

Looking Toward the Future

North Stonington, Connecticut Plan of Conservation and Development 2003

Adopted October 24th 2003

*Prepared for the Planning and Zoning Commission by a Steering Committee of Resident
Volunteers*

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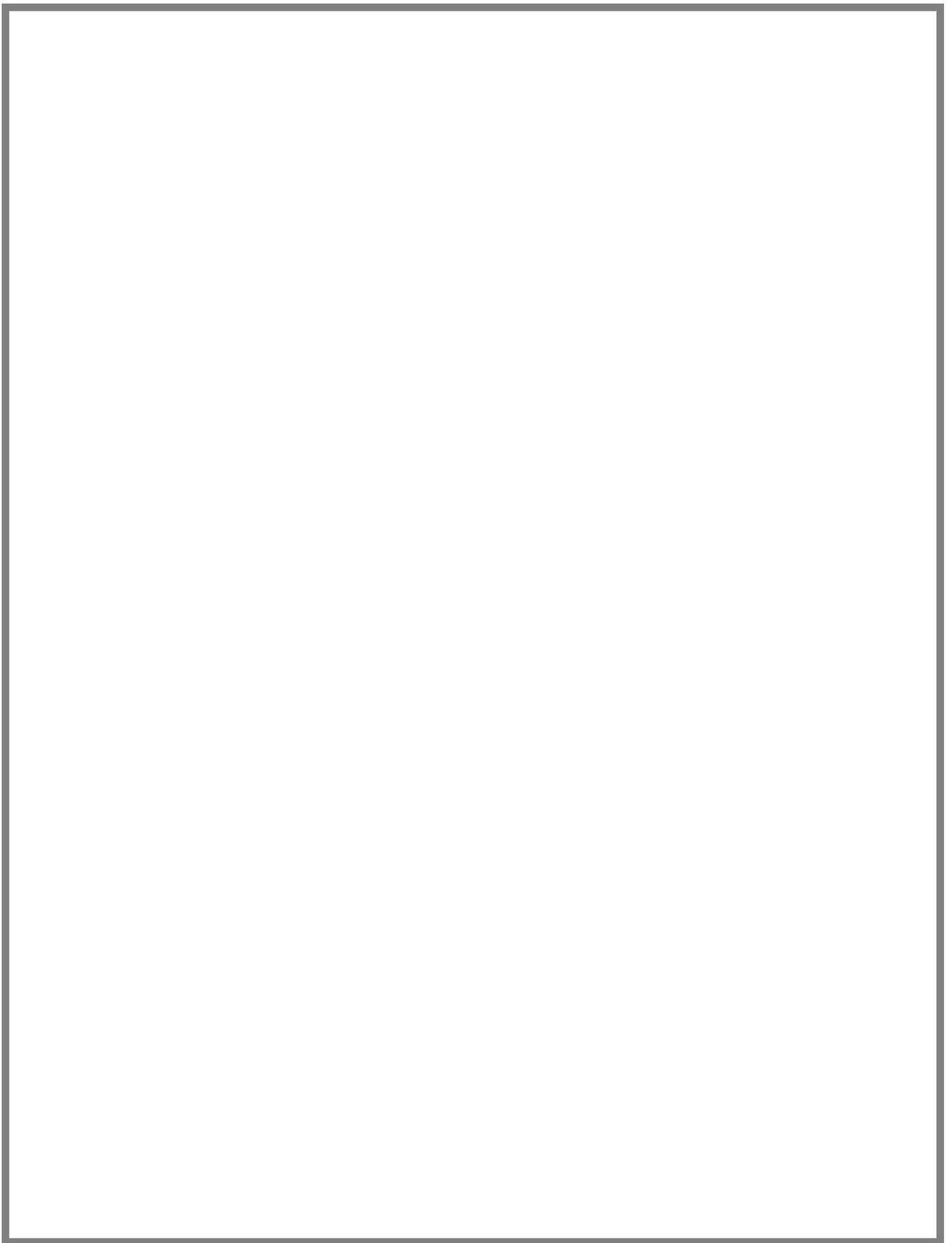


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1.0 OVERVIEW

North Stonington is a town with a strong sense of community. Many of the town's founding families still live here, giving us a living connection with our history and traditions. Our sense of place comes from



our farms, our village and countryside of great natural beauty. From the Grange, to the PTO, to the Volunteer Fire Company, North Stonington is, above all, a town where people pitch in to help make life a little better for each other. North Stonington is fortunate to have developed in a way that has preserved its traditions, its culture and its natural resources. Any plans for North Stonington must ensure that this precious legacy will be passed on to future generations.

The past decade brought significant changes to the region. The federal recognition of tribes, tribal claims, and land issues have become major issues for the first time. With the two largest casinos in the world opening nearby and the downsizing of the military, tourism has replaced the defense industry as the major impact on the local economy. The expansion of Pfizer in the area has affected residential development and provided employment opportunities.

Added to these major changes is the potential impact from a build-out of the town. North Stonington's current zoning regulations allow 8,000 new homes or approximately 20,000 new people. This makes planning for North Stonington's future all the more critical. The town has large tracts of land still in their natural state, potential for growth within its commercial zones, and current low population. These factors make it an excellent candidate to plan for orderly future growth that will maintain the rural atmosphere and encourage commercial development that enhances town goals.

The 2003 Plan of Conservation and Development is the result of a collective effort by a volunteer Steering Committee consisting of a diverse group of North Stonington citizens appointed by the Planning and Zoning Commission. The Steering Committee was advised by a professional planner and utilized professional consultants to perform studies in their areas of expertise. From a planning fair to a town

survey the planning process began and ended with input from residents. The major areas of focus that came up during this process stem from North Stonington's desire to remain a rural town, while attracting commercial businesses that enhance the town's tax base or provide residents with services they value.

The resulting recommendations are:

- Encourage commercial growth and reduce sprawl by restructuring the eastern Industrial Zone to allow a traditional New England village neighborhood with a mix of residential and commercial uses. This would provide the residential density needed to attract supportive commercial development, while reducing potential density in more sensitive parts of town.
- Revitalize existing commercial areas by updating uses and developing and upgrading design standards.
- Create new development patterns that protect environmentally sensitive areas and scenic views by allowing Conservation Subdivisions.
- Support agricultural businesses with expanded uses and incentives.
- Maintain economic diversity by providing a wider range of housing choices.
- Preserve the landscape, water supply and ecosystem, and provide recreational opportunities by creating a meaningful network of environmentally sensitive areas that tie into regional conservation efforts.

The vision in this plan is ambitious; it will take time and effort to bring into being. Timely implementation of the Plan of Conservation and Development by the Planning and Zoning Commission is essential. It is critical that residents continue to contribute to shaping regulations and planning the town's future. Time devoted to planning will ensure that zoning regulations reflect the vision of residents, making this Plan a living document.

2.0 2009 PLAN REVIEW AND UPDATE

2.1 2009 PLAN REVIEW AND UPDATE OVERVIEW

Following its adoption, the State of Connecticut requires that the Planning and Zoning Commission “regularly review and maintain” its Plan of Conservation and Development. Since the adoption of the 2003 Plan of Conservation and Development, there has been no comprehensive update or revision to the document. The Planning and Zoning Commission have decided to conduct a partial review of the POCD in conjunction with the adoption of the Plan of Conservation and Recreation Lands. A more comprehensive review will take place when the 2010 Census Data becomes available.

The 2009 review and update will summarize the vision inherent in the 2003 POCD and will then focus on the accomplishments of goals and actions stated in the 2003 POCD, as well as the outstanding planning issues that still need to be addressed. The goals and objectives portion of the plan has been reorganized in an attempt to better highlight crucial conservation and development goals and ongoing planning issues that continue to face the town. The background data, although outdated in parts, will be updated after the release of the 2010 Census Data becomes available.

It is the intent of this section to provide the citizens of North Stonington with an update on our progress on addressing numerous planning issues in light of significant changes in the economy, the adoption of new Ordinances and Zoning and Subdivision Regulations, and the publication of several key plans and reports by various Town Committees and Commissions. While the citizens and town officials will have some opportunity to review conservation and development goals during this partial review and update, it is understood that a far more comprehensive review of the town’s conservation and development goals will take place in the near future with full public participation in the planning process.

What follows is a 2009 statement of the Plan’s vision and a brief overview of significant changes that have taken place since the adoption of the 2003 plan in terms of new regulations and ordinances adopted, the changes in the economic climate, realization of conservation and planning objectives, new commissions formed, new studies conducted and new documents published. The actions or recommendations that have been completed since the adoption of the 2003 Plan are indicated as such within the body of the document. Issues that still require further planning and discussion are indicated as “Bucket List” items or simply remain unmarked in the text indicating that there is still work to be done. Also included below is a copy of the “Bucket List” that was generated during the year long Planning and

Zoning Moratorium. The unrealized goals from the 2003 Plan will be added as items to this existing “Bucket List” as part of an effort to re-familiarize ourselves with the goals and objectives, still deemed relevant today, that the townspeople thought worthy of inclusion in the 2003 Plan.

2.2 “LOOKING TOWARD THE FUTURE”: 2009 VISION STATEMENT



North Stonington’s commitment to being a rural community is clear from the way the town has developed – with abundant open space, working farms, and homes on large lots. Planning for preservation of rural attributes is evident in the town’s recent acquisition of significant open space, its support for agriculture, its formation of a Conservation Commission, and the completion of the Plan for Conservation and Recreation Lands. Of equal importance to the town is

holistic planning for development, and the recognition that properly managed development and conservation are interdependent goals, both necessary to sustain a future as a rural community.

The area of North Stonington’s future development has always been clear and undisputed. The I-95 interchange has a total of 1,400 acres with only six property ownerships; an unparalleled opportunity for a comprehensive plan. Rather than being developed in individual zones, this area should be planned as a cohesive environment; a place to work, live and participate in social and cultural interchange. The future commercial, industrial, residential, educational and/or recreational development in this area will vary with the existing diverse land characteristics in topography, water courses, woodland and farmland. They must, however, correlate into an authentic environment.

A town must grow as an extension of its own tradition, with its own vision for the future. The vision should be arrived at through consensus of the town commissions and with the approval of town residents. It should be expressed through a planning process to which developers must adhere. By and large developers welcome planning specifics to minimize the speculative aspect of the approval process.

Considering its geographic location between Boston and New York, the availability of intermodal transportation (rail, maritime, air, and Interstate access), its proximity to major scientific resources and its

ecology, from a 2009 perspective, one potential development generator for the I-95/Rte. 2 area may be research and light industry for clean energy and biodiversity.

Having a clear visionary plan for economic development would make property owners more cooperative, technology more accessible, research more intense and venture capital more willing to support promising concepts. Planned, concentrated, economically paced development will not only bring social, cultural and economic benefit to North Stonington, but will provide an opportunity to fulfill its conservation goals.

The plan of development is not confined to the I-95/Rte.2 area; it encompasses the town. North Stonington property owners should be able to consult with town commissions as to the economic viability of their property prior to costly professional studies or sale due to economic pressure. Information should be provided as to advantages of Transfer of Development Rights (T.D.R.), affordable housing, conservation or visual easements, wetland and woodland protection – all to enhance property value and to prevent subdivision sprawl.

The conservation goal of preserving the town’s rural character will not be achieved by preservation of scattered open space, historic architecture, stone walls or conservation subdivisions. Farming retains rural



character. Without working farms, the town’s rural character will disappear. A business plan should therefore be developed to sustain and stimulate farming activity.

North Stonington residents through their 200 year tradition have been careful custodians of their irreplaceable assets of fertile soil, abundant water, protective wetlands and important woodlands. Today’s emphasis on such assets has made North

Stonington an enviable example of good planning. With foresight and vision and town can continue to demonstrate how conservation and development can be mutually supportive and continue to create a home for living in harmony with nature.

2.3 CONSERVATION COMMISSION

On September 8th 2003 ordinances were passed at a Special Town Meeting to create “The North Stonington Conservation Commission” and “The North Stonington Inland Wetlands and Watercourses

Commission”. This action changed the previous “North Stonington Inlands Wetlands Agency” into two commissions. This important step responded to the recommendation of the *2003 Plan of Conservation and Development* and established a group to complete and implement the *Plan for Conservation and Recreation Lands* (PCRL).

Effective November 6th 2003, the new Conservation Commission was formed having the powers and duties enumerated in Connecticut General Statutes, Chapter 97, Section 7-131a with a focus on the “development, conservation, supervision and regulation of natural resources, including water resources, within its territorial limits.”

The critical first step in completing the PCRL was to inventory, research, and index the town’s open space, conservation easements, land trust and recreation properties, as well as other land uses and natural and cultural resources. The creation of useful maps to reflect this information was a priority, to enable the Conservation Commission to recommend plans and programs for the proper use and development of such areas.

The Conservation Commission used its research to complete its draft of the *Plan for Conservation and Recreation Lands* which was submitted to the Planning and Zoning Commission in January 2008. The PCRL includes recommendations for uses of land areas in North Stonington, identifies and maps “Focus Areas” (areas with a concentration of significant resources and features) and recommends properties which are priority acquisitions for conservation and recreation purposes.

In 2008, the Conservation Commission aided in organizing the North Stonington Clean Energy Fair to provide information about clean energy alternatives for homes, small businesses and the town. The Commission also was active in the acquisition of the Hewitt property which gave the town ownership of its water supply, and large open spaces with rich soils, active farm lands, hiking trails, historic structures, fishing pond and streams.

The Conservation Commission is currently completing its work on solving title problems for parcels of open space and conservation lands discovered during its inventory work. It is also developing a Shunock River watershed plan and mapping trails, cemeteries, historic sites, and places of interest. The Commission continues to research opportunities for ongoing conservation, such as possible acquisition of Bell Cedar Swamp biodiversity lands, expansion of the Assekonk Wildlife Management area, and expansion of the town recreation area and land for future municipal use.

2.4 PLAN OF CONSERVATION AND RECREATION LANDS (PCRL)

The Plan for Conservation and Recreation Lands (PCRL) was initiated by the Planning and Zoning Commission's Plan of Conservation and Development Steering Committee in 2001. Completion of the PCRL was mandated in the 2003 Plan of Conservation and Development (POCD), with the task assigned to the newly formed Conservation Commission. By updating the information compiled over the years by the Town with current information gathered through their own research efforts, the Conservation Commission published a report dated January 31, 2008 and submitted it to the Planning and Zoning Commission for review, revision, and inclusion in the POCD as Appendix B. Ultimately, the recommendations contained in this plan need to be implemented by various town boards and commissions and the town's legislative body.

The Plan outlines five major goals as derived from the Conservation Commission's findings with respect to preserving the existing positive attributes and the need to carefully plan future development so as to protect the town's valuable resources. These goals are to:

- 1. Maintain rural character**
- 2. Permanently protect water quality and quantity**
- 3. Protect the town's natural and historic resources**
- 4. Provide areas for active and passive recreation**
- 5. Improve town regulatory procedures and prioritize land acquisition**

In addition to these goals and objectives, the Plan identifies certain land areas of special importance and recommends that they be acquired in order to meet conservation and/or recreation goals, with the understanding that future land use decisions and the identification of additional resources will necessarily influence future acquisition recommendations.

2.5 CONSERVATION SUBDIVISIONS AND FAMILY COMPOUNDS

Regulations for Conservation Subdivisions and Family Compounds were adopted in 2005 but repealed in 2006 and 2007 as the Commission felt they were flawed, and that their repeal would be in the best interest of the town. The Commission intends to review and re-write these regulations for possible future adoption. Generally speaking, the intent behind the regulations was to give greater flexibility in terms of dimensional, frontage, access, lot size etc., as well as the ability to develop certain uses that were not otherwise permitted, such as a vacation retreat or smaller lot sizes for residential units in exchange for the permanent protection of a certain percentage of open space. The main stipulations for granting this

flexibility were that there would be a significant community benefit resulting from the additional open space that would be preserved in perpetuity; that there would be an appropriate visual buffer or separation to adjacent existing residential development; and that the open space would not result in small or fragmented open space parcels that did not provide community benefits.

2.6 AGRICULTURE

Preserving our existing farms and encouraging new farming activities remain strong goals of the town. North Stonington's farms are central to the community's rural image and overall value. The following accomplishments relate to the town's dedication to achieving the goals set forth in Plan of Conservation and Development.

In December of 2007, under the leadership of one of the town's dairy farmers, North Stonington passed a Right-to-Farm Ordinance. Another Ordinance passed in June of 2007 provides tax exemptions for farm machinery and farm buildings.

The Town has initiated efforts to create a current inventory of each farm in town. The inventory will include a detailed profile of the farm that will include, but not be limited to, the type of farm, its size, the number years in operation, the amount of acreage dedicated to agricultural use and any acreage protected in perpetuity as farmland, any "ag-tivities" offered, and just as importantly, future plans, and problems encountered.

The Town of North Stonington has created maps that show the soils of statewide importance and areas of



prime farmland. Additional mapping based on the Tax Assessor's database shows the parcels currently taxed as farmland, forestry or both. Future maps created will contain additional data layers such as detailed land use of each parcel designated as Farm or Forest, as well as the areas of prime local importance based on the current land use, quality of soils, threat of development, and proximity to other farmland or natural resources.

Current Zoning Regulations do allow for Agricultural Uses and Facilities, Seasonal Roadside Stands (all permitted by right), and Specialized Agricultural Facilities (permitted by special permit) in all three of the Residential Zoning Districts as well as the Industrial Districts. In the upcoming months, the Planning and Zoning Commission will be exploring the suggestion of creating a separate section in the Zoning Regulations dedicated solely to Agriculture. Included in these Regulations will be an updated definition of Agriculture, new regulations concerning Animals and Fowl, Best Management Practices for the disposal and spreading of Manure, and regulations concerning Equine Stables and Equine Enterprises. More complex regulations concerning Conservation Subdivisions and the Transfer of Development Rights will also be explored.

In August 2007 the townspeople voted to make North Stonington's first purchase of open space land. The Hewitt Property is 104.1 acres which include extensive fields with rich farm soils, woods, wetlands, streams and the Shunock River running through it. The 1750 Hewitt homestead is an early farmhouse which will be preserved in perpetuity. The property will be used for parks and recreation.

In January of 2009, the Town formed an Agricultural Steering Committee to help its officials move forward on agricultural issues. In February 2009, resulting from the effort of this newly formed committee, the Town was approved for a Technical Assistance grant awarded by the American Farmland Trust and Connecticut Conference of Municipalities to help the Town plan for agriculture.

2.7 WATER SUPPLY PLAN

In February 2009, the Town of North Stonington Water Supply Plan was adopted. The Plan gives an overview of the existing water systems that service the town followed by a review of the water utility structure and assets; water system performance; and historic data on population and water use. The Plan examines existing land use and future service areas and concludes with an analysis of the town's future needs and potential alternative supply sources.

2.8 AFFORDABLE HOUSING

Several goals and objectives of the 2003 Plan pertain to housing and its impact on preserving the rural character, as well as the need to provide more of a range of housing choices. To help address these goals and objectives, the North Stonington Affordable Housing Advisory Committee (NSAHAC) was formed in 2008. They were tasked with determining strategies that would raise the town's affordable housing stock while preserving its rural character.

After conducting extensive research on existing regulations and practice, and performing a needs assessment, the NSAHAC published a report entitled *North Stonington Affordable Housing 2008*. Within the report, the committee presented ways to comply with the existing regulations without adopting the current practice of building urban-style apartment complexes. The various methods ranged from the conversion of existing housing stock through temporary deed restrictions, to mandatory inclusion of 20% qualified affordable housing in all future development; both residential and mixed-use.

The Committee presented the Report to the Board of Selectmen and the Planning and Zoning Commission individually. Questions raised resulted in a joint meeting in February of 2009, with legal review and approval of the proposed strategies.

Implementation of these strategies will require coordinated effort in the formulation of ordinances and their oversight. The goal of assisting seniors, young families, and others with lower or fixed incomes must be accomplished without burdening the taxpayers with additional bureaucracy and expenses.

2.9 NEW ZONING DISTRICTS

Between 2005 and 2008, four (4) new Zoning Districts were created and one (1) new Overlay District. The **Commercial Development Zone** was created in February, 2005 to encourage high quality retail, commercial office, hotel, and light industrial development in the area surrounding the interchange of I-95 with Routes 2, 184, and 49 at Exit 92. The intent of the new regulation was to promote land uses that were compatible with the environmental conditions of the area, particularly the Shunock River.

As a result of the work done during the 2007-2008 Moratorium, the commercial areas around Holly Green and Green Onion were separated into two distinct commercial zones: **Commercial 1** by Holly Green and **Commercial 2** just past the village. The lack of sight lines and the desirability of drive-thrus at the Green Onion zone, and, conversely, the good sight lines, campus-style setting and potential for mixed use with residential at Holly Green provided the basis for this change.

The old zoning map reflected the prior designation of two (2) Highway Commercial Zones, one at exit 93 and one at the Rotary (Mystic Pizza quadrant). While exit 93 remains **Highway Commercial**, the area at the rotary has been rezoned to "**Village Commercial**" with uses that are more appropriate to this zone's proximity to the more densely populated areas of the town.

The **New England Village Special Design District** was adopted in 2007 and was not changed during the recent updates to the Zoning Regulations. The intent of the new regulation was to allow for greater flexibility in design standards in order to achieve important design objectives as described within the text of the regulation. The Commission stated in the regulations that the purpose of this special district was to extend greater opportunities for traditional community living, and to encourage a more efficient use of land, reduce traffic congestion and facilitate social interaction. The provisions of the regulation attempt to harmonize with the overall town goal of preserving the rural, historic, and agricultural character of the town.

2.10 2007 - 2008 PLANNING AND ZONING MORATORIUM

In December of 2007 the Planning and Zoning Commission entered into a year long moratorium to completely overhaul and rewrite the Zoning and Subdivision regulations. Town officials, staff, and the development community found the old regulations to be awkward and confusing in terms of structure and format. There was unclear and contradictory language that in some instances included standards that couldn't be met. Some of the review procedures and definitions were unclear and there was distinct lack of cross-references within sections. Due to the volume of applications being received, the Commission felt it would be prudent to enter into the moratorium lest critical mistakes be made that could negatively affect the conservation and development goals of the town.

The original moratorium was proposed to last nine months, but was extended to twelve months when it became clear that the Commission needed more time to allow for a more adequate review of the final draft, and to give ample time for public hearings and public comment.

The new Zoning and Subdivision regulations came into effect on December 15, 2008. Through the use of Special Permits, the Commission was able to limit the number of specific regulations thus affording both the applicant and the Commission increased flexibility. Some of the other major changes to the Zoning Regulations are highlighted by section in a new Appendix D.

2.11 BUCKET LIST

During the 12 month moratorium, the Commission discussed a number of regulatory issues/items. However, due to the complex nature of these issues, the Commission was unable to fully address each one and decided that it would be best to address them after the end of the moratorium in order to afford the Commission adequate time to fully evaluate these important issues and to seek further public input through the use of P&Z meetings, workshops, and/or public hearings.

The resulting “Bucket List” items below will help shape the new goals and actions of the POCD during the upcoming comprehensive re-write. Although the Commission has categorized and prioritized these issues, they are not listed in any particular order below. Workshops and meetings will be held on these issues to allow for extensive public input prior to initiating any changes to the Zoning or Subdivision Regulations. In some instances, sub-committees will be formed to better facilitate the planning process with respect to some of the more complex issues.

A. EXISTING BUCKET LIST RESULTING FROM MORATORIUM

1. AGRICULTURAL ISSUES

- A. Creating separate section in Zoning Regulations for Agriculture
- B. Equine Stable Regulations
- C. Equine Enterprise Regulations

2. CONSERVATION ISSUES

- A. Conservation Subdivision Regulations
- B. Transfer of Development Rights
- C. Vacation Retreat/Family Compound Regulations

3. HOUSING

- A. Affordable Housing Regulations
- B. Mixed-Use (Village Concept) Regulations
- C. Senior Housing Regulations
- D. Multi-family Regulations

4. ECONOMIC DEVELOPMENT

- A. Parking Minimums
- B. Recreational Campground Regulations

- C. Possible Self/Mini Storage Regulations

5. OTHER PLANNING ISSUES

- A. Traditional Neighborhood Developments
- B. Aesthetic Review Criteria (Pattern Book)
- C. New Zone at Lantern Hill Industrial Zone
- D. Transportation
- E. Regionalization

6. MISC. ITEMS/ADMINISTRATIVE

- A. Fee Schedule/Ordinance (**Pending Approval in May 2009**)
- B. Zoning Map Classification/Clean-up
- C. Regulations for Land Uses w/ Definition Only
- D. Comprehensive Index for the Zoning Regulations

B. ITEMS TO BE ADDED TO THE BUCKET LIST:

1. Mapping

Create maps that identify:

- Existing farms and prime agricultural lands and prime areas of local importance
- Areas appropriate for mixed-use village development
- Historic and scenic views
- Areas of unfragmented forests, wildlife corridors, unique and sensitive habitats, rare species, and geological formations
- Trails, paths and walkways that provide recreational opportunities

2. **New Build-out Analysis based on new regulations and existing preserved land.**

3. **Goals and Actions from 2003 Plan**

Most of the goals and objectives of the 2003 Plan still apply to North Stonington today. Many of the recommended actions are, by their nature, ongoing and will continue to be addressed in the coming years. Although much has been accomplished over the past six years, many actions have not been implemented. These outstanding actions will be re-evaluated and, if still appropriate, will be incorporated into the comprehensive re-write of POCD.

4. **Possible Comprehensive/Master Plans**

- Create master plans that identify the possibilities for development in the I-95, Exit 92 and Exit 93 areas.
- Create master plan for possible new Zone at Lantern Hill Industrial Zone.



“WHAT WE HAVE”

3.0 CURRENT CONDITIONS¹

North Stonington, a rural town of approximately 56 square miles and 5,000 residents, is located in southeastern Connecticut, next to Rhode Island. Named for the stony character of the countryside, North Stonington was incorporated in 1807. In the 1800s farms, mills, tanneries, iron works, and cottage weaving contributed to a prosperous and renowned mercantile center. The "Village" area of North Stonington, located just off Route 2, remains a fine example of the early settlement pattern, with its houses and civic buildings clustered densely around a millstream.



North Stonington Village in 1907 – These same buildings now house Hescock Law Office, the Historical Society, the Village Hardware Store, and the Watermark.

3.1 PHYSICAL CHARACTERISTICS AND LAND USE

North Stonington is generally rural, with undulating low wooded hills and shallow stream valleys. North Stonington boasts of having more cemeteries and more miles of stone walls than any other town in Connecticut. They are evidence of an agricultural heritage that continues today. A system of narrow

¹ A comprehensive re-write of the 2003 POCD will take place when the 2010 Census Data become available. Please note that the “current conditions” referred to in this section (and throughout the Plan) are reflective the years leading up to the adoption of the 2003 Plan. Therefore, some of the data is outdated but will not all be revised during this 2009 review and update.

scenic roads that once connected distant villages now contains housing, as some farmland has converted to residential subdivision. Residential is the largest use in town, and makes up the majority of the town's tax-base. Businesses are located along Routes 2 and 184, and within North Stonington's historic Village. North Stonington contains seven zoning districts². Land uses are either "permitted by right" or require a site plan review and/or a Special Permit. The Zoning Enforcement Officer alone may grant Zoning Permits for residential uses that are allowed "as-of-right."

There are constraints to development in North Stonington because of regulated wetlands, shallow-to-bedrock soils, rock outcrops, severe slopes, and flood plains. Areas most favorable to development are found in the southeastern part of town. Good agricultural soils occur throughout town, but are primarily concentrated in the south central and southeastern sections. These soils are attractive for development as well as agriculture because they are generally level, require little site development work, and allow water to percolate well.

3.2 POPULATION AND DEMOGRAPHICS

North Stonington's population grew just 2.2% from 1990 to 2000, as compared to the explosive growth of the 1950s and 1960s. Based on the 2000 Census, the town's population is primarily white, with the majority of its residents between 25 and 54 years old. The median age is 39.6 years. There are 1,883 households with the average size being 2.71 persons. Of North Stonington's housing units, 89% are owner occupied and 11% are renter occupied. In 2000, 21% of households contained at least one individual 65 years old or older.

Demographic projections indicate that North Stonington will continue to grow, albeit slowly. The State is projecting a 3% growth rate between 2000 and 2010, and an 8.6% growth rate between 2000 and 2020. The increase in the numbers of elderly and the trend to smaller and more diverse households will probably occur at a rate similar to that for the rest of the region, state, and country.

3.3 HOUSING

Residential use in North Stonington is predominantly single family, although there are duplex residences, multi-family "conversions," and seasonal communities bordering the town's six lakes. One-third of the town's population lives in the high-density Kingswood-Meadow Wood and Cedar Ridge subdivisions,

² There are now 10 Zoning Districts in North Stonington. See Section 2: *2009 Plan Update and Review* for details.

and the Village area. With the exception of one mobile home park, there are no multiple dwelling units or elderly housing communities in town.

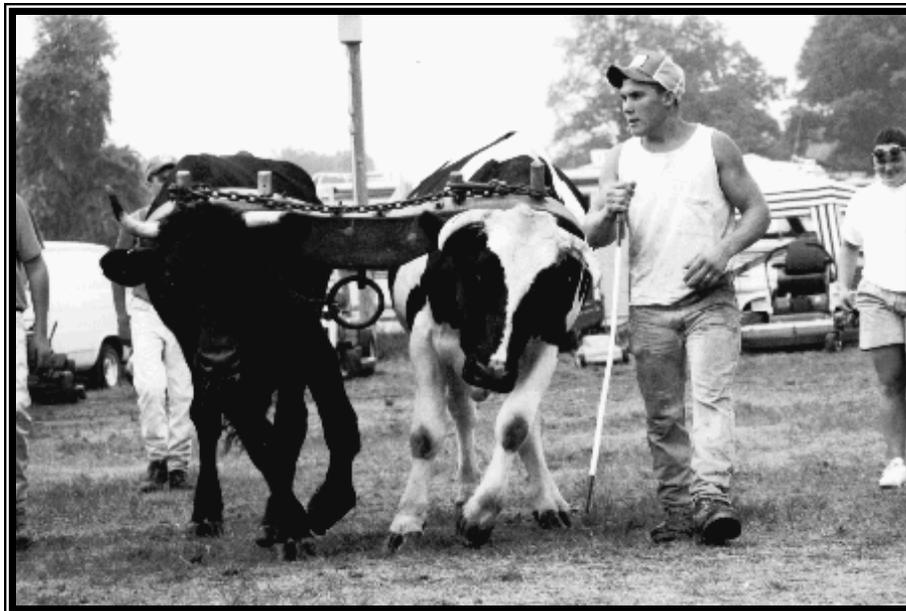
Between 1990 and 2000, North Stonington grew by 142 dwellings, an increase of 11.1% during a period of time when the population grew only by 2.2%. This is reflective of New England's sprawl problem, considered the worst in the country - interestingly not caused by a related population increase, according to the American Planning Association. The median value and the average value of sales have continued to increase. Both exceeded \$200,000 in 2002.



In a major study released in 2002, the Southeastern Connecticut Council of Governments reported that the region faces an acute housing shortage, particularly with respect to rental units, and recommends the creation of such units in the region. In the same report the Council recognized that North Stonington is not well suited for this purpose.

3.4 AGRICULTURAL USE

Just over fifteen percent of North Stonington is composed of prime farmland soils. Throughout the town, high-quality farmland is in great demand by the many dairy and horse farms. Most of this acreage still exists as cropland, pasture, and hay fields.



North Stonington currently has seven working dairy farms, averaging 428 acres each, for a total of 3,000 acres, making it

the second highest of all Connecticut towns for milk production. Purchases of additional land by farmers

attest to the viability of their farms. Other traditional farming continues, with turkey, sheep, and corn production.

In the last decade ‘Specialty’ farming has become a factor in North Stonington, with Christmas trees,



honey, ostriches, llamas, and flowers being raised. Many horse farms and a winery also operate in town. The potential for commercial greenhouse enterprises has been identified.

As noted in a report entitled Economic Development in North Stonington, Connecticut (prepared by Abeles, Phillips, Preiss & Shapiro, Inc. January 15, 2002), "North Stonington's farms are central to the

community's rural image and therefore to its residential property values." The number and viability of agricultural operations notwithstanding, loss of agricultural land is a significant concern in North Stonington. Three farms have closed operation in the last ten years. Agricultural land is at risk because of its attractiveness to development.

Only 300 acres of farmland are permanently protected. Five of the town's farm properties (four farms in the Clarks Falls area and one farm in the northwest corner of town) are protected under the Connecticut Farmland Preservation Program. This is a "purchase-of-development-rights" program administered by the State of Connecticut Department of Agriculture. The establishment of a Transfer of Development Rights program and a Purchase of Development Rights program were recommended in the 1990 Plan of Development, but have not yet been pursued by the town.

3.5 HISTORIC PRESERVATION

Because of its early settlement pattern, North Stonington contains many potential archaeological sites, older buildings, and approximately 126 burial sites. In 1999, the Planning and Zoning Commission adopted cemetery preservation zoning regulations to aid in the protection of burial grounds, graveyards, and cemeteries.

Historic preservation has been an important part of the community, with particular focus on the Village area, which is also the center of the town's civic life. North Stonington Village is listed on the National Register of Historic Places - an inventory of buildings, structures, districts, sites, and objects that merit

preservation because of their significance in American culture. Although registration does not prevent an owner from demolishing or altering a property, designation does assist preservation efforts in other ways. These include ensuring the assessment of impact from federally sponsored projects, providing eligibility



for federal tax credits, and, when available, federal grants-in-aid. The North Stonington Historical Society has suggested expanding the current National Register of Historic Places district.

A “Village Preservation Overlay Area” ensures that any new construction fronting on streets within the Village is consistent with the historic character of the Village. Permitted uses are limited

to those listed under the R40 High-Density Residential District, but existing non-residential uses may be changed to other non-residential uses if they are considered by the Commission to be compatible with the historic neighborhood.

3.6 ECONOMIC DEVELOPMENT

Although the town is primarily a residential community, it also contains commercial, office, and manufacturing establishments, and a growing number of tourism-related businesses. Route 2, the principal arterial road through town, is North Stonington's primary commercial corridor. This corridor shapes the town’s image for both residents and visitors alike. Equally important is the town’s rural character. As stated in the report Economic Development in North Stonington, “North Stonington’s rural landscape, natural resources and historic character are central to its economic value.” Both the housing market and the tourist sector are driven by these attributes.

Economic development in North Stonington benefits from the following:

- The town is located midway between New York City and Boston, with two interchanges on the region’s primary interstate highway, I-95.
- The town has ample amounts of undeveloped land in the vicinity of these two highway interchanges with large parcels in single ownership.
- The town is in a region that is undergoing a boom, due to the growth of regional tourism and the build-out of other parts of the Boston-New York corridor.

The town's largest shopping center, Holly Green, was constructed in 1990 as a Planned Business



Development. This complex of New England-style buildings is home to the North Stonington Post Office, the Senior Center, professional offices, restaurants, retail establishments and the only bank in town. Holly Green is located on Route 2 near the Village, but lacks a convenient

pedestrian connection to it. Another smaller shopping area, located on Route 2 at the eastern end of Main Street, is more easily accessed from the Village but is not conducive to internal pedestrian traffic. Several office buildings and light manufacturing companies are located near the intersection of Routes 2 and 184 known as the "Rotary." These complexes are arranged in a campus-like setting.

Because of the numbers of tourists and commuters, some merchants have sought to take advantage of the Route 2 traffic. Raspberry Junction is one example that benefits by offering gift items well suited to area visitors as well as local residents. Raspberry Junction is located on the southern side of Route 2, which allows it to capture sales by Foxwoods patrons and workers as they head home. National and regional chain establishments like Bess Eaton Donuts and Dunkin' Donuts do well with locals and travelers alike. The donut shops are located on the northern side of the road, which allows them to capture sales by workers and patrons heading toward Foxwoods.

Instances of once thriving businesses, which have failed in recent years, can be seen on Route 2 and at Exit 93. Much of the difficulty experienced by the town has been in determining what type of businesses to attract to Route 2 that will benefit the town and succeed. Several of the town's other commercial establishments such as McDonalds and the Tinaco Truck Plaza are located close to the intersection of Routes 216, 184, and I-95 at Exit 93. These are businesses that cater to I-95 travelers, hence the "Highway-Commercial" designation of the district.

3.7 CONSERVATION AND RECREATION LAND

As of this writing, approximately 1,900 acres of land are in some form of permanent open space protection status, either under ownership of the town or a conservation organization. Local land conservation organizations active in town affairs include the North Stonington Citizens Land Alliance and

Avalonia Land Conservancy, Inc. The Connecticut Chapter of The Nature Conservancy, a national non-profit conservation organization, recently opened an office in North Stonington and is available to assist in the town's conservation planning.



Active recreation areas include the Rocky Hollow Recreation Area, the Fairgrounds and the schools. Wildlife management areas and Pachaug State Forest provide passive recreation opportunities for the public, with the Narragansett trail crossing through town.

3.8 TOWN GOVERNMENT AND MUNICIPAL FACILITIES

The Town of North Stonington operates under a Board of Selectmen, Town Meeting form of government. All town board and commission meetings are open to the public. Most town facilities are located in or near the Village.

Resident State Troopers provide police protection with offices located in the Old Town Hall. Three troopers work day and evening shifts. Personnel from the Montville Barracks are called in on an as-needed basis to provide around-the-clock coverage.



The North Stonington Volunteer Fire Company, founded in 1945, operates one station in the Village and provides fire protection for the entire town. It responds to accidents that occur on I-95, receiving and

contributing mutual aid to neighboring communities on an as-needed basis.

The North Stonington Ambulance Association provides emergency response throughout town. A core paid crew provides services 7 days a week, 24 hours a day. The association is supplemented by volunteers who work ambulance shifts on the first crew, work as first responders, and can form a second ambulance crew when needed.

The Town Garage is located on Wyassup Road. The Public Works department is responsible for maintaining the road system and for general maintenance of town facilities and public areas.

The Transfer Station located on Wintechog Hill Road provides solid waste disposal. Its Swap Shed, built as an Eagle Scout project, provides a “re-use” opportunity for residents. North Stonington’s recycling program, begun before recycling was mandated, has reduced input into the landfill by an impressive 65 percent.

The North Stonington Senior Center is located in the Holly Green complex. The building has a kitchen and large multipurpose room used by seniors during the day and for town functions in the evening. The center has approximately 150 members and provides activities for 40 to 50 on a regular basis, including Wednesday luncheons.

The Recreation Commission directs recreation services. The North Stonington Recreation Area is located on Rocky Hollow Road within walking distance of the schools. Facilities include lighted tennis and basketball courts, a baseball field, and a soccer field. There is a playground and a “Rec Shack” with rest rooms. A very popular and well-organized Little League program uses both the Recreation Area field and a baseball field located on property owned by the Grange.

Wheeler Library is owned by a private trust and is located near the schools, encouraging its use by students. Since 1990, the library has undergone renovations, which include the installation of an elevator, a meeting room, and new computer terminals. The library is actively supported by a volunteer group, Friends of Wheeler Library.

3.9 SCHOOLS

There are three public schools: North Stonington Elementary School, Wheeler Middle School, and Wheeler High School. They are located close to the Village in a campus setting. The campus is bisected

by Route 2 with an underground pedestrian tunnel connecting the two sides. The North Stonington Christian Academy, a private school, is also located in town. As of 2001, 862 students were enrolled in North Stonington's three public schools. This represented a 6.5% drop in enrollment over the past five years. The Board of Education's projection for 2005 is for 355 elementary school students (K-5), 191 middle school students, and 237 high school students. Eighteen students will be enrolled in pre-K or other programs.

Improvements to the school facilities since 1990 include a major renovation of school buildings, construction of a combined gymnasium and auditorium, and construction of a new athletic field. The Permanent School Planning and Building Committee and Board of Education are currently conducting a Needs Analysis to determine future requirements.

3.10 WATER INFRASTRUCTURE

North Stonington is blessed with plentiful water resources, both surface and ground. Protecting the quality of ground water is one of the highest priorities for the Town of North Stonington, as it is with the State of Connecticut. The monitoring, management, and distribution of this resource involves private entities, local, state, and federal agencies, and non-profit organizations. In some instances, the supply and management of the system crosses town and state boundaries.

The vast majority of residential and commercial development is served by private wells. Public drinking water supply services in town are limited. Both the Town of Westerly Water Department and the Southeastern Connecticut Water Authority, which provide limited service in North Stonington, possess the capability to expand into and serve development along the Route 2 corridor. There is no public drinking water from a surface supply.

In March 2002, after due application to the State of Connecticut Department of Public Health, the town was declared an exclusive service provider of water systems. Working closely with the Department of Environmental Protection, the town is currently preparing North Stonington's Exclusive Service Area Water Plan. The intent is to identify properties with existing or potential public water supply, ensure quality testing of the supply, and identify potential threats to the supply³.

Five rivers and associated watersheds located partially or entirely within North Stonington have been identified to have the potential for potable water supply. Of particular note is North Stonington's

³ Water Supply Plan completed in 2006 and adopted in 2009

distinction as being located in a watershed federally recognized as important. In 1988, the Pawcatuck groundwater hydrologic system in Connecticut and Rhode Island received federal designation as a Sole Source Aquifer. In 1990, the town revised its zoning regulations to impose restrictions on land use activities that could threaten its aquifers. The Aquifer Protection regulations apply to approximately 38 % of the town's land area.

3.11 SEWER INFRASTRUCTURE

Sewer avoidance remains a goal of the town. Currently, no municipal sewer infrastructure exists and there is no inter-municipal agreement with any abutting municipality or entity. Disposal of sanitary wastes is by private septic system on all but a very few properties. Two properties near the border with the Town of Stonington tie into Stonington's wastewater treatment facility under private agreements. Discussions have taken place between the Towns of Stonington and North Stonington regarding a municipal sewer service agreement. To date there has been no such agreement.

The North Stonington Water Pollution Control Authority (WPCA) has established a sewer service district in the southern part of town. WPCA is exploring the feasibility of other sanitary waste disposal options for future commercial development. Recent technological advances have created sewage disposal options for developers. Package treatment plants like the one at the Hilltop Inn and Bellissimo Grande Hotel on Route 2 provide an alternative for development.

3.12 TRANSPORTATION

According to the Southeastern Connecticut Council of Governments, transportation and congestion are major issues for the entire southeastern Connecticut region. Interstate 95 and the four state highways that traverse North Stonington provide connections to and between other towns in the region. I-95, the primary East Coast limited-access highway, has two interchanges (Exits 92 and 93) in North Stonington. Route 2, a State highway that bisects the town from east to west, is a principal access route to Rhode Island beaches, and is the state-advertised route from I-95 to Foxwoods Resort and Casino. This results in a six-mile trip through North Stonington along its main thoroughfare. Exit 93, almost at the Rhode Island border, provides access to Routes 216 and 184, and to commercial establishments located at this end of the town. Route 184 from Exit 93 is also used as a "short cut" to Foxwoods.

Since 1992, Foxwoods has had a significant impact on traffic in the region. It contributes to an average of 19,000 vehicles per day on Route 2 in North Stonington. Route 2 has clearly borne the brunt of the

increased traffic, but there is also a noticeable increase in volumes on local roads as people seek alternative routes.

Route 2 is constructed to arterial standards between Norwich and Cossaduck Hill Road (Route 201) in



North Stonington. Access to Route 2 from abutting properties is of continuing concern. North Stonington has studied using access management to minimize traffic impedance on Route 2. Some of the study's recommendations have been implemented, resulting in improved traffic flow and safety.

South of the Stonington-North Stonington town line, Route 2 has been widened to four lanes. North Stonington residents point to this as the type of roadway "improvement" they do not want in their town. Future development could heighten the desire of the Connecticut Department of Transportation to realign and widen its roads. Residents of the town are acutely aware of the impacts this would have on their quality of life. The town is resolved to do what it can to keep Route 2 a two-lane road.

3.13 JUSTIFICATION AND COMPLIANCE

The Plan of Conservation and Development is the document that guides a community's decision making, stating policies, goals, and standards for the physical and economic development and preservation of its natural resources. The State of Connecticut requires that each of its municipalities review and update its Plan every ten years. North Stonington's 2003 Plan of Conservation and Development (the "Plan") replaces the 1990 Plan of Development that was amended in 1994 and 1996.

Data and information supporting this section are presented in the appendices of the Plan and in documents identified in its bibliography. Consistency of the Plan with the State of Connecticut's Conservation and Development Policies Plan for Connecticut 1998-2003 and the Southeastern Connecticut Council of Governments' Regional Conservation and Policy Guide for Southeastern Connecticut are also addressed as required by the statute.

A critical step for any Plan of Conservation and Development is translating the development concepts in the plan into zoning. After review by the Planning and Zoning Commission and a public hearing, regulatory amendments to the Zoning and Subdivision Regulations and Zoning Map will be written to reflect the vision contained in this plan.



Note: For more detailed information on the topics discussed in this section, please see Background Material (Appendix A)

WHAT WE WANT AND HOW TO GET THERE"

4.0 GOALS AND OBJECTIVES⁴

This plan was crafted by the people of North Stonington. Using the results of an intensive three day planning fair, knowledge gained from numerous professionals and workshops, input from town committees, and a town wide survey, a steering committee of resident volunteers wrote the following section. From the beginning of the planning process it was clear what was important to the people of North Stonington. The primary issues that were on everyone's mind were preserving the rural character of the town and lessening the burden of residential property taxes.

It has become clear to us that having desirable economic development and preserving the historic and natural resources that residents value so highly, are complementary goals. North Stonington today is in a strong position to be able to plan ahead for 'smart growth'. With thoughtful planning and the use of many of the tools described in this section, we can attract sustainable economic development, while carefully considering its impact on our quality of life.

On the following pages, five primary issues are outlined; goals and objectives identified; and a series of associated action steps are presented. We believe that it is through the implementation of this plan that North Stonington will be able to maintain it's identity as a rural town, with the community character we all desire, and still attract business and residential development appropriate to our town.



Windborne Farm



A/Z Corporation

⁴Please note that this section of the 2003 POCD has been reorganized in the 2009 update in an attempt to better highlight crucial conservation and development goals as well as ongoing planning issues that continue to face the town. The actual goals and objectives however, have remained the same.

4.1 EFFECTS OF FUTURE GROWTH ON NORTH STONINGTON'S RURAL CHARACTER

Throughout the current planning process North Stonington residents consistently expressed a strong desire to preserve the town's "rural character". Rural character is broadly defined to encompass

farmsteads, farmlands and forests, the rural road system with its roadside trees and stone walls, the traditional Village, historic homes, other early buildings, cemeteries and archaeological sites, and the many scenic views that exist throughout town.

Seventy-eight percent of respondents to the planning survey 'agreed' or 'strongly agreed' that North Stonington should do more to attract new agricultural businesses such as vineyards, nurseries, greenhouses and specialty farms.

The Town of North Stonington has invaluable agricultural and natural resources that will be the key to greater self sufficiency in our changing economy. Identifying and protecting these resources are paramount to the town.

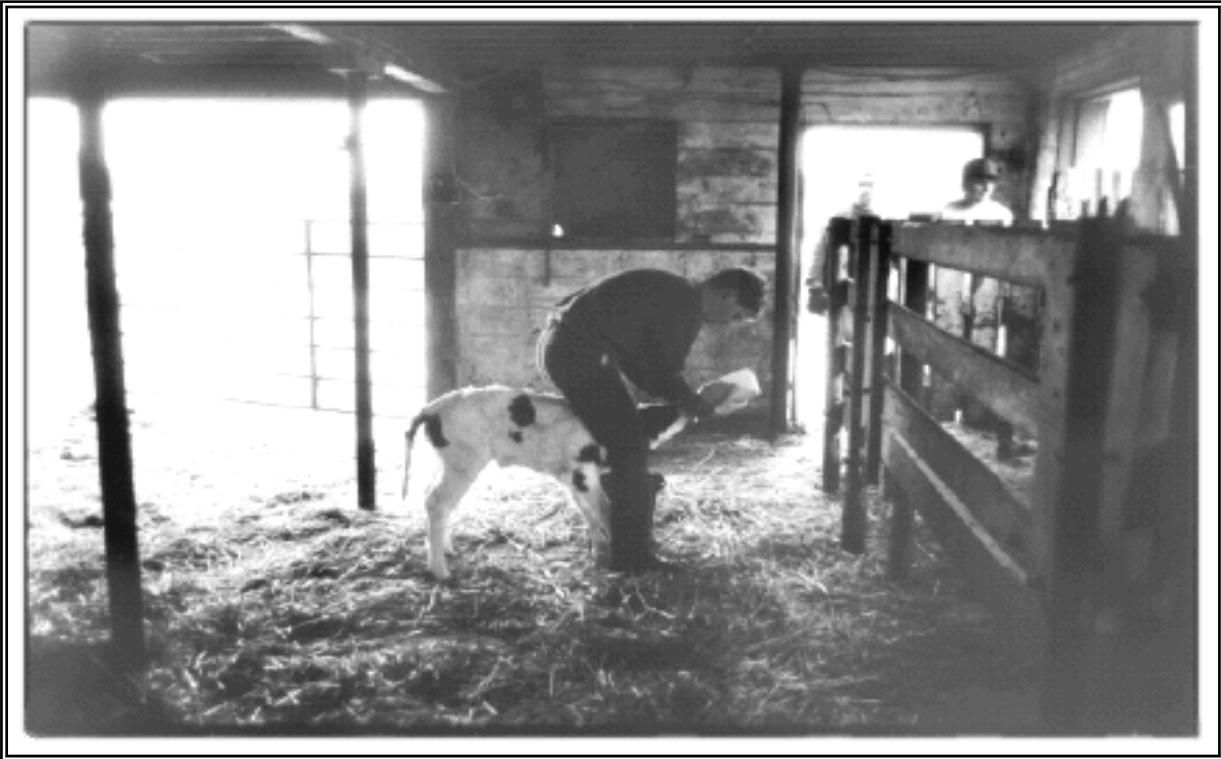
North Stonington retains its traditional small village, which is listed on the National Register of Historic Places. Our historic resources contribute to the town's rural charm, and together with the miles of narrow, tree lined, scenic roads, give North Stonington a true sense of place.



GOAL: MAKE THE PRESERVATION OF NORTH STONINGTON'S RURAL AND HISTORIC QUALITIES AND NATURAL FEATURES A TOP PRIORITY.

AGRICULTURAL RESOURCES

According to the Connecticut Department of Agriculture, “Connecticut is losing 9,000 acres of farmland every year! The state’s most fertile land is being converted to other uses at one of the fastest rates in the country.” In North Stonington it is recognized that prime agricultural soils are attractive to developers as easy sites to build on. The continuing loss of traditional farming and the encroachment of new development on the landscape have generated concerns about increased traffic, environmental degradation (noise, diminished air and water quality), and light pollution of the night sky.



The various town agencies (the Selectmen, and the Planning and Zoning and Economic Development Commissions) have a responsibility to enact policy that would identify any zoning changes needed to allow a variety of alternative agricultural operations that are consistent with the town’s character. This policy may include new zoning regulations on farms and farm-related businesses to help keep farming economically viable (e.g. bed and breakfast and farm vacation lodgings, equestrian activities, roadside farm stands, and small-scale food processing).

Objective:

1. Emphasize the preservation of existing farms and encourage the development of new farming activity. **(Identify on a map)**
2. Preserve prime agricultural lands of local and state importance. **(Identify on a map)**

Actions:

1. Draft new regulations for accessory farm uses that include clear and measurable performance standards so that they do not disturb neighbors or the tranquility of the countryside or damage the environment.
2. Consider allowing farmers to pursue “value-added” activities and other non-farm related small businesses on their farms that do not detract from the rural quality and that enhance the landowner’s ability to make a living on the land, such as baking and catering or farm worker housing.
3. Enact a town farm policy that includes funding ongoing research and marketing aimed at identifying agricultural trends and attracting new agricultural business to town.

HISTORIC CHARACTER

Objectives:

1. Pursue expanding the area encompassed in this historic district; this would offer further protections for Route 2, where it is part of the historic Village.
2. Retain the historic character and charm of the Village, while allowing more flexibility of uses with strict design controls.

Actions:

1. Support and encourage the North Stonington Historical Society to pursue expanding the area included on the National Register.
2. Review the Zoning of the Village area. In the current Village Preservation Overlay Area non-residential uses can be permitted if they had a historic basis. The compilation of an actual list of historic uses would be a useful tool for the Planning and Zoning and Economic Development Commissions, so that such uses could be further encouraged. In addition, changes should be evaluated which would allow a more varied mix of uses that are in scale with the Village to encourage continued preservation and restoration of buildings and to maintain the Village’s vitality.
3. Explore the opportunity to establish a ‘Village District’ pursuant to Connecticut General Statute 8-2j for both the existing Village and any other areas in town that might be considered appropriate for mixed-use village development. The legislation is designed to **give Planning and Zoning more control over design standards in areas with distinctive character** (the criteria for Village Districting is discussed further in Appendix A.) This statute could enable the town to better control the appearance and design of buildings, (including alterations of existing buildings).
(Identify on a map)

ROADWAYS

Residents of North Stonington describe town roads as winding two lane roads framed by trees, farm fields



and stone walls. 78% of respondents to the 2002 planning survey indicated that they ‘agreed’ or ‘strongly agreed’ that the town should have ordinances that protect stone walls, roadside trees, and country roads; 69% supported regulations that require new town roads to look like country roads. In addition concerns about increased traffic and speeding were voiced throughout public participation in the planning process.

Objectives:

1. Improve the appearance and safety along the Route 2 and 184 corridors as they are key entry points to North Stonington, and their look define the town’s image for both residents and visitors. (This approach is discussed further under *Growth and Development* and *Municipal Infrastructure, Services and Government*.)
2. Future road design should focus on reducing speeding (traffic calming) to avoid accidents; this is needed in both the Village and the countryside.

Actions:

1. Create a plan to preserve the rural character of Town roads.
2. Increase the protection of roadside trees and stone walls.
3. Make improvements to the current Scenic Road Ordinance to promote further designation of local scenic roads. Publish guidelines that explain what can and cannot be done with a scenic road.
4. Draft road design regulations that reflect sensitivity to the environment, including limiting impervious surfaces based upon Best Management Practices for storm water management and reducing development impacts on habitat.
5. Consider prohibiting commercial buses on most town roads and limit truck traffic to local deliveries.
6. Draft road regulations for new subdivisions that reflect the same character as existing town roads. **(Partially Done)**
7. Identify historic and scenic viewsapes (perhaps in partnership with one or more of the local non-profit organizations) so that information is readily available to the various town agencies as they consider policies and regulation changes. **(Identify on a map)**

GOAL:
**NORTH STONINGTON SHOULD STRIVE TO MAINTAIN AN ECONOMICALLY
DIVERSE POPULATION.**

4.2 ENSURING A VARIETY OF HOUSING CHOICES FOR THE ENTIRE COMMUNITY

Throughout its history as a working-class farm town, North Stonington residents of various income groups have lived, worked and played side by side. This has contributed to the strong sense of community that is so valuable to the Town. At the Planning Fair residents reaffirmed their commitment to embrace diversity.



Planning survey results showed 68% of respondents wanting a wider range of housing choices for senior citizens. As the largest segment of the population -

the 'baby boomer' generation - moves towards retirement, this need will increase. 'Down-sized' units can be economically attractive to a town because they require few town services, while providing housing for young workers and senior citizens.

In 2001 38% of homes sold in North Stonington went for under \$150,000, with the median price of all sales at \$163,500. Figures from 2002 show the median price of a home rising to over \$200,000. The market trend is currently towards large, high-income family homes. As housing costs change, it is important to ensure that there continue to be housing opportunities for the entire community.

Objectives:

1. Provide housing opportunities that are in keeping with the Town's character, dispersed throughout Town. **(Bucket List)**

2. Provide housing attractive to senior citizens and others, in areas that are convenient to transportation and services. [\(Bucket List\)](#)

Actions:

1. Require a percentage of smaller, lower priced units in all residential subdivisions above a certain size. The Conservation Subdivisions discussed in *Growth and Development* provide an opportunity for this type of housing. [\(Bucket List\)](#)
2. Allow accessory apartments in homes, with appropriate controls to protect the quality and character of neighborhoods. [\(New Zoning Regulations Sections 1502-1506 Adopted 12/15/2008\)](#)
3. Relax zoning restrictions on agricultural businesses to allow on-site housing for farm family members and a limited number of farm laborers. [\(Bucket List\)](#)
4. Allow Holly Green to include small residential units as part of a Mixed-use Village. [\(Bucket List\)](#)
5. Create housing opportunities in a high density, pedestrian-oriented, Mixed-Use Village in the eastern Industrial Zone. [\(Bucket List\)](#)

4.3 PLANNING FOR SMART GROWTH AND DEVELOPMENT

Currently, growth in North Stonington is directed toward residential development with limited areas set aside for commercial development. During the planning process, it became clear that North Stonington residents want the town to remain primarily residential. At the same time, residents expressed the desire for commercial development that would be aimed at reducing dependence on the residential tax base and that would provide products and services that met their needs. These desires were generally expressed in the context that all new development should occur in the existing commercial zones and in a manner that would preserve the town's rural attributes.

It will become increasingly important to be proactive in terms of planning for the development of some of the town's larger tracts of land. Attracting and facilitating suitable development of the undeveloped land near the I-95 interchanges as well as undeveloped parcels near the Rotary will be one of the greatest challenges to face the townspeople and the various boards and commissions.

Three strategies for managing growth in ways that maintain rural character are to reduce potential build-out density of development, to use 'smart growth' techniques to minimize the impact of new development, and to redistribute development density from sensitive areas to areas where the environment and infrastructure can support it. All three of these strategies should be employed to achieve growth in a manner that protects the qualities that make North Stonington the place that it is. While adopting new

approaches may introduce unknown risks, it is important to remember that maintaining the status quo (i.e. current zoning regulations) carries the known risk of the town's current build-out scenario.

Three approaches to study are:

1. Creating a zone in which there is a great variety of allowed uses, with detailed performance standards and design guidelines. This option is relatively easy to implement but creates uncertainty on the part of both the townspeople and prospective developers.
2. Creating a zone with a detailed "specific plan" that enumerates the uses allowed, shows street systems, specifies building types and possible locations, provides design standards, etc. The Town's zoning regulations would give developers who agree to build according to this plan an expedited review and approval process. This requires a substantial up-front investment by the Town to devise a plan, but removes much of the uncertainty in the previous option. This option is well suited to application of the recent Village District legislation (Connecticut General Statute 8-2j).
3. Creating an overlay that allows and depends upon developer creativity to propose a specific plan such as that described in the second option. The proposed plan would have to meet detailed performance standards and must include a development impact analysis. The Planned Development District which is part of the 1996 Amendment to the 1990 Plan of Development is an example of this type of approach. Enhancements to Planned Development District regulations might include the addition of a conceptual plan of the Mixed-use Village, as well as general design guidelines.

While seeking to reduce the impact of residential build-out, it is important to strike a balance between the interests of the community and those of private property owners. Regulations should be designed to maximize the incentives for landowners to choose the plan of action most beneficial to the Town, as well as to themselves. Thus, options need to be created that facilitate preservation while providing for economic opportunity.

Without this or some other creative approach, much of what residents now enjoy may be lost forever. With innovative thinking, growth can occur in a manner that protects the rural character and environment of the town while attracting supportive non-residential development. Although each type of development is unique and comes with its own planning issues and objectives, the following goal applies to future residential, commercial, and mixed residential and commercial development in town.

GOAL:

GROWTH SHOULD FOCUS ON RESIDENTIAL DEVELOPMENT COUPLED WITH SUPPORTIVE COMMERCIAL DEVELOPMENT THAT MAINTAINS THE TOWN'S RURAL ATTRIBUTES.

RESIDENTIAL GROWTH

A common refrain is “Let’s keep North Stonington the way it is.” The question then becomes “Are the regulations in place to protect the qualities of North Stonington that residents value?” The town is currently zoned primarily (81%) for two-acre residential development, although some areas are zoned for smaller lots (14 %). **A build-out of the town under current zoning indicates that more than 8,000 new homes could be built, increasing the population five-fold.** This would have an enormous impact on North Stonington, suburbanizing vast areas of the town, including areas that are the most prized for their environmental and scenic characteristics.

In addition, because of its impact on educational costs, residential development in general is the primary contributor to high property taxes. **A build-out, without an accompanying increase in high-value, low-impact business development, would push the taxes on residential properties to ever-higher levels.** Clearly, this is not what most residents view as their goal for the future. It is imperative then that zoning regulations be modified so as to encourage growth that maintains as much as possible of “the way it is,” and perhaps makes it better.

One method to minimize the impact of residential development within low-density zones would be to require new subdivisions over a certain size to be developed as Conservation Subdivisions. Such development is designed to allow the same number of new houses, while requiring that a significant portion of the parcel be set aside as undivided open space. Homes are placed on smaller parcels in a neighborhood setting with the surrounding open areas permanently protected by conservation easements. The goal would be to protect meaningful pieces of land such as natural forests, meadows, wetlands, and farmland, and the scenic views they engender.

Figure 1 shows the kind of layout current North Stonington subdivision regulations require – a suburban sprawl development pattern (from NEMO Project Fact Sheet #9), and Figure 2 shows what is possible in the same development using a Conservation Subdivision.

FIGURE 1. Traditional Subdivision Development

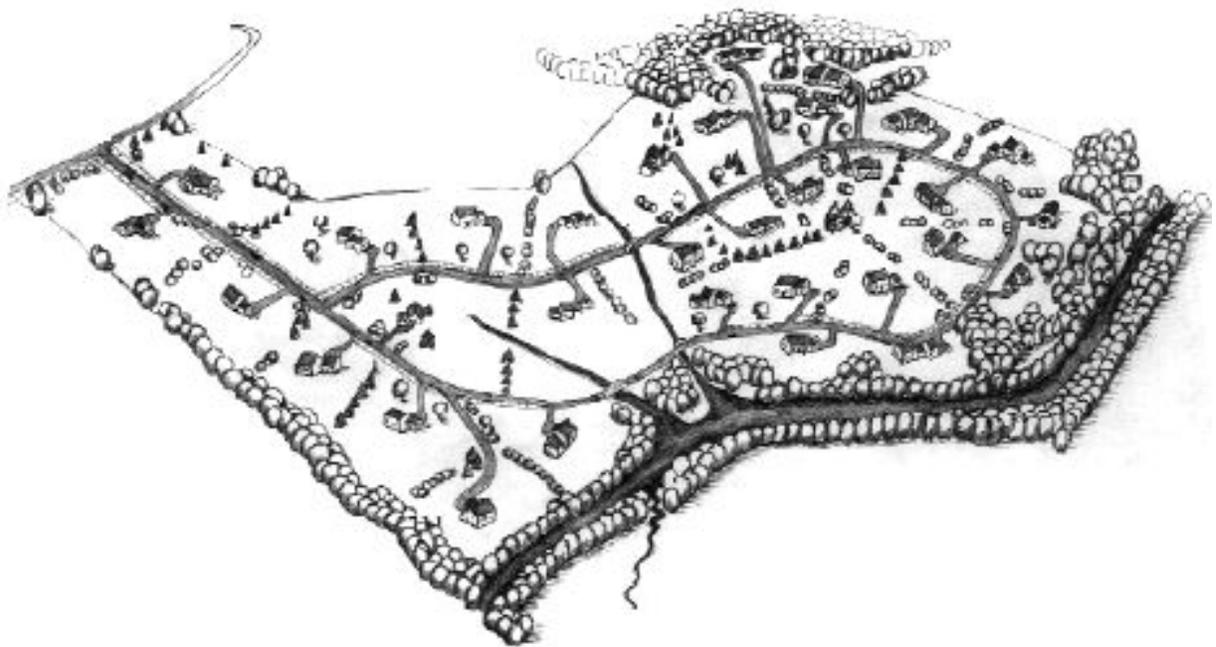
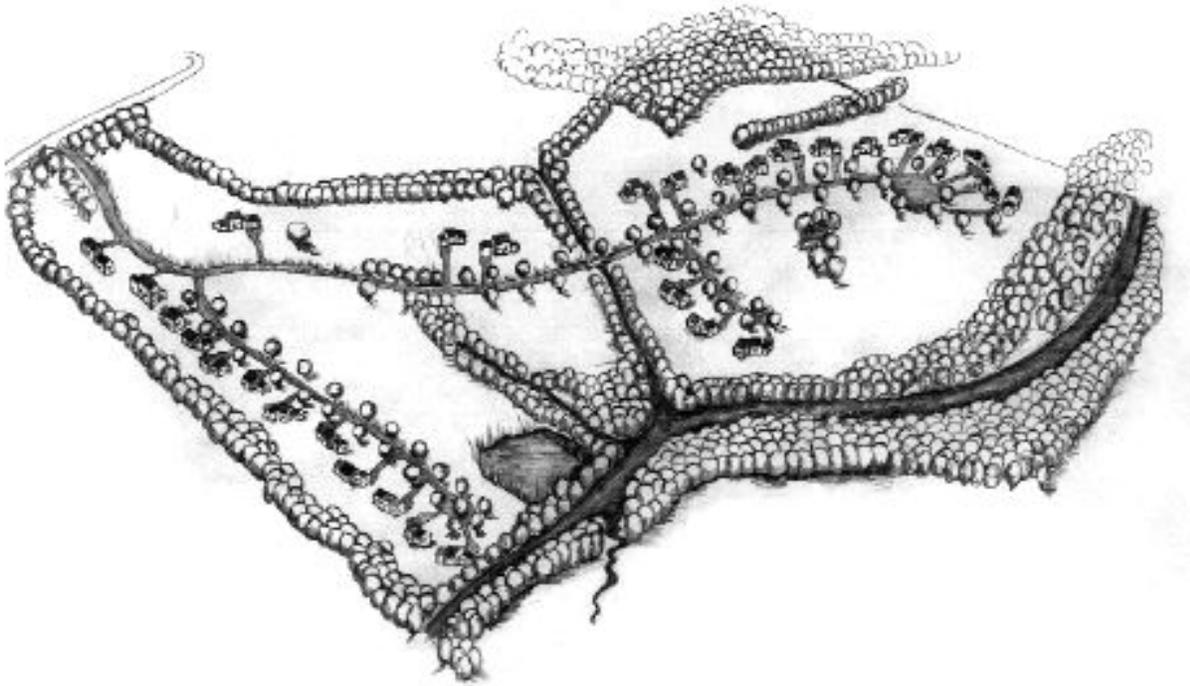


FIGURE 2. Conservation Subdivision



With this approach, significant natural areas are protected. Every house looks out over permanently protected land. The addition of walking paths through the open areas gives each homeowner access to much larger areas than they would have in the traditional approach.

Conservation Subdivisions differ from what has traditionally been called Cluster Zoning in that the approach emphasizes protecting important natural resource areas and does not depend on incentives, such as increased overall density, for the developer.

Conservation Subdivisions would be developed in conjunction with a completed *Plan for Conservation and Recreation Lands*, helping to avoid the fragmentation of natural areas and allowing the maintenance of open land. Large parcels developed in this way tend to provide building lots that are more valuable and marketable while lowering the costs of infrastructure maintenance for the town.

Objectives:

1. Reduce residential build-out potential/ Reduce overall density of residential development.
2. Encourage residential growth that avoids suburban sprawl and high taxes.

3. Support and promote Agriculture. (**Agricultural Steering Committee formed 1/2009 – Technical Assistance Grant Awarded**)

Actions:

1. Use town funds to acquire key areas for preservation and/or recreation. (**Acquired Hewitt Property 2008**)
2. Encourage landowners to donate land to the town for recreation or to a land trust for preservation.
3. Require conservation or recreation set-asides, or payment in lieu of open space, in new residential developments. (**DONE**)
4. Allow ‘Residential Compound Zoning’ on large parcels, where one principal home can be combined with two or three additional buildings for family, caretakers, or farming purposes. All of the buildings would be permitted on the same driveway in exchange for permanently protecting the remainder of the property as open space. (**Adopted Regulation 510 in 2005 – but was repealed in 2007**)
5. Allow environmentally oriented non-residential uses, such as non-traditional agricultural businesses and outdoor recreation camps, with appropriate protections for the environment and surrounding neighborhoods.
6. Increase the buildable square proportionally with the minimum lot size of the zone. (**DONE**)
7. Classify steep slopes, shallow-to-bedrock soils, and other areas with development limitations as unbuildable land. (**DONE**)

COMMERCIAL DEVELOPMENT

Commercial development should complement the primary goal of growing as a residential community

while preserving the town’s historic rural character. It should reduce reliance on residential properties to support town services, provide residents with desirable employment opportunities, and/or provide the types of retail offerings that residents desire. The focus should be on revitalizing the existing commercial zones by utilizing smart growth techniques and design standards.



Jonathan Edwards Winery is part of Connecticut’s Wine Trail.

In the 2002 planning survey, 87% of respondents supported the idea that the “Town should **more actively seek** high-

value, low-impact business development that will provide significant tax revenue while requiring few town services.” 78% of survey respondents agreed that commercial development should “primarily serve residents.” **Development should be encouraged that strengthens existing uses that already meet the goals described above and that generates new synergistic uses consistent with them.**

Much has been said about the growing tourist industry in the region. However, only 20% of planning survey respondents supported the idea that “the town should encourage new businesses that will primarily serve tourists”. Nevertheless, there are currently small businesses in town that serve both townspeople and people passing through. Businesses such as these can be consistent with our values, provide jobs for residents, and share tax burdens necessary to support town services.

Commercial development efforts should focus on revitalizing existing zones and supporting existing businesses. North Stonington’s current commercial zones are well located to provide the infrastructure and highway access necessary for successful commercial development.

Objectives:

1. Plan for Smart Growth
2. Encourage commercial development that supports residential growth and needs.
3. Allow development only in already existing commercial zones. Update uses in these zones to reflect town goals and market forces. **(Some updates were done with Zoning Reg. re-write)**
4. Create standards that reflect high expectations with respect to the quality of commercial development. **(Bucket List)**

Actions:

1. Allow the commercial zone at the Holly Green area to become a true Mixed-Use Village area, with an interconnected street system and a mixture of uses including retail, individual residences, small apartments, and senior citizen housing (see checklist on page 39.) **(Bucket List)**
2. Allow commercial development on Route 2 only in the Holly Green area, the area around the Rotary, and at Exit 92. This Plan does not recommend new commercial zones on Route 2.
3. Create a more flexible zoning strategy for the areas currently zoned Industrial and Office/Research, to enable a mix of uses that is more responsive to market forces. **(PARTLY DONE)**
4. Encourage high value development near Exit 93 of 1-95, where it may eventually replace lower value uses in that location. The 1985 *Environmental Review Team Report* relating to the area should be used as a guide.
5. Encourage renovation and use of existing buildings.

6. Replace Highway Commercial zoning with Commercial. **(Not Done- Changed HC to VC in one area)**
7. Revise the Industrial Zone at Lantern Hill to reflect actual uses and reclamation efforts. This zone should be distinguished from the eastern Industrial Zone. **(Bucket List)**
8. Establish design standards for all commercial development, retail and non-retail. Building design, landscape, parking, and signage should reflect the New England village aesthetic and scale. There should be a special emphasis on design standards in the area between the Route 184 Rotary and Exit 92, as it represents the primary entryway into the town.
9. Encourage high-value, low-impact development that minimizes traffic impacts on Route 2.
10. Revise Office/Research and Industrial Zone regulations to reflect the findings of the *1995 Environmental Review Team Report* on the area. As noted in the *1990 Plan of Development* “Zoning regulations should be revised to implement recommendations for maximum percentage of development on a lot, amount of disturbed land, storm water controls, and other factors relating to improvement in protection of water quality, appearance of the development, and traffic safety.” **(Some updates were done with Zoning Reg. re-write)**
11. Encourage improvements to Exit 93 by ConnDOT. This area should be thought of as an important entrance to both the Town of North Stonington and the State of Connecticut.
12. Require hotels to have an entrance through a central lobby and rooms accessible only through interior hallways. Provide standards for arrangement of buildings and parking on the lot.
13. Add storm water regulations for all zones. **(DONE)**

MIXED COMMERCIAL AND RESIDENTIAL DEVELOPMENT

While there are several potential methods for encouraging commercial development while reducing sprawl, the two possible methods presented below are allowing high-density residential development in a Mixed-Use Village near I-95, and developing and utilizing a Transfer of Development Rights program.

Allowing high-density residential development in a Mixed-Use Village near I-95 would be conducive to supportive commercial uses, which could result in an attractive village setting and scale. The area should be developed as a pedestrian oriented “town center” with interconnected streets, mass transit service, and good access to I-95. Included in this district could be uses that meet the goals of reducing dependence on the residential tax base, along with providing employment opportunities and businesses that serve residents. Among the uses allowable might be office/research, light industrial, and retail, along with diverse types of housing. **(Master Plan)**

A Mixed-Use Village is not a minor undertaking and certainly would require a major commitment on the part of the town. The chances of success are greater, however, if the community “buys into” it through a cooperative planning process involving extensive public participation. There are several ways a mixed-use village could be created, all of which should involve flexibility of use and stringent design requirements. Additional study will be necessary to determine what method is best suited to meet the goals of the *Plan of Conservation and Development*. It is essential that the Planning and Zoning Commission guide this process and that suitable consultants be hired to identify the attributes and pitfalls of each approach.

The following checklist should be considered mandatory for allowing any mixed-use residential and commercial development in North Stonington:

- The development must be sensitive to the landscape and reflect the traditional New England village aesthetic.
- The development must provide a variety of housing opportunities, including units for lower or moderate-income residents.
- Higher residential density than the existing/underlying zone must only be allowed with the concurrent reduction of comparable residential density in another part of town.
- The development must be pedestrian oriented with plans that allow for present or future mass transit opportunities.
- The site must be able to support higher density from an environmental standpoint.

A Transfer of Development Rights program is an important tool with which North Stonington could maintain its rural areas while encouraging economic development in areas more suitable to high-density growth. Much of the town’s most scenic, environmentally sensitive, and farmable land is in residential zones. Some preservation of these areas is desirable. Conversely, the eastern Industrial Zone and the Holly Green Commercial Zone, for example, are underutilized and would benefit from high-density development, such as the mixed-use village described above. **(TDR on Bucket List – Possible sending and receiving zones should be identified on a map – as a future plan or possibility)**

TDR advantages include:

- Encouraging resident-friendly commercial development by concentrating residential growth in high-density mixed-use areas
- Moving residential growth to areas with suitable infrastructure capability
- Creating dedicated open space adjacent to residences in targeted locations
- Protecting key scenic and environmentally sensitive areas from sprawl
- Protecting large areas without using public funding for acquisition or maintenance of conservation lands

TDR requires:

- The identification of sending zones (areas of particular need for preservation, either for environmental purposes or to maintain rural character)
- The identification of receiving zones (areas where increased residential density can be supported with infrastructure and will be compatible with town character)
- The creation of a development rights market (setting the value of development rights)
- The recording of conservation easements (by the town and conservation commission.)

Transfer of Development Rights (TDR) is a program that encourages landowners in sensitive environmental areas to sell their development rights at fair market value to developers in areas more suited to intensive growth. The developer would then have the right to build at a higher density than otherwise allowed in his zone. The exchange rate would have been predetermined by the town as part of the TDR program.

Objectives:

1. Protect scenic areas, environmentally sensitive areas, and farmable lands.
2. Appropriately locate higher density residential development that would attract supportive commercial development.
3. Encourage development that is sensitive to the landscape and reflects the traditional New England village aesthetic.

Actions:

1. Redistribute density from sensitive areas to a Mixed-Use Village in the I-95, Exit 92 area.
2. With the help of professional consultants, develop and utilize a Transfer of Development Rights program to encourage economic development in areas more suitable to high-density growth.

4.4 PROTECTION AND PRESERVATION OF NATURAL RESOURCES, OPEN LAND, AND THE ENVIRONMENT

North Stonington's landscape, with its abundant fields, rolling hills, and numerous brooks and ponds, remains largely unspoiled today. For many years the town has had a great deal of interest and activity in the preservation of open land and the protection of the environment. The North Stonington Citizens Land Alliance, the Avalonia Land Conservancy, and, most recently, the Nature Conservancy have contributed to preservation efforts. Nevertheless, there are currently only 1,900 of the town's approximately 36,000 acres that are permanently protected from development. The State of Connecticut Department of Environmental Protection has significant holdings in North Stonington (3,808 acres), but these are only temporarily protected lands.



Results of the Community Planning Fair in May 2001 and the town-wide survey of 2002 showed strong support for land conservation and environmental protection. Clearly most residents recognize that maintaining open land enhances the quality of life and is beneficial to the town's overall tax position, since such property makes little or no demand on town services. However, prior to this current planning

process, there was no coordinated plan for how to define, evaluate, prioritize, and protect open space and environmental resources.

The Conway School of Landscape Design was retained by the Steering Committee to begin work on an open space plan. The Draft *Plan for Conservation and Recreation Lands* that was produced includes the start of a natural resource inventory and many preliminary maps and references. When completed, The *Plan for Conservation and Recreation Lands* will provide a coherent framework and essential background information to support future planning decisions⁵. It will allow the Town to apply for grant money, not otherwise available.

⁵ Plan of Conservation and Recreation Lands was completed in 2007 and adopted in 2009.

An important step is to complete the recreation portion of the *Plan for Conservation and Recreation Lands* with broad public participation. Town-owned land should be evaluated for recreational use and/or conservation. It may then be necessary to develop a multi-year capital budget for implementation of the recreation component of the plan; it may be possible to solicit grant funding and private contributions.

PLAN OF CONSERVATION AND RECREATION LANDS

Establish a group of community volunteers to complete *The Plan for Conservation and Recreation Lands* in greater detail. (DONE)

The following recommendations should be incorporated into the final draft of the *Plan for Conservation and Recreation Lands*:

- Add/connect to existing conserved parcels as identified by the *Natural Resource Inventory Map*.
- Create a Water Protection Mission Statement that clearly states the desire on the part of the town to protect its water resources from polluted runoff.
- Support the Nature Conservancy's Pawcatuck Borderlands Project.
- Create a Land Acquisition Fund (Section 7-131r of Connecticut General Statutes) and investigate the use of impact fees to fund open space protection. (DONE)
- Coordinate land acquisition/stewardship with land trusts, the Town, and the State. (ONGOING)

Recognizing the importance of these tasks, the Town should consider creating a Conservation Commission to focus on execution of the *Plan for Conservation and Recreation Lands*. This could evolve out of the volunteer committee that completes the Plan. (DONE)

GOAL:

THE TOWN'S NATURAL RESOURCES AND ENVIRONMENTAL QUALITIES MUST BE PRESERVED AND PROTECTED.

NATURAL RESOURCES

The continued health of North Stonington's natural resources such as fertile soils, forests, ground water sources, wildlife and unique land forms are essential to serve both the priority of maintaining the rural character and high quality of life, and attracting high quality development to facilitate economic growth. The town's valuable natural resources must be considered when making future land use decisions, and development should be planned to minimize any potential adverse impacts.

Objectives:

1. Define, evaluate, prioritize, and protect open space and environmental resources.
2. Create a complete and accurate database of all the town's natural resources. (MAP)
3. Preserve Farmland (MAP)

Actions:

1. Create a Natural Resource Inventory Map based upon guides and techniques furnished by Non-point Education for Municipal Officers (NEMO) to serve as a guide for determining areas of conservation and development. Notable trees and wetlands should be included.
2. Conduct a more intensive study of the Town's biodiversity. Investigate organizing a biodiversity event.
3. Ensure that all maps are complete and accurate, using the Geographic Information System (GIS.)
4. Protect large, unfragmented forests, notable trees, and corridors for wildlife. (MAP)
5. Encourage other land uses in town that require large areas of open land (e.g. sustainable forestry, hunting and fishing clubs, summer camps).
6. Identify and protect unique and sensitive habitat, rare species, vernal pools (including surrounding uplands), and geological formations. (MAP)
7. Protect lakes, watercourses, and ground water. (2009 Water Supply Plan Adopted, and Drinking Water Quality Management Plan adopted in 2008)
8. Protect unique and significant natural features and view sheds such as Lantern Hill, Shunock Watershed, Chester Main and Wintechog Hill. (MAP)
9. Protect steep slopes from development. (DONE)
10. Establish and protect corridors/connections between protected open lands.
11. Maintain buffer areas.

PASSIVE AND ACTIVE RECREATION

Residents have expressed the need for safe pedestrian and bicycle pathways along busier roads in town and along much of Route 2. They have expressed the need to connect Holly Green to the Village, the Rocky Hollow Recreation Center to the schools, and Kingswood-Meadow Wood to the schools and Village. Pedestrian walkways can provide a safe and convenient means of getting from place to place, while enhancing local businesses.

Town committees and local organizations have voiced the need for additional areas to accommodate organized sports. The desire to consider establishing a Community Center that might include either an indoor/outdoor pool or a swimming beach has also been noted.

Objective:

1. Expand and enhance active and passive outdoor recreational opportunities.

Actions:

1. Establish a system of trails, paths, and walkways that provide recreational opportunities and connect developed areas with each other and with the countryside. **(MAP)**
2. Investigate the possibility of using the abandoned trolley right-of-way as a hike/bike path.-
3. Promote establishment of a town-wide trail system linking local trails to the Connecticut Blue trail. **(MAP)**
4. Promote establishment of riding trails, in recognition of the significant number of horses in town.
5. Encourage developers to reserve land shown as part of a trail or path alignment for possible public use.
6. Consider establishing a Community Center that might include either an indoor/outdoor pool or a swimming beach.

4.5 FUTURE PLANNING FOR THE EXPANSION OF MUNICIPAL INFRASTRUCTURE, SERVICES, AND GOVERNMENT



Controlling the costs associated with providing municipal services is often a challenge for small rural towns whose greater percentages of residential development are reflected in higher tax rates. The cost of expanding municipal services and essential infrastructure becomes an unwelcome burden to the already burdened taxpayer.

North Stonington's present infrastructure can serve the town well; the Selectmen have stated they don't see any need for major expansion in the next ten years. The Selectmen and other town committees have raised the following objectives and actions as they relate to the location and expansion of municipal buildings, emergency services, recreation facilities and roadways;

current and future water and sewer infrastructure demands; future energy demands; and the improved

function of our various Boards and Commissions. They need to be reviewed individually before being adopted. While keeping municipal facilities in present locations is the 10-year goal of this plan, this does not mean that we should neglect planning for more-distant-future municipal land needs. Mixed-use village planning, for example, would seem to provide an obvious opportunity for long-term municipal facilities planning.

MUNICIPAL INFRASTRUCTURE AND EMERGENCY SERVICES

Currently most of North Stonington's government offices are conveniently located in the Village. The schools are in a unified campus and the main recreation area is close by. Town buildings should continue to be centrally located, and should strive to stay in their existing buildings.

Reflective of New England's tendency towards sprawling development, many homes have been built in North Stonington during the last ten years, while the population has not increased dramatically. With the school population expected to decline in the coming years, the town's escalating education cost comes from unfunded mandates by the State of Connecticut.

Demands on the town's emergency, fire, ambulance, and police services increase with regional development and increased traffic on the roads. The town should periodically re-evaluate the effectiveness of emergency medical services and the volunteer fire department and should consider creating a Public Safety Commission. Volunteerism should be promoted. Information about what is involved in joining the different companies and how to go about doing it needs to be easily accessible. The town should periodically re-evaluate the cost-effectiveness of participating in the Resident State Trooper program.

Objectives:

1. The town's infrastructure policies should complement rural character and protect natural resources.
2. Strive to keep facilities in existing buildings.
3. Keep town buildings centrally located.

Actions:

1. Renovate and expand the Town Hall facilities at their present location.
2. Expand the firehouse at its present location to accommodate upgraded equipment, and consider housing the fire emergency and ambulance services under one roof.
3. Construct and open a bulky waste staging area at the Transfer Station.

4. Pave and possibly expand the town garage storage and operating area.
5. Periodically re-evaluate protection services.
6. Actively promote volunteerism.

RECREATIONAL FACILITIES

Recreation is an important part of life in North Stonington. Many families have different members of the family engaged in organized activities at the same time. The close proximity of the schools and the Rocky Hollow Recreation Area has been a huge advantage to residents.

There is a perceived need for additional playing facilities for the Little League and other active recreations. The town should assist in finding and securing facilities. Recreation needs should be carefully planned with a view to coordinating and centralizing various facilities. This issue is discussed further in the *Natural Resources, Open Lands, and the Environment* section and will be an important part of the *Plan for Conservation and Recreation Lands*.

Objective:

1. Keep recreation facilities centralized. Plan for future needs.

Actions:

1. Upgrade and expand the Rocky Hollow Recreation Area, as usage warrants, and connect it to the school campus via a pedestrian walkway. (**Assekong Bridge opened in 2007**)
2. Complete Plan of Conservation and Recreation Lands (**DONE – See Appendix B**)

WATER AND SEWER INFRASTRUCTURE

In 2002 the town of North Stonington was declared to be an exclusive service provider of water. The town should study the long-term water needs of the town, and the region as a whole, and plan for the best way of protecting and exploiting its water resource. Protection issues should include pollution and security risks. In addition to preparing a town Water Plan in accordance with Connecticut Health Department guidelines and requirements, town water planners should consider protecting water resources and recharge areas in the context of the *Plan of Conservation and Recreation Lands*.

With modern technology, sewers are not needed for certain types of development, as is witnessed by the package sewage treatment system at The Hilltop Inn on Route 2. Septic systems should continue to be

the method of treatment for most residential use. The Town should concentrate on developing a policy regarding decentralized treatment plants and should consider other options which may become available in the future.

Objectives:

1. Maintain Exclusive Service Provider status.
2. Protect the aquifer.
3. Explore new options for wastewater treatment.

Actions:

1. Create a Water Plan. **(DONE)**
2. Establish a policy allowing private and town-owned and operated "decentralized" sewage treatment plants.

ENERGY EFFICIENCY

The State of Connecticut realizes the importance of an energy policy and mandates that towns plan for the use of solar and other renewable forms of energy, energy conservation, and energy efficient patterns of development.



North Stonington's brooks once powered a thriving mill industry.

Objectives:

1. Promote energy efficient patterns of development.
2. Plan for the use of renewable sources of energy. **(New Regulations adopted in 2008 to allow small and large-scale wind facilities in North Stonington)**

Actions:

1. Create an Energy Conservation Plan.

2. The Planning and Zoning Commission should consider incentives for developers who use passive solar energy techniques, as defined in subsection (b) of section 8-25 of the General Statutes, in planning a residential subdivision development.
3. Municipal facilities should have an energy conservation plan which includes a requirement that new municipal buildings have a site design that maximizes solar energy potential. The town should consider getting their electricity from a renewable energy supplier when available. **(ONGOING)**
4. The town should consider an ordinance protecting the right to use solar energy.

TRANSPORTATION INFRASTRUCTURE

Roads are an important part of a town's identity. Road standards should reflect this. Route 2 is the most traveled road in North Stonington and serves as the main entrance to the town from both east and west. Despite heavy traffic, it is still a scenic two-lane country road, canopied by old-growth trees. Widening Route 2 to four lanes would have a disastrous effect on the town.

Objectives:

1. Maintain, protect, and build roads to be in harmony with the countryside.
2. **Do everything possible to keep Route 2 from being widened to four lanes; protect and improve its scenic qualities** (In Fall, 2004 the Connecticut Department of Transportation issued a "Final Environmental Impact Statement" on a proposal to widen Route 2 starting at the Exit 92 interchange in Stonington and passing through the full length of Route 2 in North Stonington (6.8 miles) to the Ledyard line. The Selectmen held a Town Meeting on January 8th, 2005 at which residents voted by a 10 to 1 majority to "oppose the recommended ConnDOT Route 2 proposed improvements as identified in the final environmental evaluation").

Actions:

1. Update town road construction standards to allow new roads that are rural in appearance.
2. Modify road standards to provide flexibility for site-specific environmental needs such as amphibian crossings, minimal destruction of habitat, and optimum storm-water management.
3. Have the tree warden participate in the Tree Warden Workshop sponsored by the Connecticut Urban Forestry Council.
4. Maintain the Rotary and restore its traditional flowering trees and plants.
5. The town should implement access management for Route 2 as recommended in the *1998 Wilbur Smith Route 2 Corridor Study*. **(Begun)**

REGULATIONS, BOARDS, AND COMMISSIONS

As North Stonington grows, governing it becomes more complex. The town should consider restructuring overburdened boards and commissions, in order to better handle expanded responsibilities.

Zoning requirements should reflect actual practices, and should make the job of the Zoning Enforcement Officer, the Building Inspector and other town officials easier.

Objective:

1. Give boards and commissions access to professional guidance and resources so they can better serve North Stonington.

Actions:

1. Provide additional funding to the Economic Development Commission, for professional consultation, staff assistance, marketing, etc. **(DONE)**
2. Establish a Conservation Commission separate from the Inland Wetlands and Watercourses Commission. The first task of this commission would be to implement the *Plan for Conservation and Recreation Lands*. **(DONE)**
3. Periodically upgrade and modernize zoning and building procedures in a way that reflects the needs of the Town.

The town should consider adopting the following regulations and procedures:

- Adopt "Plot Plan" specifications for residential dwellings. **(DONE)**
- Require an "As-Built Plan" following construction. **(DONE)**
- Update Site Plan specifications (1700). **(DONE)**
- Provide definitions in Appendix A of the *Zoning Regulations* for all uses listed in the Table of Uses. **(DONE)**
- Update regulations to current Connecticut General Statutes requirements. **(DONE)**
- Require AutoCAD-compatible CD-ROM of boundary surveys and assessor's maps in Subdivisions. **(DONE)**
- Give the Planning and Zoning Commission the option of requiring that developers pay for the cost of consultants, monitoring, and inspection during construction. **(New Fee ordinance drafted 2009. Pending adoption May 2009)**

5.0 PLAN IMPLEMENTATION⁶

Completing the *Plan of Conservation and Development* is an important first step in shaping the future of North Stonington. However the real value of the Plan is in its implementation. The process of creating the *Plan of Conservation and Development* has been a positive forum for residents, allowing them to be



heard on town issues. Continued citizen support and involvement will ensure that the Plan is carried out.

There are many ways to inform the public, and to encourage them to participate. The town should use all the means available to it to reach out to residents. One such way, as recommended by the Connecticut Chapter of the American Planning Association, is to conduct an annual review of the *Plan of Conservation and Development*. This will keep the town

focused on its goals and at the same time will satisfy the statutory requirement of updating the Plan every ten years. Conducting an annual review will also keep citizens involved, and provide a forum for addressing new conservation and development goals. The Planning and Zoning Commission should consider setting aside an annual ‘planning month’ for this purpose. Enacting this Plan requires regulation changes and further study of important issues. It will take a real commitment from the Planning and Zoning Commission to get the job done.

GOAL:
**THE PUBLIC SHOULD CONTINUE TO BE INVOLVED IN TOWN PLANNING
AND THE IMPLEMENTATION PROCESS TO ENSURE THAT TOWN
GOVERNMENT IS RESPONSIVE TO ITS CITIZENS.**

⁶ Please note that this section of the 2003 POCD has been reorganized in the 2009 update. The actual goals and objectives however, have remained the same.

Objectives:

1. Encourage the use of existing avenues of communication to keep residents involved and informed.
2. Move forward promptly with changes to land use regulations and other measures.

Actions:

1. Review the *Plan of Conservation and Development* annually.
2. Require the Annual Report to include a progress report on the implementation of the *Plan of Conservation and Development*.
3. Appoint resident committees to complete planning process and help with implementation.
4. Use local organization newsletters and flyers to pass along town information.
5. Upgrade the town's web site to include municipal documents, plans, and schedules. **(DONE)**
6. Encourage utilities to provide the town with high speed Internet connection. **(DONE)**
7. Publish all town legal notices and advertisements in the same newspaper. **(DONE)**
8. Encourage the participation of young citizens in town government through school presentations and awareness programs.
9. Conduct quarterly Planning and Zoning meetings specifically to address planning functions and progress in implementing the Plan.
10. Appoint a committee to complete the *Plan of Conservation and Recreation Lands*. **(DONE)**
11. Appoint a committee to study flexible mixed-use village zoning for the I-95, Exit 92 area.
12. Review and prioritize possible changes to the zoning and subdivision regulations and ordinances listed in the Plan, and establish a schedule for their revision. **(DONE)**

6.0 PROPOSED REGULATION CHANGES AND ORDINANCES

6.1 PROPOSED REGULATION CHANGES AND ORDINANCES TO PROTECT THE RURAL AND HISTORIC CHARACTER OF NORTH STONINGTON.

New Zoning Regulations

1. Update uses in the Village, allowing historical uses **(MAKE THIS AN ACTION)**
2. Add 'Village Districting' per Connecticut General Statutes to North Stonington Village and other appropriate areas **(MAKE THIS AN ACTION)**
3. Regulate fence design and placement **(DONE)**
4. Add Driveway and curb cut standards **(DONE)**
5. Require temporary event permits **(MAKE THIS AN ACTION)**
6. Implement Route 2 driveway access management **("Implementation" isn't a regulation)**
7. Regulate drive-through establishments **(DONE)**
8. Allow specialized agricultural buildings **(DONE)**

Existing Zoning Regulations

1. Update earth excavation and mining approval guidelines (1525) **(DONE)**
2. Update home occupation approval guidelines (1533) **(DONE)**
3. Update outdoor lighting fixtures (1548) **(DONE)**
4. Add building and parking standards to hotel/motel regulations (1535) **(DONE)**

New Subdivision Regulations

1. Require subdivision lot lines follow natural boundaries and stone walls, and that stone walls be preserved. **(Stonewall preservation language in place)**

New Ordinances

1. Regulate special events **(MAKE THIS AN ACTION)**
2. Control noise pollution **(DONE)**
3. Control outdoor illumination **(DONE)**
4. Regulate abandoned structures regarding unsafe conditions **(BUILDING DEPT OR TROOPERS)**

Existing Ordinances

1. Change road standards to protect stonewalls and roadside trees and to ensure that new roads look like country roads **(MAKE THIS AN ACTION)**

6.2 PROPOSED REGULATIONS AND ORDINANCES DESIGNED TO PROVIDE AND PROTECT NATURAL RESOURCES, OPEN LANDS, AND THE ENVIRONMENT

New Zoning Regulations

1. Add Conservation Subdivision zoning (Completion of an open space plan is a prerequisite to this regulation) **(Bucket List)**
2. Consider restrictions on construction on steep slopes and shallow-to-bedrock soils **(DONE)**

Existing Zoning Regulations

1. Add storm water management (to include the sub-watershed) **(DONE)**
2. Update uses and hazardous substances requiring control in the Aquifer Protection Overlay Area **(1104) (DONE)**
3. Add landscape criteria to prohibit non-native, invasive plants **(1800) (DONE)**

New Subdivision Regulations

1. Require either open space set asides or a fee in lieu of open space **(DONE)**

Existing Subdivision Regulations

1. Add subdivision road standards or cite new ordinance **(Section 6.2) (DONE Table 6-1 Section 7.2, 7.3)**

New Ordinances

1. Establish a fund for the acquisition of land for conservation and recreation. **(DONE)**

6.3 PROPOSED REGULATION CHANGES AND ORDINANCES DESIGNED TO MANAGE GROWTH

New Zoning Regulations

1. Provide standards for congregate care facilities in appropriate areas (**Bucket List**)
2. Establish a Mixed-use Village Overlay or Zone and create regulations for it (**MAKE THIS AN ACTION**)
3. Change Highway Commercial to Commercial (**SOME CHANGES MADE- NEEDS FURTHER DISCUSSION**)

Existing Zoning Regulations

1. Update all signage to be consistent with the town's rural character (2000) (**DONE**)
2. Allow Bed & Breakfasts in unconnected buildings (1511) (**DONE**)
3. Update the western Industrial Zone (**Bucket List**)

Existing Zoning Regulations

1. Review appropriateness of the way uses are allowed ("Permitted by Right" (P) or "Special Permit" (S)) with respect to the zone's definition and objectives
2. Review appropriateness of zone's or overlay's **title** and **definition** with respect to its objectives
3. Review appropriateness of zone's or overlay's **delineation** (size, shape, and location) with respect to its definition and objectives
4. Review appropriateness of zone's **uses** or the overlay's **provisions** with respect to its definition and objectives

(ALL ZONING REGS WERE REVIEWED AND UPDATED)

6.4 PROPOSED REGULATIONS TO IMPROVE MUNICIPAL INFRASTRUCTURE, SERVICES, AND GOVERNMENT

New Zoning Regulations

1. Require "Plot Plan" for residential dwellings **(DONE)**
2. Define "Plot Plan" specifications **(DONE)**
3. Require "As-built Plan" following construction **(DONE)**
4. Require monetary fines for violations **(DONE)**

Update Existing Zoning Regulations

1. Update Site Plan specifications **(1700) (DONE)**
2. Provide definitions in Appendix A for all uses listed in the Table of Uses **(DONE)**
3. Perform general housekeeping and updating to current Connecticut General Statute requirements **(DONE)**

New Subdivision Regulations

1. Specify off-site road improvement requirements **(7.2.3B)(DONE)**

Existing Subdivision Regulations

1. Update Subdivision Plan specifications **(Section 5) (DONE)**
2. Update to current Connecticut General Statute requirements **(DONE)**

Existing Ordinances

1. Create separate 'Conservation' and 'Inland Wetlands and Watercourses' Commissions **(DONE)**

RECOGNITION AND ACKNOWLEDGEMENTS

For 2003 Plan of Conservation and Development

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On behalf of the town of North Stonington, the Steering Committee wishes to express its deepest gratitude to the following individuals and organizations who assisted in developing the Plan and in the activities leading up to the Plan.

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Community Planning Fair Assistance

- Vinny Joyce and Sodexo Marriott, Inc. for buffet supper, luncheon, and refreshments.
- Dunkin' Donuts of North Stonington for Saturday's refreshments.
- Bess Eaton Donuts for Sunday's refreshments.
- Lady Buggs Flowers & More for floral arrangements.
- The North Stonington Elementary School Band,
- The cast of "Lucky, Lucky, Hudson," and
- The First Grade "Earth Day Chorus" for lunch time entertainment.
- The staff of the North Stonington Schools for the facility.
- Susan Ames for Childcare.
- Mary Cooper, Pat Payne, Paula Pintauro, and Art Pintauro for greeting residents.

Community Planning Fair Exhibitors

- Gifted and Talented Program's *Aquatic Life* exhibit
- Kristi Williams' 6th Grade Science Classes' exhibits depicting life in North Stonington
- North Stonington Citizens Land Alliance
- North Stonington Garden Club
- North Stonington Grange
- Avalonia Land Conservancy, Inc.
- Board of Finance
- Eastern Pequot Indians of Connecticut
- Economic Development Commission
- First Grade's *Study of Pond Life* exhibit
- North Stonington Historical Society
- North Stonington Little League
- North Stonington Parent Teacher Organization
- North Stonington Prayer Watch
- North Stonington Volunteer Fire Company
- Permanent School Planning and Building Committee
- Planning and Zoning Commission
- Representative Diana Urban
- Visiting Nurses Association of Southeastern CT
- Wheeler Library
- Wood-Pawcatuck Watershed Association
- Wyassup Lake Association
- 6th and 7th Grade's *Invention Convention* exhibit
- 6th, 7th, and 8th Grade's *Geography Bee* exhibit
- 4-H Butter and Beef

Participating Staff

Joyce Elias, Assessor
Dick Cooper, Planning Coordinator

Carol Caron, PZC Administrative Assistant
Cheryl Konsavitch, IWC Secretary

PHOTO CREDITS

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Teamster and Oxen (p17), Wyassup Lake (p21), The North Stonington Agricultural Fair (p28), Pendleton Hill (p32) by Vilma Carocari, courtesy of the photographer.

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The Beriah Lewis Farm (p29), by Roy Gumpel, courtesy of the photographer.

Stonewalls (p31), by Madeline Jeffery, courtesy of the photographer.

Jonathan Edwards Winery (p38), by John Lewis Shipman, courtesy of Jonathan and Rachel Edwards

Scenic Stonewalls (p1), Windstone Farms (p4), Studio Farm (p5), Greenhouses (p8), House and Barn (p13), House (p17), Leech's Tree Farm (p18), Historic House (p19), Town Hall (p26), Rural Scene (p43), by Juliet Leeming, courtesy of the photographer.

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Windborne Farm (p27), A/Z Corporation (p27), Google Images

APPENDIX A

BACKGROUND MATERIAL

2003 Plan of Conservation and Development
NORTH STONINGTON, CONNECTICUT

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BACKGROUND MATERIAL

The material in this appendix supplements information in the body of the 2003 *Plan of Conservation and Development* and the *Plan for Conservation and Recreation Lands*. It contains additional information not otherwise covered in those documents.

Location and History

Early History

The roots of North Stonington date back to the early settlement of the Town of Stonington in 1649. Originally under the jurisdiction of the Massachusetts colony, the area became part of Connecticut when Governor Winthrop obtained a new Charter of Connecticut from King Charles II in 1662. In April of 1806, the Town of Stonington voted to separate into two separate towns based on ancient Congregational Church parishes. The original North Stonington was named Jefferson until the General Assembly decided on the current name. The township of North Stonington contained numerous districts and settlements, each with its own character, schools, post offices, churches, and stores. Early 1800's industries featured a gristmill, sawmill, fulling mill, a cotton mill, and a woolen mill, which were powered by the Shunock and Assekonk Rivers. By 1840, more residences, a tannery, and a trip hammer (iron works) were located in the Milltown section of town. Woolen goods were the Town's major products through the 19th century, however fine silk and satin clothes, fur muffs, satin hats, fine *wools*, thread lace, English carpets, and china tea sets became noted North Stonington merchandise. The Civil War and the industrial revolution ended the Town's cottage industries, and the Town became primarily agricultural, a flavor it retains to this day.

Recent History

The Town experienced its growth in the 1960's and '70's along with the state's defense industry fueled by the Vietnam War. Major employers in the area such as Electric Boat, Dow Chemical, and Pfizer drew a work force that sought housing in the rural atmosphere of North Stonington. Population more than doubled - from 2,000 in 1960 to 4,219 in 1980. The 2000 census shows a modest increase from 1990's 4,884 to 4,991.

Location

North Stonington is situated in the New York/Boston corridor, approximately 125 miles from New York City, 75 miles from Boston, 35 miles from Providence, Rhode Island, and 45 miles from Hartford, Connecticut. (See Map A "Locational Map of Southeastern Connecticut Region".)

Physical Characteristics

Water Resources

Aquifers

In terms of aquifers with potential groundwater supply, three aquifers were identified by the Southeastern Connecticut Water Utility Coordinating Committee (see Map B “Southeast Connecticut Public Water Supply Management Area - Potential Water Supply Sources”), that lie partially within North Stonington. The largest deposit, known as the Shunock Aquifer, is located in the south, southeastern and eastern part of Town along Route 2. A small portion of the Anguilla Aquifer is located along the southwestern border of Town. A small portion of the Billings Brook Aquifer is located along the north central border of Town. In addition, there is an aquifer deposit just to the southwest of the Lake of Isles, straddling the Ledyard/North Stonington town line that is identified on certain data maps.

In 1988, the Pawcatuck groundwater hydrologic system in Connecticut and Rhode Island received federal designation as a Sole Source Aquifer (see Map C, “The Pawcatuck Watershed and Sole Source Aquifer” map.) There are only two sole source aquifer watersheds designated in Connecticut. The Pawcatuck Sole Source Aquifer, as designated, consists of the Pawcatuck Mainstem Drainage basin, which in North Stonington encompasses the Shunock, Wyassup, Pawcatuck, Ashaway and Green Falls sub regional drainage basins.

The Shunock Aquifer lies beneath much of North Stonington, including the Route 2 corridor. The corridor is relatively flat, reflecting the course grained, stratified-drift deposits of sand and gravel that comprise the enormous Shunock Aquifer. The ground water in this aquifer is classified by the DEP as GAA, the ‘G’ indicating groundwater, the first ‘A’ representing current highest-standard conditions and the second ‘A’ indicating that this standard shall be maintained. Because this stratified-drift aquifer is relatively close to the surface, course grained, contains a huge quantity of water, and probably maintains a general flow, it is highly susceptible to surface contamination and would, if contaminated, be very difficult to restore. Demand for future water supply is anticipated to be met using the Shunock Aquifer.

Aquifer Protection

North Stonington ’s zoning regulations contain an Aquifer Protection Overlay Area district. The Aquifer Protection Overlay Area shown on the Zoning Map covers approximately 36% of the land area of the Town. As per the regulations, the overlay area consists of “selected aquifer recharge areas that are capable of yielding usable amounts of water currently or in the future. The aquifer includes all of the stratified-drift deposit to the contact with adjacent till or bedrock. The aquifer recharge area includes all area of subsurface inflow immediately adjacent to the aquifer.” The Overlay is intended to protect the aquifers by “regulating land uses that could contribute to the degradation in quality or quantity of these resources.”

Drainage Basins

According to the Department of Environmental Protection drainage basin classification system, North Stonington is located within three Major Drainage Basins, as follows: predominantly, the

Pawcatuck Basin (the majority of this basin is located in Rhode Island), which drains to the south and southeast, the Thames Basin, which drains to the north and northwest, and the Southeast Coast Basin, which drains to the south and southwest.

The Town lies within portions of five Regional Basins, which further subdivide into fourteen Sub regional Basins, twelve of which have any significant amount of land in Town (see Map D, “North Stonington Water Resources”, as prepared by Lou Steinbrecher, April 2003.) The eight that are contained mostly or partially with the Town boundaries are: the Shunock, Wyassup, Green Falls, Pawcatuck, Shewville, Broad, Billings, and Whitford Sub-basins. The four other sub-basins with lesser area in Town are: the Copps, Anguilla, Ashaway, and Myron Kinney Sub-basins. The Shunock and Wyassup Sub-basins are the Town’s largest sub-basins encompassing approximately 50% of the Town’s land area.

Wetlands

All areas that have wetland soils identified by the U.S. Soil Conservation Service as being poorly drained, very poorly drained, alluvial, or flood plains are considered to be regulated areas, in addition to all watercourses, intermittent watercourses and vernal pools. Wetland areas comprise approximately 16.64 percent of the total area of the town. The inland wetland and watercourses map “Official Inland Wetlands and Watercourses Map of North Stonington,” delineates the general location of boundaries of the inland wetlands and watercourses in Town as per digital wetlands data provided by the State of Connecticut Department of Environmental Protection. Vernal pools, plentiful in Town, have yet to be mapped.

Rivers and Brooks

The Pawcatuck River, the Town’s largest river, forms the boundary for some of its length between the Towns of North Stonington and Westerly. It receives directly or indirectly, approximately two-thirds of the Town’s drainage. There are numerous other rivers, streams, and brooks including Shunock River, Green Falls River, Wyassup Brook, Prentice Brook, Phelps Brooks, Lantern Hill Brook, Pendleton Hill Brook, and Hetchel Swamp Brook.

Swamps and Ponds

There are two major swamps, Assekonk Swamp West and Assekonk Swamp East (each in excess of 75 acres) and numerous ponds, among them West Brook Pond, Lewis Pond, Gallup Pond, Spalding Pond, Clark’s Falls Pond, Horace Lewis Pond, and Assekonk Pond.

Lakes

The Town has six major freshwater lakes. All six are enlarged original water bodies, five of the six with the highest water quality classification. Five of the lakes have state-owned public boat launches and parking for cars with trailers. Size and depth of these lakes are listed in Table A.1.

TABLE A.1 - *Major Lakes And Ponds*

Major Lakes and Ponds North Stonington, Connecticut			
		Depth in Feet	
	Acres	Maximum	Average
Blue Lake (Anderson's Pond)	54	7	4
Billings Lake	105	33	14
Lake of Isles	87	10	6
Wyassup Lake	93	28	9
Lantern Hill Pond	15	32	15
Long Pond	99	72	15

*All figures are rounded to nearest acre or foot. Lantern Hill Pond and Long Pond are only partially in North Stonington. Source: "A Fishery Survey of the Lakes and Ponds of Connecticut", State Board of Fisheries and Game, 1959.

Public Access to Lakes

The only areas open to the public are the boat launches at Lake of Isles, Billings Lake, Lantern Hill Pond, Long Pond, Blue Lake, and Wyassup Lake. Swimming is not allowed at the boat launches. There are no public beaches or other public areas for swimming in Town.

Water Quality and Protection

Monitoring and Regulation

There are several entities currently working to protect and study water quality in Town. Because North Stonington shares its main water resource - the Pawcatuck Watershed – with ten Rhode Island towns, water quality preservation efforts have included groups working in both states.

In 1988, the University of Rhode Island collaborated with the Wood-Pawcatuck Watershed Association to initiate the URI Watershed Watch program. The program, funded by grants from the State of Rhode Island, is part of the University of Rhode Island's Natural Resources Science Department. In 1989 URI Watershed Watch began monitoring lakes and ponds, solely using volunteers and volunteer organizations from local communities. Volunteer groups and towns pay for monitoring, supplemented by Watershed Watch Program grants given to volunteer groups. In 1999 URI Watershed Watch began a stream-monitoring program, also done with volunteers. URI Watershed Watch publishes its monitoring results in two yearly reports on the Watershed's water quality: one on lakes and ponds and one on streams.

In 1989 the North Stonington Citizens Land Alliance participated as the first Connecticut volunteers to get involved with the URI Watershed Watch. Under the program, The Land Alliance does Secchi disk, temperature, chlorophyll level, and dissolved oxygen tests. Testing is

done in Wyassup Lake, Spaulding Pond, Hewitt Pond, Babcock Pond, and Assekonk swamp from April through October. Green Falls River is being monitored at three sites for E. coli as part of the stream-monitoring program.

Rhode Island's Department of Environmental Management (the equivalent of Connecticut's Department of Environmental Protection) supports URI Watershed Watch, backing Rhode Island's Wood-Pawcatuck Watershed Association (WPWA). The WPWA has cooperated with efforts in North Stonington, providing the Land Alliance with a gauge for monitoring Green Falls, and working with Wheeler School volunteers. The Connecticut Department of Environmental Protection (DEP) also operates a Lakes Program, which has compiled resource data on some of the Town's lakes.

Connecticut's DEP identified and mapped Water Quality Classifications in 1988, based on the DEP's classification system for surface water and groundwater. Classifications are assigned to surface and groundwaters in all areas of the state and are based on the use or potential use such waters as well as on their known or presumed quality. Under the DEP Water Quality Monitoring Assessment Program, monitoring was completed in North Stonington in 2000.

Most of the Town's surface water bodies are classified Class A, the highest classification for surface waters and have the potential for serving as drinking water supplies.

Most of the Town's groundwaters are classified Class "GA" or "GAA," the latter, denoting those groundwaters within public water supply areas - the highest classification for groundwaters. A significant portion of North Stonington's GAA groundwater is in the northwestern area of Town roughly from just below the Lake of Isles north to the northwestern border and almost to the northern border. This area is known as the Shewville Diversion Watershed, which also has been identified with potential for a possible surface supply. Dean's Mill Reservoir Watershed is Class GAA. In addition, the public water supply wellfield areas in Town are classified GAA. The portion of the sole source aquifer that lies within Town is not classified GAA, due to the fact that the portion in Town is not utilized as a public water supply.

In 1998 the Town of North Stonington participated in the Nonpoint Education for Municipal Officials (NEMO) Workshop geared toward a comprehensive understanding of land use activity impacts on the Town's water resources. NEMO advises focusing water quality protection efforts by watershed with an eye toward those special qualities of the resource that warrant benefits of protection efforts such as protection of water supply, preservation of unique habitats, and protection of public recreation water bodies.

The Town of North Stonington participates in the Pawcatuck Watershed Partnership (PWP), initiated in 1996 by the U.S. Environmental Protection Agency (EPA). In 2000, PWP completed the Pawcatuck Watershed Action Plan.

Impaired Water Quality

The water quality of North Stonington's lakes and ponds has improved over the past decade. Historically, cottages around the lakes often were not equipped with properly designed sewage treatment systems. Modern septic systems prevent the direct introduction of human waste, thus avoiding bacterial contamination and other types of immediate pollution. Attention to the upgrading and maintenance of treatment systems in areas surrounding the lakes has resulted in better water quality.

However, the effluent from properly designed and maintained septic systems contains high concentrations of nutrients such as nitrates and phosphates. If these nutrients enter the water, they promote the growth of algae and certain undesirable plants. Excessive algae growth, in particular, results in low oxygen concentrations in the water, which limits the type of aquatic animals that can survive. The introduction of nutrients from septic effluent is at its greatest during the wintertime, when dormant plants are not using nutrients and the efficiency of septic leach fields is diminished due to frozen ground.

Nutrient and sediment introduction to a water body occurs naturally and is referred to as eutrophication. While this process normally occurs over hundreds of years, human activity can dramatically shorten this time span. As eutrophication progresses, aquatic plants become prominent and the lake's recreational opportunities decline.

Human activity that accelerates eutrophication includes the introduction of nutrients in the form of septic effluent, the clearing of natural vegetation near the water, the addition of sand beaches, and the application of fertilizers to introduced vegetation. Land clearing not only removes the deep rooted vegetation that uses natural and septic effluent nutrients before they enter the lake, but it also allows enhanced entry of natural fertilizers, such as leaves, and sediments from soil erosion. Beaches are a frequent source of sediment introduction as new sand is added to replace that which is removed by runoff and wave action.

All of North Stonington's lakes are in areas zoned R80. Depending on soil conditions and terrain, two-acre lots are usually considered adequate to ameliorate the impact of septic effluent. However, the town also recognizes the recreational value of the lakes to property owners, and, therefore, permits smaller lots within Seasonal Use Overlay Areas, limiting use to six months of the year.

Two water bodies in North Stonington are listed in the DEP's "Connecticut Water bodies Not Meeting Water Quality Standards," last published in 1998 (known as the 303D List). Wyassup Lake is indicated with fish contamination with mercury from atmospheric deposition. A fish consumption advisory has been designated for largemouth bass, small mouth bass, and chain pickerel. Although Wyassup Lake is the only North Stonington Lake to have this warning, mercury is present to some degree in all the Town's lakes. The Mercury levels are due to airborne emissions, and therefore can only be addressed by State and Federal emission-reduction regulations. The Shunock River is indicated with inadequate fish passage due to four dam sites.

The DEP has identified and mapped leachate and wastewater discharges for North Stonington. This includes surface and groundwater discharges that (1) have received a wastewater discharge permit from the State or, (2) are historic and now defunct waste sites or, (3) are locations of accidental spills, leaks or discharges of a variety of liquid or solid wastes.

The DEP identified leachate discharging to the groundwater from the Town's landfill on Lantern Hill. The Town has closed the landfill and has completed remedial work at the landfill site including re-contouring of the flow and installation of water quality monitoring wells.

The DEP identified two former oil/chemical spill's contamination of groundwater sites in the Kingswood/Meadow Wood development due to communal heating oil feed system. The Town has rectified this situation.

Horace Lewis Pond and other water bodies were experiencing impaired water quality due to agricultural waste contaminating groundwaters. The Connecticut Agriculture Department has

assisted local farmers in the implementation of manure management plans, which has improved conditions.

The former wastewater discharged groundwater contamination (now inactive) at the former Posi-Seal International off Pendleton Hill Road (Route 49) just north of Interstate 95. DEP has required the present property owners, Fisher Control, to haul wastes off-site.

Long Pond is the one lake or pond in Town indicated with impaired water quality. Long Pond, Lantern Hill Pond, and the brook emptying into Long Pond from Lantern Hill Pond have surface water classifications of B/A. This is as a result of former silica mining operation activities (surface discharge of backwash water by the former Ottawa Silica Company, located off Lantern Hill Road.) According to the DEP, the groundwater in the vicinity of the mine site also may be impaired. Reclamation efforts have been undertaken by the owners.

Pawcatuck River, for its entire length along the Town's southeastern border with the Town of Westerly, Rhode Island, is classified Class C/B, (not suitable for bathing/water quality improvement goal of B), due to industrial wastewater discharge upstream in Rhode Island.

Vegetation and Wildlife

The "Natural Diversity Database Digital Data Map of North Stonington, Connecticut," as prepared by the DEP, dated 7/2001, depicts 23 sites identified as habitats supporting endangered species, threatened species and species of special concern. Scientific data gathering is on-going under this state program. Land use applicants are required to ascertain, by contacting the State of Connecticut DEP, the status of the mapped resource and the potential impact of the proposed land use activity as determined by the DEP.

The Pauchaug River Focus Area is one of nine focus areas under the State of Connecticut Department of Environmental Protection Agency pilot "Resource Protection Project." The area was chosen for the great integrity of its natural systems and low population threats. In 1996, under this program, the DEP completed a series of natural resource based maps for the Focus Area which covers North Stonington, Voluntown, and Griswold.

The State of Connecticut has listed the Town of North Stonington third in the state in terms of largest acreage of forested land. A portion of the 3,000-acre Pauchaug State Forest (known as the Wyassup Block) lies within North Stonington. The State as well as private landowners conducts logging operations for timber.

The Avalonia Land Conservancy, the North Stonington Citizens Land Alliance, and The Nature Conservancy are charitable organizations working together to conserve the forest and water resources of the town. The town has been identified by The Nature Conservancy as one of ten towns lying within Pawcatuck Borderlands, a 136,000-acre healthy forested landscape (see Map E.) The Borderlands are one of only 10 landscapes selected as a high priority for conservation in The Nature Conservancy's recent ecological prioritization of 10 states from Maryland to Maine. The three groups are acquiring interests in land through donation and purchase and are working with the State of Connecticut on land acquisition and land management issues.

Land Use and Zoning

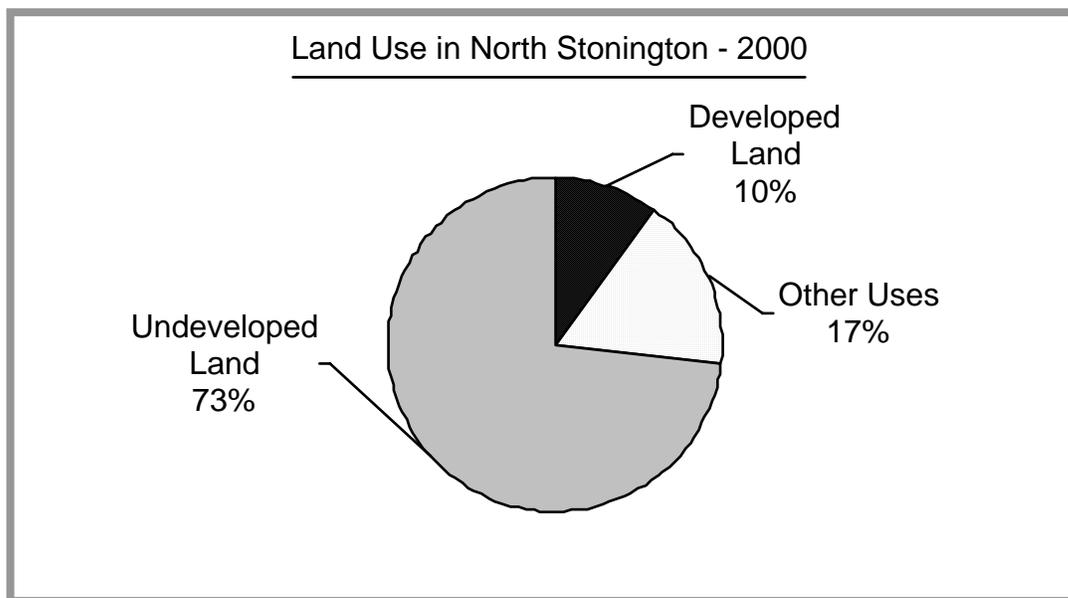
Current Land Use

The total number of new housing permits issued for the years 1990 to 2001 and January and February of 2002 is 284 - an average of 25.8 new houses per year (figures from State of Connecticut Department of Economic and Community Development.) There are several subdivision developments approved years ago that have not been developed

For a composite picture of land use in North Stonington, land use data taken from the report, "Land Use 2000 — Southeastern Connecticut Region," Southeastern Connecticut Council of Governments, March 2002, was amalgamated and depicted herein in two pie chart graphs. A listing of land use categories as defined in the SCCOG report and a list of acreage figures for each land use category identified in North Stonington as per the report, is included at the end of this chapter. SCCOG derived this data from in-house analysis utilizing 2000 aerial photos, windshield survey information, local agency information and map files.

Approximately 73% of the Town's land area is undeveloped. Developed land use, in contrast, represents approximately 10% of the Town's land area. (Note: In Figure A.1 the category "Other Uses," is defined in the SCCOG report, as "Open Space, Active Recreation, Agriculture and Agricultural Reserve, and Native American Tribal Reservations.")

FIGURE A.1 LAND USE IN NORTH STONINGTON



Land Ownership

The State of Connecticut Department of Environmental Protection is the largest public landowner in Town with 3,808 acres, representing approximately 11% of the total land area. (See Map F, “Protected Lands in North Stonington” as prepared by the Tax Assessor’s Office, April, 2003)

The Mashantucket Pequot Tribal Nation is the largest private property owner in Town holding approximately 2,751 acres, all in fee ownership. This land represents approximately 7.8 % of the total area of the Town, most of it undeveloped.

Developed Land

Figure A.2 and Table A2 depict the Town’s developed land uses.

FIGURE A.2 - *Developed Land Use*

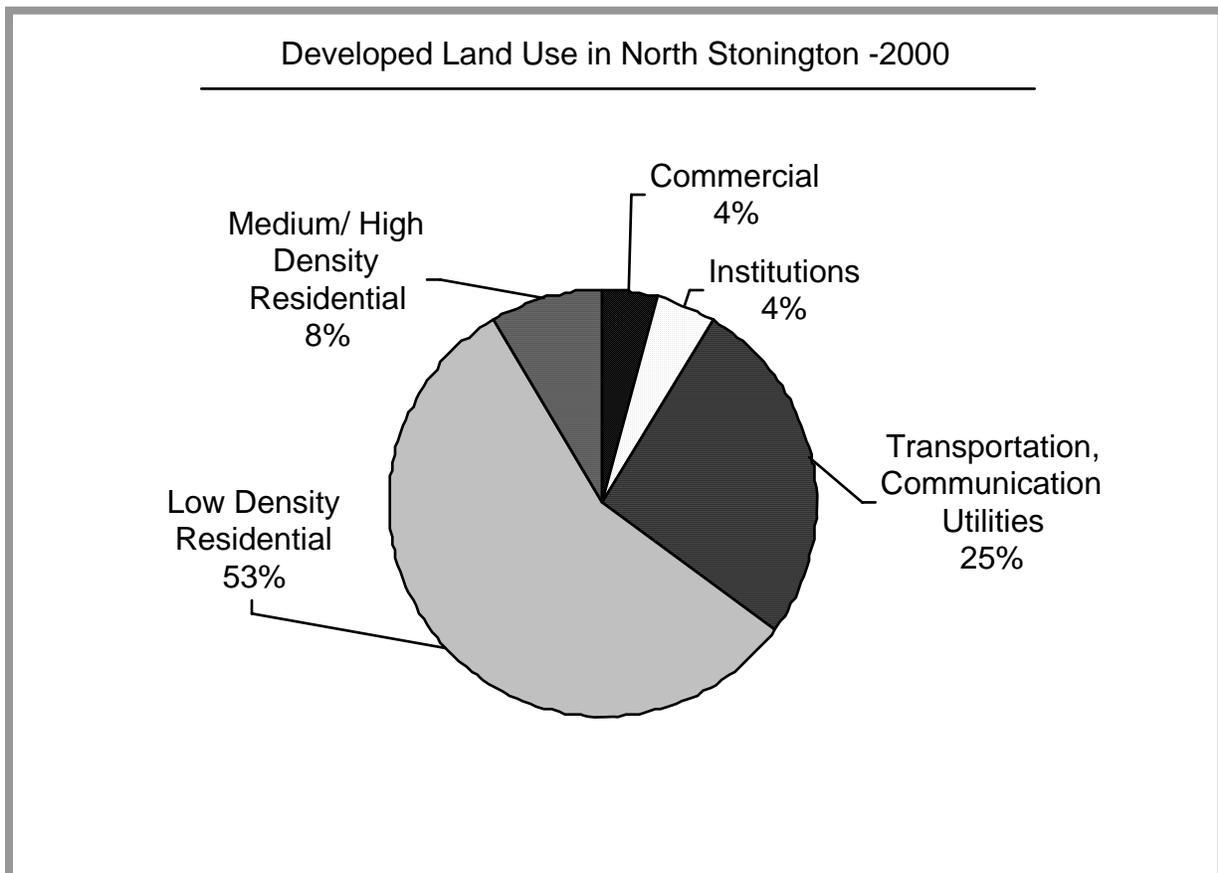


TABLE A.2 - *Land Use Summary (2002 Est.)*

Land Use Category	Acres	Percent
Single Family Residences and Land	15,301	45.05
Multi Family Residences	675	1.99
Open Space – Recreation	7	.02
Schools	51	.15
Fire Department	3	.01
Highway Garage/Transfer Station	39	.11
Town	94	.28
Church/Religion	277	.82
Forest	8,580	25.26
Agriculture	3,971	11.40
State	1,178	3.47
Non-Profit	538	1.58
Industry	1,640	4.83
Commercial	1,707	5.03
Total	33,961	100.00

Source: Vision Report, Planning Department, Town of North Stonington

Land Use Regulations

The “Zoning Regulations for the Town of North Stonington, Connecticut,” effective January 7, 1985, as amended through August 1, 2001, control land use in North Stonington as administered by the North Stonington Planning and Zoning Commission. The “Zoning Map of North Stonington, Connecticut,” prepared for the Town by Cartographic Associates, 2000 (Map G), depicts North Stonington’s seven zoning districts and three zoning overlay areas.

The Subdivision Regulations for the Town of North Stonington, Connecticut, effective October 15, 1984 as amended through September 19, 2000, control the subdivision of land in North Stonington as administered by the North Stonington Planning and Zoning Commission.

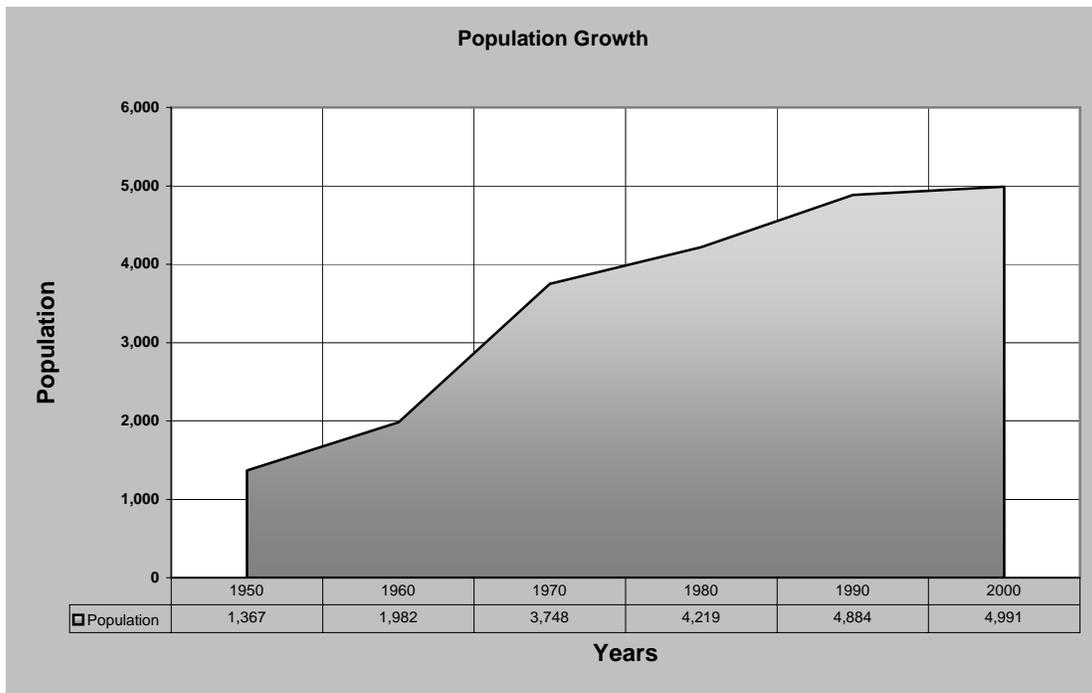
“The Inland Wetlands and Watercourses Regulations of the Town of North Stonington, Connecticut”, revised May 12, 1999, are administered by the North Stonington Inland Wetlands and Watercourses and Conservation Commission (IWWCC.) The inland wetland and watercourses map in force will be replaced with an updated GIS data map, “Official Inland Wetlands and Watercourses Map of North Stonington,” delineating the general location of boundaries of the inland wetlands and watercourses in Town as per digital wetlands data provided by the State of Connecticut Department of Environmental Protection.

Population and Demographics

Population Growth, 1950-2000

Figure A.3 illustrates the Town's population growth from 1950 to 2000. It indicates a varying growth rate, with a substantial increase in population between 1960 and 1990, and a slower growth rate between 1990 and 2000. This growth pattern parallels that of the State.

FIGURE A.3 - *Population Growth*



Population Growth, 1990-2000

Between 1990 and 2000 the rate of growth slowed substantially in North Stonington, as it did in most neighboring towns, as shown in Table A.3. The population of North Stonington was 4,884 in 1990 and 4,991 in 2000; a growth rate of 2.2%, substantially less than the growth rate during the 1950s and 1960s.

TABLE A.3 - *Population Change, 1990-2000*

Town	2000	1990	Percent of Change
Griswold	10,807	10,384	4.1%
Ledyard	14,687	14,913	-1.5%
North Stonington	4,991	4,884	2.2%
Preston	4,688	5,006	-6.4%
Stonington	17,906	16,919	5.8%
Voluntown	2,528	2,113	19.6%

Source: US Census

The *1990 Plan of Development* projected that the population in 2000 was expected to be 5,215. This projection was not achieved. Instead, the 2000 census population was 4,991 - close to the 5,000 projected by the State of Connecticut Office of Policy and Management in 1995.

Population Projections

The Connecticut Office of Policy and Management provides projections of expected population growth. Table A.4 shows that between 2000 and 2010, the population of North Stonington is projected to increase by 3.0%, the County is projected to increase by 6.0%, and State is projected to increase by 3.6%. Note that these figures are based upon the projected figures for year 2000, not the actual Census data.

The North Stonington projection is less than projected growth in the county, and somewhat less than projected growth for the state. Between the 2000-projected figure and 2020 projections, the Town is projected to grow at a rate similar to that for the State, while the County is expected to grow by a substantially greater figure.

The United States Census Bureau is predicting that all states will have more people, especially in the southern and western states, and more elderly as “Baby Boomers” age. According the Census Bureau, Connecticut is expected to grow by approximately 9.5% between 2001 and 2025 and to be the 29th most populous state with 3.7 million people. The Census Bureau also projects that 18% of the population will be 65 or over by 2025. Other states will also show a substantial increase in the elderly population.

TABLE A.4 - *Projected Population Growth*

	North Stonington	New London County	State of Connecticut
1990 Population	4,884	254,957	3,287,116
2000 Projected	5,000	255,630	3,316,220
2000 CENSUS (actual)	4,991	259,088	3,405,565
2005 Projected	5,050	261,050	3,364,080
2010 Projected	5,150	271,090	3,435,400
2015 Projected	5,280	281,190	3,512,240
2020 Projected	5,430	291,230	3,593,860
Projected growth between 2000 and 2010	3.0%	6.0%	3.6%
Projected growth between 2000 and 2020	8.6%	13.9%	8.4%

Source of projections: Connecticut Office of Policy and Management Population Projects, Series 95.1, September 1995 based on the 1990 Census year.

Source of Census Data: Census 2000

Household Types

Table A.5 shows that married couples and “traditional families” comprise the majority of households in North Stonington..

TABLE A.5 - *Household Types: 2000, 1990*

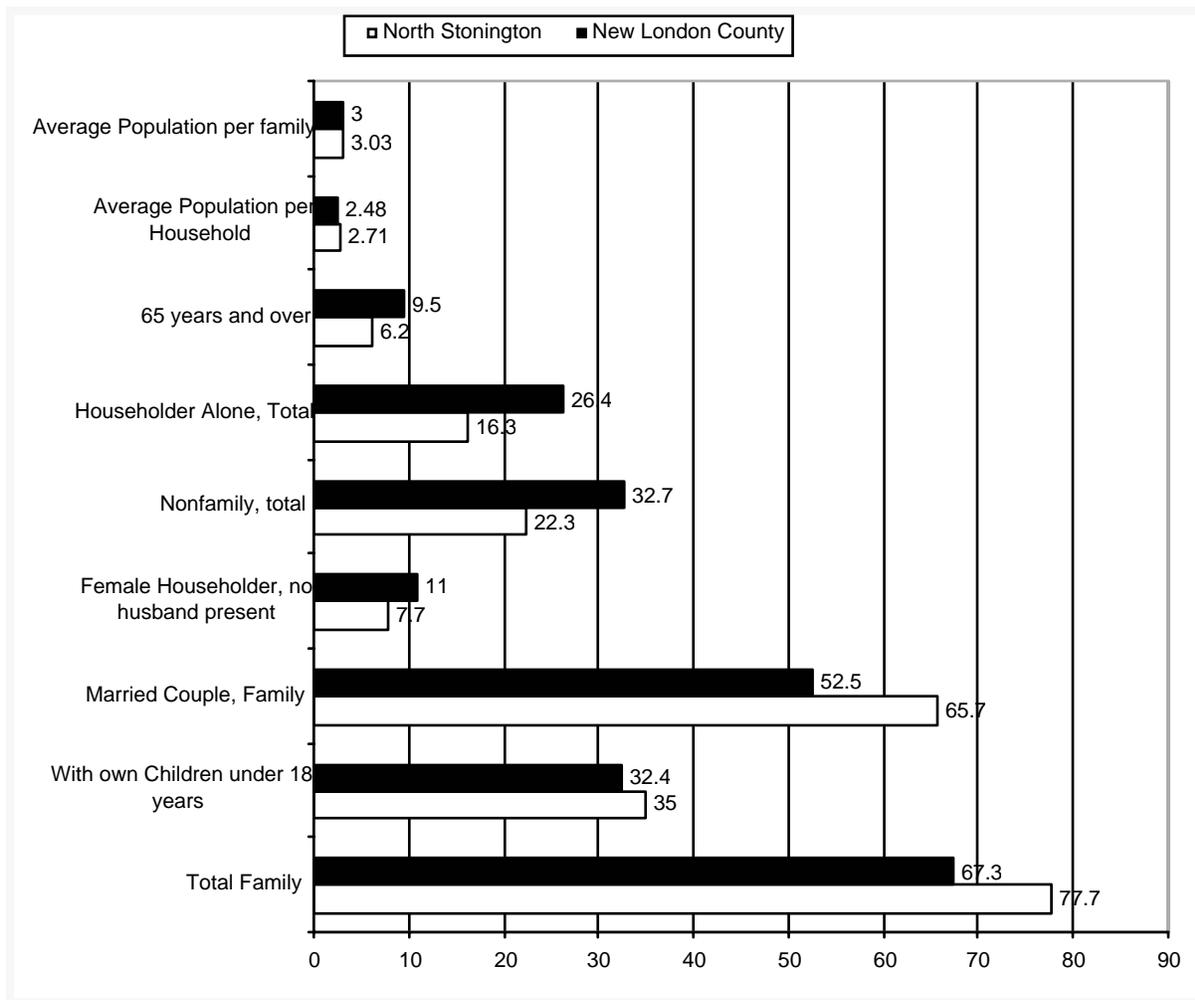
HOUSEHOLDS BY TYPE	North Stonington 2000		North Stonington 1990	
	Number	Percent	Number	Percent
TOTAL HOUSEHOLDS	1,833	100	1,670	100
FAMILY HOUSEHOLDS	1,424	77.7	1,382	82.7
<i>with own children under 18 years</i>	642	35	725	43.4
Married-couple family	1,205	65.7	1,214	72.7
<i>With own children under 18 years</i>	532	29	624	37.4
Female householder, no husband present	141	7.7	128	7.6
<i>With own children under 18 years</i>	73	4	85	5
NONFAMILY HOUSEHOLDS	409	22.3	288	17.2
<i>Householder living alone</i>	299	16.3	237	14.2
<i>Householder 65 years and over</i>	114	6.2	<i>(not available)</i>	

Source: U.S. Census Bureau

Looking at the comparative percentages for various types of households indicates that North Stonington is still primarily a “bedroom community,” compared to New London County as a whole.

Figure A.4, shows the difference in the population make up between North Stonington and the balance of New London County.

FIGURE A.4 - *Regional Comparison of Household Types*



Population Distribution

Figures A.5 through A.8 indicate the “shape” of North Stonington’s population distribution for the years 1970, 1980, 1990 and 2000. What is noteworthy is that population of young people (15 –24 or 18-24) living in North Stonington has decreased over the past twenty years.

FIGURE A.5 – *Population Pyramid 1970*

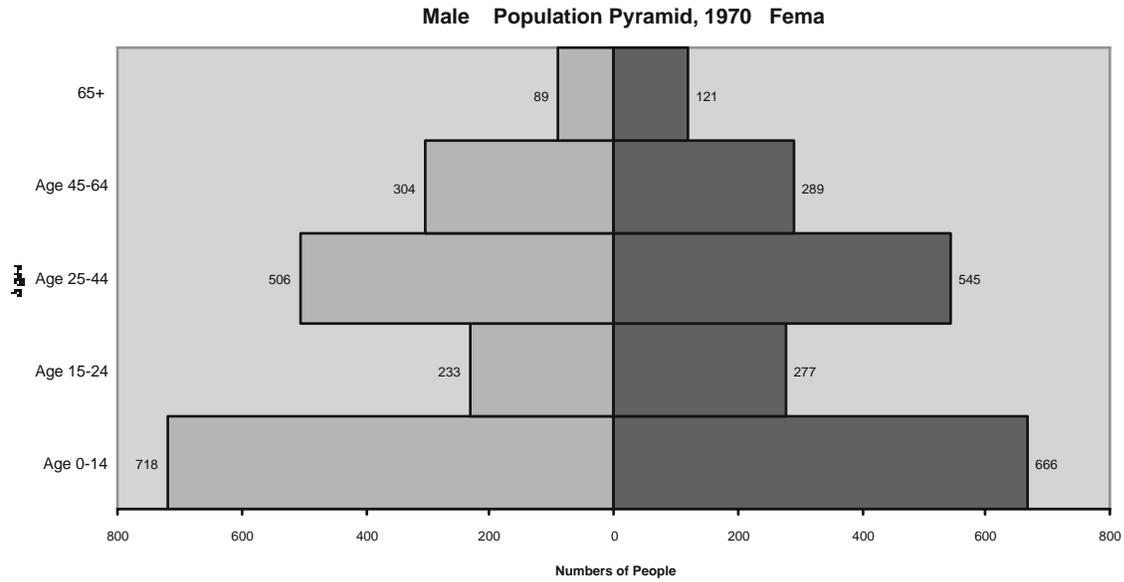
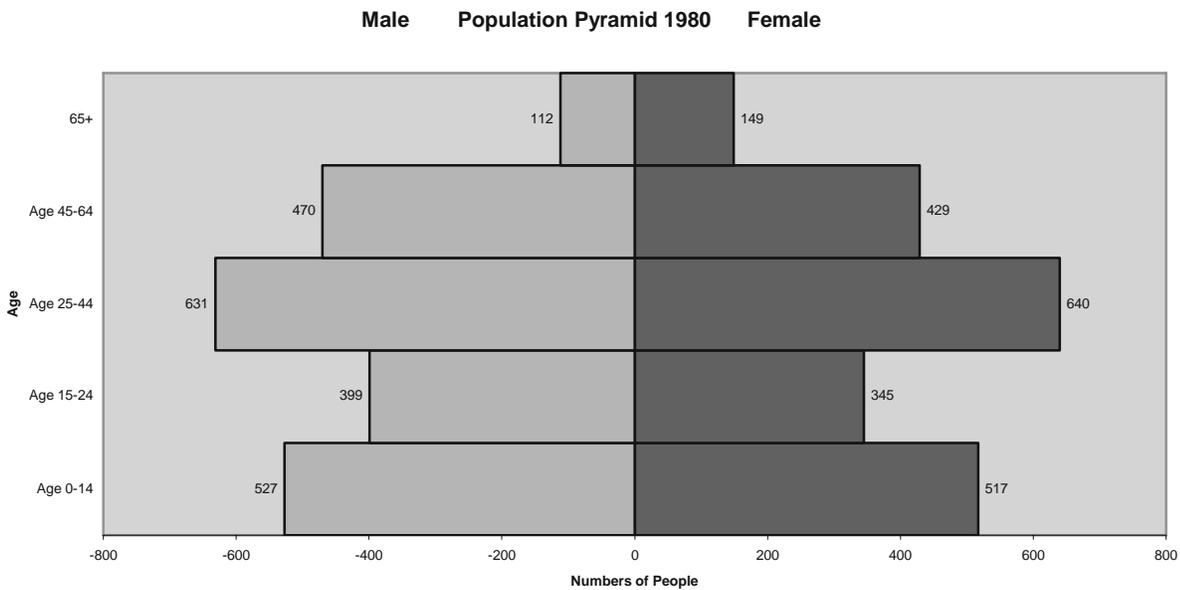


FIGURE A.6 – *Population Pyramid 1980*



The 1970 population distribution indicates that there were a substantial number of families with children, as well as young people living in Town. By 1980, the population pattern had shifted, but there were still proportionate numbers of younger people living in North Stonington. This pattern is typical of a “suburban” population.

FIGURE A.7 – *Population Pyramid 1990*

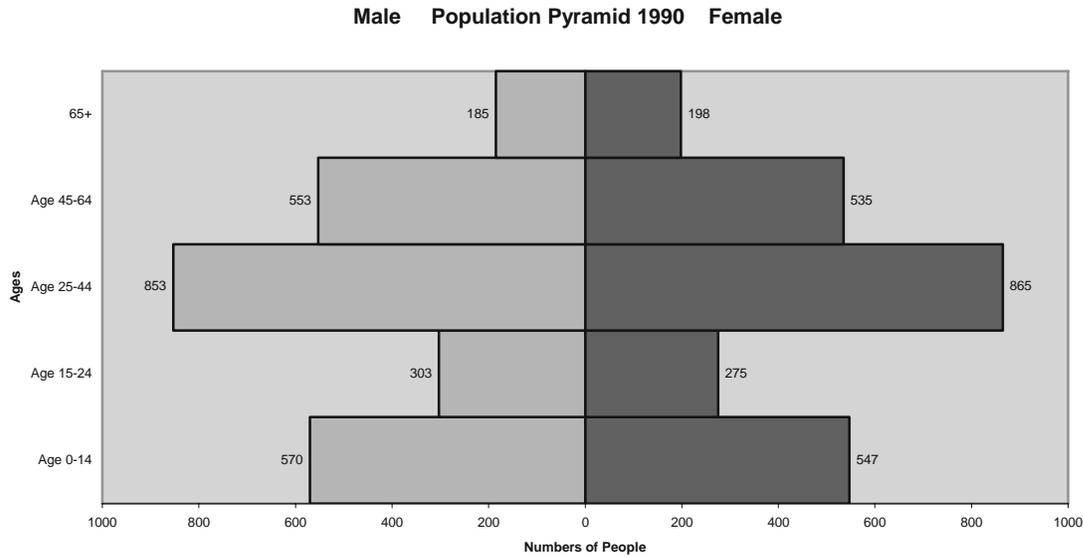
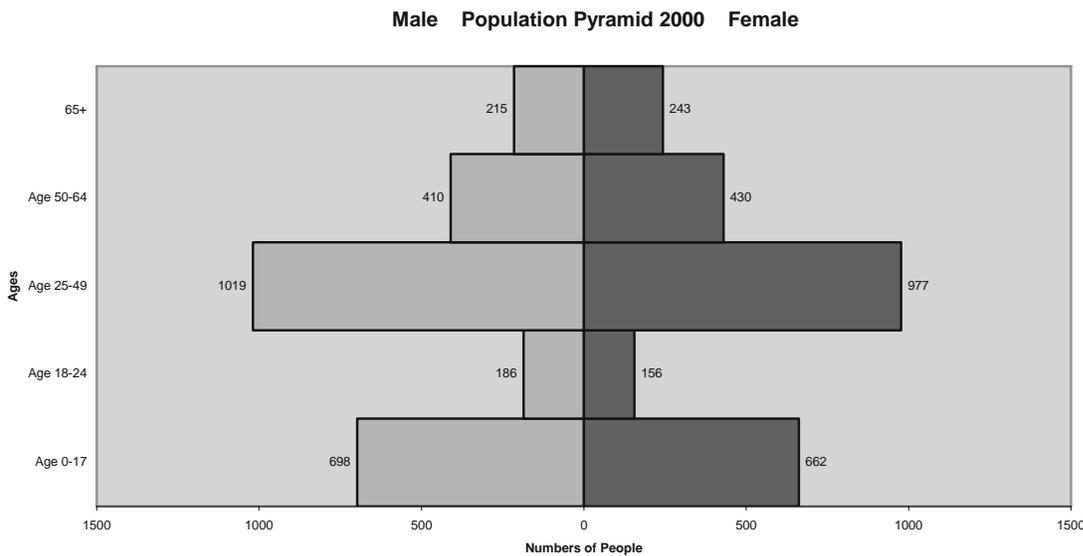


FIGURE A.8 – *Population Pyramid 2000*



(Note that the population distribution categories have been changed by the Census Bureau for year 2000 as compared to 1990 and earlier.)

Population Density

Population density is calculated by dividing the total population by the number of square miles of the town. As indicated in Table A.6, population density increased by approximately 15% between 1980 and 1990 but only by 2% between 1990 and 2000.

TABLE A.6 - *Density*

	1980 Census	1990 Census	2000 Census
Total Population	4,219	4884	4991
Town Square Miles	54.31	54.31	54.31
Density	77.7 persons per square mile	89.9 persons per square mile	91.9 persons per square mile

Source: U.S. Census

North Stonington’s density of 91.9 persons per square mile is still comparatively less than most other Connecticut towns. There are only 19 towns in the State less dense than North Stonington.

Housing Unit Density

Table A.7 ranks regional towns by housing density. Density is the number of housing units per square mile of the town. Currently North Stonington is among the least dense towns of the region. A build-out of North Stonington under current zoning regulations could result in as many as 8,000 housing units or a housing density of 147.305 units per square mile.

TABLE A.7 – *Regional Housing Densities*

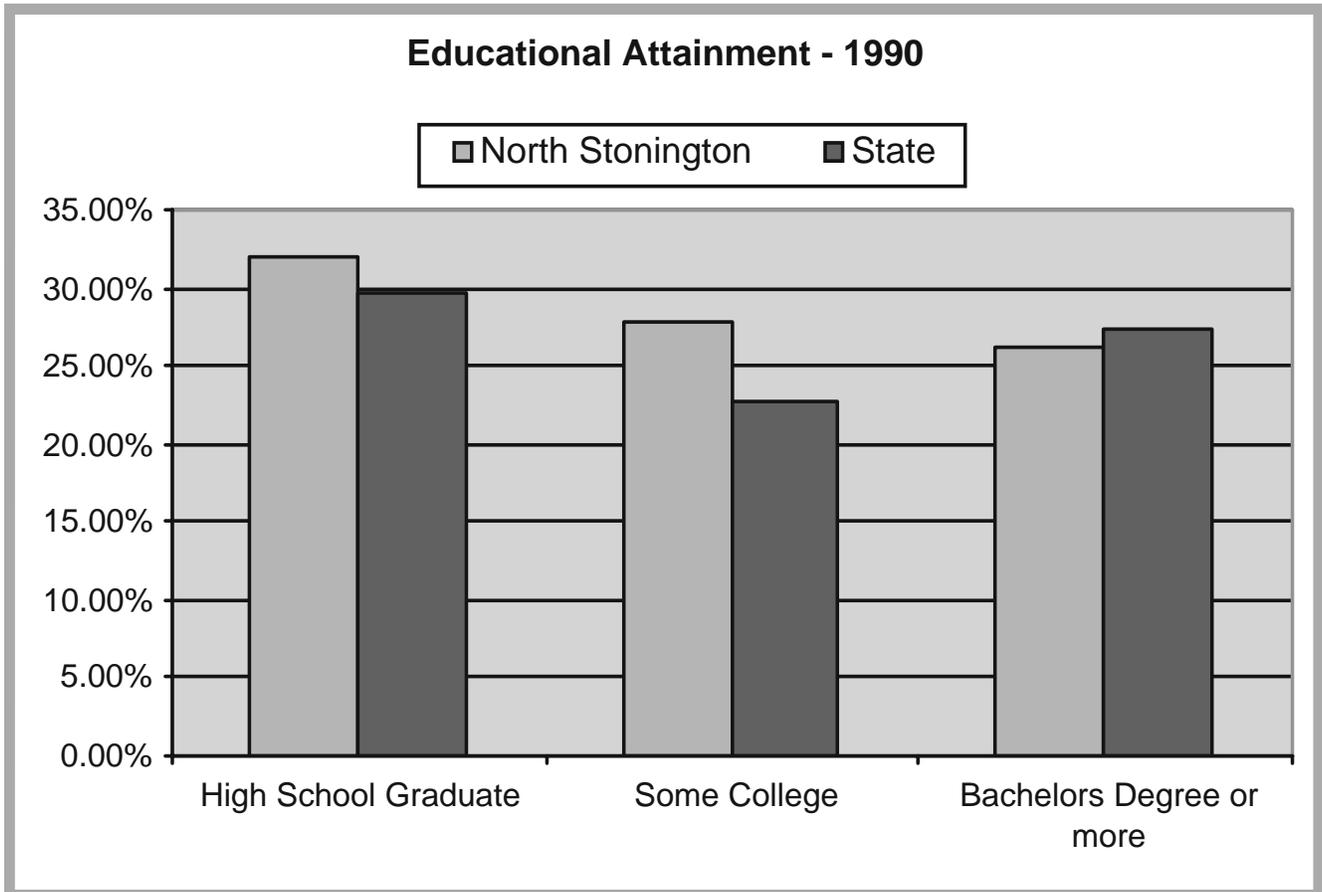
Area Name	Total housing units	Area (Square Miles)	Housing Density
New London	11,560	5.538	2,087.44
Norwich	16,600	28.334	585.861
Groton	16,817	31.295	537.37
Waterford	7,986	32.755	243.812
Stonington	8,591	38.688	222.061
East Lyme	7,459	34.034	219.161
Southeastern Connecticut	102,295	556.844	183.705
Montville	6,805	42.018	161.954
Ledyard	5,486	38.142	143.829
Griswold	4,530	34.948	129.622
Colchester	5,407	49.063	110.206
Lisbon	1,563	16.257	96.14
Sprague	1,164	13.214	88.089
Preston	1,901	30.899	61.523
Salem	1,655	28.955	57.158
Bozrah	917	19.968	45.924
North Stonington	2,052	54.309	37.784
Franklin	711	19.511	36.441
Voluntown	1,091	38.917	28.034

Source: U.S. Census

Educational Attainment

In general, the population of North Stonington is well educated, as compared to the State average as shown in Figure A.9.

FIGURE A.9 – *Educational Attainment*



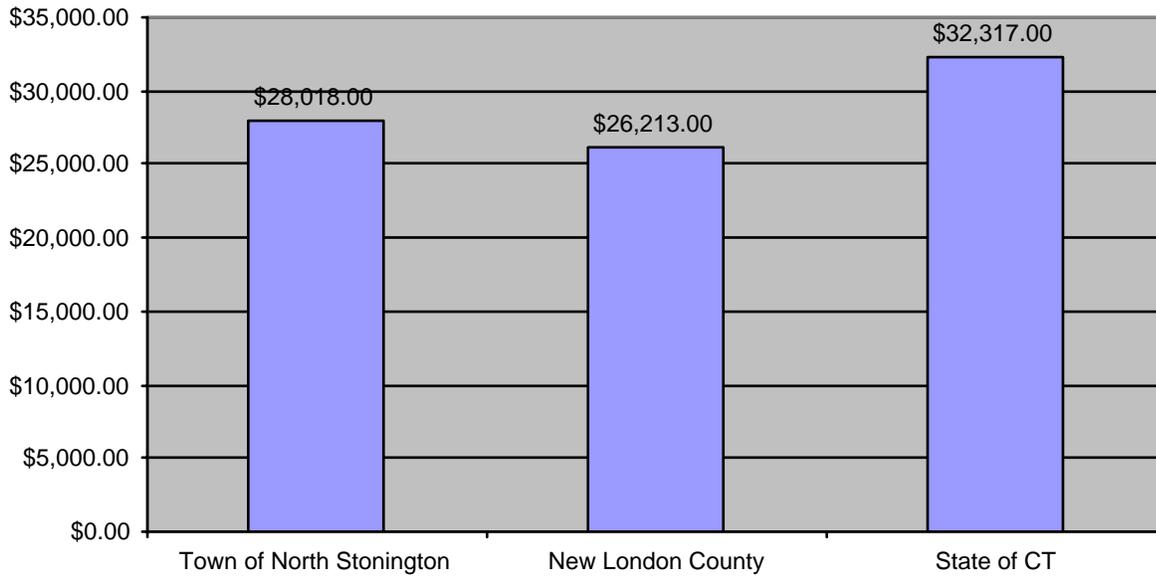
Source: U.S. Census

Per Capita Income

The Town Per Capita income is slightly above the average for New London County, but slightly below the state average, as Figure A.10 shows. It is important to note that Fairfield County per capita income (over \$45,000), skews the State per capita average income.

FIGURE A.10 – *Per Capita Income*

Per Capita Income - (2001)



SOURCE: U.S. CENSUS

Table A.8 compares Town and State income levels.

TABLE A.8 - *Income Levels*

	Town of North Stonington	State of Connecticut
Per Capita Income, 2000.....	\$25,815	\$28,766
Per Capita Income, 1989	\$18,019	\$20,189
Per Capita Income, 1979	\$ 7,694	\$ 8,513
Median Family Income, 2000	\$61,733	\$65,521
Median Family Income, 1989	\$49,467	\$49,199
Median Family Income, 1979	\$23,630	\$23,151
Percent Below Poverty, 2000.	4.8	7.9

Source: U.S. Department of Commerce, Bureau of Census

Labor Force and Employment

Table A.9 shows a breakdown of types of employment in North Stonington.

TABLE A.9 - *Employment by Industry - Employees 16 Years and Older*

Sector	Town of North Stonington		State of Connecticut	
	Number	Percent	Number	Percent
Agriculture, forestry, fisheries, mining	79	2.9	7,445	0.4
Construction	278	10.1	99,913	6.0
Manufacturing	503	18.4	246,607	14.8
Wholesale trade	31	1.1	53,231	3.2
Retail trade	206	7.5	185,633	11.2
Transportation, Warehousing, Utilities	105	3.8	64,662	3.9
Information	75	2.7	55,202	3.3
Finance, Insurance, Real Estate	74	2.7	163,568	9.8
Professional, Scientific, Management, Administrative	208	7.6	168,334	10.1
Education, Health, Social Services	419	17.9	366,568	22.1
Arts, Entertainment, Recreation, Leisure Services	491	17.9	111,424	6.7
Other Services	159	5.8	74,499	4.5
Public Administration	114	4.2	67,354	4.0
Total Labor Force, Employed	2,742	100.0	1,664,440	100.00

Source : Selectmen's Office

Employment Rate / Census 2000

Table A.10 provides data on the unemployment rate for towns in southeastern Connecticut. In April 2000 the unemployment rate for North Stonington was 1.9%.

TABLE A.10 - *Unemployment Rate*

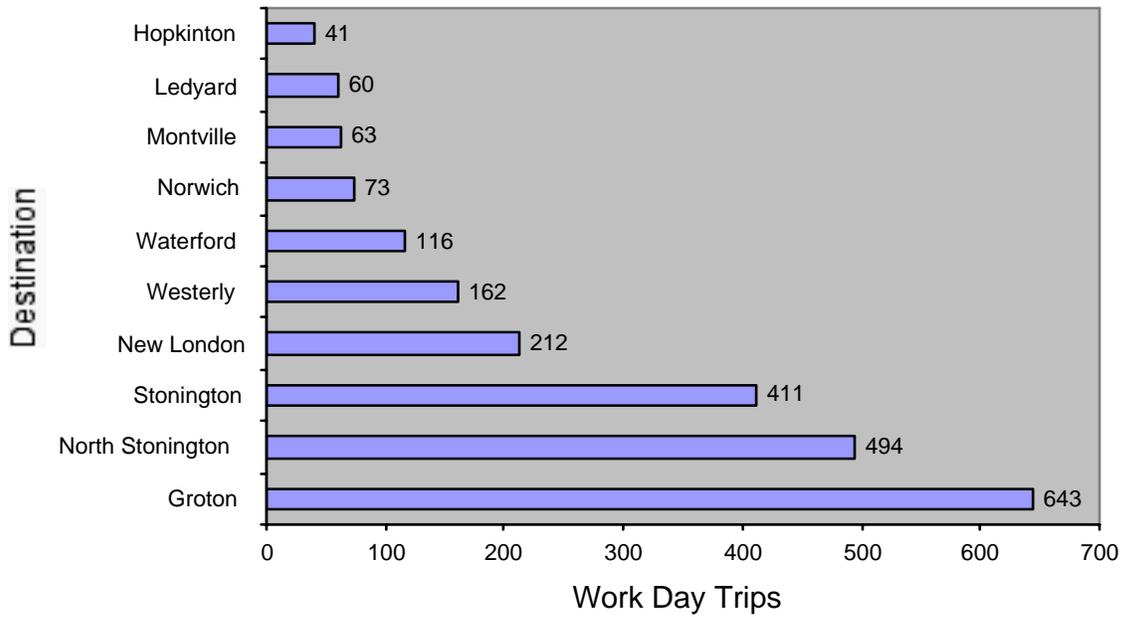
Area Name	Labor Force	Employed	Unemployed	Unemployment Rate
Bozrah	1,468	1,439	29	2.00%
Colchester	6,724	6,595	129	1.90%
East Lyme	9,430	9,270	160	1.70%
Franklin	1,105	1,089	16	1.40%
Griswold	5,841	5,696	145	2.50%
Groton	17,484	17,094	390	2.20%
Ledyard	8,113	7,987	126	1.60%
Lisbon	2,261	2,212	49	2.20%
Montville	9,823	9,616	207	2.10%
New London	13,196	12,763	433	3.30%
North Stonington	2,949	2,894	55	1.90%
Norwich	18,923	18,381	542	2.90%
Preston	2,584	2,534	50	1.90%
Salem	2,062	2,025	37	1.80%
Sprague	1,680	1,623	57	3.40%
Stonington	9,861	9,719	142	1.40%
Voluntown	1,386	1,342	44	3.20%
Waterford	10,448	10,253	195	1.90%
Southeastern Connecticut	125,338	122,532	2806	2.20%

Source: U.S. Census

Journey to Work

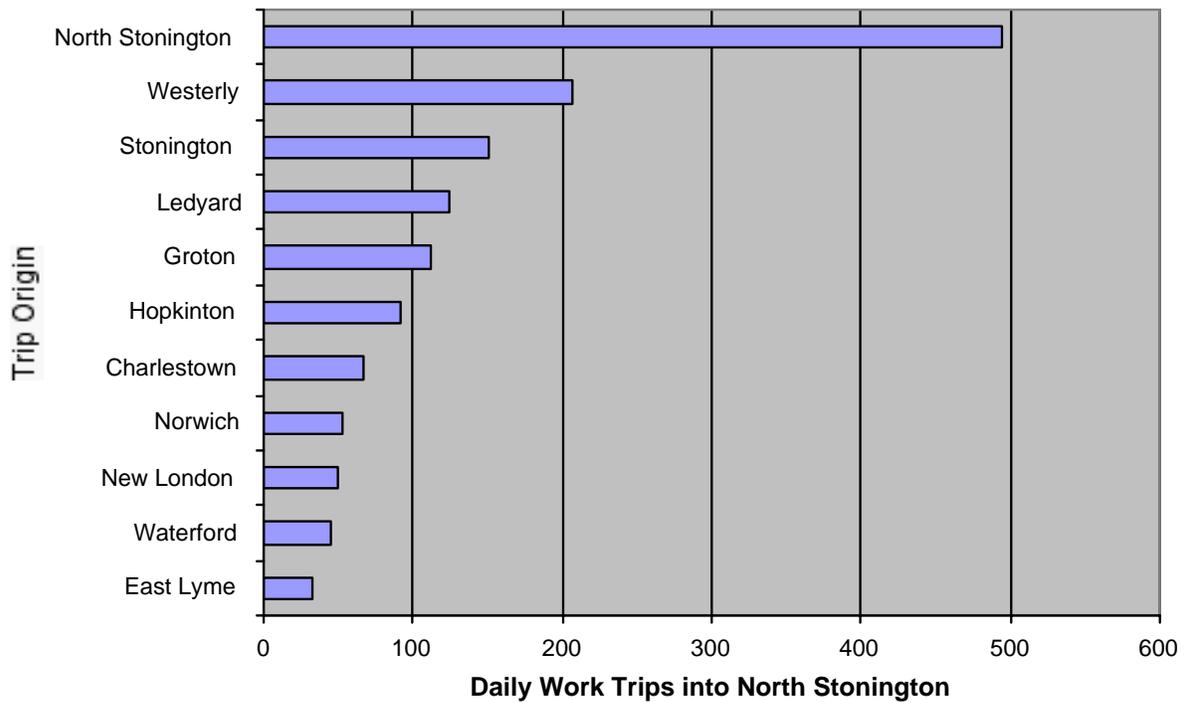
Figure A.11 shows that most North Stonington residents work in North Stonington or Groton.

FIGURE A.11 - *Journey to Work*



Similarly, most people working in North Stonington also live there, as is shown Figure A.12.

FIGURE A.12 - *Daily Work Trips Into North Stonington*



Trends from the 2000 Census

More non-family households: One of the more interesting findings from Census 2000 is that nationally, suburbs now contain more non-family households; primarily singles and elderly people living alone, than married couples with children. “In 2000, 29 percent of all suburban households were non-families, while 27% were married couples with children...suburbs experienced faster growth in every household type than the cities in the 1990s.”¹ While North Stonington is still above average in the percentage of married couples with children (29% as compared to 27% nationally), non-family households increased from 17.2% to 22.3% from 1990 to 2000.

Housing

Existing Conditions

Between 1990 and 2000, North Stonington grew by 142 housing units. The total number of units increased from 1,881 total units in 1990 to 2,023 over this ten-year period. This figure includes all units—multi-family, apartments, accessory apartments, and mobile homes; representing an 11.1% increase in the number of housing units in Town. This was over a period when the population only grew by 2.2%. Tables A.11 through A.13 show housing comparisons between North Stonington and the State of Connecticut averages.

TABLE A.11 - *Housing Inventory*

Type	Town of North Stonington		State of Connecticut	
	Units	Percent	Units	Percent
1-unit detached	1,878	91.6	816,706	58.9
1-unit attached	21	1.0	71,185	5.1
2 to 4 units	40	1.9	246,617	17.8
5 to 9 units	6	0.3	76,836	5.5
10 or more units	--	--	162,437	11.7
Mobile home, trailer, other ...	107	5.2	12,194	0.9
Total Inventory	2,052	100.0	1,385,975	100.0

Source: U.S. Department of Commerce, Bureau of Census, 2000

¹ “City Families and Suburban Singles: An Emerging Household Story from Census 2000. William H. Frey and Alan Berube, Brookings Institution Center on Urban and Metropolitan Policy.

TABLE A.12 - Age Distribution Of Housing

Year Built	Town of North Stonington		State of Connecticut	
	Units	Percent	Units	Percent
1939 or earlier	404	19.7	308,896	22.3
1940 to 1969	709	34.6	571,218	41.2
1970 to 1979	284	13.8	203,377	14.7
1980 to 1989	371	18.1	183,405	13.2
1990 to March, 2000	<u>284</u>	<u>13.8</u>	<u>119,09</u>	<u>8.6</u>
Total housing units, 2000	2,052	100.0	1,385,975	100.0
Percent Owner Occupied, 2000	88.6%		52.5%	

Source: U.S. Department of Commerce, Bureau of Census, 2000

TABLE A.13 -Owner-Occupied Housing Values

Specified Owner-Occupied Units	Town of North Stonington		State of Connecticut	
	Number	Percent	Number	Percent
Less than \$50,000	8	0.6	5,996	0.8
\$ 50,000 to \$ 99,999	86	6.7	85,221	11.7
\$100,000 to \$149,999	538	41.8	212,010	29.1
\$150,000 to \$199,999	379	29.4	156,397	21.5
\$200,000 to \$299,999	200	15.5	137,499	18.9
\$300,000 to \$499,999	65	5.0	79,047	10.9
\$500,000 to \$999,999	13	1.0	38,168	5.2
\$1,000,000 or more	--	0.	<u>13,906</u>	<u>1.9</u>
Total	1,289	100.0	728,244	100.0
Median Sales Price.....	\$151,400		\$166,900	

Source: U.S. Department of Commerce, Bureau of Census, 2000

New Construction

As shown in Table A.14, twenty-two permits were issued for new housing construction in 2000, and 26 permits in 2001. Eleven building permits have been issued for new houses between January and April of 2002. Most of these houses average around 2,500 square feet. The valuation is expected to be over \$300,000 each for these new homes. According the Building Official, this number of permits is about average for this time in the calendar year.

TABLE A.14 - *Building Permits*

Fiscal Year	Single Family	
Ending 6/30	No.	Value
2002	Not Available	
2001	26	\$4,032,155
2000	22	6,447,000
1999	33	5,062,330
1998	43	4,575,250
1997	22	3,387,120
1996	20	2,666,500
1995	18	1,979,500
1994	35	2,029,120
1993	14	1,046,250
1992	11	1,340,000

Source: Building Department, Town of North Stonington

Historical Valuations

Table A.15 shows the increase in the median price of a one-family home in North Stonington between 1990 and 2001.

TABLE A.15 - *Median Price and Number of Sales of A Single-Family House 1990-2001*

Year	Median price of a 1-Family Home	Number of Sales
2001	\$163,500	71
2000	\$156,250	62
1999	\$145,000	68
1998	\$137,500	55
1997	\$131,000	51
1996	\$137,250	62
1995	\$153,450	32
1994	\$141,800	31
1993	\$137,750	38
1992	\$116,250	22
1991	\$136,000	24
1990	\$133,500	14

Source: for 1990-2000 "Town Stats", published by The Warren Group, Boston, MA
For year 2001: North Stonington Tax Assessor's Office

Sales Prices / 2001

Table A.16 shows the price range, number of home sales, and percentage of category for sales during the year 2001.

TABLE A.16 - *House Price Range*

Price Range	Sales 1/01 through 12/01	% of Total Sales
Less than \$100,000	7	10%
\$100-124,999	9	13%
\$125-149,999	11	15%
\$150-199,999	19	27%
\$200-299,999	17	24%
Greater than \$300,000	8	11%
Total	71	100%

Source North Stonington Assessor's Office

Both the median and the average value of single-family home sales has continued to increase. Table A.17 shows a comparison of values from 1990 to the first four months of 2002.

TABLE A.17 - *Comparison of Values 1990 To 2002*

	1990	2001	2002
Average Value of Sales	\$187,559	\$188,065	\$203,278
Median Value of Sales	\$158,000	\$163,500	\$219,950

Source North Stonington Assessor's Office

Land Sales

There were 24 sales of vacant land during 2001. The average number of acres per lot was 6.16 acres, and the median acreage was 3.68 acres. The average price of a lot was \$62,925.00 and the median price was \$60,000. There have been five sales of vacant land in 2002. The average number of acres has been 14.4 acres, and the median acreage has been 16.46 acres. The median price has been \$75,000 per sale, and the average price has been \$100,600.

Regional Conditions

According to the Department of Housing and Urban Development, residential building permits for the New London-Norwich Metropolitan area for 1999 totaled 927 units, down 13 percent from 1998. Since 1994, permits in the New London-Norwich Metropolitan area have averaged 965 units annually. Single-family homes accounted for 90 percent of the residential activity in the area in the 1990s. As a result of the overbuilt apartment market in the late 1980s, followed by the economic recession, apartment construction has been at low levels. Construction of new apartments during the last decade has been negligible.

Table A.18 which is arranged in order of decreasing density, shows that North Stonington is one of the three lowest-density Towns in the region, with only Franklin and Voluntown lower in density.

TABLE A.18 – *Types of Housing Units*

Area Name	Total housing units	Area (Square Miles)	Housing Density	Occupied housing units	Owner - occupied housing units	Renter-occupied housing units	Vacant housing units	For seasonal, recreational or occasional use	Average household size
New London	11,560	5.538	2,087.44	10,181	3,861	6,320	1,379	131	2.26
Norwich	16,600	28.334	585.861	15,091	7,924	7,167	1,509	224	2.34
Groton	16,817	31.295	537.37	15,473	7,815	7,658	1,344	520	2.41
Waterford	7,986	32.755	243.812	7,542	6,371	1,171	444	190	2.41
Stonington	8,591	38.688	222.061	7,665	5,418	2,247	926	480	2.31
East Lyme	7,459	34.034	219.161	6,308	4,954	1,354	1,151	889	2.5
Southeastern Connecticut	102,295	556.844	183.705	93,577	61,173	32,404	8,718	3,327	2.26
Montville	6,805	42.018	161.954	6,426	4,973	1,453	379	106	
Ledyard	5,486	38.142	143.829	5,286	4,354	932	200	32	2.78
Griswold	4,530	34.948	129.622	4,194	2,961	1,233	336	131	2.55
Colchester	5,407	49.063	110.206	5,225	4,027	1,198	182	37	2.75
Lisbon	1,563	16.257	96.14	1,525	1,351	174	38	10	2.67
Sprague	1,164	13.214	88.089	1,111	735	376	53	3	2.63
Preston	1,901	30.899	61.523	1,837	1,520	317	64	18	2.55
Salem	1,655	28.955	57.158	1,358	1,164	194	297	275	2.84
Bozrah	917	19.968	45.924	883	725	158	34	18	2.64
North Stonington	2,052	54.309	37.784	1,833	1,624	209	219	151	2.71
Franklin	711	19.511	36.441	687	617	70	24	2	2.66
Voluntown	1,091	38.917	28.034	952	779	173	139	110	2.66

Source: Census 2000 data

The Connecticut Center for Economic Analysis published a “Housing Affordability Index by Town” in summer of 2001. The index measures the ability of a typical household to afford a median-priced home. Homes are considered to be “affordable” when the mortgage payments are 25% or less of gross monthly income. When the index is at or above 100, homes are more affordable. When the index is below 100, homes are less affordable. Gross income is based on estimates of per capita income from the Connecticut Department of Economic and Community Development and is scaled for average household size.

Because of falling interest rates and growing household incomes, nearly every town in the state shifted to a “more affordable” index. Southeastern Connecticut and Central Connecticut in particular were considered to have “affordable” homes.

Table A.19 is arranged in rank order from “most affordable” to “not quite as affordable.” Every town in Southwestern Connecticut was considered “affordable” realizing that the per capita income for each town is different. The Affordability Index is based on the per capita income for each town.

TABLE A.19 - *Housing Affordability Index*

Area	Median Home Price in dollars,	Per Capita Income,	Housing Affordability Index
	2000	1999 (000s)	
Waterford	133,000	28.7	192.3
Norwich	101,000	21.4	187.4
Stonington	146,000	30.3	185
East Lyme	150,000	29.2	173.9
Bozrah	119,000	23.2	173.6
Sprague	107,000	20.8	173.5
Ledyard	140,000	26.7	169.4
Montville	125,000	23.2	165.7
New London	97,000	17.8	164.1
Southeastern Connecticut (Average)	132,000	24	162.8
Lisbon	122,000	22.2	162.1
Preston	145,000	25.7	158.2
Griswold	115,000	19.5	151.4
Franklin	144,000	24.3	150
North Stonington	156,000	26.2	149.9
Colchester	149,000	24.9	148.0
Voluntown	127,000	20.9	146.2
Salem	160,000	25.9	144.5
Groton	145,000	21.8	134.3

Source: Connecticut Center for Economic Analysis

'Affordable Housing'

In recognition of the need to provide adequate housing alternatives to the citizens of Connecticut, the Connecticut Legislature passed 'affordable housing' statutes. The statutes provide a very specific, objective definition of affordable housing. CGS 8-39a, defines 'affordable housing' as housing for which a family earning the area median income or less pays 30 percent or less of their income. The area median family income (for a family of four) that applies in North Stonington is \$58,600 (figure developed by State of Connecticut Department of Economic and Community Development (DECD), 12/10/01, for FY 2002 for the New London County area.) North Stonington is the fourth wealthiest town of the eighteen towns that are members of the SCCOG.

Agricultural Land

Farmland Preservation Programs

The Joint State-Town Farmland Preservation Program cost-sharing program with the State seeks to preserve those farms that may be identified as a local priority but may not meet the criteria to qualify under the State CFPP for protection. To do so, the Town must adopt an ordinance enabling the establishment of a fund for the purchase of development rights to agricultural lands by vote of the legislative body, pursuant to CGS Section 7-131q, "Agricultural Land Preservation Fund." The Town must have an approved farmland preservation plan and the properties must meet certain criteria for eligibility, such as minimum 30-acre size of farm property. The Town could then proceed, with the assistance of the Natural Resources Conservation Service, to complete the program's requisite inventory of quality agricultural soils and current farm resources, both active and inactive, and other requirements of the program.

Additionally, the newly incorporated Connecticut Farmland Trust, a private, nonprofit organization administered at the Hartford Food System, Hartford, Connecticut, is available to promote farmland preservation through provision of access to capital for preservation through fee ownership, conservation easements, or acquisition of development rights, technical assistance to land trusts in the management of agricultural lands.

Historic Preservation

Federal Protection

The federal government's primary tool for protecting historic properties is the National Register of Historic Places, an inventory of buildings, structures, districts, sites, and objects that merit preservation because of their significance in American culture. The program is administered by the National Park Service under the U.S. Department of the Interior.

Designation on the National Register prohibits federal funds from being spent that would adversely affect a National Register property until after review by the Advisory Council on Historic Preservation, an interagency body established by the National Historic Preservation Act of 1966. While the Advisory Council has a right to comment on a project listed on, or eligible for listing on, the National Register, the Council does not have a right to veto the project.

The Secretary of Transportation is required to reject any highway project which requires the use of land from a National Register site of national, state, or local historic interest unless there is no “feasible and prudent alternative.”

Although registration does not prevent an owner from demolishing or altering a property, designation does assist preservation efforts in other ways, such as ensuring assessment of impact from federally sponsored projects and providing eligibility for federal tax credits and, when available, federal grants-in-aid.

Through the joint efforts of the Connecticut Historical Commission and the North Stonington Historical Society, the older section of North Stonington Village, approximately 100 acres was listed on the National Register of Historic Places (see Map H). Three other individual buildings in North Stonington have been listed on the Register. These are the Samuel Miner House on Hewitt Road, the John Randall House on Route 2, and the Luther Palmer House on Route 49.

The North Stonington Historical Society has recently proposed a significant expansion of the National Register of Historic Places district to include the Plains Cemetery, Miner House on Hewitt Road, homes on the western side of Wyassup Road and eastward through the Village beyond Caswell Lane.

State Protection

The Connecticut Register of Historic Places was created in 1975. Listing on the Connecticut Register creates an obligation on the part of state agencies to prepare a detailed environmental impact statement discussing the impact of any of their projects on a listed site.

In 1997, a comprehensive historic resources survey documenting the important residences, cemeteries, churches and other structures within the National Register of Historic Places district boundaries was conducted by the Connecticut Historical Commission. The completed document, “*Historic Resources Survey - North Stonington, Connecticut,*” by Richard C. Youngken and Jennifer M. Lutke, 1997, is available at the Town Hall.

Village Preservation Overlay Area

The *Zoning Regulations for the Town of North Stonington, Connecticut* include a Village Preservation Overlay Area (VP) zoning district that encompasses the grouping of historically and architecturally significant buildings in the Village of North Stonington. The VP district is indicated on the “Zoning Map of North Stonington, Connecticut.” A more detailed map depicting property boundaries, “Village Preservation Overlay Area,” was prepared by the North Stonington Assessor’s Office, dated May 16, 2001 (see Map I.) The purpose of the VP provision is to recognize and preserve the unique character of the Village. Permitted uses are primarily restricted to those residential and community facility uses permitted in the “R40 High-Density Residential District,” the underlying single-family residential zoning district. A new use or a change of use requires a Special Permit approval to be “compatible with the historical neighborhood.”

Other Zoning Provisions

In 1999, the Planning and Zoning Commission adopted cemetery preservation regulations. Under Section 600, -“Supplementary Regulations” of the Zoning Regulations, Section 618, “Cemetery Preservation,” pertains to all subdivision, special permit, and site plan applications, and provides for the preservation of burial grounds, graveyards and cemeteries regarding access and a 25-foot area around the boundary of same. This provision references Section 6.6 of the Subdivision

Regulations, “Open Space, Parks, and Playgrounds,” relative to subdivision development applications regarding the discretionary subdivision development set-aside. Section 618 permits the Planning and Zoning Commission to evoke this provision to require that an area outside a cemetery burial ground or graveyard be set aside for preservation, by means as determined by the Commission.

Village and Historic Districting

In 1998, Connecticut passed enabling legislation, now codified as Section 8-2j, for designating “Village Districts,” and a minor amendment to the Act was passed in 2000.

Village district legislation seeks to protect the distinctive character, landscape, or historic value of areas so identified in the municipal plan of conservation and development (identification as stipulated in Section 8-3a.) As such, village districting can be applied to any area that the Town feels strongly is important to preserve the present character and is not restricted to a village setting, per se. A village district may encompass a specific area, a neighborhood, a landscape or an entire town as the statute is designed. Because the Act is designed to permit municipalities to protect areas that may be unique to their community, there is no model set of village district regulations. The regulations must be derived from the characteristics of the particular area they are designed to protect.

A preservation action alternative to village districting, is the establishment of an “historic district” under state enabling legislation CGS Section 7-147. Historic district commissions operate distinctly from zoning commissions. There is a multiple-step process to the establishment of an historic district that involves the Connecticut Historical Commission. A local historic district commission would be established and permitted to regulate the exterior appearances of buildings in the Village as they are structurally altered through the approval of applications for a “certificate of appropriateness.” The use of buildings and land, however, would be controlled by zoning, as it is now.

The objective of a historic district commission is the protection of historic buildings and areas based on historic, and historical architectural criteria in contrast to the village districting which encompasses a larger set of criteria. A municipality may have an historic district and a village district in the same area or with overlapping areas or entirely different areas.

Archaeological Resources and Archaeological Preservation

The “*Casino Impact Study, (CIS)*,” prepared by the Southeastern Regional Planning Agency, in 1991, describes some of the Town’s archeological resources as follows:

“Based on models of settlement and subsistence patterns of prehistoric and historic Native American populations, archaeologists have demonstrated that settlement communities tended to occur in areas with specific surface water, land form, soil, and vegetation characteristics. These types of areas are found in North Stonington along the Route 2 corridor at Long Pond, Hewitt Pond, Shunock River, North Stonington Village, Assekonk Swamp, Shunock Swamp, farmland adjacent to I-95, and along the Pawcatuck River. Archaeological sites are often fragile and not immediately apparent, but may provide the only information about the history and pre-history of an entire area.”

Areas of known archaeological resources and areas of high archaeological sensitivity in the Route 2 Corridor are described in the report.

Economic Development

Local Development

Table A.20 ranks North Stonington businesses in order of the amount of people they employ.

TABLE A.20 - Major Employers As Of June, 2002

Name	Business	Estimated number of employees
Town of North Stonington	Municipality	178
Fisher Controls	Valve manufacturer	169
Designer's Group, Inc.	Jewelry Case designer	46
Ship Analytics, Inc.	Research and development	38
Bess Eaton Donuts	Donut franchise	27

Source: First Selectman's Office, Town of North Stonington

Table A.21 breaks down North Stonington's tax base into percentages.

TABLE A.21 - Comparative Assessed Valuations
(\$000's)

Grand List of 10/1	Residential Real Property (%)	Commercial Industrial Real Property (%)	All Land (%)	Personal Property (%)	Motor Vehicle (%)	Gross Taxable Grand List	Less Exemptions	Net Taxable Grand List	Percent Increase/Decrease
2001	66.5	10.4	8.1	5.4	9.5	\$334,020,468	\$3,909,263	\$330,111,205	2.18%
2000 ¹	66.7	10.1	8.4	5.2	9.5	327,045,890	3,982,295	323,063,595	1.73%
1999	69.1	9.6	7.2	5.1	9.0	321,418,257	3,861,990	317,556,267	2.94%
1998	69.5	9.8	7.4	4.9	8.4	312,166,000	3,688,230	308,477,770	1.61%

¹ Revaluation

Source: Assessor's Office, Town of North Stonington

Regional Planning and Services

North Stonington is located in the Southeastern Connecticut regional planning area. Eighteen municipalities and two boroughs, plus the federally recognized tribes as affiliate members comprise the Southeastern Connecticut Council of Governments (SCCOG). Nicholas H. Mullane, II, North Stonington's First Selectman, was appointed Chairman of the SCCOG in January 2002.

Other regional agencies with specialized planning and/or service responsibilities available to the Town of North Stonington include: the Southeastern Connecticut Water Authority; the Southeastern Connecticut Tourism District, now known as 'Mystic and More'; the Southeastern Connecticut Regional Resources Recovery Authority; Thames Valley Council for Community Action, Inc.; the Eastern Regional Mental Health Board; the Eastern Connecticut Area Agency on Aging, Inc.; the Southeastern Connecticut Private Industry Council, Inc./Regional Work

Force Development Board; Southeast Area Transit; and the South Eastern Connecticut Enterprise Region (seCTer.)

Regional Development Impacts

Foxwoods is the number one tourist destination in the Northeast. According to “*The Economic Impact of the Mashantucket Pequot Tribal Nation Operations on Connecticut*,” completed by the University of Connecticut’s Connecticut Center for Economic Analysis (CCEA), Fred Carstensen, Director, etc. al., in November 28, 2000: “*Since the opening of Foxwoods in 1992, the Nation has created almost 13,000 jobs.... Foxwoods hosts 41,000 patrons/day with 73 percent of the customers coming from out-of-state*”

The Mohegan Tribal Nation owns and operates Mohegan Sun, a casino resort in Uncasville, Connecticut and has recently completed a \$1 billion expansion project.

Impacts being addressed by the Town, by various state and regional agencies and by research groups, such CCEA, include employment opportunities, traffic congestion and associated costs, elevated crime rate, elevated incidence of accidents, increase in police, fire, and emergency services, shortages of available housing alternatives and impact on property values both positive and negative.

As a result of the dramatic increase in traffic volumes and their future traffic projections, the State of Connecticut Department of Transportation (ConnDOT) has proposed a widening or bypass of Route 2 to address congestion. Both proposals are opposed by the Town. In point of fact, the opening of Mohegan Sun lessened traffic on Route 2 by as much as 6,000 cars per day.

Conservation and Recreation Land

490 Land

Approximately 40% of the land in Town currently receives preferential tax relief under Connecticut’s Public Act 490 as forested land or farmland. According to the DEP Division of Forestry, North Stonington ranks third out of all Connecticut towns for total forest acreage covered under P.A. 490. Currently, no property in town receives preferential tax relief under P.A. 490 for open space as provided for under the Act, discussed further below. The term, “P.A. 490,” is used herein for familiarity, but the statute was codified years ago under Connecticut General Statutes 12-107.

Once adopted, properties delineated in the *Plan for Conservation and Recreation Lands* as existing open space or proposed open space lands are eligible for preferential tax relief as “open space land” under Public Act 490, as provided in CGS 12 -107 e. Additionally, land must be recommended for preservation as open space in a town *Plan of Conservation and Development*, process as provided for in CGS Section 12-107 e(a), in order to qualify under certain open space acquisition funding programs.

Reserved Land

Additionally, there are several properties in Town permanently protected from development as conservation easements, open space set-asides and cemeteries. The map, “Reserved Land in the

Vicinity of North Stonington Village” (Map J), depicts the extraordinary assemblage of land in a protected status situated in a cluster around the Village in public or institutional ownership - Mystic Seaport Museum, the Historical Society, North Stonington Grange #138, the Wheeler Library, and the Town of North Stonington.

State Owned Land

A portion of the 3,000-acre Pauchaug State Forest known as the “Wyassup Block” lies within North Stonington under the management of the DEP Bureau of Outdoor Recreation and the Forestry Division, Wildlife Division and Fisheries Division. Permitted public uses include hunting, hiking, and fishing. The State conducts logging. Two of the Connecticut Trails Association Blue Blaze Trails, the Narragansett Trail and the Nehantic Trail, maintained by the Connecticut Forest and Park Association, traverse the State Forest. The Narragansett Blue Trail, a branch of the Appalachian Trail System, crosses the northern part of town for approximately ten miles. The State owns Wyassup Lake and Billings Lake. Due to budget constraints, the State has no present development plans for Pauchaug State Forest, but is always interested in expansion possibilities. There are no plans for divestment of any property.

The 697-acre Assekonk Wildlife Management Area, located near the southern border of Town to the west of Route 2, is owned by the State of Connecticut and managed by the DEP Wildlife Division’s Eastern District Office. It is open to hunting, passive recreation and canoeing. There is a wildlife pond but fishing is prohibited. The area is managed for wildlife and is part of a federally funded old-field restoration project. The Town is negotiating an agreement with the State regarding a pedestrian footbridge adjacent to the dam and a connecting walkway for public use that will also afford access between the school buildings and the athletic field.

Preserved Farmland

Five of the Town’s farm properties (four farms in the Clark Falls area and one farm in the northwest corner of Town) are protected under the “Connecticut Farmland Preservation Program”(CFPP), (also known as “The State Purchase of Development Rights Program”), a purchase of development rights program administered by the State of Connecticut Department of Agriculture.

Town Government and Community Facilities

Municipal Offices

The Town’s two municipal buildings are located adjacent to each other in the Village.

Since 1990, the following improvements have been made or are underway:

- The Board of Selectmen is currently studying Town Hall Space Options.
- A condominium office has been purchased for the Judge of Probate. This is located at the Holly Green Complex.
- The Selectmen have continued the ongoing upgrade and replacement of computer equipment for Town Hall.

Town Garage

Changes between 1990 and 2002 include major expansion of the Salt Shed and equipment storage facility at the Town garage. This included the acquisition of just over four acres of land, and construction of a new building.

Transfer Station

The Town of North Stonington owns and operates a solid waste transfer station and bulky waste area permitted by the State of Connecticut Department of Environmental Protection (DEP). The Town is a charter member of the Southeastern Connecticut Regional Resources Recovery Authority (SCRRA), the local burn-to-energy plant located in the neighboring Town of Preston. The town has closed its solid waste landfill in accordance with the State of Connecticut DEP standards and maintains a quarterly/annual testing of water quality. The Town's solid waste is transported to the SCRRA by either the Town (from the Town's transfer station) in Town-owned equipment or personal or curbside pickup by private haulers arranged and paid for by residents at their own expense.

The Town estimates the remaining useful life of its bulky waste site to be between three and five years. North Stonington has received a grant from DEP in the amount of \$119,775 to assist in the closing of the site when it reaches capacity. The Town participates in hazardous waste collections annually and also sponsors electronics collection days at least once a year.

Roads

There are 63.24 miles of paved roadway, including 9.96 miles of unimproved road. The road system is maintained by the Department of Public Works (DPW), which maintains catch basins, sweeps streets, cuts brush, paints markings on Town roads and parking areas. The DPW also grades and rakes unimproved roads. During 1999-2000, the DPW also overhauled the Boat Launch area on Wyassup Lake Road.

Police Protection

Between 1990 and 2002, the following changes have occurred: Police Protection was changed from a constabulary to the Connecticut Resident State Trooper Program. There are currently three troopers operating three shifts. The fourth shift is covered by Troop E barracks in Montville. The Town has added a part-time clerical secretary to relieve the troopers of the administrative aspects of the job. Under a two-year contract with the State of Connecticut, the State provides all personnel, vehicles, and equipment necessary to carry out the police function.

Volunteer Fire Company

Major equipment holdings of the Fire Company as of 2002 include:

- 1989 Mack pumper/tanker truck
- 1987 International rescue vehicle
- 2001 International Pumper
- 1995 E1 pumper truck
- 1993 Peterbuilt tanker truck
- Starcraft rescue boat with motor and trailer

The Fire Company anticipates that it will need a new firehouse, because of size constraints of the existing firehouse, and discussions regarding this location are currently under way.

Ambulance Association

Between 1990 and 2002, the following changes have occurred:

- The North Stonington Ambulance Association has acquired defibrillators for each of the “first responders.”
- The North Stonington Ambulance Association (NSAA) realized that the lengthy response time (average of 14 minutes), and the amount of mutual aid required (almost 30%) could not be addressed through trying to recruit more volunteers. In the 2000-2001 Fiscal year, the NSAA hired a paid crew for both weekdays and weekends, 24 hours a day. This has reduced the average response time, and the calls for mutual aid from other communities. The Association is supplemented with volunteer crew and a volunteer Board of Directors. Two ambulances owned by the Town rotate service as needed. Starting in fiscal year 2000, the Association began to bill for services to help offset some of its costs.

Nursing Services

Since 1990, the following changes have occurred:

- The North Stonington Public Health Nursing Service was discontinued.
- The Town now contracts from the Visiting Nurses Association (VNA) of Southeastern Connecticut. The VNA of Southeastern Connecticut provided public health nursing services to the residents of North Stonington during the past fiscal year. Forty-seven health promotion visits were made to ten patients. A full service home care program provided 1428 visits to 75 residents.
- Services are provided in North Stonington at the Senior Center and in the home
- School health services were provided for 2,502.5 school nurse hours and 1,092 school health aide hours to the North Stonington Schools.

Hospitals

There are three hospital facilities in the region. Backus Hospital in Norwich, Lawrence and Memorial Hospital in New London, and Westerly Hospital in Westerly, Rhode Island.

Schools

Many significant changes have occurred between 1990 and 2002, including the following:

- Renovations to the existing facilities
- Construction of a “gymnasium” (combined gymnasium and auditorium)
- Construction of an athletic field
- The Permanent School Planning and Building Committee (PSPBC) and Board of Education (BOE) are jointly undertaking a professional Needs Analysis of the schools.

The North Stonington Permanent School Planning and Building Committee manages school construction projects for the Town. There are ongoing maintenance projects each year. Current projects underway during 2000-2001 include:

- Renovations to the High School bathrooms
- Investigation of Fuel Oil Storage Tanks
- Boiler Replacement and controls
- Replacement of the Middle School Windows

Library

Since 1990 Wheeler Library:

- Carried out a major renovation to upgrade the stacks, remove certain interior walls, upgraded plumbing and electrical systems, and added an elevator.
- Added three computer terminals to access the Internet. These are in constant use, since the connection is faster than that which is available to home users with modem.

The library will be adding at least three more terminals over the next two years, and will be connecting to the computer system at the public schools. This is anticipated to increase demand for access to the terminals, since students will be able to access their folders at an increased bandwidth than what is available from their homes.

Recreation

Town-sponsored recreation activity has increased since 1990 with significant improvement in Town recreation facilities. Recreation Director John Hines noted in 2002 that the program has been growing, and at the present time, approximately 150 children are served in a variety of programs. All of the schools are used as locations for programs, though most are conducted at the High School.

The facilities at Rocky Hollow now include: the “Rec Shack” which is the center of the recreation area, including two soccer fields, a softball diamond, two lighted basketball courts, two lighted tennis courts, and a covered pavilion with tables, grill, and electricity. There is also playground equipment for younger children. Rest Room facilities are available in the ‘Rec’ Shack.

Schools

North Stonington’s FY 2002 tax rate of 27.0 mills supported a school system of roughly 850 students. The North Stonington Elementary School and the Wheeler Middle/High School were extensively renovated in 1994 at a cost of approximately ten million dollars. Enrollment in the Town’s school system as of October 1, 2001 was 883 with a rated capacity of 996. Total enrollment is not projected to increase over the next five years, as Tables A.22 and A.23 show.

TABLE A.22 - *School Facilities*

School	Grades	Date of Construction	Additions & Renovations	Number of Classrooms	Enrollment 10/1/01	Rated Capacity
Elementary School	PreK-5	1965	1994	29	374	378
Middle School	6-8	1950	1994	16	225	244
Wheeler High School	9-12	1956	1994	<u>26</u>	<u>284</u>	<u>374</u>
Totals				71	883	996

TABLE A.23 - *School Enrollment*

School Year	K-5	6-8	9-12	Total
Actual				
1992-93	376	262	235	873
1993-94	375	282	222	879
1994-95	351	303	244	898
1995-96	349	331	234	914
1996-97	301	322	240	863
1997-98	314	322	256	892
1998-99	303	289	280	872
1999-00	314	298	280	892
2000-01	290	287	285	862
2001-02	310	289	284	883
Projected				
2002-03	318	283	263	864
2003-04	323	281	262	866
2004-05	313	283	266	862
2005-06	320	279	258	857
2006-07	312	295	253	860

Source: Superintendent's Office, Town of North Stonington Public Schools

Infrastructure: Water Supply

Existing and Proposed Water Supplies

Existing Private Drinking Water Supply

Approximately 80% of the town's residential development and approximately 95% of the commercial development is serviced by private wells

At present, public drinking water supply service is limited in Town. The water service areas referenced below are depicted on the "Preliminary Draft Water Distribution Map of North Stonington, Connecticut," prepared for the Town in 2000. An updated version, completed April 2002, is discussed below. Both maps are available in the Town Hall. At present, there is no public drinking water supply service in North Stonington from a surface supply.

Groundwater Supply Service Areas

The Town of Westerly, Rhode Island Water Department provides service to a few properties along the North Stonington/Westerly border: the Anteon Corporation property on Route 2, the State of Connecticut DOT Rest Area on the north side of I-95, and the property owned by the Mashantucket Pequots (former Man Roland site) that straddles the North Stonington/ Stonington town line with access off Route 2 in North Stonington. The well servicing approximately 125

customers in single-family homes in the residential development known as Cedar Ridge, along the southern border of the town off Route 184, known as the Cedar Ridge Water Association well, is now under the ownership of the Southeastern Connecticut Water Authority. Just to the west of the above development, on Stoney Brook Road, is a mobile home park, M.H. Garden Park, serviced by several wells owned and operated by the owner of the mobile home park. Highland Orchards Resort Park, an RV campground located on Pendleton Hill Road, is a “community service area,” serviced by an on-site well.

The Southeastern Connecticut Water Authority operates two wells near Lewis Pond on the Shunock River off Route 2, tapping the Shunock aquifer. These wells provide service to approximately 800 people (216 residential and commercial customers) - the Hilltop Inn, the Holly Green retail center, the North Stonington schools, the library, and retail establishments on the west side of Route 2, and the Kingswood/Meadow Wood single-family residential area off Mystic Road, Route 627.

The Town of North Stonington owns and operates a water system for the Village which serves the Town Hall complex and several homes located nearby.

Proposed and Potential Public Drinking Water Supply

The areas addressed below are proposed and potential public drinking water supplies for groundwater supply and surface water supply. These areas are approved land use developments, areas identified by the Town, and/or areas identified as potential water supply sources in a recently completed regional water supply study. The latter areas are identified on a map, “Figure 1: Southeastern Connecticut Public Water Supply Management Area – Potential Water Supply Sources Map” (Map B,) taken from the *Final Integrated Report-Coordinating Public Water Supply Plan – Southeastern Connecticut Water Supply Management Areas* (CPWSP). None of these areas have been targeted by an individual public water system for development, according to the report.

Additionally, the report indicates potential sources located within the Town of North Stonington with the potential to augment existing supply and areas that may be needed for future long term water supply for other communities in the region.

This section also addresses recent proposals for a regional water system.

Proposed and Potential Groundwater Supply

Currently, there are several properties where public drinking water supply is proposed. These areas are depicted on the “Preliminary Draft Water Distribution Map of North Stonington, Connecticut,” prepared for the Town in 2000. The “Lake of Isles” golf course development, approved in 2001, is proposed to be served mostly by a Tribal Nation water supply system (not located in Town) utilizing a water tank located in North Stonington close to the golf course property and some new wells. (Irrigation water for the fairways is proposed to be supplied using tertiary wastewater from the Foxwoods sanitary waste treatment plant facility) The 95-2 Associates property, on the North Stonington/Stonington town line, is anticipated to be served by the Westerly municipal system upon development or a new water supply system developed by the town.

Two water utilities currently possess the capability to expand into and serve development along the Route 2 corridor in North Stonington. These systems are the Town of Westerly water system that extends into the eastern end of the corridor as far as the North Stonington town line and the

Southeastern Connecticut Water Authority system. The Town of Westerly Water Department has no present plans to develop public water supply or extend the existing water service area in North Stonington, but does have a well site that can be developed in this area.

In 1997, the SCWA reported its North Stonington Division had 97,000 gpd of excess supply. *SCWA Water Supply Plan* indicates SCWA anticipates a five-year future service area to include: “The 200-foot service area expansion around its existing service area as well as expansion along Route 2 to serve commercial growth and throughout North Stonington Village.

In 1985, by State mandate, the State was divided into seven geographic areas and seven Water Utility Coordinating Committees were established to address the need for coordinated provision of public drinking water supplies. The Town of North Stonington participated in the Southeastern Connecticut Water Utility Coordinating Committee (SCWUCC), an organization comprised of representatives from a 25-town designated area that has been meeting since August 1998. Both SCCOG and SCWA are represented on the SCWUCC. The SCWUCC completed a four-part study, “*Coordinated Public Water Supply Plan of Southeastern Connecticut Water Supply Management Area.*”

The process allows declaration of independent areas, termed “Exclusive Service Areas,” (ESAs), with the exclusive right and obligation to serve any new developed areas. The Town of North Stonington applied to the State of Connecticut Department of Public Health and was declared to be an exclusive service provider of water systems in March 2002. Any new or expanded water supply system in town must be built to Town specifications and standards, and must deed over its interest and customers to the Town. The Town will own and operate these systems. There have been several preliminary proposals considered under this program, including the two golf course developments.

The Town of North Stonington, working closely with the Department of Environmental Protection, has prepared a revised “Preliminary Draft Water Distribution Map,” dated April 2002, depicting a preliminary inventory of drinking water supply system categories in Town, categories as defined in the “Coordinated Public Water Supply Plan–Southeastern Connecticut Water Supply Management Area,” March, 2001. Identification of properties with existing or potential water supply and service, the water quality testing of the supply, and identification of potential threats to water quality will be addressed in the Town of North Stonington’s “*Individual Water Supply Plan*”. Exclusive water service providers are required to submit such a plan to the State of Connecticut Department of Public Health Water Supply Section with review by the DEP, Office of Policy and Management and Department of Public Utility Control.

As part of the CPWSP study, the SCWUCC identified several watersheds with potential for groundwater supply where the upper watershed is located within the Town of North Stonington but supply to be developed in nearby towns, either in Connecticut or Rhode Island, as follows. “While impaired water quality prevents the Pawcatuck River from being considered as a surface water source, the development of groundwater wells may be feasible.” The majority of the Pawcatuck River subregional basin is located in Rhode Island with a portion of the primary recharge area lying within North Stonington within the aquifer protection district. The upper watershed of the Billings Brook watershed is located in the northern part of Town. It “may be able to support regionally significant groundwater supplies.” The southernmost (upgradient) portion of the aquifer is located in North Stonington. The Anguilla Brook aquifer “may be a feasible source for regionally significant groundwater supply.” The northernmost (upgradient) portion of the recharge area lies in North Stonington, within the aquifer protection district.

The CPWSP indicates that the WUCC intends to work toward forming a relationship with both existing and future Indian tribes in the region to engage cooperation regarding planning efforts. In particular, the report noted that the Mashantucket Tribal Nation's use of the Ledyard groundwater aquifer might effect the surrounding area. There is a second aquifer deposit nearby located in the vicinity to the southwest of Lake of Isles straddling the Ledyard/North Stonington Town line.

Proposed and Potential Surface Water Supply

The Executive Summary of the "*Final Integrated Report-Coordinating Public Water Supply Plan – Southeastern Connecticut Water Supply Management Areas*" (CPWSP) projected no water supply deficit for the Town and surrounding towns until 2040.

With regard to the potential for surface water supplies for future public drinking water in North Stonington, the above report identified several rivers and associated watersheds located partially or entirely within North Stonington with potential for potable water supply. Determination was based on consideration of the size of the watershed, the extent and nature of stratified drift deposits, flow rates, potential reservoir yields, existing diversions, areas of environmental concern, and existing land uses. The watershed of the Ashaway River system lies primarily in Rhode Island with only the upper watershed area within North Stonington. As per the report, "The upper Ashaway River watershed in North Stonington may have some potential as a surface water supply." "The Green Fall River watershed may be a feasible source for the development of a surface water supply. Areas of environmental concern appear to be limited to the upper reaches of the watershed and there are no competing water diversions on file with DEP." "The Shunock River appears to have the potential to support a regionally significant water supply source. Land use in the watershed is compatible with water supply development and competing water uses are limited to one water supply well," (owned by the Southeastern Connecticut Water Authority.) "Wyassup Brook watershed may be a feasible source of future water supplies. There are no competing land uses in the watershed and land use in the watershed appears compatible with public water supply watersheds. Due to the high quality resources in the basin, environmental impacts would be of concern."

A portion of a potential water supply diversion watershed is located in the northwestern area of Town, located approximately at the intersection of Route 2 and Route 201 and hence to the north including Lake of Isles. This watershed, known as the Shewville Brook Diversion, lying primarily in the towns of Ledyard and Preston, was identified nearly 30 years ago by the City of Groton in a regional interconnection plan as a potential storage impoundment area to augment the City supplies. "Shewville Brook may be a possible location for a future regionally significant surface water supply," as per the report.

The development of a watershed for a supply equal to or greater than 50,000 gpd, requires a DEP Diversion permit.

Regional Water System Proposal

In recent months, two proposals have been announced for a regional water system. The Southeastern Connecticut Council of Governments (SCCOG) endorsed a Mohegan Tribal Utility Authority proposal to create a regional water network proposed to be completed by Spring 2004. The plan entails routing excess water supply from the City of Groton facilities, bringing water from Montville under the Thames River to Ledyard, construction of a 1.5 million-gallon water tank in Ledyard and a booster pumping station in Groton. Towns served are Ledyard and

Preston with possible future connections with East Lyme and Waterford. A \$7 million proposal would ensure an uninterrupted water supply for the region and the Tribe. The City of Groton's excess water supply (4.5 million gallons), Waterford's water pressure problem, and Ledyard's need for a water tank would be addressed with the proposal.

In April, the SCWA proposed to develop, finance, construct, own and operate a regional water system that includes a pipe cross the Thames River on the Mohegan-Pequot Bridge. The regional system would be overseen by a 36-member advisory board, comprised of SCCOG representation, SCWA representatives and members of the public, with greater authority than today's board.

Water Supply Protection

Land that supplies water to drinking water supplies is called source water protection areas. Source water protection areas are typically distinguished as wellhead protection areas, watershed protection areas, sole source aquifers and areas served by private wells. The need for protection of existing and potential surface and groundwater drinking water supplies is required to be addressed in plans of conservation and development. Each type of these source water protection areas is represented in North Stonington.

Existing Groundwater Supply Protection

The protection of groundwaters for existing or potential drinking water supply falls under several regulatory protections as determined by the type of source water protection area, as addressed below.

Wellhead Protection Areas

Protection of the water quality for public water supply wells, (wellhead protection), is under the jurisdiction of the State of Connecticut Department of Health with review by the DEP. A public water supply well or community well is a well servicing 25 or more people. The extent of protection areas is delimited according to the watershed of each well based on several variables. Uses in these areas are restricted. These areas are typically under the ownership of the water service provider. Regarding SCWA's wellfield in North Stonington, SCWA has determined that there are no point-source pollution discharges located within pertinent recharge areas to the well field and reports that land uses are restricted in this area.

In 1989, the State adopted the "Aquifer Protection Area Act." Land Use Regulations to be promulgated under the Act have not been adopted as yet. The regulations would apply to areas designated under the Act's Wellhead Protection Program, areas where public drinking water supply is located in stratified drift deposits and wells serve 1,000 people or greater. Preliminary mapping, termed Level B Aquifer Protection Area mapping, has been completed for the Southeastern Connecticut Water Authority wellfield area in North Stonington. Currently there are no wellfields that would qualify under this program in North Stonington. The SCWA customer base is approximately 800 people. If the service area were to expand to 1,000 people or greater, the Department of Environmental Protection regulations, upon adoption, would apply.

The DEP has completed Wellhead Mapping for Bethel Village Wellfield. Bethel Village is a residential development in Hopkinton, Rhode Island. The wellhead protection area extends into North Stonington in the vicinity of Ashaway Road, Interstate 95, and Clarks Falls Road. The Connecticut DEP has not established policies for the protection of wellfield areas for those wellfields not under its jurisdiction, as in this instance.

Areas Served by Private Wells

Protection of the water quality for areas served by private wells is provided through the local Sanitarian utilizing state public health code and water quality classification regulations and through the local land use authority utilizing municipal land use regulations (inland wetland and watercourses regulations and zoning regulations). State code indicates a 75-foot radius required for siting installation of wells from potential pollution sources and treated sanitary waste effluent and other wastewaters cannot be discharged into Class A waterbodies (which includes surface and groundwaters.)

Watershed Protection Areas

A portion of the Dean's Mill Reservoir Watershed is located within North Stonington along the Stonington border, crossing Mystic Road, Route 201. This undeveloped private property is on the public drinking water supply watershed for the water service area in Stonington operated by the Connecticut American Water Company. Watershed protection in North Stonington with regard to the land within the Dean's Mill Reservoir Watershed is provided by source protection programs administered by the utility, with an annual watershed inspection program mandated by the State.

Watershed protection provisions can be incorporated into the town's zoning regulations for the land area within a designated public drinking water supply watershed. There are presently no such provisions for this area of town.

Sole Source Aquifer

North Stonington has the distinction of being located in a watershed with a federally designated aquifer protection program. Under the Safe Drinking Water Act, the U.S. Environmental Protection Agency (EPA) was mandated to protect drinking water supplies. In 1974, under Section 1424 (e) of the Act, the EPA established the Sole Source Aquifer Protection Program. The EPA defines a Sole Source Aquifer, as one which supplies at least 50% of the drinking water consumed in the area overlying the aquifer and for which there are no reasonably available alternate sources should the aquifer become contaminated.

In 1988, the Pawcatuck groundwater hydrologic system in Connecticut and Rhode Island received federal designation as a Sole Source Aquifer. North Stonington is one of the Connecticut towns partially within the watershed (see Map C, "The Pawcatuck Watershed and Sole Source Aquifer" map.) There are only two sole source aquifer watersheds designated in Connecticut .

Designation provides additional protection to the aquifer by giving EPA the authority to review all proposed federal financially assisted projects that have the potential to contaminate the aquifer area. EPA has the authority to withhold use of federal funding for construction of any proposed project within a Sole Source Aquifer which it believes poses a significant threat of contamination to the aquifer.

Pawcatuck Watershed Initiative

The Pawcatuck Watershed Initiative, sponsored by the EPA is a model effort for New England intended to implement a new community-based watershed management approach to environmental stewardship in this sole source aquifer. The initiative was launched in 1996 by several environmental and farm organizations, state and federal agencies and other stakeholders. It established the Pawcatuck Watershed Partnership (PWP) to:

- Improve local decision making to address development pressure.
- Preserve farm, forest and open space, and to protect water quality, habitat, and critical environmental resources.
- Sustain business vitality, farming, and tourism.
- Implement a comprehensive approach to watershed management across fourteen towns, two states, and two tribal governments.

North Stonington is represented on the PWP Management Plan Board and on the sole functioning subcommittee of the PWP, the Pawcatuck Watershed Water Use Stakeholders Group (WUSG.)

The WUSG has been meeting monthly since December 1997. The Six Flags development proposal, an intensive entertainment resort development proposed in 1997 for a large parcel located near Route 49 proximal to the Interstate 95 interchange, triggered focus on the need for careful planning with regard to the potential impact of intensive development on the resource. Coordinated through the larger PWP, WUSG was convened to discuss and develop a *non-regulatory* approach for managing water needs and uses in the area. The WUSG mission is to create sustainable, collaborative solutions to water use issues in the watershed through the development of a water use management plan with input from all water users and stakeholders in the watershed.

North Stonington regularly participates in Connecticut/Rhode Island coordination meetings regarding the Federal Source Water Assessment Program which entails delineation of areas contributing to the source, potential pollution sources, and determination of future supply requirements.

Municipal Protection Measures

In addition to the above protection measures, the Town of North Stonington adopted a revised Aquifer Protection Overlay Area and revised zoning regulations in 1990 which provide restrictions regarding certain land use activities within the overlay area. The district comprises 37.6% of the Town's land area.

The Town of Westerly, Rhode Island, is considering the need for a regional aquifer protection plan and the possibility of setting up a municipal land trust that could potentially purchase lands in North Stonington and Stonington to protect portions of its drinking water supply.

Infrastructure: Sanitary Waste

Sanitary waste disposal in North Stonington is by private septic systems, package treatment systems, and limited sewer service as described below:

Septic Systems

Residential sanitary waste disposal in North Stonington is administered by the Town Sanitarian utilizing state authority and regulations. The Sanitarian issues permits for the installation of sanitary waste disposal systems for systems with less than or equal to 2,000 gallons. Systems between 2,000-5,000 gallons of flow are permitted by the Sanitarian upon review by the State of

Connecticut Department of Environmental Protection (DEP), and systems over 5,000 gallons of flow are under the authority of the DEP.

With the exception of a handful of properties serviced by sewers and package treatment plants, disposal of sanitary wastes in North Stonington is provided by private septic systems. The soils in town, by and large, are suitable for sanitary waste disposal of residential flow volumes. The Sanitarian indicates that septic system failure rate is low, and of a routine nature. A notable exception is the failure of septic systems in recent times at certain commercial establishments that receive heavy tourist use as a consequence of their location near Exit 93.

There have been no State of Connecticut Department of Environmental Protection abatement orders. Public health concerns expressed in the *1990 Plan* concerning dense residential development around the lakes and the need to maintain water quality resulted in the adoption of the Seasonal Use Overlay Area (SU) zoning districts, in designated areas on Long Pond, Blue Lake, Billings Lake and Wyassup Lake. Pertaining to qualified lots of at least 20,000 square feet, occupancy is limited to a maximum of six months in any one year. These regulations for the SU grew out of recommendations from a 1978 DEP Environmental Review Team study that considered the land use practices, shallow to bedrock soil conditions, and the proximity of residences to Wyassup Lake. The State public health code does not distinguish between seasonal and non-seasonal use relative to residential requirements for septic systems design and separating distances. The smaller lots on the lakes may present constraints for meeting regulatory requirements. Faced with a septic system failure, the cost of engineered systems can be prohibitive. The Town Sanitarian indicated that in recent years, redevelopment of lake properties using combined lots has been one response to the issue.

The Town does not have a mandatory periodic sanitary waste removal program. Septage from “pump-outs” is disposed of out of town. The Town was part of a 13-town consortium on the septage disposal issue. Currently, septage waste is received by the Town of Windham Wastewater Treatment Facility.

Sewer Avoidance and Sewer District

The North Stonington Water Pollution Control Authority (WPCA) was originally created by Town ordinance in 1972 and disbanded in 1976. In February 1993, the WPCA, in its present form, was created to operate in accordance with the Town ordinance, “An Ordinance Concerning Sewer Authority.”

In 1994, the WPCA adopted the Water Pollution Control Plan. As delineated in the plan, the WPCA’s responsibilities include pursuit of a Sewer Avoidance Program, which entails providing guidance to Town boards and the general public, developing and maintaining a sewerage disposal inventory to monitor zoning permits and possible sources of pollution over time, and developing an ongoing water quality sampling and testing program in order to assure early detection of pollution and its source through a periodic sampling of surface waters for testing, public drinking water supply groundwaters, and targeted potential problem areas. The WPCA Plan has not been implemented.

The WPCA has the authority to regulate a sewer district. With regard to planned sewer infrastructure, the *1990 Plan of Development*, adopted July, 1990, recommended the establishment of a Sewer Service District limited to “the Office Research area (zone) on Route 2, the Manufacturing area on Route 49, and the Commercial area at the intersection of Routes 2 and

184. On July 12, 1994, "Regulations for Use of the North Stonington Municipal Sewerage System," were adopted by the WPCA.

Existing Sewer Service

There is currently no municipal sewer infrastructure and no intermunicipal agreement with any abutting municipality at this time. Two properties in Town near the border with the Town of Stonington that are serviced by private sewer lines that tie into the Town of Stonington municipal sanitary waste system under private or State agreements: the Anteon Corporation property located on the eastern side of Route 2 and the State of Connecticut DOT Rest Stop Area off Interstate 95.

Package Treatment Systems

Due to the lack of available sewer services, and limited development potential of the native soils to attenuate the pollutant load of large volume effluent, development in Town has been largely small-scale and single-family residential. Construction of small sewage treatment plants that require discharge to surface waters is not feasible in North Stonington as State regulations prohibit discharge of treated effluent to Class A waterbodies and, with a few exceptions (as described in the Natural Resources section), the town's streams, rivers, lakes, ponds are classified Class A. The *Casino Impact Study*, completed in 1991 by the Southeastern Regional Planning Agency, determined that there are no streams in or near the Route 2 corridor with sufficient flows to assimilate discharges from sewage treatment plants. The report concluded that sewage treatment within the corridor for the foreseeable future would be accomplished with on-site systems, discharging effluent directly into the ground.

Recent advances in package treatment plant technology have made the installation of package treatment plants to service high volume waste loads feasible. The Hilltop Inn, a 140-unit motel and banquet facility (120 units constructed) is serviced by a package treatment plant system. The Town holds a performance bond to guarantee maintenance of the system. By State statute, approval for these systems for commercial use is under the authority of the Department of Environmental Protection. The WPCA has regulatory authority over residential sewage waste or the residential component of institutional or mixed-use development proposals.

The Town has commissioned an engineering report to analyze package treatment plant suitability for the town's development program (use, types, operation, specifications, etc.) for use in new development for certain land uses in certain zoning districts.

Transportation

Roadway System

The Town of North Stonington contains 63.37 miles of Town-maintained roads (including unimproved roads) and 35.48 miles of State-maintained roads.

A section of Interstate 95, 3.8 miles in length, is located in North Stonington. There are three interchanges located within Town: Exit 92 Northbound at Route 2 in the southeasterly portion of Town, Exit 92 Southbound at Route 49 in the south central part of Town and Exit 93, a northbound and southbound interchange at Route 216, Clark Falls Road in the eastern part of Town.

Classification of Roadways

Roads in North Stonington that are eligible for federal aid for improvements under TEA-21 funding and their designated classification, as per the “Southeastern Connecticut Regional-Federal-Aid Highway System Functional Classifications,” follows below.

- Route 2 rural - principal arterial - other
- Route 201 rural - major collector
- Route 627 rural - major collector
- Route 617 rural - major collector
- Route 49 rural - major collector
- Route 216 rural - major collector
- Route 184 rural - major collector
- Wyassup Rd rural - minor collector

Scenic Roads

Three roads in town have received designation as scenic roads under the town’s Scenic Road Ordinance provisions: Grindstone Hill Road, Hewitt Road, and Fowler Road - for an approximate total distance of three miles. Route 49 within North Stonington has received designation as a scenic road for 10.7 miles of its length under the Connecticut’s State designated scenic roads provision. These are the only roads with scenic corridor protection of any sort. There are approximately fifteen unpaved or partially unpaved town roads.

Roadway Improvements

Completed Roadway Improvements

Several intersections were recommended for improvements in the *1990 Plan*. These are listed below with current status on improvements completed by the Connecticut Department of Transportation (ConnDOT):

- Route 2 and Cossaduck Hill Road (Route 201) - major improvements and signalization added
- Route 2 and Mystic Road (Route 627) - improvement, signalization added, and curb cuts modified in vicinity of gas station
- Route 2 and Rocky Hollow Road - signalization added
- Route 2 and Main Street (east end of Village) - no improvements
- Route 184 and Route 49 - major improvements and signalization added
- Route 49 and 216- no improvements
- Routes 201 and 627 and Wintechog Hill Road- no improvements

ConnDOT has also completed the following intersection improvements since 1990:

- Route 2 and Frontage Road (Route 617) - signalization
- Route 49 and Frontage Road (Route 617) - signalization
- Route 2 and Mains Crossing Road (Route 201) – signalization

The Town has made improvements to the Route 49 and Babcock Road intersection. Four unpaved Town roads have been improved (drainage, widening, graveled - not paved) since the 1990: Anna Farm Road, Tom Wheeler Road, Denison Hill Road, and Lake of Isles Road.

Proposed Roadway Improvements

Transportation Improvement Program F.Y. 2003 - Southeastern Connecticut); prepared by the Southeastern Connecticut Council of Governments (SCCOG), adopted May 15, 2002, is a schedule of selected transportation projects to be implemented during a 3-year period, documentation as required by TEA 21 funding program. In this period, ConnDOT is scheduled to improve the Rte 216 bridge over Spaulding Brook and Boom Bridge on Boom Bridge Road over the Pawcatuck River under the Local Bridge Program. There are no other improvements scheduled for North Stonington.

Long-term transportation improvements are listed in the *Regional Transportation Plan F.Y. 2002-2003 - Southeastern Connecticut, (RTP)*, prepared by SCCOG. Twenty improvements are proposed to be completed in North Stonington, projected completion dates either in the “4-10 year time range” or “to be determined.”

Interstate 95 Proposal

A section of Interstate 95, 3.8 miles in length, is located in North Stonington. Traffic volumes on Interstate 95 have increased considerably. The *RTP* depicts traffic volume data for Interstate 95 in the Groton area per month for the years 1991 to 2001. A seasonal peak for the summer months is evident, with a high in August that changed from 71,500 Average Daily Traffic (ADT) in 1991 to 89,000 ADT in 2001. As per the *RTP*:

“As the volume-to-capacity ratio on I-95 approaches 1.0, service levels will continue to deteriorate. Serious consideration must now be given to adding lanes from the Connecticut River to the Rhode Island border and finding transit solutions to reduce traffic. A ConnDOT study of the I-95 corridor from Branford to the Rhode Island border was conducted during 1998. It confirmed that capacity improvements all along I-95 were needed.”

The continuation of the widening of I-95, now underway from New Haven to Exit 54 in Branford, and eventually to the Connecticut/Rhode Island border, is anticipated. The ConnDOT has begun the planning phase.

Route 2 Corridor Transportation Issues

Table A.24 shows the high volumes in the Route 2 Corridor measured at three locations over the 20-year period from 1980 to 2000. The 1996 figures reflect Foxwoods' impact. The 2000 figures are down as a result of the opening of the Mohegan Sun. Figures available from ConnDOT, March 2002, for Route 2 in the vicinity of Main Street, indicate an ADT of 18,900.

TABLE A. 24 – *Traffic Volumes On Route 2*

Traffic Volumes At Selected Locations: 1980-2000				
Route 2 in No. Stonington	1980	1992	1996	2000
Ledyard/NS town line to Rte. 201	3,800	14,200	26,200	18,200
Rte. 627 to Rte.184	4,600	15,700	25,800	19,700
Rte. 184 to I-95	6,200	13,300	21,500	18,600

Source: RTP

ConnDOT Environmental Impact Study

In 1998 an *Environmental Impact Study* was initiated by ConnDOT and the Federal Highway Administration on the “Route 2/2A/32 Transportation Improvement Project” to determine a course of action for the entire corridor. A *Draft EIS* was issued in April 1999. In January 2001, ConnDOT made a determination of its Preferred Alternative, a modification of “Alternative E” as presented in the *Draft EIS* . ConnDot’s proposal consists of:

- a widened, 4-lane Route 2A bridge,
- a relocated Route 2A (by-pass) between the bridge and Route 2 , bypassing Poquetanuck Village,
- a widened, 4-lane or upgraded 2-lane Route 2 in Preston, between the by-pass and Route 164, and
- an upgraded 2-lane Route 2 in North Stonington between Route 214 and I-95.

The *Final EIS*, originally slated for a Summer 2001 completion date, was delayed awaiting final plans regarding disposition of the Norwich Hospital property. It is anticipated that the *FEIS* will reaffirm the *DEIS* determination regarding North Stonington.

Transit

Airports

North Stonington is approximately 35 miles travel distance from Theodore Francis Greene State Airport, near Providence Rhode Island. The Westerly Airport, a light aircraft facility, is situated

within 17 miles of North Stonington to the south. Groton-New London Airport is the region's main air carrier facility, located approximately 16 miles to the west of Town.

Rail

The electrification of the Amtrak line affords high-speed rail service, on the Acela train, with stops in New London, Connecticut. Amtrak also offers commuter train service with stops in Mystic and New London in Connecticut, and Westerly, Rhode Island, which is the closest available rail transit. The Westerly Railroad Station, recently upgraded, is located approximately 12 miles from North Stonington. According to SCCOG, when the electrification of Amtrak is completed, rail service is expected to increase.

Bus Service

The Southeast Area Transit Company (SEAT) operates a bus along Route 2. North Stonington did not opt to join the transit district and so the service is a "closed-door service" for the public with no ADA service. (The ADA service provision could provide van transit to eligible riders within 3/4-mile distance of the bus route.) Elsewhere in the region, with some exceptions such as the Town of Preston, SEAT provides "open-door" flag-down service (no stops) for public use.

Foxwoods has employed SEAT to transport employees and gamers. The service meets Amtrak trains in New London, and the route is I-95 to Exit 92 up Route 2 to Foxwoods.

Foxwoods also charters a bus service, Coach USA, to transport employees the five-mile distance from Exit 92 up Route 2 to Foxwoods.

Parking Facilities

Foxwoods utilizes a satellite (State-owned) parking facility located near I-95 on Route 2 in North Stonington. It provides parking for approximately 227 cars and runs at 100-105% capacity. There is a commuter lot in North Stonington at Route 216 and I-95 with a 45-car capacity, which runs at roughly 15% capacity.

Ridesharing

Ridesharing in the region is coordinated by Rideshare Company, a private non-profit corporation funded by Connecticut Department of Transportation, based in New London.

Senior Van Service

The Town of North Stonington operates a van service for eligible senior residents based at the North Stonington Senior Center. Utilizing two minivans, transportation is provided for seniors to access services, to participate in bimonthly senior trips run by the Town, and for transportation to the Center.

Planning and Costs

This plan was prepared over a period of three years (2000-2002) for a total cost to the Town of North Stonington of \$78,324. It also took some 3000 hours of volunteer time and donated services which are not reflected in the cost shown below.

Primary Consultant, Joel Russell	\$58,445
Economic Development Report, John Shapiro	\$ 4,500
Draft Plan for Conservation and Recreation Lands, Conway School of Landscape Design	\$ 3,500
Community Planning Fair	\$ 5,319
Planning Workshops (3)	\$ 2,450
Town-Wide Questionnaire	\$ 3,000
Administration Expenses	<u>\$ 1,110</u>
TOTAL	\$ 78,324

LIST OF MAPS

<u>Map</u>	<u>Title</u>	<u>Page Reference</u>
A	“Locational Map – Southeastern Connecticut Region,” Figure 1, 1990 Plan of Development- North Stonington, Connecticut, SCRPA 1990	p.1
B	“Southeast Connecticut Public Water Supply Management Area – Potential Water Supply Sources,” Final Integrated Report – Coordinating Public Water Supply Plan – Southeast Connecticut Public Water Supply Management Area, March 2001	p. 2, 39
C	“The Pawcatuck Watershed and Sole Source Aquifer” (map), Pawcatuck Watershed – Water Resources: A Management Profile, Alan Desbonnet, Rhode Island Sea Grant Program, June 1999	p. 2, 43
D	“North Stonington Water Resources” including aquifers, wellheads and drainage basins, prepared by Lou Steinbrecher, April, 2003	p.3
E	“Pawcatuck Borderlands;” a map prepared by K.Geisler, TNC, November 28, 2001	p.7
F	“ Protected Lands in North Stonington”, prepared by the Tax Assessor’s office, April 2003	p.9
G	“Zoning Map of North Stonington, Connecticut,” prepared for the Town of North Stonington by Cartographic Associates, 2000	p.10
H	“North Stonington Village National Register Historic District,” data from Connecticut Historic Commission, Figure 14, 1990 Plan of Development-North Stonington, Connecticut, SCRPA 1990	p.30
I	“Village Preservation Overlay Area,” (map); prepared by North Stonington Assessor’s Office, May 16, 2001	p.30
J	“Reserved Land in the Vicinity of North Stonington Village,” Figure 11, 1990 Plan of Development - North Stonington, Connecticut, 1990	p.34

MAP A

Locational Map – Southeastern Connecticut Region

2003 Plan of Conservation and Development
NORTH STONINGTON, CONNECTICUT

MAP B

Southeastern Connecticut - Potential Water Supply Sources

2003 Plan of Conservation and Development
NORTH STONINGTON, CONNECTICUT

MAP C

Pawcatuck Watershed and Sole Source Aquifer

2003 Plan of Conservation and Development
NORTH STONINGTON, CONNECTICUT

MAP D

North Stonington Water Resources

2003 Plan of Conservation and Development
NORTH STONINGTON, CONNECTICUT

MAP E

Pawcatuck Borderlands

2003 Plan of Conservation and Development
NORTH STONINGTON, CONNECTICUT

MAP F

Protected Lands in North Stonington

2003 Plan of Conservation and Development
NORTH STONINGTON, CONNECTICUT

MAP G

Zoning Map of North Stonington, Connecticut – 2000

2003 Plan of Conservation and Development
NORTH STONINGTON, CONNECTICUT

MAP H

North Stonington Village National Register Historic District

2003 Plan of Conservation and Development
NORTH STONINGTON, CONNECTICUT

MAP I

Village Preservation Overlay Area

2003 Plan of Conservation and Development
NORTH STONINGTON, CONNECTICUT

MAP J

Reserved Land in the Vicinity of North Stonington Village

2003 Plan of Conservation and Development
NORTH STONINGTON, CONNECTICUT

APPENDIX B

PLAN FOR CONSERVATION AND RECREATION LANDS

Adopted September 11, 2009

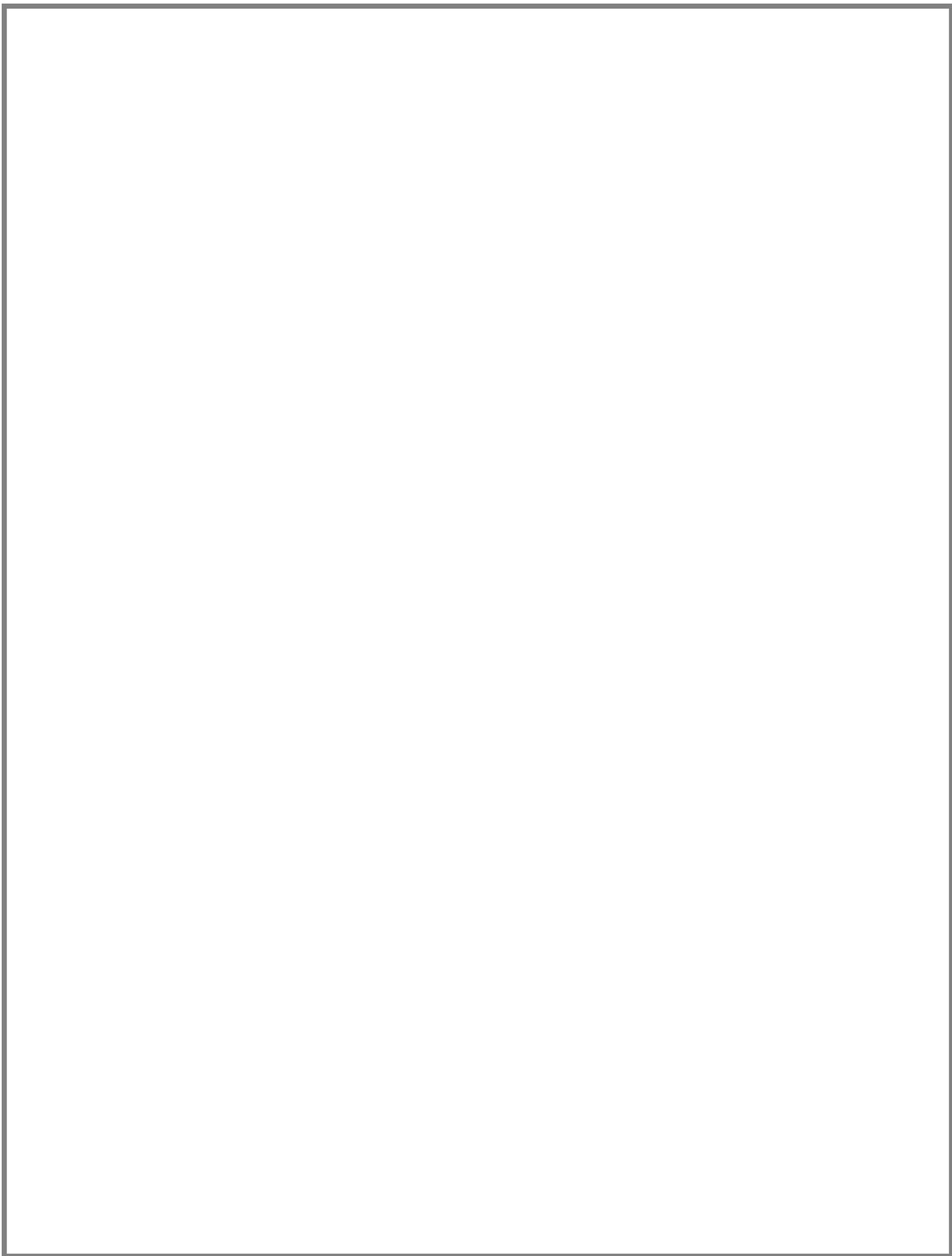
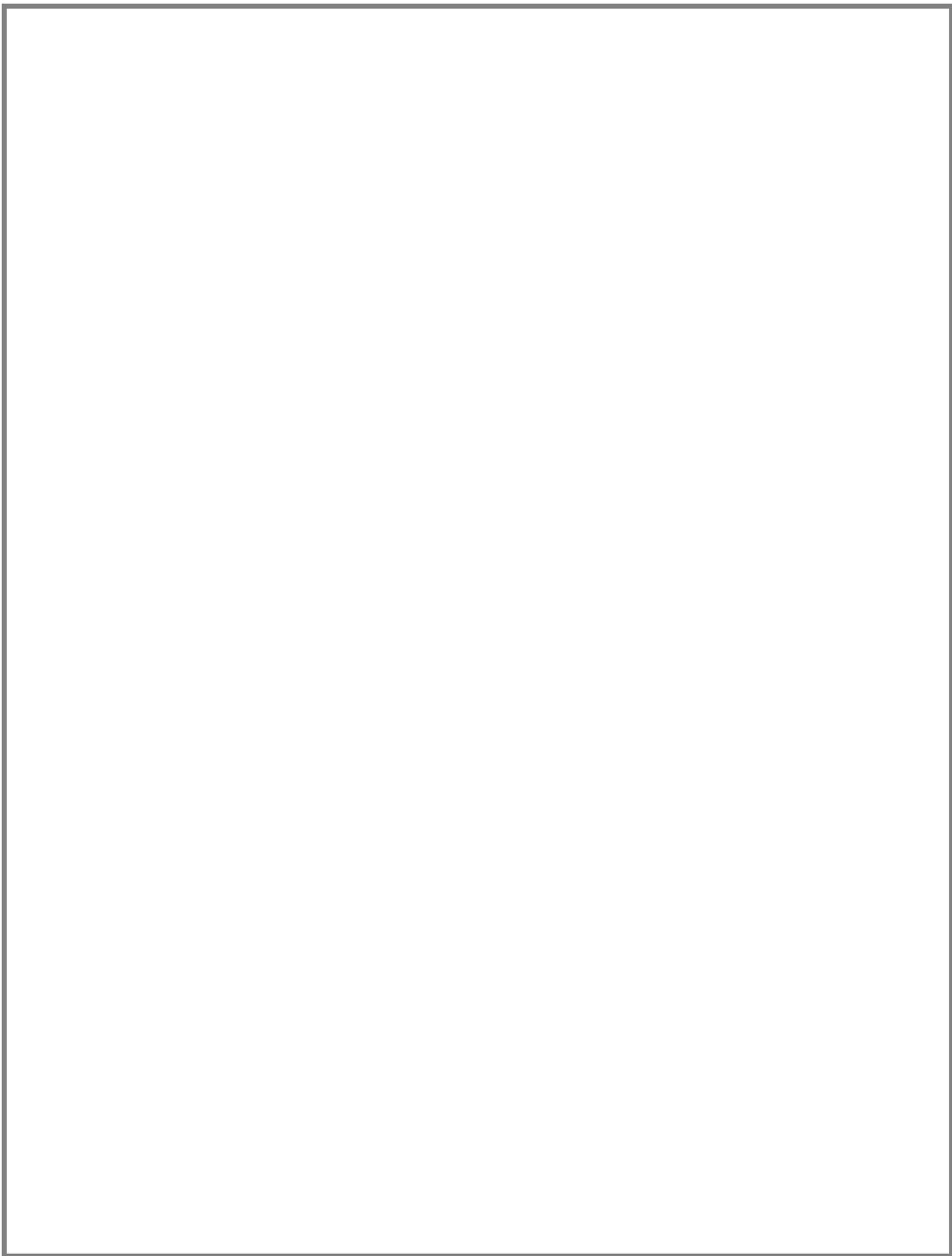


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EXECUTIVE SUMMARY

The Plan for Conservation and Recreation Lands (PCRL) was initiated by the Planning and Zoning Commission's Plan of Conservation and Development Steering Committee in 2001. Completion of the PCRL was mandated in the 2003 Plan of Conservation and Development (PCD), with the task assigned to the newly formed Conservation Commission. Accordingly, the Conservation Commission began inventorying, indexing, and researching land use and natural and cultural resources. Over the years the town has developed a considerable library of land use and resource studies, findings, and recommendations that have relevance today. This material was updated with current information by the Conservation Commission and provided the foundation for its recommendations. Major sources are referenced.

The Conservation Commission divided the town into fourteen "focus areas" in order to aid research and recommendations, and more importantly, to gain a town-wide vision of the town's assets. Each focus area has a significant concentration of characteristics that warrant the town's careful consideration for the future of that area.

The Conservation Commission's research and recommendations - in the form of a report dated January 31, 2008 - were turned over to the Planning and Zoning Commission for review, revision, and inclusion in the PCD. Ultimately, the recommendations contained in this plan need to be implemented by various town boards and commissions and the town's legislative body.

FINDINGS

- The needs and desires expressed by the community to retain and protect rural living and natural resources have remained largely unchanged through the years. Development pressures increase the necessity to plan carefully and act with renewed vigor to assure the continuance of the quality of life in town and to protect natural resources of significant local and regional importance, while working to mitigate the tax burden.
- Areas of the town most prone to increased development and density are generally located where valuable surface and underground water resources occur. The need to protect these waters substantially heightens the need for sound planning and enforcement.
- High quality economic development can be achieved in harmony with the conservation and recreation goals of the community - through careful planning, regulation, and enforcement.

GOALS AND OBJECTIVES

1. Maintain rural character

- Protect historic features and scenic vistas.
- Encourage farming.
- Maintain and enhance areas that define and shape community character.
- Minimize streets, roads, and paved areas that deface the landscape and increase the potential for pollution.
- Encourage high quality development and uses in existing areas, with minimum adverse impact on natural and cultural resources and the rural character of the town.

2. Permanently protect water quality and quantity

- Keep a low density of development within the upper and middle reaches of the Shunock, Wyassup, and Green Fall watersheds.
- Monitor surface and stratified drift aquifer water quantity and quality with an ongoing and effective program in order to find and take corrective action before large-scale damage occurs.
- Strictly regulate and enforce the protective intent of the aquifer protection overlay area and wetlands buffer zone regulations.
- Prevent overdevelopment that might impact water quality from point or non-point pollution sources, or lessen stream flow or water levels in wildlife habitats.

3. Protect the town's natural and historic resources

- Preserve rich agricultural soils.
- Only allow high-density residential development, including affordable and senior housing, in areas where such development is specifically planned and designated to minimize adverse impact to the town's natural resources.
- Protect the habitat of important and threatened species.
- Protect and preserve dark night skies.
- Ensure that commercial and industrial development protects and compliments the town's natural resources and recreation plans.
- Avoid traffic congestion and overdevelopment that will adversely impact air and water quality, and the historic and rural character of the town.

4. Provide areas for active and passive recreation

- Establish and identify trails and pathways for public use and access to recreation areas.
- Make trail maps available to the public.
- Where appropriate, encourage open space be open to the public for passive recreational use.
- Establish public parks to maximize public enjoyment of natural and historic resources.
- Establish active recreation areas in a location, in size, and a number adequate for the needs of the town.

5. Improve town regulatory procedures and prioritize land acquisition

- Develop an acquisition priorities list determined by importance.
- Designate the town agency/agencies responsible for each action step.
- Develop, implement, and update acquisition methods and programs.

- Develop and implement programs and procedures for ongoing tracking of protected and potential conservation lands.
- Develop and implement programs for maintenance and management of conservation and recreation land, including inspection and enforcement.
- Educate residents on the benefits of open space donation and sale of development rights.

LAND ACQUISITION

Lands must be acquired when opportunity arises. Recommendations are made for the purpose of informing all concerned that the subject property is considered to be of special importance for meeting conservation and/or recreation goals. This list must necessarily grow and evolve as land use decisions are made, and further resources are identified.

Initial Acquisition Recommendations

- Acquire key conservation and recreation lands in the ‘Shunock River and Valley’ and ‘North Stonington Village’ focus areas. If these lands are not acquired now, the town may soon lose its ability to do so.
- Expand the Rocky Hollow Recreation/Safety Complex. There is a desirable state owned 15 acre parcel on the west side of Rocky Hollow Road suitable for recreation and an additional 85 acres of state-owned land on the east side of Rocky Hollow Road adjacent to the eight acres that was acquired from the state for a town safety complex. The additional lands would provide the town with a centralized location with enough acreage to meet the town’s recreation and municipal facilities needs for years to come.
- Help the state acquire land on the northwest end of Assekong Swamp as a means of acquiring the state’s Rocky Hollow lands in trade. The state would achieve considerable added protection to the Assekong Wildlife Area, substantially increase both the area available for hunting and the protection to Assekong Brook, Swamp, and wetlands.
- Acquire Park Pond and available adjacent lands for a public park, nature preserve, and state historical heritage site within the Village National Register District. This is a unique conservation opportunity for the town. It is considered a high priority because of the urgent need for management, preservation, and conservation at the site.
- Acquire available conservation land in the Spaulding Pond - Bell Cedar Swamp focus area in order to protect: the rich biodiversity and many species of special concern; the special habitat that includes Bell Cedar Swamp and Spaulding Pond; and the several brooks, wetlands, and adjacent farmlands. This site will need special conservation and preservation efforts because its viability depends on good water quality and quantity, and adequate conservation management.

1.0 INTRODUCTION

North Stonington is a small town rich with natural resources and cultural history. The town retains a great sense of place, exhibited in the diversity of its flora and fauna, its working farms, and the many historic buildings, structures and cemeteries throughout town. Rural living is important to every resident, from the farmer who works land that has been in his family for generations, to the ex-urbanite who is embraced by the green landscape every time he steps out of his new house. It is available to the weekend fisherman pulling trout out of the river, the gardener with her hands in the soil, the hiker trekking through the woods, the star gazer viewing the nighttime sky, and the horseman enjoying the shade of a tree-lined road.

This dedication to preserving a rural way of life has left North Stonington with an abundance of natural resources not available to more developed towns. With Connecticut's food supply for a major crisis reported as not lasting more than a day and a half, and New London County cited as having one of the poorest levels of food security in the state, the town is positioned to be a regional food and water resource of major importance. Large commercial development in abutting towns and potential large developments within the town raise the importance of good planning and implementation, both to preserve the quality of life residents hold dear and to provide regional sustainability and security.

During the development of the town's 2003 Plan of Conservation and Development (PCD) the town contracted the Conway School of Landscape Design to develop a draft Plan of Conservation and Recreation Lands (PCRL). The 2003 PCD recommended that a Conservation Commission be established and tasked with finishing the PCRL. The Conservation Commission was established in November 2003. In January 2008 they delivered a report on the PCRL to the Planning and Zoning Commission, for final revision and review.

The primary purpose of the PCRL is to provide the town with a clear set of objectives and priorities for conservation and recreation. Good conservation is not merely a matter of acquiring and preserving land. It must also come from well thought out public policies in virtually every aspect of government, and conscientious decision-making by private citizens.

2.0 GENERAL GOALS AND RECOMMENDATIONS

2.1 MAINTAIN RURAL CHARACTER

1. Support both traditional and specialty farming (whether large or small scale), raising of crops, and animal husbandry. Consider establishing an Agricultural Commission. The town should be proactive in helping to obtain available grants, subsidies, tax relief, sale of development rights, and other helpful programs to maintain these activities. The town needs to invest in its rural future if it is to remain rural.
2. Keep traffic and other detrimental effects of development away from working farms.
3. Allow active farms to sell their crops retail and to have low profile signage along roads as needed.
4. Encourage the (re)establishment of small farms and the lease of small farm acreage by larger farms. (A state program could be created that mirrors the state forest program: instead of harvesting trees, the state could lease small farmland holdings for active farming. Towns wishing to participate could designate eligible lands. This program could help the state to achieve its open space goals while helping the town to provide economic development from farming and maintain its rural character.)
5. Support the Grange and Fair whenever possible. The North Stonington Agricultural Fair and the Grange support agricultural activities that are positive economic and recreational contributions to the town.
6. Expand Tax Abatement Opportunities. Adopt an open space ordinance under the provision of PA490 that extends tax relief to specifically designated lands important to the town's conservation and agricultural goals not already covered by PA490 or the former 10 Mill Law of 1913 (and revised in 1963).
7. Support rural-sensitive safety improvements to the existing Route 2. Oppose conversion to a four-lane highway. A four-lane Route 2 would adversely impact natural resources and town conservation efforts.
8. Encourage rural road design. Site design should fit landforms. Roads should not excessively disturb the land. Prohibit excessive width, excessive impervious coverage, and excessive excavation.
9. Encourage expansion of the Village Protection Overlay District and the North Stonington Village National Register of Historic Places district to include and buffer historic features associated with the village.
10. Promote businesses that contribute to the rural character of the town.

2.2 PERMANENTLY PROTECT WATER QUALITY AND QUANTITY

1. Allow no increase in the size of the existing commercial and industrial zones. Carefully regulate both site specific and overall build-out density of development within the present residential zones to prevent overuse or pollution of water and other natural resources. Buffer potential public water supply well-heads.
2. Develop and implement a program for monitoring pollution to surface and underground waters, and for maintaining an adequate quantity of water needed to protect species' habitat, conservation areas, and recreation resources of the town.
3. Remap the aquifer protection area to best describe its actual boundaries.
4. Avoid sewers in all residential zones. Sewers in residential areas will lead to increased density destroying rural character and leading to pollution of surface and underground waters from increased non-point source pollution, and leakage and other failures of the sewer infrastructure and systems.

2.3 PROTECT THE TOWN'S NATURAL AND HISTORIC RESOURCES

1. Discourage development on rich farmland soil. Site high-density zones and intensive uses elsewhere. Consider adopting Conservation Subdivision regulations.
2. Protect the habitat of threatened and important species. Species such as the Cardinal Flower, Canadian Warbler, and River Otter are indicative of a large biodiversity, however all these species require extensive habitats. Their preservation requires a combination of conservation land, environmentally sensitive development, and good land management practices from private citizens.
3. Protect and preserve dark night skies as one of the town's many natural, scenic, scientific and cultural resources. Zoning regulations should ensure the preservation of North Stonington's dark night skies through the reduction of light pollution for public and natural benefit, with thoughtful regard for security and visibility.
4. Designate the Shunock River and Valley and North Stonington Village focus areas as a corridor that is a central amenity of the community. This will help to focus town, state, and federal protection and conservation efforts.
5. Recognize the Green Falls River basin as an important resource.
6. Encourage properly managed lands in private ownership that are in harmony with the conservation and development goals of the town. Consider zoning incentives for large lot subdivision with significant acreage in preservation. Provide opportunities for private conservation such as sale or transfer of development rights.
7. Consider incentives for private conservation and environmentally sensitive site design.

8. Establish a state park or wildlife preserve at Lantern Hill and Lantern Hill Pond. This is a unique geologic feature and conservation opportunity that the tribe, town, and state should work on together.
9. Support energy conservation plans consistent with the rural character of the town.

2.4 PROVIDE APPROPRIATE AREAS FOR ACTIVE AND PASSIVE RECREATION

1. Encourage multiple-use of conservation and recreation lands where additional uses do not interfere with the primary conservation or recreation purpose. Passive recreation is often compatible with conservation. Farming and conservation can be compatible. Active recreation and school uses are often compatible. The use of school facilities, subject to suitable policies and procedures, would be beneficial to residents.
2. Discourage having tracts of land recommended for recreation use being closed to the public by restrictions. Conversely, conservation lands open to the public should have appropriate protective restrictions.
3. Enlarge the Rocky Hollow recreation area by acquiring additional land from the state for an expanded and centralized town recreation facility. Town-owned open space with little or no conservation or recreational value could be offered to the state in trade.
4. Develop a significant network of trails and pathways that will provide the public with safe active and passive recreational opportunities, and provide connectivity to conservation and recreation lands. The town has an abundance of trails, pathways, pentways, ancient roads, unimproved roads, and rights of way that should be mapped to show public ownership, permitted public use, and public use by right. Trails and pathways for bicycle, hiking, horseback riding, cross country skiing, and alternative sport use should be developed as a major endeavor of the town. Trails can provide many recreational opportunities. When considering land for open space, trails should not automatically be passed over in favor of large tracts of land.
5. Develop pocket parks where land areas are identified that have exceptional opportunity for one or more uses for public recreation, preservation of natural, cultural, and historic features, and education. These may be town or state owned and managed in a way that will actively contribute to the quality of life in the town.
6. Seek input from residents and stakeholders to ensure parks and recreation areas serve the needs of the surrounding residents: ensure that areas will be used and that activities planned are in harmony with the existing neighborhood.

2.5 IMPROVE REGULATORY PROCEDURES AND PRIORITIZE LAND ACQUISITION AND USES

1. Make sure the duties and authority of the various boards and commissions dealing with conservation and recreation are clear and that they are given the financial and legal power to carry out their respective missions.

2. Provide a professional expert grants writer to secure grants to help implement the recommendations of this plan.
3. Focus conservation efforts and resources on parcels that have been specifically recommended for conservation, recreation, protection of natural and cultural resources and features, protection and development of water resources and water supply management, open space, farming or farm land conservation, or other similar reasons.
4. Develop policies and procedures that will ensure accuracy and completeness of the town records. Track and document all additions, deletions or status changes to open space and recreation lands.
5. Keep open space and land use maps up to date. In order to intelligently plan for conservation and recreation, maps should be continually updated in conjunction with the town's Geographic Information System (GIS) Coordinator. GIS maps can be cropped, enlarged, combined, and layered providing an invaluable tool for detail study, research, and presentation purposes.
6. Carefully consider conservation easements held by the town, especially scattered small parcels, where enforcement will be difficult and potentially costly, and the public is excluded from use. While conservation easements can be a useful conservation tool between private citizens and willing land trusts, they are a tool the town should use with discretion. Land trusts are set up to manage property as the town has limited resources for this purpose.
7. Recognize that acquisition and management can sometimes be best achieved through partnerships with other governmental or private agencies. The town should be prepared to enter into such partnerships when appropriate.

3.0 BACKGROUND

The majority of land in North Stonington is as yet undeveloped. Open fields, mixed deciduous woodlands, wetlands, and swamps constitute the majority of the land area of the town. The majority of soils are stony with generally good drainage. The topography and geology have supported agriculture, milling, and limited mining activities.

The town is fortunate to have undeveloped areas of significant size that can substantially expand existing protected areas or help to provide a connective corridor for wildlife or recreation. The goal of the State of Connecticut is to preserve 21% of the land in the state as open space by the year 2023. This statewide goal can bring state help and financial support to a town that is proactive in acquiring conservation lands.

3.1 NATURAL AND CULTURAL RESOURCES

Water

North Stonington has abundant water bodies including large lakes, and an extensive network of ponds, streams, and wetlands. These water bodies provide significant quantity and quality of wildlife habitat. The town's primary drinking water source is a major stratified drift aquifer. The health and ecological functions of the town's water bodies are a most critical aspect of the town's physical, economic, and cultural wellbeing.

The Pawcatuck River is the largest river in North Stonington, forming the town's southeast border with Rhode Island. It receives, directly or indirectly, approximately two-thirds of the town's water drainage.

Wetlands are spread through every region of the town and affect all major land use plans. Laws are enacted to protect wetland areas because their ecological function is critical to all life. Wetlands provide overflow areas during flooding, water retention areas during times of heavy precipitation, and water reserves during times of drought.

North Stonington has six lakes and ponds with state owned boat launches on five of them. Water flow through the lakes is minimal. Residential development is attracted to the lakes making them especially vulnerable to ecological damage from the effects of overdevelopment within their basins.

There are eight water sub-basins mostly or partly within the town boundaries with another four barely entering. The Shunock and Wyassup sub-basins are the largest and encompass more than 60% of the town's land area. The interconnectedness of the sub-basins underscores the need for protection by all towns that share water resources in the region.

Several municipalities in Southeastern Connecticut, including North Stonington, recently participated in a comprehensive, stake-holder involved, planning process that culminated in the production of a Drinking Water Quality Management Plan. The participants recognized the need for a coordinated effort among the water supplier, the watershed communities, and the end users, to develop a common understanding of the valuable water resources the region possesses and to implement strategies to effectively manage and protect them in order to achieve long-term preservation of safe and sustainable public drinking water supplies.

Major stratified drift aquifers are located under 35% of the towns total land area. Nearly three-quarters of the town's residential population is served by private on-site wells. The Pawcatuck groundwater hydrologic system is a federally designated sole source aquifer due to its vital importance in supplying drinking water to the town and region for both present and future residential and economic development needs. It encompasses the Shunock, Wyassup, Pawcatuck, Ashaway and Green Falls sub regional drainage basins.

The region experienced drought conditions in the 1960's. Consequently the U.S. Geological Survey (USGS) conducted extensive research and testing of several of the most important stratified drift aquifers in southeastern Connecticut to determine their capacity to produce drinking water for regional and local supply. The Pawcatuck/ Shunock aquifer was determined by the USGS to be a very important drinking water resource. It is currently being used by public water supply companies and municipalities to supply drinking water to parts of Rhode Island and Connecticut. The aquifer is of major importance to the town's and region's water supply needs and plans for economic growth. The State of Connecticut legislature has given North Stonington the right to distribute water from this aquifer.

The North Stonington Water Pollution Control Authority outlined a water quality test program in a plan approved by the State of Connecticut Department of Environmental Protection. It was adopted by the town through the year 2020.

Several potentially high yield public water supplies have been identified by the USGS. The town of North Stonington has been given authority by the state legislature to be the distributor of drinking water to new service areas of the town. Both the Regional Planning Commission of the Southeastern Connecticut Council of Governments and the Governor's Commission for the Economic Diversification of Southeastern Connecticut have stressed the importance of these water supplies for the future of the region.

Wildlife and Vegetation

The town's topography and low human population promotes wildlife habitat. The Connecticut Department of Environmental Protection monitors and records species diversity and the location of sensitive ecological communities within the town. Natural Diversity Database sites are areas of habitat that the state feels should receive special attention. Thirty-five biodiversity locations are identified in the town with several significant concentrations. Both aquatic and surface vegetation in those sensitive areas, as well sensitive fauna, should be adequately protected. Invasive aquatic wetland and upland species are gaining a foothold and the need for their management has been identified.

The Connecticut Department of Environmental Protection inventories and manages the forest and wildlife resources at the Pachaug State Forest and the Assekonk Wildlife Management Area. The Fisheries Division is especially interested in North Stonington's coldwater fish population in the Shunock River, a state-designated and managed wild trout stream.

Approximately 70% of the town is forested. Forest cover not only provides forest resources and habitat, it has also been directly connected to water quality. State forest and wildlife management areas in North Stonington provide the majority of protected vegetative cover within the town. Lands now classified as forest land for tax relief purposes provide some temporarily protected forest cover, although timber can be harvested.

Many land areas have several conservation and recreation attributes such as where forest cover is combined with biodiversity sites, significant water and cultural features, and significant habitat for fish and wildlife. Conservation areas can also provide intangible amenities to residents, such as peace and quiet, dark night skies, and privacy.

Historic Sites

Historic sites and resources provide a major contribution to the rural character of the town and are attractive to high quality economic development. Historic sites are generally in close proximity to streams, lakes, and ponds. Many ponds and lakes themselves were reservoirs for the mills and other works that helped determine North Stonington's cultural heritage and the historic fabric of the community its residents now enjoy.

Historic and cultural features such as the more than 123 cemeteries, (said to be more than in any other town in the country), mill sites, stone walls, and old school houses are scattered throughout the town. The town's Cemetery Committee uses an 'adopt a cemetery' program to outsource upkeep of the cemeteries, many of which are ancient. The Old Plains Cemetery contains many rare examples of early stonemason's art, which require special preservation efforts, and has some of the earliest marked stones in town. Homes of historic importance exist throughout town, and the village of North Stonington, formerly known as "Milltown" is listed on the National Register of Historic Places.

The town has many public trails and pathways that were created throughout its milling, woodland harvesting, and farming history. These connective and access features can provide future generations with many recreational opportunities where they can enjoy the natural, cultural, and historic resources of the town.

Farms

Probably the most defining rural characteristic of North Stonington is its surviving farms and the vestiges of past agricultural activity, such as stonewalls, that continue to define the landscape. Prime agricultural farmland covers 15.4% of the town. **(See Figure 1 "Soils Map" and Figure 2 "Parcels with land classifications of farm or forest")** Conservation of farmland and the promotion of agriculture are top priorities. Loss of this resource occurs piecemeal - without much notice and little or no chance for reversal if strong steps for conservation are not taken.

While dairy farming has declined over the years, specialty farming and boarding horses have increased. An alarming trend is the amount of land being encumbered by homeowners associations with deed restrictions against owning livestock, in contradiction to the rural objectives of the town.

Map available online at:

http://www.NorthStoningtonCT.Gov/Pages/NStoningtonCT_BC/PZ/pocd/Figure1.pdf

Map available online at:

http://www.NorthStoningtonCT.Gov/Pages/NStoningtonCT_BC/PZ/pocd/Figure2.pdf

Dark Night Skies

As cities and towns all across the nation begin to recognize the beauty and realize the importance of a dark night sky, more and more regulations are being written to ensure their protection as an important resource. Visitors and residents North Stonington are fortunate to still be able enjoy this valuable resource that has been an integral part of human civilization since its beginning.

Light pollution created by improper lighting fixtures which direct light up into the sky instead of down toward the ground, creates a hazy blanket of light in the atmosphere which interferes with star-gazing as this artificial brightness causes the night sky to fade. Light pollution not only reduces visibility at night, it wastes energy, and disturbs wildlife that may depend on the natural cycle of darkness and light to survive.

Lighting that is energy efficient and night sky friendly may ultimately provide greater safety and security as all the light is cast downward over a designated area rather than some being scattered in other directions. The scientific, environmental, cultural and aesthetic aspects of preserving the night skies all must be taken into consideration as this is a resource that affects us in many ways, some of which are not yet fully understood.

3.2 OUTDOOR RECREATION

Passive recreational activities are non-motorized and do not significantly alter the natural aspects of the landscape. Passive recreation opportunities on public or private lands are abundant and a major economic resource of the town, improving the overall quality of life for residents. Conservation lands are generally used for passive recreation, unless sensitive resources preclude any public use. The extensive trail system in Pachaug State Forest and other nature preserves in town are in constant use by the public.

Active recreation opportunities involve a more intense use of the land that may somewhat alter the landscape but should not destroy its value. Conflicts frequently arise when an inappropriate location is chosen for active recreation. The need for additional public active recreational lands is recognized.

3.3 RESOURCE MANAGEMENT

The Pachaug State Forest (approximately 3,082 acres) and the Assekonk Wildlife Management Area (634 acres) are managed by the State of Connecticut Department of Environmental Protection. Various clubs and organizations manage large tracts of land generally serving as open

space and used for passive recreation, hunting, fishing, camping, or sporting activities, and generally open to the public by membership, fee, or permission. As custodians of these land areas, the owners generally manage the flora, fauna, and water resources.

Various land trusts own and manage conservation lands. These lands are generally open to the public for passive recreational use and enjoyment of nature. Private owners usually manage their land in harmony with good conservation practices. The town also holds tracts of land where conservation and recreation are encouraged.

The Purchasing of Development rights (PDR) is an effective means of preventing the loss of prime agricultural lands and preventing the fragmentation of open space. PDR programs are voluntary, public-private partnerships that help realize the permanent protection of lands that in many ways define the community. Under the Connecticut Farmland Protection Program, five of North Stonington's farms have sold their development rights to the state, resulting in the preservation of 381 acres of farmland. These parcels are managed privately by the owners.

3.4 GREENWAYS

Greenways are corridors that provide connectivity for wildlife and human benefit. They are often critical to species survival. They protect water resources and watersheds, thus ensuring good water quality and quantity now and in the future. Greenways can be defined by their functions and the areas they link. They may be natural - used only by wildlife, or have trails and roads for public access and recreational enjoyment of natural and historic resources. Historic trails and ancient pathways are a non-intrusive way of linking different areas.

State owned Pachaug State Forest and Assekonk Wildlife Management Area, town-owned lands, land trust and other non-profit organizations, provide a nucleus of open space that could be interconnected through a network of greenways and/or wildlife corridors.

4.0 MAPPING

Good mapping is vital to understanding where natural and cultural resources occur on the ground. Mapping is a fluid process that must be continually updated as resources are identified, and land uses change. The town's Geographic Information System enables the creation of maps with information that can be compared and contrasted for planning purposes. Attached is a series of maps on existing land uses (See Figure 3 "Conservation Commission Land Use Map"), natural and historic features, and conservation areas (See Figure 4 "Conservation Commission Planning Resource Map").

In order to recommend logical areas for future conservation, recreation, and greenways, the Conservation Commission is creating maps with "focus areas". A focus area is a section of a map that shows where significant concentrations of natural, recreational, and/or historic resources and features occur that are important to the town, where conservation and or recreation goals can be unified for planning and implementation purposes. Identifying resources requires extensive research and community outreach.

The Conservation Commission has begun to research fourteen preliminary focus areas, each defined by common attributes. General features, such Clark's Falls with its farmland, and the Shunock River and Valley with its water resources, will be mapped with a layer of specific features - farmland soils, historic buildings, wildlife habitats and the like. As new features are identified they can be added to the focus area.

4.1 PRELIMINARY FOCUS AREAS

(Roman numerals correspond to the Conservation Commission's *Focus Areas Map*)

I. Northwest Corner

Defining Features: Farms - High Acres, Flood Reed, Banker, Bison Brook and others.

Recreation: YMCA camp, Westbrook Fishing Club.

Other Features of Note: Prentice Mountain, Barnes Hill. Limestone mine, lime kiln, stucco cellar, grave of North Stonington gravestone carver.

II. Central Lakes

Defining Features: Lakes and wildlife - Wyassup, Billings, and Blue Lake, and the numerous Natural Resource Diversity areas where species of concern and endangered species are found.

Recreation: water sports, fishing, Camp Wightman church camp, and State boat launches, Pachaug State Forest

Other Features of Note: Bears Den (possible prospect hole for magnetic iron), Potholes on Ricktown Mountain, Ashwillet.

III. Pendleton Hill

Defining Features: Scenic areas - Palmer farm, First Baptist Church, Pendleton Hill, Legendwood Road.

Recreation: Groton Sportsmen's Club.

Other Features of Note: Puckhuninkonnuck Rock, site of first Baptist church, ancient stone bridges, colonial milestones.

IV. Green Falls River Corridor

Defining Feature: Green Falls River

Other Features of Note: large farms and farmland areas including Palmer and Bill farms, historic villages, grist mill, mill ponds, mill seats of Laurel Glen and Clarks Falls, important drinking water aquifers.

V. Chester Main

Defining Feature: Working farms - Stewart Hill, Miner's, Jonathan Edwards's winery and vineyards, Cool Breeze, Pickwick.

Other Features of Note: Horse Gravestone, mill seats.

VI. Lake of Isles

Defining Features: Lakes and Hills - Swantown Hill, Barnes Hill, Lake of Isles.

Recreation: Golf courses, boat launch.

Other Features of Note: Gold Mine, Bentley Place well and milk cellar, false lime kiln.

VII. Lantern Hill

Defining Features: Hills - Lantern and Long Hill, Wintechog Hill.

Recreation: Lantern Hill hiking trail, boat launches, rock climbing.

Other Features of Note: Biodiversity areas, geology, high cliffs, silica mine, mill seats, Lantern Hill Pond, Long Pond, Bush Pond, Silex Pond, Lantern Hill railroad bed, silica transfer station, Old Stone Church ruins, Indian cemeteries, Indian Trading Post, Pequot Indian reservation, Brown, Miner, Denison farms.

VIII. North Stonington Village

Defining Features: Historic Village -18th, 19th structures, mill ponds, reservoirs, canals, dams, mill seats, artifacts, Old Plains Cemetery, historic register district

Recreation: Village Green, town recreation and picnic area, bicentennial trail

Other Features of Note: public water supply well head, Park Pond and cold springs fen wetlands, biodiversity, aquifer

IX. Assekonk

Defining Feature: Biodiversity - Assekonk Wildlife Management Area, White cedar groves. Assekonk Pond, Swamp, and Brook

Recreation: Hunting and nature study.

Other Features of Note: Assekonk dam and reservoir pond, town recreation area, historic parade grounds.

X. Shunock River and Valley

Defining Features: Central river corridor - aquifer, wetlands, biodiversity sites, potential high-yield water resources important to the region, aquatic communities, beaver meadows, bogs, dams, and lodges, state designated and managed cold water stream.

Recreation: Canoeing, kayaking, nature study, hiking and horseback riding, conservation lands open to public for passive recreation.

Other Features of Note: Many mill seats, dams, reservoir ponds and canals, Richardson mill site, historic and geologic features, glacial esker.

XI. Spaulding Pond and Bell Cedar Swamp

Defining Features: Amazingly rich site of concentrated biodiversity, rare white cedar swamp

Other Features of Note: Reservoir ponds and dams, iron works site, bog iron ore in red brook, standing historic grist mill, Break Neck ledges, aquifer, large farmland fields.

XII. Southeast Agricultural

Defining Features: Large expanses of prime farm soils and with working farms, Beriah Lewis farm

Other Features of Note: Pawcatuck River and Green Falls River, sole-source stratified drift aquifer, potential high yield drinking water well head sites and Level B aquifers.

XIII. Southwest Agricultural

Defining Feature: Wychwood Farm with large poultry production and fields in cultivation.

XIV. Clarks Falls

Defining Feature: Large expanses of prime farm soils and farmlands with working farms, Palmer farm and others.

Recreation: Avalonia's Yannatos Preserve

Other Features of Note: Farm village of Clarks Falls, gristmill, Green Falls River, aquifer.

Map available online at:

http://www.NorthStoningtonCT.Gov/Pages/NStoningtonCT_BC/PZ/pocd/Figure3.pdf

Map available online at:

http://www.NorthStoningtonCT.Gov/Pages/NStoningtonCT_BC/PZ/pocd/Figure4.pdf

5.0 ACQUISITION RECOMMENDATIONS

The recommendations and mapping in this document are for the purpose of focusing the town's limited resources on the acquisition of land most appropriate to town goals, and are not meant in any way to discourage private land conservation efforts. Recommendations are made in two contexts: the first general in nature, and is town-wide providing long range goals for the town to work towards; and the second specific to particular parcels or resources whereby specific recommendations are offered to provide for immediate action as opportunities present themselves. No mathematical rating and ranking system can replace the accumulated wisdom and vision of the citizens of North Stonington.

Open space is protected to varying degrees by fee title to the land. Held by the town, state, and land trusts the land is dedicated in perpetuity to conservation and/or recreational uses by deeds and agreements filed in the land records of the town. Likewise, varying degrees of protection are provided by conservation agreements and the holding of development rights. (Although the degree of protection is considered high, changes can occur through extensive legislative action or judicial re-interpretation of terms.) Fee title offers one of the best ways to conserve large tracts of open space long term and provide substantial passive recreational opportunities. Requiring a certain percentage of land to be designated as open space in subdivisions is a tool for acquiring open space but may not provide useful land in every instance. Paying a fee in lieu of open space provides the town to acquire land it considers to be the best and of highest priority for conservation and recreational uses.

5.1 PROPOSED CONSERVATION LANDS

Bell Cedar Swamp qualifies as an important conservation protection site because of the rich biodiversity that has been identified. Acquisition by the state or land trust is recommended. Water quality and quantity are critical attributes of this area. Bell Cedar Swamp requires special attention and protection as it offers scarce natural diversity and a unique environment seldom available to the public to enjoy or study.

Park Pond qualifies as an important conservation site because of its unique cold-water aquatic habitats for threatened and state-designated important species. It could serve as a public park for nature study and passive recreation within the North Stonington Village National Historic Register District that would be in walking distance from the village center. Park Pond provides a

refuge for a variety of species during hot dry periods, during floods, and during cold winters. The site is also a treasure of the milling heritage of the town that could be restored and preserved. The mill site may qualify as a state heritage site, which could offer a level of protection.

5.2 PROPOSED WATER MANAGEMENT LANDS

Protection of the streams, wetlands, and headwater ponds and lakes that overlie and recharge aquifers is essential for protecting the quantity and quality of the town's drinking water over the long term. The drinking water resources in the Shunock, Green Fall, Wyassup, and Pawcatuck focus areas require maximum conservation of open lands and controlled development.

The Town of North Stonington should acquire fee title to those sites where public water supply wellheads could be developed or maintained. The state has given the town exclusive rights to distribute drinking water into new areas that would include important opportunities for commercial and industrial development. The availability of drinking water in the aquifer is large but limited. The town should not only acquire the recommended sites, it should also apply to the state for diversion permits to withdraw the drinking water from the aquifer that will serve the planned future needs of the town.

There is space within the approximately 8 acre, town owned parcel (# 6364) on Rocky Hollow Road, to house garage maintenance facilities with a separate access and adequate separation from the other town facilities. The town garage and maintenance department does not have enough land at its present site on Wyassup Road. It is located on the aquifer and is therefore inappropriate for a garage.

The land area known as the Hewitt Property (parcels #2284, 9641, and the former Dew Drop Inn restaurant) were acquired by the town in 2008. A committee has been formed to consider ways of using the property. A priority for use of this land should include protection for Shunock River water quality and quantity, and for the public water supply wellheads that supply Kingswood/Meadow Wood, the schools, and parts of the village. Recreation uses might include horseback riding activities. Uses that would support agriculture in town, such as a farmer's market or a teaching farm should be explored.

5.3 PROPOSED RECREATION LANDS

The town needs several parks that can provide outdoor public gathering places for residents to enjoy. Several possibilities exist including an expanded Rocky Hollow recreation area, the old parade grounds, and town owned lots in Kingswood/Meadow Wood.

The present town Rocky Hollow Recreation Area provides a nucleus for centralizing playing fields and expanding active recreation lands and facilities. An approximately 15-acre area (within Parcel #5607) for expanding facilities is adjacent to the approximately 9-acre area (also within parcel #5607) of state-owned land that is presently leased by the town for recreation. The site connects with the school recreational fields and facilities by way of a footbridge across Assekong Pond. Acquisition from the state by the town of the 15-acre site is considered high priority. In exchange for the potentially beneficial 15 acre area (“B” on Map below), the town-owned 18 acre parcel (#2281)(“A” on Map below) at the edge of Assekong Swamp that is of little use to the town but of value to the state, could be offered to the state. (See Figure 5)

The town should take the initiative to encourage the state as a top priority to acquire the 115-acre open parcel (# 5693) at the head of Assekong swamp. The state would expand its wildlife management area by approximately 20% and add to the important protected Assekong wetlands. The state would then be in a more favorable position to sell to, or swap with the town, giving the town the 85-acre parcel (#6365) - **Assekong Swamp East**- for its long term municipal facilities expansion. This is considered a high priority acquisition and exchange opportunity because the parcel at the head of Assekong Swamp could be lost to housing development at any time, and the town needs to develop a plan for its long-range municipal and recreational needs. (See Figure 5)

The old Parade Grounds owned by the town, at the edge of Meadow Wood, could provide fields for local events with access to trails around the Assekong Wildlife area, and connect to town recreational facilities. (See Figure 5)

Map available online at:

http://www.NorthStoningtonCT.Gov/Pages/NStoningtonCT_BC/PZ/pocd/Figure5.pdf

Pachaug State Forest and Assekong Wildlife Management Area provide extensive opportunities for passive recreation. The state has a goal of expanding its ownership of open lands state wide. This provides North Stonington with the opportunity to add state-owned open space that is available to the public for state allowed active and passive recreational purposes. The town can recommend to the state land areas for state acquisition that would contribute to the town's plans.

Lantern Hill owned by the Mashantucket Tribal Nation provides an opportunity for a park should the tribe be willing to allow the land to be used for that purpose. The 1987 Regional Plan of Development slated Lantern Hill for a state park. Lantern Hill provides a wonderful opportunity for hiking, geologic and nature study, and spectacular views.

A town ice-skating pond should be re-established at the town owned pond next to the service station at Route 2 and Mystic Road where a town managed skating pond with shelter and warming pit was once enjoyed by many townspeople. The pond is shallow enough for safety and the nearby fire company could flood the ice to restore the surface as needed.

A cluster of undeveloped lots owned by the town near the high ground in the Kingswood subdivision could provide the residents in that area with a beautiful, well-shaded picnic ground and community gathering-place.

Passive recreation lands can be expanded through the state's, town's, or land trusts' acquisition of fee title tracts rather than through the acquisition of conservation easements on private land that would be closed to the public. Ecologically sensitive areas and species can be best protected under trust management. These tracts can provide connective corridors and trails for enhancing town-wide conservation and recreational opportunities.

6.0 MANAGEMENT

The following entities could hold and manage conservation lands: North Stonington's several active land trusts; the state; the town; and possibly even the Conservation Commission in the future, if designated to do so by appropriate authorities.

The land trusts active in town are the world wide The Nature Conservancy (TNC), the regional Avalonia Land Conservancy (ALC), and the local North Stonington Citizens Land Alliance (NSCLA). Land trusts encourage interested landowners to donate or sell land, conservation easements, and/or development rights to them.

Effective management of the town's resources is largely dependent on the ability and willingness of the townspeople and elected officials to understand the value in what they have and to work diligently to realize their stated goals in this and in other plans. In other words, conservation takes a strong management commitment. Short sightedness on the part of citizens, elected officials and other stake holders will be costly in the long-term with respect to preserving the kind of environment we desire, our quality of life, and the economic viability of North Stonington.

7.0 ACKNOWLEDGEMENTS

The Planning and Zoning Commission and Conservation Commission would like to thank Conservation Commissioners Richard Blogett and Bob Fleury, resident volunteer Nita Kincaid, Planning and Zoning Commission member Vilma Gregoropoulos and GIS Coordinator Marc Tate for their invaluable assistance with research and mapping.

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7.2 MAPS

- | | |
|-----------------|---|
| FIGURE 1 | SOILS MAP |
| FIGURE 2 | PARCELS WITH LAND CLASSIFICATIONS OF FARM OR FOREST |
| FIGURE 3 | CONSERVATION COMMISSION LAND USE MAP |
| FIGURE 4 | CONSERVATION COMMISSION PLANNING RESOURCE MAP |
| FIGURE 5 | ASSEKONK SWAMP LAND TRADE AND SUGGESTED STATE LAND PURCHASE BY NORTH STONINGTON CONSERVATION COMMISSION |

8.0 GLOSSARY AND DEFINITIONS

Conservation Restriction: a limitation, whether or not stated in the form of a restriction, easement, covenant or condition, in any deed, will or other instrument executed by or on behalf of the owner of the land described therein, including, but not limited to, the state or any political subdivision of the state, or in any order of taking such land whose purpose is to retain land or water areas predominately in their natural, scenic or open condition or in agricultural, farming, forest or open space use, in perpetuity.

Farm Land: any tract or tracts of land, including woodland and wasteland, constituting a farm unit. Ref: Sec. 12-107b(1) Connecticut General Statutes (CGS).

Forest Land: any tract or tracts of land aggregating twenty-five acres or more in area bearing tree growth that conforms to the forest stocking, distribution and condition standards established by the State Forester.... Ref. Sec. 12-107b(2) CGS.

Focus Area: an area with a concentration of significant natural, recreational, and or historic resources and features that are important to the town where conservation and or recreation goals can be unified for planning and implementation purposes.

Greenway: a conservation and or recreation corridor connecting open space parcels for people and wildlife.

PA 490: Since 1963, Public Act 490 provides for assessment of farm, forest, and open space land on the basis of its current use rather than market value. “Use value” is based on what the land is actually used for and not what it might potentially be worth on the market. Use value taxation is justified because the land requires little, if any, support from local government revenues (Source: NEMO Open Space Fact Sheet T6).

Open Space: any area of land, including forest land, land designated as wetland under section 22a030 and not excluding farm land, the preservation or restriction of the use of which would (A) maintain and enhance the conservation of natural or scenic resources, (B) protect natural streams or water supply, (C) promote conservation of soils, wetlands, beaches or tidal marshes, (D) enhance the value to the public of abutting or neighboring parks, forests, wildlife preserves, nature reservations or sanctuaries or other open spaces, (E) enhance public recreation opportunities, (F) preserve historic sites, or (G) promote orderly urban or suburban development. Ref: Sec. 12-107b(3). CGS *[Please recognize that the definition for Open Space in a plan such as the PCRL - which identifies potential areas for consideration, must necessarily differ from the town’s Zoning Regulations where Open Space is narrowly defined as protected land. Each is correct within its different context.]*

Overlay Area: designated area or district, delineated by an overlay on the Zoning Map which is of such historical or environmental importance that it commands extraordinary measures for its protection from any activity or plan deemed detrimental to the underlying basis of its character (Reference: P&Z Regulations, definitions 1/09).

Parcel (Lot): an area or parcel of land, in the same ownership, designated and recorded in the land records of the Town by its owner as a separate lot (Reference: P&Z Regulations, definitions 1/09).

Passive recreation: Non-motorized recreational activities that leave the land essentially in its natural state.

Purchase of Development Rights (PDR): Voluntary, legal agreements that allow owners of land meeting certain criteria to sell the right to develop their property to a town or state government, or to a nonprofi organization. A conservation easement is then placed on the land and the agreement is recorded on the title to limit the future use of the land to agriculture or other open space uses (Source: EPA Smart Growth Policies Glossary).

Streambelts: The natural area along rivers, streams, wetland drainage creeks, and intermittent brooks.

Wetlands: land, including submerged land, as defined in Sect 2.1 (Conservation Commission) of the Inland Wetlands and Watercourses Regulations of the Town of North Stonington, that are regulated pursuant to Section 22a-28 through 22a-35 inclusive of the Connecticut General Statutes, as amended; which consist of any of the soil types designated as poorly drained, very poorly drained, alluvial and flood plain by the National Cooperative Soils Survey, as it may be amended from time to time, of the Soil Conservation Service of the U.S. Department of Agriculture (USDA). Such areas may include filled, graded or excavated sites, which possess an aquatic (saturated) soil moisture regime as defined by the USDA Cooperative Soil Survey. Ref: P&Z reg. definitions.

Wildlife corridors: Natural pathways for wildlife movement within and between important habitats.

APPENDIX C

TOWN-WIDE SURVEY QUESTIONNAIRE

Purpose of the Questionnaire

Throughout the development of the *2002 Plan of Conservation and Development*, the Steering Committee aimed to involve as many North Stonington residents and taxpayers as possible. The group recognized that the accuracy and meaningfulness of the Plan was dependent on its success in gathering such input. Beginning with the Community Planning Fair in May 2001 and continuing throughout the three public workshops, meetings with town officials, commissions and local organizations, the Committee gathered information that led to the formation of the Plan's goals and actions for the future. As this process neared completion in April 2002, a key step was the mailing of a town wide questionnaire. The objective of this questionnaire was to ensure that the issues and goals being documented in the Plan accurately reflected the concerns and desires of the community.

A questionnaire was designed that consisted of 19 statements about rural character, business growth and development, housing, conservation and recreation lands, and municipal services. The questionnaire is shown in **Figure 1**.

On April 15, 2002, the questionnaire was mailed to all 3,151 registered voters in North Stonington. The mailing was given wide publicity in the media and local organization newsletters. More than 120 letters eliciting citizen participation in the survey were mailed to leaders and members of the town's many boards, commissions, and private organizations.

The questionnaire was self-addressed and stamped, and included instructions for its easy completion and quick return. Property and business owners, and residents who were not registered voters were able to obtain a copy at the Town Hall. As of June 15, 2002, the deadline for receipt, 885 completed questionnaires were returned.

Scoring and Analysis

The method of responding to the questionnaire required each individual to mark a box either for "Strongly agree," "Agree," "Undecided," "Disagree," or "Strongly disagree." This indicated how the individual felt about the issue described in the statement. After the questionnaires were returned, responses to each statement were counted and the percentage of responses calculated. Statements were then listed in rank order with those having the most agreement at the top. This list and the percentage of responses to each statement are presented in **Figure 2**.

The bar chart to the right of each statement shows what percentage of responses were in each of the five strongly agree, agree, undecided, disagree, and strongly disagree categories. High bars at the left of the graph indicate a general agreement of individuals to the statement.

High bars to the right indicate general disagreement with the statement. Where bars are relatively equal in height, it indicates that there was no clear consensus among individuals whether they agreed or disagreed with the statement. A high center bar indicates that individuals were undecided about the statement.

Figure 1. Plan of Conservation and Development Questionnaire

The Steering Committee needs your help in completing the Town's *Plan of Conservation and Development*.

Please -

- tear off this part of the sheet at the dashed line
- complete the questionnaire
- fold it so that the Steering Committee address is showing
- tape the edge if possible
- mail it back before May 1, 2002**

This questionnaire has been mailed to every registered voter in North Stonington. Town residents or landowners who are not registered voters may obtain a copy at the Town Hall between 9 a.m. and 4 p.m. or by calling Carol Caron or Dick Cooper at 535-2877, extension 7.

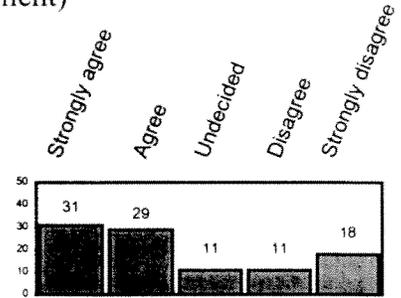
Your opinions are very important to North Stonington's future and we thank you for sharing them.

(Tear or cut along this line)

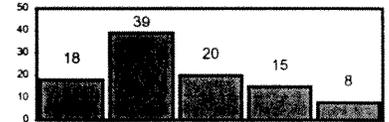
	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
North Stonington should preserve its rural character by:					
Slowing the rate of new home building.....	<input type="checkbox"/>				
Allowing homes to be built in clusters provided there is no net increase in their number and the remaining land is permanently undeveloped.....	<input type="checkbox"/>				
Town ordinances that protect stone walls, roadside trees, and country roads.....	<input type="checkbox"/>				
Regulations that require new town roads to look like country roads.....	<input type="checkbox"/>				
Encouraging residential development that maximizes land preservation.....	<input type="checkbox"/>				
Overall, I believe North Stonington is providing an appropriate level of town service to its residents.....	<input type="checkbox"/>				
North Stonington should do more to attract new agricultural businesses such as vineyards, nurseries, greenhouses, and specialty farms.....	<input type="checkbox"/>				
The Town should encourage new businesses that will primarily serve residents.....	<input type="checkbox"/>				
The Town should encourage new businesses that will primarily serve tourists.....	<input type="checkbox"/>				
North Stonington should do more to ensure the preservation and protection of lakes, wetlands, watercourses, steep slopes, and wildlife habitats.....	<input type="checkbox"/>				
North Stonington should identify some locations where residential housing might be mixed with stores, offices, and small businesses.....	<input type="checkbox"/>				
Developers of residential subdivisions should be required either to set aside a certain percentage of the subdivision as permanently protected open land or to make a payment to a Town fund that would be used to buy land for protection or recreation purposes.....	<input type="checkbox"/>				
North Stonington should provide a wider range of housing choices for:					
Young families.....	<input type="checkbox"/>				
Working singles.....	<input type="checkbox"/>				
Senior citizens.....	<input type="checkbox"/>				
The Town should <u>more actively seek</u> high value, low impact business development that will provide significant tax revenue while requiring few Town services.....	<input type="checkbox"/>				
New business development should be limited to the Commercial, Highway-Commercial, Office/Research, and Industrial zones where it already exists.....	<input type="checkbox"/>				
The Town should require some lot sizes to be greater than two acres, while allowing others to be less than one acre, for a more varied development pattern.....	<input type="checkbox"/>				
My household would be willing to pay \$20 per year into a Town fund that would be used exclusively to buy land for protection or recreation purposes.....	<input type="checkbox"/>				

Figure 2. Results of the Questionnaire
 (Percent of individuals responding to the statement)

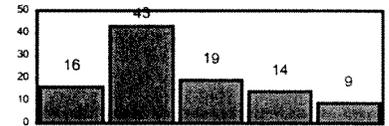
My household would be willing to pay \$20 per year into a Town fund that would be used exclusively to buy land for protection or recreation purposes.



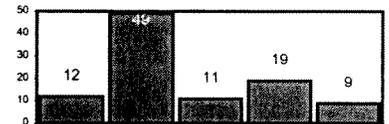
North Stonington should provide a wider range of housing choices for young families



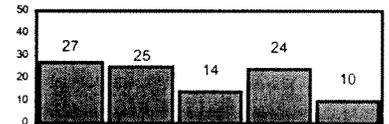
North Stonington should identify some locations where residential housing might be mixed with stores, offices, and small businesses.



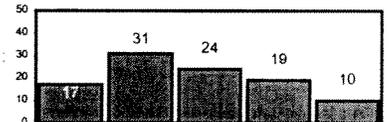
Overall, I believe North Stonington is providing an appropriate level of town services to its residents



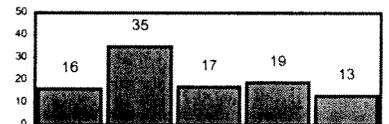
North Stonington should preserve its rural character by slowing the rate of new home building.



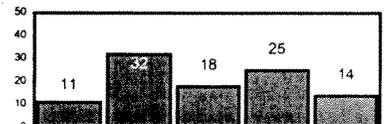
North Stonington should provide a wider range of housing choices for working singles.



North Stonington should preserve its rural character by allowing homes to be built in clusters provided there is no net increase in their number and the remaining land is permanently undeveloped.



The Town should require some lot sizes to be greater than two acres, while allowing others to be less than one acre, for a more varied development pattern.



The Town should encourage new businesses that will primarily serve tourists.

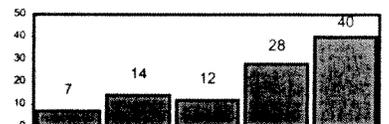
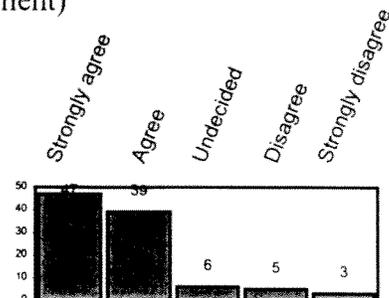
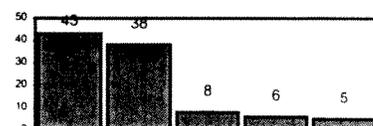


Figure 2. Results of the Questionnaire
 (Percent of individuals responding to the statement)

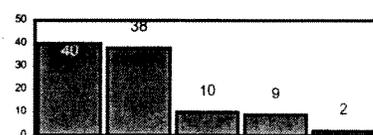
The Town should more actively seek high value, low impact business development that will provide significant tax revenue while requiring few Town services.



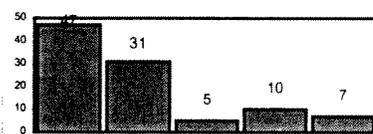
North Stonington should preserve its rural character by encouraging residential development that maximizes land preservation.



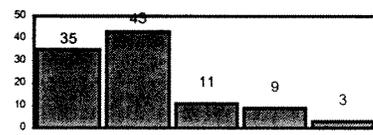
North Stonington should do more to ensure the preservation and protection of lakes, wetlands, watercourses, steep slopes, and wildlife habitats.



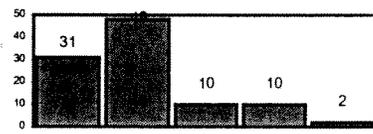
North Stonington should preserve its rural character by town ordinances that protect stone walls, roadside trees, and country roads.



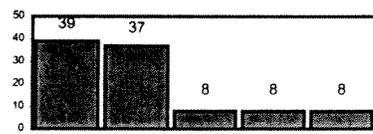
North Stonington should do more to attract new agricultural businesses such as vineyards, nurseries, green houses, and specialty farms.



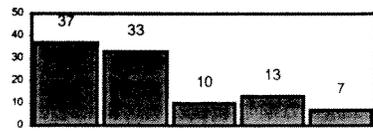
The Town should encourage new businesses that will primarily serve residents.



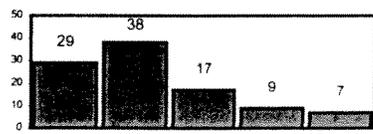
Developers of residential subdivisions should be required either to set aside a certain percentage of the subdivision as permanently protected open land or to make a payment to a Town fund that would be used to buy land for protection or recreation purposes.



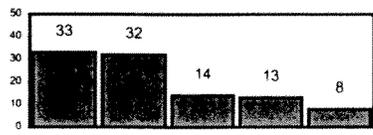
North Stonington should preserve its rural character by regulations that require new town roads to look like country roads.



North Stonington should provide a wider range of housing choices for senior citizens.



New business development should be limited to the Commercial, Highway-Commercial, Office/Research, and Industrial zones where it already exists.



Interpretation of Results

Using the above rationale to analyze responses, the Steering Committee concluded that citizens agreed with most of the statements in the questionnaire. There were, however, several statements that received little consensus and one with which individuals generally disagreed.

Rural Character

The interpretation of responses to the town-wide questionnaire indicates that North Stonington citizens strongly support preserving the town's rural character by

1. encouraging residential development that maximizes land preservation;
2. adopting town ordinances that protect stone walls, roadside trees, and country roads; and
3. adopting regulations that require new town roads to look like country roads.

Goals and actions to achieve this are provided in the Plan.

Business Growth and Development

Some of the statements addressing solicitation and encouragement of certain types of commercial businesses also received strong support. Citizens agreed that the town should

1. more actively seek high value, low impact business development that will provide significant tax revenue while requiring few town services. The emphasis of this statement is on increasing the current level of activity for attracting such businesses,
2. do more to attract new agricultural businesses such as vineyards, nurseries, green houses, and specialty farms;
3. encourage new businesses that will primarily serve residents; and
4. limit new business development to the Commercial, Highway-Commercial, Office/Research, and Industrial zones where it already exists.

To a lesser degree, but still in general agreement, citizens indicated that North Stonington should identify some locations where residential housing might be mixed with stores, offices, and small businesses (i.e., mixed uses).

The only statement in the survey that citizens strongly disagreed with was that the town should encourage new businesses that will primarily serve tourists. While not specifically identifying what these businesses are, citizens apparently were able to distinguish them from "businesses that will primarily serve residents," one of the other statements.

The Steering Committee noted the above results and these are also reflected in the Plan.

Conclusions

The results of the questionnaire mirrored, in almost all respects, what the participants of the Community Planning Fair and planning workshops had concluded. Many of the results of the questionnaire are also consistent with recommendations contained in the 1990 Plan of Development. These include citizens' desire to preserve rural character, better protect the environment, attract agricultural and economic development that is favorable to the town, and provide ample housing opportunities for its residents.

APPENDIX D

MORATIUM OVERVIEW

Moratorium Overview

(Please note: This document has been created for informational purposes as a general overview of the proposed changes to the Town's existing Zoning Regulations. It is not part of a formal application, nor created to detail the specifics of every change. The existing Zoning Regulations should be compared with the proposed regulations to determine all changes. Anyone wishing to review the applications filed by the Planning and Zoning Commission can visit the Land Office or Town Clerk's Office in Town Hall.)

This is an informal list of significant changes and new uses to the Zoning Regulations that are proposed by the Planning and Zoning Commission as a result of its moratorium. As the entire Zoning Regulations were overhauled and rewritten for clarity, a document illustrating each and every change made would necessarily be hundreds of pages long.

Sections 100 through 200 deal with administrative and enforcement issues. There are no substantive changes here. The sections were updated to meet state statutes. Although North Stonington does not allow any use not specifically listed in the regulations, certain uses that were especially incompatible with the town were called out in a new list of 'expressly prohibited' uses.

Section 300 "Zoning Districts and Map" Of note are the addition of two new zone classifications:

The commercial areas around Holly Green and Green Onion have been separated into two distinct commercial zones, recognizing the lack of sight lines and the desirability of drive-thrus at the Green Onion zone, and, conversely, the good sight lines, campus-style setting and potential for mixed use with residential at Holly Green.

The old zoning map had two Highway Commercial Zones, one at exit 93 and one at the Rotary (Mystic Pizza quadrant). While exit 93 remains Highway Commercial, the area at the rotary has been rezoned to "Village Commercial" with uses that are more appropriate to the heart of town.

Sections 400 to 1000 list each zone and the uses allowed in it. **Section 1500** offers specific regulations for most of those uses. Many changes were made to these sections, both in terms of what is allowed and whether it is allowed by right or by special permit. Available is a separate table that compares the uses allowed in the new regulations with those in the old regulations.

New Residential Zone regulations of note:

- *Qualified Affordable Accessory Apartments* are a NEW USE, and all accessory apartments can now be detached from the primary residence.
- There are now different classes of *Home Occupations*, with more protections for abutters, and fixed maximum sizes.
- There are no longer *Multifamily Housing* provisions in the R40, R60, or R80 Zones.
- *Farm Wineries* and *Farm Winery Restaurants* (a NEW USE) are allowed on 25 acres, and *Country Inns* (20 rooms or less) are allowed on 10 acres; both are

allowed to have special events, such as weddings, but must have a sound absorption plan that meets state noise limitation requirement and the commission can require noise limiting equipment.

- *Excavations* are more closely regulated and now require phasing, so an entire site cannot be left exposed, as was done in the past.
- *Golf Courses* are allowed in R60 as well as R80.
- *Kennels* have new noise limitations and lot size minimums.
- *Membership Clubs* are more carefully regulated.
- (NEW USE) *Large Wind Energy System* (public utility-sized) are allowed, and include 400' tall turbines.
- (NEW USE) *Small Wind Energy System* for individual homes are allowed on 5 acres and can be 100' in height.
- Regulations for keeping *Animals and Fowl* now include *Best Management Practices*.
- *Special Interior Building Lots* have been dropped.
- *Senior Continuing Care Communities* are no longer allowed in residential zones.

New Commercial Regulations of note:

- A MAJOR CHANGE in all commercial zones allows more than one principle building for a single use, and more than one principle use in a building; both by special permit.
- *Planned Business Developments* may now include existing buildings.
- In general, *Restaurants* under 5000sf and *Retail* under 10,000sf no longer require special permits, nor do *Warehousing* or *Light Manufacturing* under 20,000sf in the Industrial Zone, or *Office* and *Research Facilities* under 10,000sf in the Office Research Zone.
- *Medical Clinic* is a NEW USE – a smaller facility than a *Hospital*.
- (NEW USE) *Helipads* are allowed as accessory uses.
- *Senior Continuing Care Communities* are now allowed in most commercial zones.

Section 1100 “Overlay Zones” (Seasonal Use, Historic, and Aquifer Protection): The only change to this section was to update the Aquifer Protection Zone to meet new DEP language, but does not significantly change what is allowed and where.

Section 1200 Floating Zones (NEV-SDD): This section has not been changed significantly, except that the uses allowed are now specifically listed, and the maximum amount of commercial development allowed has been raised to 45% of the total floor area of the entire project.

Section 1300 “Dimensional Requirements”:

Changes include:

- Commercial Development Zone requires a 5 acre Master Plan before subdivision
- Fourth floors are no longer allowed
- Minimum Buildable Square is allowed in up to half the setback and must be accessible from the frontage at the time of application
- Setbacks can be adjusted to be consistent with pre-existing streetscapes
- Septic systems can be partially located within setbacks

- Driveways must link to buildings via the frontage

Section 1400 “Non-Conforming Uses”: Non-conforming use and building regulations are stricter, and generally are not allowed to expand, with the exception of pre-existing residential uses in areas which have become commercial, to a limited degree.

Section 1500’s “Supplemental Regulations”: Many of the regulations included in this new Section 1500 were scattered throughout the old regulations. All the uses listed in Sections 400-1000 are now included in this section along with some general regulations/standards such as Animals and Fowl, Alcoholic Beverages, Architectural Characteristics, Driveways, Outdoor Lighting, and Outdoor Storage of Junk and Debris. Major changes have been noted above, and also include the following:

- *Drive-Thru Windows* now regulates stacking spaces for better traffic flow
- Residential use of *Shared Driveways* is limited to two lots.
- “Outdoor Lighting” allows more protection from light trespass
- *Recreational Campgrounds* are allowed to stay open year round, however stays are limited and no residency can result
- *Seasonal Roadside Stands* do not require a permit

Section 1600 “Special Permits” are much the same, however new language includes:

- Incomplete applications are grounds for denial
- Notification of applications must go to anyone sharing a driveway with the applicant, regardless of how far away they are (previous notification requirement was limited to 100’)

Section 1700, “Site Plan Requirements”:

- Requires an additional 5 copies of plans for staff review
- Calls for sureties instead of bonding
- Has detailed architectural requirements more in keeping with rural character
- Encourages pedestrian friendly site amenities
- Allows outdoor cafes

Section 1800 “Landscaping” - new requirements include:

- A five foot landscaped area between all buildings and parking lots or internal roads
- Reduced buffer for residential properties abutting the CD zone from 100’ to 25’
- Parking lot islands for every 10 spaces

Section 1900 “Parking and Loading” was reorganized and updated to eliminate conflicts with regard to specific parking ratios, and to reword the specific uses within the Parking Ratio section to reflect the actual uses that exist in town.

- Language was added to allow the Commission to evaluate the total parking needs of a project to potentially eliminate excessive parking.
- Regulations now specifically allow for overflow parking areas to be covered with a pervious surface.

Section 2000 “Signage” has had MAJOR CHANGES to keep with the rural character of the town

- Free standing signs have a maximum height of 10' with an ability to go to 15' where it is justified
- Small lit signage is allowed at commercial uses in residential zones

The commission would like to thank the property owners of North Stonington for their patience during the moratorium.

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