SCALE	PAGE
12/21/01	NTS	

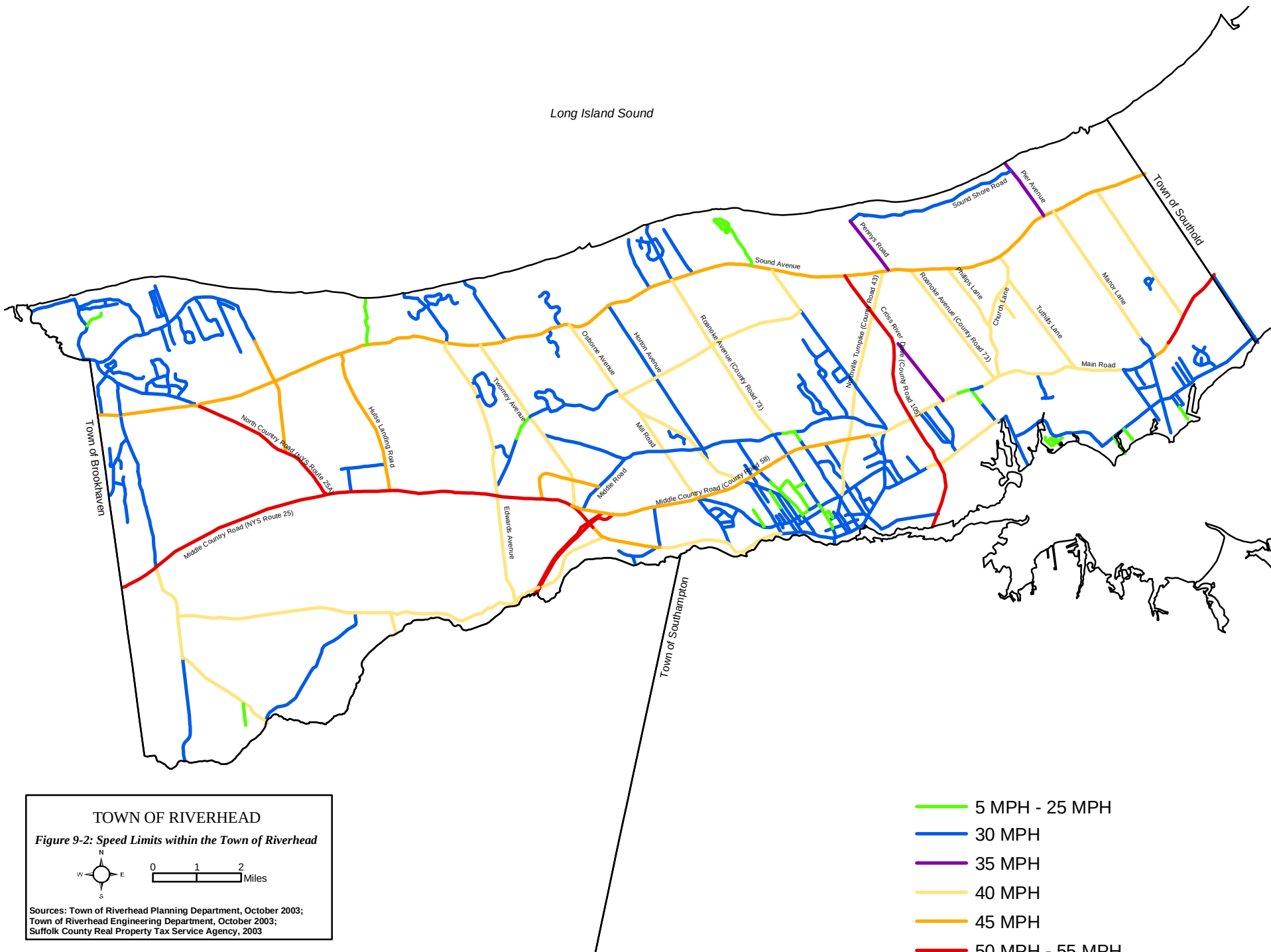
TOWN OF RIVERHEAD

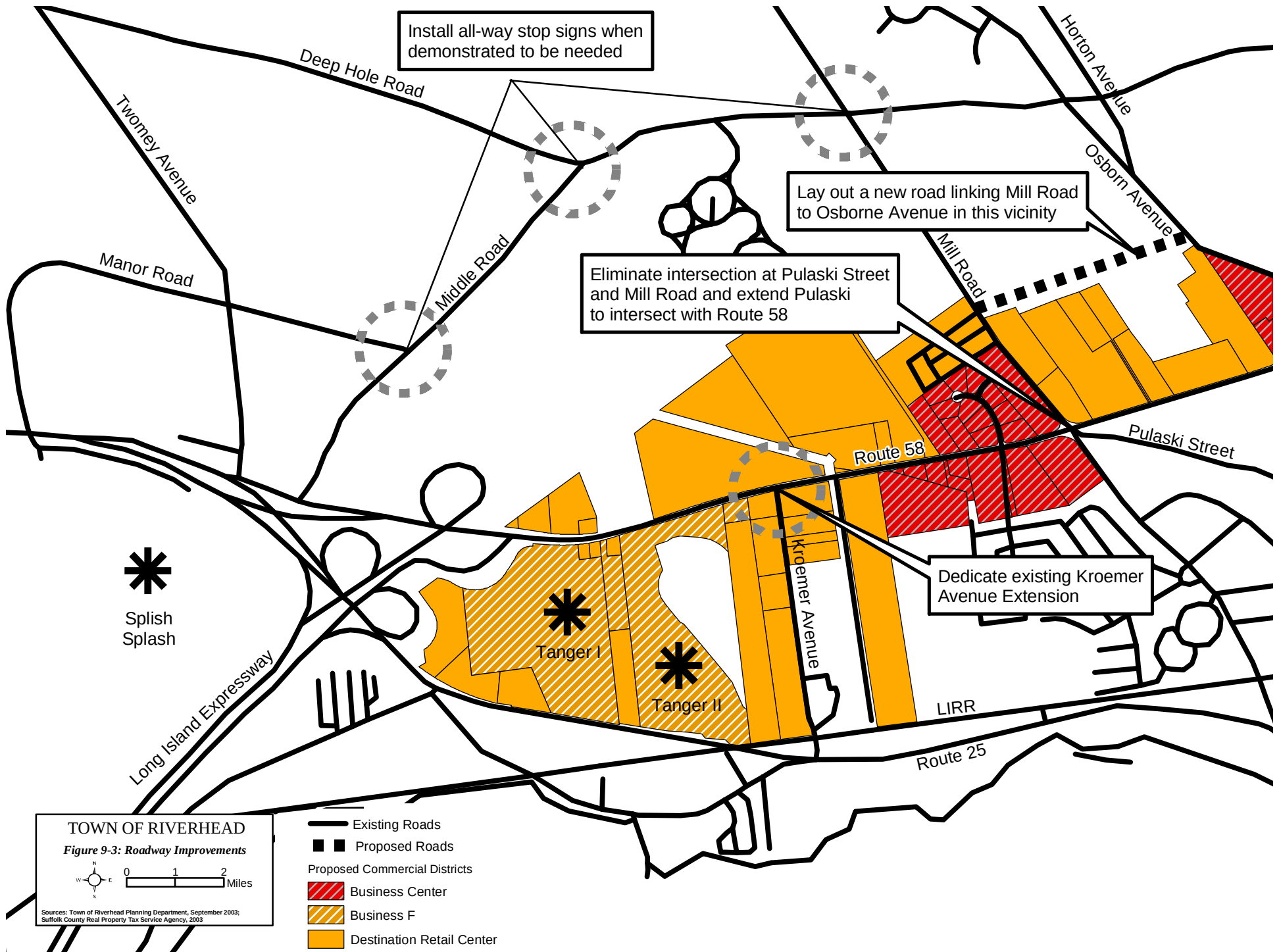
Figure 9-1: Average Daily
Traffic Volumes

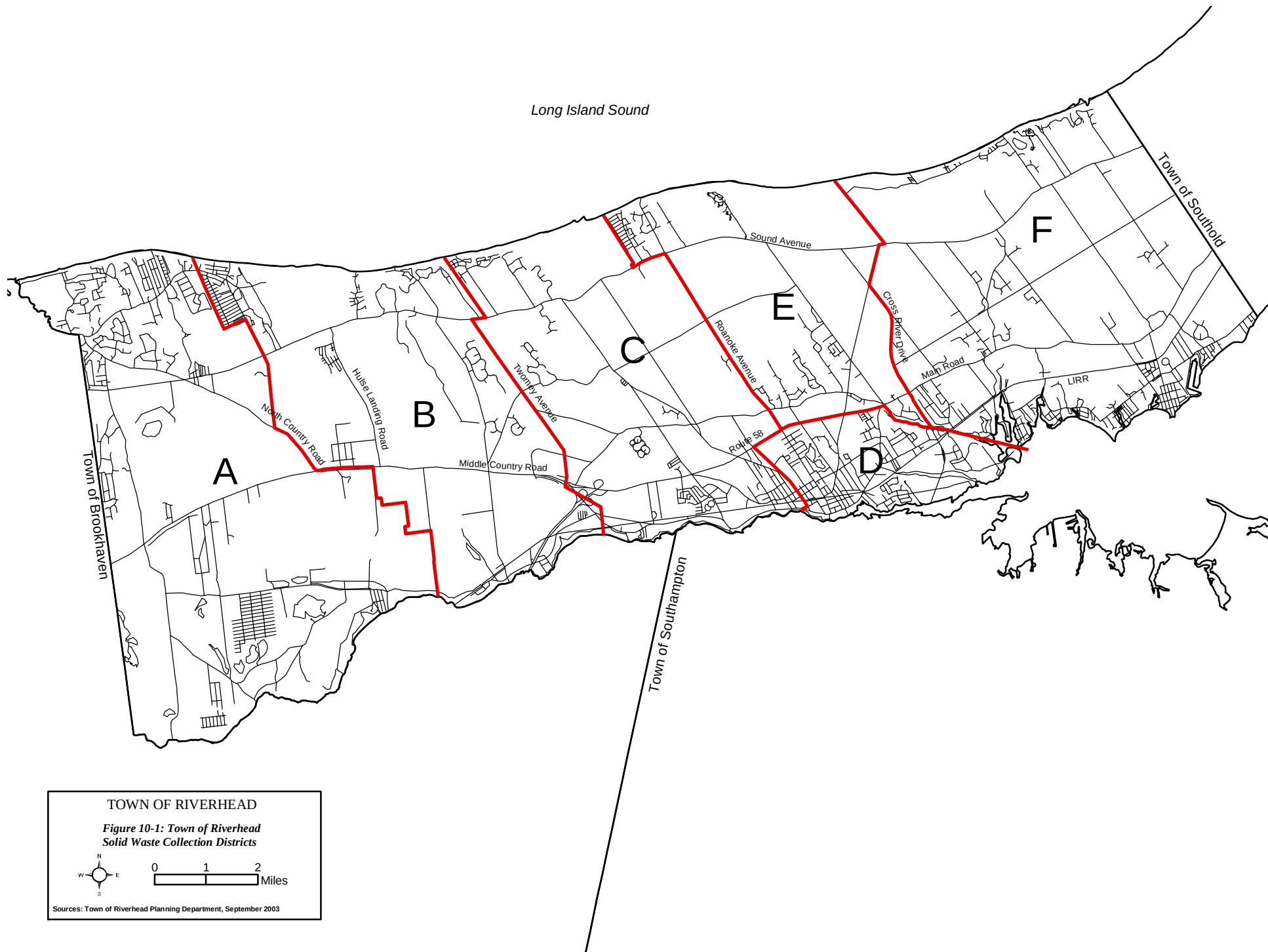


Not to scale

Abeles Phillips Preiss & Shapiro, Inc.



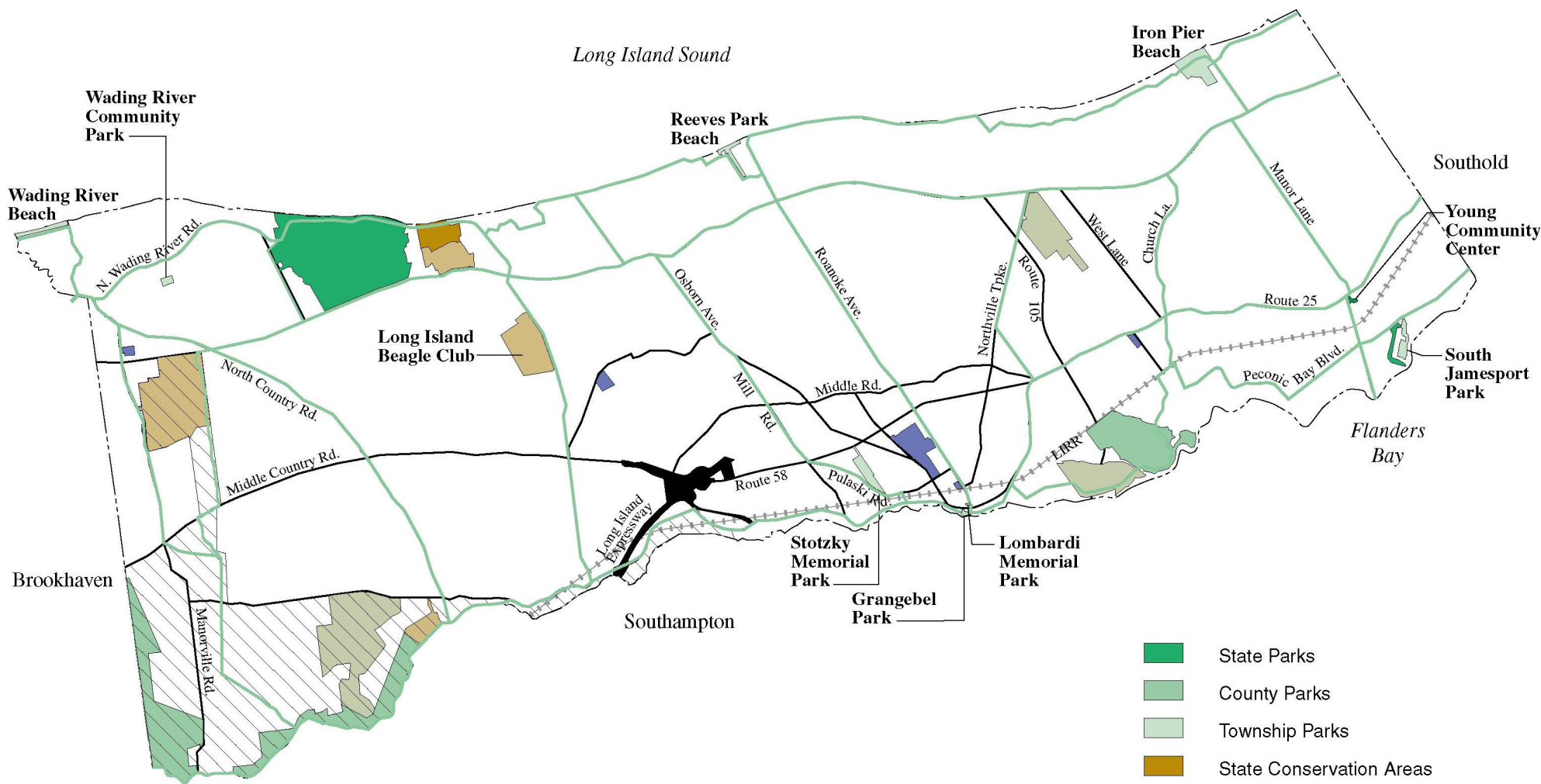




TOWN OF RIVERHEAD

Figure 10-1: Town of Riverhead
Solid Waste Collection Districts

Sources: Town of Riverhead Planning Department, September 2003

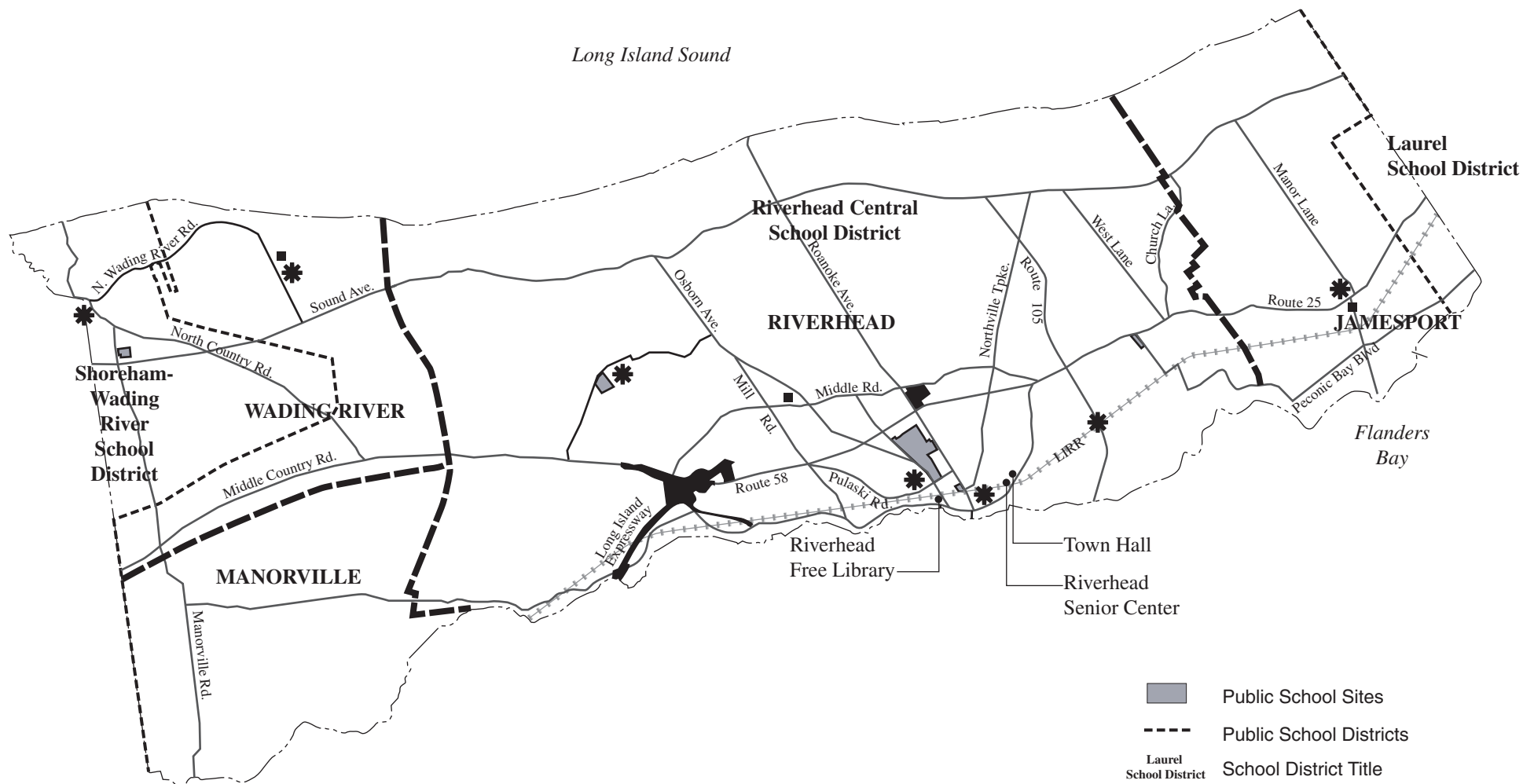


TOWN OF RIVERHEAD
Figure 11-1:
Parks and Recreation Facilities

Approx. Feet
 0 1000' 5000'

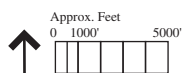
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Abeles Phillips Preiss & Shapiro, Inc.



TOWN OF RIVERHEAD

Figure 12-1:
Community Facilities



Abeles Phillips Preiss & Shapiro, Inc.

-  Public School Sites
-  Public School Districts
-  School District Title
-  Facility Site
-  Central Suffolk Hospital
-  Fire Stations
-  Fire Districts
-  Fire District Title
-  Ambulance Stations