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October 18, 2011

To The Residents of Waterford,

This document is the 2012 Plan of Preservation, Conservation and Development for Waterford. It outlines the broad strategic directions for the physical, economic, and social development of Waterford for the foreseeable future.

The Plan was prepared over a two-year period with extensive public participation including:

- Multiple workshop meetings where residents participated in recommending strategies for Waterford’s future and
- telephone surveys where a cross-section of residents were asked for their input on community issues and strategies.

The Planning and Zoning Commission considered all of this input when finalizing the Plan. As a result of these efforts, the Plan is thought to reflect the consensus of the community at the time the Plan was adopted.

The Plan of Preservation, Conservation and Development is called Part 1 - Policy Element since there is a companion document called the Implementation Element. The Policy Element is the Plan of Conservation and Development referred to in CGS Section 8-23.

The Implementation Element, which identifies actions to implement the strategies, is intended to be a working document which will be used by Town staff and agencies to implement the recommendations in the Policy Element. It is envisioned that the Implementation Element will be regularly updated to reflect community progress and priorities.

Following a public hearing held on October 17, the Planning and Zoning Commission adopted this Plan and established an effective date of January 1, 2012.

Sincerely,

Waterford Planning and Zoning Commission
Introduction

About Waterford ...

Located in southeast Connecticut, Waterford is a suburban community with a strong economic base. Waterford is home to about 19,500 people and contains over 630 businesses employing about 11,000 people.

As a coastal community located along the Interstate 95 corridor, Waterford enjoys a number of strategic locational advantages. In addition, Waterford is home to several important cultural and recreational landmarks such as the Eugene O’Neill Theater Center and Harkness Memorial State Park.

Waterford has a rich history spanning from subsistence agriculture to its modern-day role as an economic center in the region. Throughout its history, Waterford has demonstrated a long-range outlook to promote the welfare of its residents.
About This Plan and Planning ...

This Plan of Preservation, Conservation and Development is a guide for the future of Waterford. The Plan primarily addresses the physical development of Waterford and is also intended to influence the social and economic development of the community. While this Plan is an advisory document, it identifies strategies which will result in the most positive outcomes for the Town and provides a framework for consistent decision making.

This Plan differs somewhat from prior plans for Waterford in that:

- it is intended to be shared with all Waterford households and businesses,
- it promotes a more pro-active approach to guiding the activities of the Town,
- it includes the major policy boards of the Town (such as the Representative Town Meeting, Board of Selectmen, and Board of Finance), and
- it has been configured to promote a commitment to implementation.

The Plan of Preservation, Conservation and Development for the Town of Waterford is a two-part document.

This part –the “Policy Element” - is a statement of strategic directions which are considered important for Waterford in order to preserve and enhance those things considered integral to the overall character, ambience, and quality of life in the Town. It is “big picture” and strategic in nature so that Waterford residents will use it to discuss and refine the major directions of the community.

It is envisioned that the Policy Element will be reviewed every 5-10 years (or as otherwise needed) to ensure that the strategic directions for Waterford are appropriate for addressing the issues facing the community.

The companion part –the “Implementation Element” – is a detailed compilation of tasks and programs which will help accomplish the overall strategies. That element identifies specific tasks to be completed, the entity responsible for completing the task, and the anticipated timeframe for completion. As tasks and programs are implemented and results are evaluated, it is envisioned that the Implementation Element will be updated to acknowledge completed tasks and to add new tasks.

The Plan recommends that the Implementation Element be maintained and administered by a Plan Implementation Committee. The Committee would review the Implementation Element every year to ensure that the work program and tasks for the coming year (and beyond) reflect fiscal and operational capabilities.

While the Policy Element of the Plan will be updated less frequently than the Implementation Element, the Policy Element should evolve as the needs of the community change. As new issues come to light, the community should strive to update the Policy Element by evaluating alternative approaches and selecting the best overall strategy for Waterford. The fact that a topic or issue is not addressed in the Policy Element should not prevent it from being considered at some time in the future,
Planning Considerations

A Unique History

The Waterford landscape was formed over millions of years by the interaction of geologic and climatic forces.

The first Native Americans are believed to have inhabited this area about 10,000 years ago. They lived as hunters, fishers, gatherers, and farmers, primarily along the Thames River and the Niantic River. European exploration of this area began after 1614 and quickly advanced to trade with Native Americans and permanent settlement, especially after the Pequot War in 1637.

What became New London was first settled around 1646. Due to the natural harbor, this village soon became a bustling seaport and the growing population pushed out into the surrounding areas. While the economy of New London was primarily focused on maritime trade and whaling, surrounding areas were devoted to subsistence agriculture, fishing, quarrying, and similar occupations.

Over time, disagreements arose over taxation of residents in outlying areas for services which primarily benefitted residents of the more urban area. Residents of the outlying areas banded together and submitted petitions to the Legislature to establish a separate town. Several requests were denied before approval was granted in 1801. The Town of Waterford became the 109th town in Connecticut.
The arrival of railroads in the mid-1800s helped to transform the community. Many foreign-born or first-generation immigrants came to Waterford to work on local farms or in local quarries (such as at Millstone Point). In addition, the railroad helped make Waterford a popular shoreline and resort area. Several impressive waterfront estates were built in Waterford during this period and summer hotels and beach-cottage colonies were created. Many of these changes were aided and accelerated by the creation of a trolley system followed by the expansion of the road system and the proliferation of the automobile.

With the onset of World War II, the US Naval Submarine Base and the Electric Boat Company (manufacturers of submarines), both located in Groton, grew substantially. This new influx of activity helped spur additional population growth in Waterford during and after the war.

In the 1960s and 1970s, three nuclear power plants were established at Millstone Point. The property tax benefits of these plants enabled Waterford to undertake significant community improvements and provide substantial tax benefits to residents over the next few decades.

During the 1990s, the economy of the region transitioned from a defense-based economy (nuclear submarines) to an entertainment-based economy with the opening of two casinos operated by Native Americans (two of the largest casinos in the United States). The casinos are now the largest employers in the region.

In the late 1990s, deregulation of the electric industry resulted in the sale of Millstone Nuclear Power Plant (previously a regulated utility) and its subsequent operation as an electric generator. This change lowered the valuation of the facility resulting in a significantly smaller contribution to the tax base.
Changing Demographics

Waterford has experienced three main population trends over the course of its history.

From incorporation in 1801 to about 1910, the overall population of Waterford grew slowly. This time period was dominated by subsistence agriculture, farming for export to other areas, granite quarries, and the shoreline resort era. With the introduction of trolley service in the early 1900s (such as the New London and East Lyme Street Railway), this began to change.

From 1920 to about 1970, the population of Waterford grew dramatically from about 4,000 residents to about 17,000 residents. This growth reflected national trends of suburbanization out from larger cities and overall economic growth in the region. Growth was also supported by a trolley / streetcar system, bus service, the increasing availability of the automobile and the expansion of the highway network.

During the 1970s and 1980s, population growth slowed in Waterford. In fact, Waterford was one of the slowest growing communities in southeast Connecticut during the 1980s. Since 1990, Waterford has continued to grow, albeit modestly. How Waterford may grow in the future is not clear.

Over the past several decades, the age composition of Waterford has changed as many residents have chosen to age in place due to reasonable taxes and the overall quality of life. Older households tend to get smaller over time as children move out and other changes happen. As a result, population growth which resulted from new housing construction was offset by changes in the 8,000 or so other housing units in Waterford. Consider that the average household size in Waterford has decreased from 3.23 persons per unit in 1970 to 2.38 persons per unit in 2010 (compared to a 2010 state average of 2.52 persons per unit).

From a demographic perspective, the older population in Waterford (2010 median age of 46.1 years compared to the state median age of 40.0 years) has resulted in a trend towards a natural population decrease (a lower birth rate and a higher death rate). In other words, without net in-migration, Waterford might have lost population over the past decade or so.

![Population Projections](image-url)
Predicting future migration rates is one of the most challenging aspects of population projections. If the recent total population change continues, Waterford might continue to grow at a modest rate (the high projection in the chart on the preceding page). On the other hand, if the amount of migration is modest, Waterford may experience a lower birth rate, higher death rate, and less growth overall. In that scenario, Waterford might lose population over the next decade or so.

While overall population changes can be important, it is the changing age composition of a community which can have the most impact on municipal functions. As the following chart indicates, Waterford (like many other communities) is undergoing a fundamental demographic shift where older age groups are becoming dominant as people live longer and healthier lives.

Changing Fiscal Conditions

In the 1980s and 1990s, Waterford had one of the largest tax bases of any community in Connecticut due to the Millstone nuclear facility. Waterford received significant tax revenues from this facility and this helped keep taxes low for residents and businesses and supported a wide variety of services and facilities for residents.

However, due to utility deregulation, Millstone now generates less tax revenue than it did previously. As a result, Waterford is in the process of adapting municipal spending to reflect this new fiscal reality and reconcile community needs and desires with available funding.

When asked about taxes in Waterford as part of the telephone survey, about 63 percent of residents felt that taxes in Waterford were still reasonable. About 70 percent of residents indicated that taxes in Waterford were about the same or lower in comparison to other towns in the area.
Land Use and Zoning

As shown by the colored areas on the land use map below, about 8,723 acres of Waterford’s land area (about 41 percent) is developed, built upon, or used for some social or economic purpose (including land preserved as open space). The uncolored areas (12,653 acres) are lands which may be developable in the future. How these land areas may be used in the future is a key consideration of this Plan of Preservation, Conservation and Development.
The colored areas on the zoning map below indicate the types of uses presently allowed in different areas of Waterford. Overall, most areas of Waterford are intended for residential uses (yellow, white and green areas).
Overall Community Issues

As part of the process of preparing this Plan of Preservation, Conservation and Development, Waterford residents participated in a number of exercises which were used to help identify issues and concerns.

These exercises included a series of community workshops meeting on different topics and telephone surveys of Waterford residents.

Public Meeting Discussion

What Residents Like Most About Waterford

One of the telephone surveys involved a random sample of 300 Waterford households. Participants in the telephone survey were asked what they liked most about living in Waterford. Overall, the general ambience of the community and physical attributes seemed to strongly influence people’s satisfaction with living in Waterford.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beautiful place, nice community, friendly people, small town feeling, etc.</td>
<td>37 %</td>
<td></td>
</tr>
<tr>
<td>Close to work, close to shore, convenience, near family, etc.</td>
<td>30 %</td>
<td></td>
</tr>
<tr>
<td>Schools, fire, police, etc.</td>
<td>11 %</td>
<td></td>
</tr>
<tr>
<td>Low taxes</td>
<td>9 %</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14 %</td>
<td>Other</td>
</tr>
</tbody>
</table>

What Residents Like Least About Waterford

Participants in the telephone survey were also asked what they liked least about living in Waterford. Since almost half of all participants did not identify anything they liked least, the responses seem to indicate that people are generally satisfied with the overall quality of life in Waterford.

<table>
<thead>
<tr>
<th>Nothing</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing / Don’t know / No response</td>
<td>48 %</td>
<td></td>
</tr>
<tr>
<td>Traffic congestion, too much development, not enough development, too many condos, etc.</td>
<td>18 %</td>
<td></td>
</tr>
<tr>
<td>Taxes, spending, etc.</td>
<td>14 %</td>
<td></td>
</tr>
<tr>
<td>Schools, public works, etc.</td>
<td>10 %</td>
<td></td>
</tr>
<tr>
<td>Location, weather, etc.</td>
<td>10 %</td>
<td></td>
</tr>
</tbody>
</table>
Most Important Issues

Residents were asked what they felt was the most important issue facing the Town at the time the survey was done (December 2010) and then, as a follow-up question, what was the next most important issue facing the Town. As a result of utility deregulation and the lower tax payments from Millstone, residents understand that fiscal issues are an important consideration in Waterford.

<table>
<thead>
<tr>
<th></th>
<th>First Mentioned</th>
<th>Second Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local Fiscal Issues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taxes/rising taxes</td>
<td>37%</td>
<td>24%</td>
</tr>
<tr>
<td>Town spending/budget</td>
<td>16%</td>
<td>6%</td>
</tr>
<tr>
<td><strong>Local Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education/schools</td>
<td>18%</td>
<td>28%</td>
</tr>
<tr>
<td>Public services (trash, roads, etc.)</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td>Fire/Police Departments</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Lack of youth focus</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Overall Economy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of economy/industry/business</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Employment/jobs</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Economy</td>
<td>3%</td>
<td>-</td>
</tr>
<tr>
<td><strong>Other Issues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Millstone closing/safety</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Safety</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Cost of living</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Politics/local government</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>None</td>
<td>-</td>
<td>5%</td>
</tr>
<tr>
<td>Traffic</td>
<td>-</td>
<td>4%</td>
</tr>
<tr>
<td>Environment/beaches</td>
<td>-</td>
<td>3%</td>
</tr>
</tbody>
</table>

Desired Changes

All survey participants were asked what one thing, if anything, they would like to see changed or modified in Waterford. While almost half of all respondents did not identify anything they felt should be changed or modified, others mentioned municipal services or lower taxes.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nothing</strong></td>
<td>Nothing/none 30%</td>
</tr>
<tr>
<td></td>
<td>Don’t know/unsure 17%</td>
</tr>
<tr>
<td><strong>Local Services</strong></td>
<td>Roads/public works/public services 7%</td>
</tr>
<tr>
<td></td>
<td>Schools 4%</td>
</tr>
<tr>
<td></td>
<td>More focus on youth 3%</td>
</tr>
<tr>
<td></td>
<td>Parks / playgrounds/ bike paths 3%</td>
</tr>
<tr>
<td></td>
<td>Policing / enforce speed limits 3%</td>
</tr>
<tr>
<td></td>
<td>Government / politics 3%</td>
</tr>
<tr>
<td><strong>Fiscal Changes</strong></td>
<td>Lower taxes 10%</td>
</tr>
<tr>
<td></td>
<td>Decrease spending/budget 5%</td>
</tr>
<tr>
<td></td>
<td>Spend less on administrators 1%</td>
</tr>
<tr>
<td><strong>Development Policies</strong></td>
<td>More development/business 5%</td>
</tr>
<tr>
<td></td>
<td>Need town center / community area 3%</td>
</tr>
<tr>
<td></td>
<td>More environment focus / wetlands 2%</td>
</tr>
<tr>
<td></td>
<td>Less development 2%</td>
</tr>
<tr>
<td></td>
<td>More public transportation 1%</td>
</tr>
<tr>
<td></td>
<td>More focus on the elderly 1%</td>
</tr>
<tr>
<td></td>
<td>More sidewalks 1%</td>
</tr>
</tbody>
</table>
Through the public meetings and the telephone survey, it was learned that Waterford residents:

- are generally satisfied with the overall direction of the community,
- are concerned about fiscal issues, and
- would like to maintain the overall quality of life in the community.

In terms of the physical, economic, and social development of the community, the input received from Waterford residents indicated they want to:

- **preserve** those things which contribute to the overall character and ambience of the community,
- **enhance** the overall character and quality of life of Waterford,
- **guide** future growth and change in ways that will enhance the community, and
- continue to provide the **support** services and facilities that are needed in the community.

These basic elements became the foundation for this Plan of Preservation, Conservation and Development: In addition, this input influenced the following overall goal which guided preparation of this Plan:

**Guide the future of Waterford so that:**

- important resources will be preserved,
- development will enhance neighborhoods and the community,
- community needs will be addressed, and
- the overall ambience and quality of life will be maintained.
Plan Organization

Based on the preceding input, this Plan has been organized around the following thematic elements:

- **Preserve**: Those things which are important for Waterford to protect or preserve.
- **Enhance**: Those things which are important for Waterford to enhance in order to promote the overall quality of life.
- **Guide**: How the Town should approach, manage, and guide future development activities.
- **Support**: How services and facilities should be provided to help meet community needs.
In the final analysis, our most basic common link is that we all inhabit this small planet, we all breathe the same air, we all cherish our children's futures, and we are all mortal.

John F. Kennedy
American President
Coastal Resources

Open Space
Natural resources (land, water, air, plants and animals) help support the overall character of Waterford and the quality of life in the community. It is considered important to preserve and enhance these resources in order to maintain the richness of natural communities, promote diversity in biological/natural habitats and species, and preserve the relationship of environmental health to human health and well-being. These resources are highly valued by residents and, as responsible stewards, we will strive to protect these resources for present and future generations.

Waterford has demonstrated a strong commitment to environmentally sensitive land use planning and, by most accounts, is doing a good job protecting natural resources. As a result, the main strategy will be to maintain and enhance efforts to protect these resources in the future.

In the telephone survey, participants were asked about Town efforts in some areas of natural resource protection. In general, participants felt the Town was devoting the right amount of effort to protection of these resources.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Too Little Effort</th>
<th>Effort Just Right</th>
<th>Too Much Effort</th>
<th>Not Sure / Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protecting environmental quality.</td>
<td>15%</td>
<td>65%</td>
<td>3%</td>
<td>17%</td>
</tr>
<tr>
<td>Protecting wetlands and bodies of water.</td>
<td>13%</td>
<td>60%</td>
<td>9%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Vernal Pool Wetland

Spotted Salamander
A. Protect Water Quality

In terms of future strategies, protecting water quality (surface water and ground water) is an important priority for Waterford since the overall health of residents and the environment relies on having clean water. Almost all forms of life require water and we will do our part to preserve the integrity of water resources in Waterford.

In recognition of this, Waterford:
- has undertaken and participated in numerous studies of sensitive watersheds such as the Niantic River, Jordan Cove, Stony Brook, and Jordan Brook,
- participates in a number of water quality related programs such as the Jordan Cove Urban Watershed Project (www.jordancove.uconn.edu/) and the Niantic River Watershed group (www.nianticriverwatershed.org/), and
- performs water quality testing of a selection of streams (for monitoring environmental health) twice a year.

While water quality protection is important in all areas of the community, it is especially important in watersheds that contribute to:
- public water supply reservoirs and supply sources, and
- coves and embayments such as Niantic Bay and Jordan Cove.

Waterford has been a leader within Connecticut in implementing water quality treatment systems for storm drainage and promoting water recharge as opposed to water discharge (now referred to as “low impact development” (LID) techniques). In fact, Waterford was doing this long before it became popular.

Much of this has been accomplished through Town Staff working with engineers and developers rather than through specific regulatory requirements. In the future, Waterford should continue to be a leader in this area and should adopt specific provisions in its regulations to implement LID techniques.

The Town should continue to develop and implement strategies to ensure healthy watersheds such as those presented in the Jordan Brook Watershed Management Plan, the Niantic River Watershed Management Plan, and similar plans as they are prepared in the future.

B. Protect Plants And Animals And Their Habitats

Plants and animals are key indicators of environmental health and an important part of a healthy and functioning ecosystem. The overall strategies in Waterford are to:
- protect habitats for rare and endangered species and other sites as listed on the Natural Diversity Database maintained by the Connecticut Department of Environmental Protection,
- seek to create and protect unobstructed natural corridors to connect important habitats and sustain species diversity,
- strive to maintain the health of fisheries and shellfish beds, and
- control invasive species to the extent possible.
C. Protect Important Natural Resources

The following table (and the map on the facing page) outlines natural resource conservation priorities for Waterford. Waterford should continue efforts to identify important resource areas and conserve and protect these areas.

<table>
<thead>
<tr>
<th>Priority</th>
<th>Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant</td>
<td>• Water quality, inland and coastal</td>
</tr>
<tr>
<td></td>
<td>• Watercourses</td>
</tr>
<tr>
<td></td>
<td>• Poorly drained soils (wetlands)</td>
</tr>
<tr>
<td></td>
<td>• Floodplain (100-year, 1.0% annual probability)</td>
</tr>
<tr>
<td></td>
<td>• Soils with slopes in excess of 25%</td>
</tr>
<tr>
<td></td>
<td>• Active public water supply watersheds (Lake Konomoc)</td>
</tr>
<tr>
<td></td>
<td>• Potential public water supply watersheds (Miller Pond)</td>
</tr>
<tr>
<td>Important</td>
<td>• Special species, habitat, or scenic areas</td>
</tr>
<tr>
<td></td>
<td>• High groundwater availability (aquifers)</td>
</tr>
<tr>
<td></td>
<td>• Back-up public water supply watersheds (Lake Brandegee)</td>
</tr>
<tr>
<td></td>
<td>• Floodplain (500-year, 0.2% annual probability)</td>
</tr>
<tr>
<td></td>
<td>• Forested areas</td>
</tr>
<tr>
<td></td>
<td>• Inland, estuarine and marine environments</td>
</tr>
</tbody>
</table>

D. Expand Conservation Planning

Continuing to develop and implement sound strategies for natural resource conservation is an important recommendation of the Plan. Waterford should strive to enhance the capacity of Town boards/agencies to think strategically about such issues.

See the “Implementation Element” of the Waterford Plan of Preservation, Conservation and Development for information on tasks and actions currently programmed for implementation of these Natural Resource strategies.
PRESERVE

Coastal Resources

GOAL

Preserve, protect, and enhance coastal areas.

As a coastal community, Waterford contains a variety of coastal resources along the shoreline from Niantic Bay on the west to Long Island Sound on the south and the Thames River on the east. Coastal area resources in Waterford include sandy beaches and shorelands, dunes, bluffs and escarpments, tidal wetlands, submerged aquatic vegetation, and shellfish beds.

These coastal resources contribute to overall community character and quality of life and the health of the marine ecosystem. As defined in State statutes (CGS 22a-94), the coastal area includes off-shore waters and land areas within 1,000 feet of the shore.

While the Coastal Area Management Act focuses on activities in the coastal area, it is widely recognized that coastal resources are also affected by activities which occur upstream. In fact, the issues of sedimentation, hypoxia, pathogens, toxic contaminants and floatable debris are probably caused more by upstream activity than by activities in the thin coastal band along the shoreline. That is why upland activities need to be managed carefully in order to protect sensitive coastal resources.

It is important to recognize that some coastal area management strategies are also addressed in other portions of the Plan (such as the Natural Resources section).

A. Protect Coastal Resources

Waterford will continue to protect and manage coastal resources in accordance with the coastal area management plan and policies.

<table>
<thead>
<tr>
<th>Priority</th>
<th>Resource</th>
</tr>
</thead>
</table>
| Significant | • Water quality, especially in coves and embayments, in terms of runoff, sedimentation, hypoxia, pathogens, toxic contaminants and floatable debris  
| | • Marine and wildlife habitat (including shellfish beds) and adjacent shorelands  
| | • Barrier beaches and inter-tidal areas  
| | • Floodplain (coastal high hazard zones) |
| Important | • Areas for water dependent uses, including harbor areas  
| | • Providing for coastal public access (including signage) and upland facilities consistent with the capacity of the resource  
| | • Preserve scenic resources  
| | • Avoid diminishing or impairing visual resources |
B. Manage and Guide Coastal Activities

Waterford will also continue to manage and guide development and activities in coastal areas in accordance with the coastal area management plan and policies. This includes issues related to public access, water dependent uses, maritime navigation, and similar policies.

C. Coordinate Oversight of Activities In Coastal Areas

Some activities in coastal areas may involve overlapping jurisdiction with the Planning and Zoning Commission, the Harbor Management Commission, the Shellfish Commissions, the Flood and Erosion Control Board, Ledge Light Health District, and others. To the extent possible, policies and activities among these agencies should be coordinated to better serve the goals and policies of the Town and help in preserving these unique resources.

The need for coordination also extends to other organizations such as the advisory committee for the Niantic River watershed. Waterford participated with East Lyme, Salem, and Montville to develop the Niantic River Watershed Management Plan and is now coordinating on implementation. Efforts such as these should continue.

See the “Implementation Element” of the Waterford Plan of Preservation, Conservation and Development for information on tasks and actions currently programmed for implementation of these Coastal Resource strategies.
D. Be Aware Of Flooding Potential In Coastal Areas

In coastal areas, flooding potential is influenced by a number of factors including land elevation, wind intensity, wind direction, storm surge, tidal fluctuation, and shore configuration. Several studies (www.coastalresilience.org and other studies by the federal government) have evaluated the potential for coastal flooding and identified areas most at risk due to possible sea level rise the confluence of these different factors affecting flooding potential. Waterford will continue to manage activities in shoreline areas in recognition of the potential for coastal flooding.

Estimate of Potential Category 3 Storm Impact (2020)
Establish a meaningful system of open spaces in order to protect important resources and enhance our overall quality of life.

This Plan defines “dedicated open space” as land that is owned by entities or otherwise restricted in some way where such land is likely to be preserved or dedicated as open space, hopefully in perpetuity (town park, state forest, land trust, etc.). The terms “managed open space” is used to refer to lands owned by entities or used in a way where it serves some open space function but it may not be preserved in perpetuity, may not allow for public access or use, or has another purpose (golf courses, water company lands, cemeteries, hunting clubs, some utility lands, etc.).

Preservation of open space can serve five important purposes:
- protection of community character,
- preservation of lands for parks and recreational uses,
- conservation of important natural resources,
- fiscal and economic benefits, and
- shaping of development patterns.

Approximately 3,230 acres of land (15% of the land area) in Waterford can be categorized as open space since it has some measure of protection from future development through ownership, easement, or compatible use. Some of these areas (Harkness, Arboretum, etc.) are the most treasured places in Waterford and make a significant contribution to the overall character of the community. Other areas help protect natural resources or scenic resources or provide recreation opportunities.

However, not all the land that is perceived as open space in Waterford is in fact preserved as open space. Most people tend to perceive “open space” as including all vacant land. In other words, they think “open space” is any land that is not built upon. However, much of that land is in private ownership and subject to future development. One of the reasons that neighbors oppose new developments is over the loss of what they perceive to be open space.

There is little doubt that open space adds considerably to the overall ambience and quality of life of the community. Waterford should seek to continue to acquire and manage open space lands for the benefit of the Town and its population. Otherwise, open lands and familiar landscapes will continue to change as the development of the Town continues and opportunities to acquire these lands will be lost.

In the telephone survey, 58% of participants want the Town to acquire more land for parks and open space. However, residents were less willing to support increased taxes to fund open space preservation. Waterford residents are more strongly in favor of efforts to establish a trail system for pedestrians and bicycles. Overall, 79 percent of participants want the Town to devote efforts to establish a trail system.
Again, since only about one-third of residents were willing to pay more in taxes to fund creation of a trail system, attention may need to be devoted to accomplishing this within existing resources.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Strongly And Somewhat Agree</th>
<th>Not Sure / Don’t Know</th>
<th>Somewhat And Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Town should acquire more land for parks and open space.</td>
<td>58%</td>
<td>8%</td>
<td>34%</td>
</tr>
<tr>
<td>I would be willing to pay more in taxes if the money went to preserving open space land.</td>
<td>31%</td>
<td>6%</td>
<td>63%</td>
</tr>
<tr>
<td>Waterford should try to create a trail system for pedestrians and bicycles.</td>
<td>79%</td>
<td>5%</td>
<td>16%</td>
</tr>
<tr>
<td>I would be willing to pay more in taxes if the money went to creating a trail system.</td>
<td>35%</td>
<td>6%</td>
<td>59%</td>
</tr>
</tbody>
</table>

A. Increase The Amount Of Preserved Open Space In Waterford

Waterford should strive to increase the amount of preserved open space in the community. Since there is no true standard of how much open space Waterford needs, the optimum amount is the amount that residents desire and the Town can afford (if purchased) or otherwise preserve (if by other means).

Public ownership of open space is most desirable since it provides the most public benefits (including access and control). However, public ownership is not always required for open space preservation. For example, a coordinated system of greenbelts can be established through public dedication, public acquisition, private conservation and access easements, cluster development, low-intensity zoning that preserves the greenbelt, and other techniques.

So that Waterford has funds available for open space opportunities which may arise, money should be deposited each year into a Land Acquisition Fund (CGS 7-131r).

If Waterford is to be successful at establishing an open space and greenway trail system, it must have the following things:
- A vision of what the community wishes to create,
- An organization devoted to maintaining and implementing the vision, and
- The tools and resources to implement the vision.
B. Establish A Coordinated Open Space / Greenbelt / Trail System

Since the 1977 Plan of Development, Waterford has had a stated goal of establishing “a comprehensive greenbelt system which … follows the town’s major streams and brooks.” This strategy should continue to be the basic foundation for Waterford’s open space strategy.

In addition, we should strive to use such greenbelt areas and other opportunities (including electric rights-of-way or sewer easements if possible) to establish an overall trail system throughout the community. Such a trail system will provide connections between different parts of Waterford as the trail system evolves and provide passive recreation opportunities for residents.

As part of preparing this Plan, the preliminary open space plan on the facing page (an overall vision) was prepared. This is not intended to be a definitive statement of the desired open space and greenway arrangement for Waterford. Rather, it is intended to be a starting point for further discussion and refinement of an open space and greenway system.

In the future, special attention should be devoted to increasing open space connectivity. Experience in other communities has shown that open spaces increase exponentially in value for nature, wildlife or people when they are configured to create continuous corridors.

Based on this vision, the policy preferences in terms of the preservation of open space include the following:

- Seek to establish an open space “system” as a major organizing element in Waterford by helping to define the villages, separate developed areas, and provide for transitions between different areas,
- Use the open space / greenbelt / trail system to help interconnect different parts of town and link open spaces and neighborhoods by trails (pedestrian path / bikeway / hiking trail system) or “greenbelts” that are accessible to residents throughout Waterford,
- Acquire or preserve parcels that contribute the most to the town’s open space and greenbelt system.
- Protect important natural, scenic, or other resources and improve wildlife habitat and wildlife “corridors”, especially stream corridors or riparian areas along watercourses.
- Increase opportunities for both active and passive uses both within the town and within the region.
- Contribute to the overall character of Waterford and to the enjoyment and quality of life for residents.

In order to guide future efforts, the Town should use the map on the facing page as starting point for creating an overall open space plan that:

- specifies the location of all existing publicly accessible open space, and
- differentiates between open space that is fully useable (such as public parks) and open space that is less usable (such as cemeteries or land trusts).
Open Space Plan
Waterford, CT

Legend
- Potential Open Space Connections
- Possible Greenbelt Buffer Areas
- Dedicated Open Space
- Managed Open Space
- Power Transmission
- Community Facility / Institutional
- Water

Creating a town wide trail system is recommended as part of the Open Space Plan. This map may not show conservation easements or subdivision open space.

3,000 Feet
To maximize the utility of the open space system, Waterford should strive to establish a comprehensive trail system in the community. A trail system in open space/greenbelt areas will provide wonderful recreation opportunities for residents and provide connections between different parts of Waterford as the trail system evolves. A prototype trail could be built to generate interest and ensure that the trail design is acceptable and will be low maintenance. As the concept is refined, it will be extended and expanded to other areas.

To maximize the trail’s utility, the Town should explore the potential for public access to watershed lands with the New London Water Department and make use of sewer easements, where appropriate. In addition, the Town should work with Northeast Utilities to use the power transmission line rights-of-way and easements for trail connections while recognizing that:

- permission may be needed from several parties in easement areas, and
- the trails will likely be secondary to the utility transmission use.

**C. Designate An Agency To Coordinate Open Space / Greenway Efforts**

Even though this Plan of Preservation, Conservation and Development will be adopted by the Planning and Zoning Commission, the open space and greenway plan should be maintained and refined by another agency which can dedicate more time to that effort, especially implementation.

While the Conservation Commission might be an appropriate entity to coordinate this effort, the Town may also decide that a special committee with representatives from a variety of existing Town agencies (Planning and Zoning Commission, Conservation Commission, Recreation and Parks Commission, Board of Finance, Representative Town Meeting, etc.) may be a better approach.

See the “Implementation Element” of the Waterford Plan of Preservation, Conservation and Development for information on tasks and actions currently programmed for implementation of these Open Space strategies.
### D. Provide Adequate Tools and Resources To Provide Open Space and Greenways

Recommended programs to preserve open space include:

<table>
<thead>
<tr>
<th>Regulatory Programs</th>
<th>Description</th>
<th>Benefits</th>
<th>Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Open Space Set-Aside Requirement</strong></td>
<td>Obtain open space at the time of subdivision.</td>
<td>No cost to community.</td>
<td>May not create a meaningful overall system. Public access may be restricted.</td>
</tr>
<tr>
<td><strong>Fee-In-Lieu-Of Open Space Land</strong></td>
<td>Accept funds from a subdivider in lieu of land.</td>
<td>Can purchase open space where most desired</td>
<td>Must be offered by subdivider.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Public Acquisition</th>
<th>Description</th>
<th>Benefits</th>
<th>Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Town Purchase</strong></td>
<td>Town purchases land for open space.</td>
<td>Provides most control of location and use.</td>
<td>Typically reactive. Requires local expenditures.</td>
</tr>
<tr>
<td><strong>Town Purchase with State / Federal Grants</strong></td>
<td>Town purchases land for open space with support from a grant.</td>
<td>More cost effective for local taxpayers.</td>
<td>Funding limited and can be very competitive.</td>
</tr>
<tr>
<td><strong>State or Federal Acquisition</strong></td>
<td>State or federal government purchases land for open space.</td>
<td>Cost effective for local taxpayers.</td>
<td>Funding limited and can be very competitive.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Acquisition</th>
<th>Description</th>
<th>Benefits</th>
<th>Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Land Trusts / Conservation Organizations / Institutions</strong></td>
<td>Acquisition by a land trust or conservation group.</td>
<td>Typically pro-active and work with owners.</td>
<td>Need dedicated volunteers. May not have funding.</td>
</tr>
<tr>
<td><strong>Public / Private Partnership</strong></td>
<td>Joint acquisition by Town and other group(s).</td>
<td>Can be more cost effective for each group.</td>
<td>Coordination may be challenging. May not create a meaningful overall system.</td>
</tr>
<tr>
<td><strong>Philanthropy / Donation</strong></td>
<td>Property owners donate land or partial value.</td>
<td>Lowered cost of acquisition.</td>
<td></td>
</tr>
<tr>
<td><strong>State / Federal / Water Company Disposition</strong></td>
<td>Acquisition from another agency</td>
<td>Can be more cost effective for each group.</td>
<td>Opportunities may be limited. May involve multiple property owners.</td>
</tr>
<tr>
<td><strong>Easements For Trails</strong></td>
<td>Acquisition of an easement to establish a trail</td>
<td>Significant public benefits, can be very cost effective</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Funding Programs</th>
<th>Description</th>
<th>Benefits</th>
<th>Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Land Acquisition Fund</strong></td>
<td>A municipal account funded from the operating budget (CGS 7-131r)</td>
<td>Generate money over time for acquisitions.</td>
<td>Future funding is not assured.</td>
</tr>
<tr>
<td><strong>Open Space Bond Issue</strong></td>
<td>A municipal account funded at one time as part of the capital budget.</td>
<td>Generate money up front for acquisitions.</td>
<td>Need community consensus.</td>
</tr>
</tbody>
</table>
Enhance ...

Quality is never an accident; it is always the result of high intention, sincere effort, intelligent direction and skillful execution; it represents the wise choice of many alternatives.

William A. Foster
American Author

Community Character
Quality of Life

Sustainability / Resiliency
The telephone surveys of Waterford residents found that many residents moved to Waterford because of its overall character and ambience. While the features that contributed to this perception varied, there is little doubt that the overall appearance and feeling of the community are important attributes to people.

Based on comments from public meetings and feedback from the telephone surveys, the Plan recommends four main strategies for protecting and enhancing community character:
- establishing an advisory design review process
- preserving historical and archeological resources
- preserving and enhancing key scenic vistas and areas
- encouraging the preservation of undeveloped land (PA 490)

See the “Implementation Element” of the Waterford Plan of Preservation, Conservation and Development for information on tasks and actions currently programmed for implementation of these Community Character strategies.
A. Establish An Advisory Design Review Process

The 1998 Plan of Preservation, Conservation, and Development recommended establishing an advisory design review process. This remains a key recommendation of this Plan. In the telephone survey, 58% of participants want the Town to encourage or require better design so that major projects better fit into the character of Waterford. Residents at public meetings echoed this strategy.

Over the years, residents have expressed concerns that the design of some newer buildings has not enhanced the overall character of Waterford. As residents travel to other communities, they have seen the examples of newer buildings which are more in keeping with the ambience / character of the community and which have enhanced community appearance. Why can’t Waterford have the same thing?

The Plan recommends the Planning and Zoning Commission establish an advisory design review committee whose function will be to discuss design issues with an applicant and send a report to the Commission. The Committee would review non-residential buildings, multi-family residential projects, special permit applications, and any other project referred by the Planning and Zoning Commission.

Issues that the Committee should consider and address include:

<table>
<thead>
<tr>
<th>Building Design</th>
<th>Site Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>• scale, massing, height, cadence</td>
<td>• site layout, access</td>
</tr>
<tr>
<td>• roof shapes, entry location</td>
<td>• building, parking location</td>
</tr>
<tr>
<td>• overall architectural design</td>
<td>• pedestrian improvements</td>
</tr>
<tr>
<td>• quality and color of materials</td>
<td>• landscaping</td>
</tr>
</tbody>
</table>

Over time, the Committee should develop design principles in order to provide as much guidance to applicants and the Commission as possible. Other communities that have managed to establish design guidelines have found that they work well in educating applicants about what the community seeks in the design of new projects.

To start this process, the Planning and Zoning Commission should consider appointing a committee to research design review procedures and guidelines and report back with recommendations. During this process, the Commission could refer some applications to the committee for review and discussion.
B. Continue to Protect Historic / Archeological Resources

Waterford contains a variety of historic and archeological resources. These resources contribute to the overall ambience of the community and provide a direct connection to the history and “sense of place” of Waterford.

However, these resources can be threatened in a number of different ways, including demolition of historic structures, disturbance of archeological artifacts, lack of awareness, and neglect.

While 62% of participants in the telephone survey felt that the amount of Town effort towards preserving historic structures was “just right”, the Plan recognizes how fragile these resources can be. Since these resources can enrich our visual and emotional attachment to the community and since these resources can never be replaced, efforts to identify and preserve these resources should continue and, perhaps, receive greater emphasis in the future.

Some of the strategies to help protect these resources include:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Continue to undertake studies to identify and document historic and/or archeological resources in Waterford</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognition</td>
<td>Continue nominating eligible areas or properties for inclusion in the State Register of Historic Places or the National Register of Historic Places</td>
</tr>
<tr>
<td></td>
<td>Maintain a map showing areas of archeological sensitivity so that an archeological assessment can be required if warranted</td>
</tr>
<tr>
<td>Preservation</td>
<td>Encourage preservation of existing historic buildings</td>
</tr>
<tr>
<td></td>
<td>Encourage and support preservation activities of current owners</td>
</tr>
<tr>
<td>Cooperation</td>
<td>Encourage the Waterford Historical Society and other organizations to undertake preservation activities</td>
</tr>
</tbody>
</table>

Jordan Schoolhouse

Archeological Investigation
C. Preserve Scenic Resources

Due to its coastal location and natural features, Waterford has some significant scenic views and resources. In addition, there are some roads in Waterford recognized for their scenic values. These scenic assets provide pleasure to residents and visitors on a daily basis.

Waterford should continue efforts to preserve key scenic vistas, scenic roads, and scenic areas while allowing for reasonable use of the specific property and the surrounding area. The preservation of scenic resources (through open space dedication or conservation easements or similar approaches) should be considered as part of any application submitted to the Planning and Zoning Commission.

Since scenic resources can also include stone walls and historic barns and other cultural features, efforts to identify and preserve these types of scenic resources should continue.

Scenic Resources Map

Note: This map is subject to change as new information becomes available.
D. Encourage Preservation of Undeveloped Land

Undeveloped land adds to the overall ambience of Waterford and enhances community character. Most everyone likes undeveloped land since it looks like “open space”. However, if the land is not protected, the contribution to community character and ambience may be lost if the property is developed. One of the reasons why property might be developed is due to the high costs of ownership.

In recognition of this, the Connecticut legislature established a “use assessment” program in the 1960s for land that is essentially undeveloped. This program (commonly referred to as PA-490 and codified in CGS 12-107) contains four components:

- Forest Land (based on State criteria),
- Farm Land (based on State criteria),
- Maritime Heritage (waterfront land used exclusively for commercial lobstering purposes), and
- Open Space Land (based solely on local criteria).

Properties that participate in the program receive a reduced assessment (based on “use” rather than market value) and this makes the property less expensive to own. If the property is sold within 10 years of its enrolment in the program, there is a recapture provision for the unpaid taxes.

Waterford should consider whether to adopt an open space assessment program. This program can make undeveloped land less expensive to own and this undeveloped land will contribute to the overall character and ambience of the community.

To establish an open space assessment program, the program needs to be recommended in the Plan of Preservation, Conservation and Development and the program needs to be adopted by the local legislative body (the Representative Town Meeting).

The Plan recommends that land be eligible for the open space assessment program if it meets the following criteria:

- residentially zoned,
- more than five acres in area and at least twice the minimum lot size in the zone, and
- the open space assessment would be only for that portion of the parcel in excess of the minimum lot area requirement in the zone.
ENHANCE

Quality of Life

GOAL

Promote events and activities which enhance the overall quality of life in Waterford.

Residents of Waterford are very satisfied with the quality of life in the community. Impressively, more than 97 percent of respondents in the telephone survey reported that the quality of life in Waterford is good or very good.

Although everyone has their own definition of quality of life, the following table identifies some elements of a community that may contribute to people’s perception of their overall quality of life:

<table>
<thead>
<tr>
<th>Category</th>
<th>Resource</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhancing</td>
<td>Basic Needs</td>
<td>Physical safety, economic security, sense of community</td>
</tr>
<tr>
<td></td>
<td>Local Events</td>
<td>Unique events (parades, fairs, and concerts) where residents join in a common activity</td>
</tr>
<tr>
<td></td>
<td>Volunteerism/Philanthropy</td>
<td>Voluntary donations of time and money help make Waterford a special place</td>
</tr>
<tr>
<td></td>
<td>Shared Visions/Goals</td>
<td>Establishing and attaining shared visions and goals</td>
</tr>
<tr>
<td></td>
<td>Open Communication</td>
<td>Communication about community issues and priorities is an important part of maintaining community spirit</td>
</tr>
<tr>
<td></td>
<td>Community Ambience</td>
<td>Overall appearance (including preserved natural resources and open spaces) enhances people’s sense of quality of life.</td>
</tr>
<tr>
<td></td>
<td>Positive Recognition</td>
<td>Positive recognition by others of local activities and events helps build community spirit and pride</td>
</tr>
<tr>
<td>Detracting</td>
<td>Negative Communication</td>
<td>A lack of communication or negative communication can undermine community spirit and pride</td>
</tr>
<tr>
<td></td>
<td>Negative Recognition</td>
<td>Negative recognition of a community by others can undermine community spirit and pride</td>
</tr>
</tbody>
</table>

Waterford should continue to encourage activities that contribute to community spirit and pride. These activities will also contribute to the overall quality of life of Waterford residents. We must do more to promote events and activities which enhance the overall quality of life in the community.
A. Promote Special Events / Activities

Waterford residents have indicated that they enjoy and appreciate special events and activities that occur in the Town (Waterford Week, outdoor music, etc.) and would like to have more. They have indicated that these events help make Waterford special to them. We should continue to provide for and promote special events and activities.

Social and recreational events and activities contribute to the overall quality of life in a community. This includes educational programs (arts, crafts, dance, games, etc.) and recreational programs (instructional, competitive, etc.). We should continue to provide for and promote these types of social and recreational events and activities.

B. Implement Other Programs To Enhance Quality of Life

Although elements that contribute to quality of life can be diverse, we should strive to identify and implement additional things that will contribute to the overall quality of life and community spirit in Waterford. This may include, among other things, maintaining Town newsletters, encouraging volunteerism, and other programs.

In addition, we should seek ways to enhance overall community spirit and the pride and sense of community that exists in Waterford.

See the “Implementation Element” of the Waterford Plan of Preservation, Conservation and Development for information on tasks and actions currently programmed for implementation of these Quality of Life strategies.

See the “Implementation Element” of the Waterford Plan of Preservation, Conservation and Development for information on tasks and actions currently programmed for implementation of these Quality of Life strategies.
ENHANCE

Sustainability / Resiliency

GOAL

Promote activities that are more sustainable over the long term and help to create a resilient community.

For this Plan, “sustainability” refers to the philosophy of encouraging activities that allow present generations to meet their needs without compromising the ability of future generations to meet their needs. The term “resiliency” refers to the community’s ability to readily recover from sudden changes or adversity.

Although the future cannot be determined with certainty, it is becoming more apparent that resource availability and utilization will likely have greater importance. This will undoubtedly impact residents and businesses in Waterford in ways we may not yet fully foresee. To ensure it is a “resilient” community, Waterford should start investigating and implementing, as appropriate, sustainability measures to preserve resources and maintain a healthy quality of life for future generations.

The Town of Waterford should be a leader in sustainable practices.
A. Reduce Energy Use

In recent years, Waterford has taken a leading role in promoting long-term thinking about energy conservation and energy efficiency in public buildings. For example, the recent school renovation projects in Waterford utilized geo-thermal energy and considered the overall “life-cycle” costs. Since a number of sources suggest that energy availability and cost are likely to be more significant issues in the future, Waterford should continue these efforts and take a leadership role in educating residents and businesses about ways to conserve energy in terms of heating / cooling / lighting and vehicular transportation.

Since energy availability and cost may cause people to consider using alternative technologies at their homes and businesses (solar, wind, geo-thermal, etc.), Waterford should investigate how and where the use of such technologies might be enabled in the community while minimizing potential conflicts.

B. Reduce Water Use

The average person in the United States uses about 100 gallons of water per day for domestic purposes - the highest rate of personal water consumption in the world. Simple changes to some everyday activities can easily reduce most people’s domestic water use by 10% or more. Additional conservation measures can help people be more efficient and economical and can easily reduce water use even further. Conservation of water should be a high priority.

At some point, additional water savings may only be possible through more aggressive techniques, the use of new technologies, and through better management of other types of water use (such as irrigation). Still, Waterford should encourage other strategies which will result in an overall reduction in water use.
C. Encourage Farms and Farming

Having more food grown locally and available locally helps make Waterford a more sustainable and a more resilient community.

Waterford should seek ways to support local farmers and farming since this could provide a number of health, nutrition, and economic benefits for residents. In addition to the farmer’s market, it might also include roadside farm stands.
D. Continue Hazard Mitigation Planning

One of the ways that Waterford can enhance its preparedness and resiliency is through hazard mitigation planning. This process, undertaken at the regional level, involves:

- Identifying potential hazards,
- Understanding their potential impact,
- Assessing the overall risk, and
- Preparing avoidance and mitigation strategies.

Hazard mitigation planning can help reduce losses from a potential hazard and develop strategies to help avoid repetitive damage associated from recurring events. The overall goal is to reduce or eliminate long-term risk to people, property, the economy, and the region from recognized hazards. This can occur from natural hazards (such as hurricanes or flooding) or from other events (hazardous material spills, rail accidents, events at Millstone, etc.). While Waterford has historically focused on man-made hazards, recent flooding events have indicated that equal or greater attention needs to be focused on natural events, especially if storm events become more severe or more frequent.

The most recent Hazard Mitigation Plan for Southeast Connecticut was adopted in June 2005. Waterford participated in that effort and will continue to participate in such efforts in the future.

The strategies from such hazard mitigation planning efforts (both current and future) are hereby incorporated into this Plan. As part of this, Waterford intends to participate in the “Community Rating System” whereby Waterford residents will be able to pay lower flood insurance premiums if the Town increases flood protections efforts.
E. Prepare For Possible Sea Level Rise / Climate Change

There are some indications of a possible long-term increase in sea levels. While the rate of this increase cannot be forecast, the possible implications for Waterford and other coastal communities mean that this trend should not be ignored. Certain areas of Waterford may be more at risk than other areas due to low-lying elevations.

Waterford should monitor sea level trends and consider the need for a gradual phasing in of new policies related to sea level rise.

In addition, there are indications of other impacts (such as flooding) which may result from climate changes. If there is an increase in the frequency or severity of flooding, Waterford should be prepared to address the possible implications including:

- Preventing or minimizing losses in flood-prone areas,
- Preparing for flooding events,
- Responding to flooding events.

See the “Implementation Element” of the Waterford Plan of Preservation, Conservation and Development for information on tasks and actions currently programmed for implementation of these Sustainability / Resiliency strategies.
Areas Which May Be Susceptible To Sea Level Rise
Guide ...

The great thing in the world is not so much where we stand, as in what direction we are moving.

Oliver Wendell Holmes, Sr.
American Author

Overall Structure
Residential Development

Business Development
GUIDE

Overall Structure

GOAL

Strive to maintain a community comprised of identifiable villages, neighborhoods, and locations with a strong “sense of place.”

The overall physical organization of Waterford (the structure of the community) is an important component of the Plan. Studies have found that the overall structure of a community and the amount of definition of areas within it are both strongly correlated with community character and community image. People identify strongly with communities that have a discernable structure and often identify these communities as having “character” and a “sense of place”.

The following features affect the perception of community structure and community character:

<table>
<thead>
<tr>
<th>Features Which Tend To Enhance Character</th>
<th>Features Which Can Enhance Or Erode Character</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focal Points</td>
<td>Roads to and through the community can enhance or detract</td>
</tr>
<tr>
<td>Landmarks</td>
<td></td>
</tr>
<tr>
<td>Clusters</td>
<td></td>
</tr>
<tr>
<td>Greenspaces</td>
<td></td>
</tr>
<tr>
<td>Gateways</td>
<td></td>
</tr>
<tr>
<td>Identifiable focal points or places with distinctive characteristics</td>
<td>Roads to and through the community can enhance or detract</td>
</tr>
<tr>
<td>Distinctive places or destinations</td>
<td></td>
</tr>
<tr>
<td>Neighborhoods or areas identifiable by use, location, character, or style</td>
<td></td>
</tr>
<tr>
<td>Open spaces, greenways, trails, streambelts or other natural elements</td>
<td></td>
</tr>
<tr>
<td>Places providing a special sense of entry or arrival to an area</td>
<td></td>
</tr>
<tr>
<td>Areas with linear development patterns, especially commercial</td>
<td></td>
</tr>
<tr>
<td>Areas with repetitive development patterns, especially residential</td>
<td></td>
</tr>
</tbody>
</table>

At the present time, the defining elements of Waterford’s community structure may be:

- the Civic Triangle area which acts as a community focal point,
- the areas of concentrated development in Quaker Hill, Mago Point, Pleasure Beach, Ridgewood Park, Jordan Village, Oswegatchie, and Cohanzie,
- greenspaces (open space or low-intensity areas), and
- major business areas such as Crystal Mall, Business Triangle, Millstone Point, and Route 1 at Clark Lane.
A. Reinforce Overall Community Structure

Growth is inevitable in Waterford. One of the key issues for us to address is whether this growth will enhance Waterford or detract from the community. So that future growth will enhance the community, we should strive to make sure that future development:

- reinforces the overall structure of the community,
- provides features which tend to enhance community character, and
- enhances people’s perception of space and “sense of place.”

This includes supporting the existing villages and hamlets in the community. Residents have indicated they like the charm and the diversity of the existing villages and would like to maintain and strengthen this overall ambience and feeling within the context of what is best for the town as a whole.

B. Seek To Create An Overall Town Center / Focal Point For The Community

While the Civic Triangle area serves as a community focal point today, it relies almost entirely on community uses (Town Hall, High School, Library, Community Center, etc.). As a result, this area can be very quiet at certain hours of the day, days of the week, and months of the year.

Waterford should look for opportunities to create an overall town center / focal point with a variety of uses that reinforce and complement each other. With a mixture of residential / retail / office/ restaurant and other uses organized in a pedestrian-friendly manner, Waterford could create an active and vibrant place which would become an exciting focal point. Waterford would benefit from a town center which does not rely on people driving in from other areas for daytime activities.

In the telephone survey, 64% of participants supported the idea of a walkable and pedestrian-friendly town center.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Strongly And Somewhat Agree</th>
<th>Not Sure / Don’t Know</th>
<th>Somewhat And Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterford should have a village-type “town center,” with a walkable and pedestrian-friendly setting, community gathering spots, shops and housing.</td>
<td>64%</td>
<td>9%</td>
<td>27%</td>
</tr>
</tbody>
</table>

One area where this approach might work would be on Route 1 east of Avery Lane and the Civic Triangle. While topography may be a constraint to establishing a pedestrian-friendly arrangement in some areas, the confluence of roads and uses in this area make it a natural location for creation of a mixed-use town center / focal point.
Potential Area For Development As Mixed Use Focal Point
(Route 1 / Willetts Avenue at Town Line With New London - Looking North)

Potential Area For Development As Mixed Use Focal Point
(Route 1 / Clark Lane Area - Looking North)
C. Increase Opportunities For Mixed Use And Village-Style Development

There is growing interest in Connecticut and elsewhere in creating opportunities for “smarter growth.” In general, this philosophy embraces the following principles:

<table>
<thead>
<tr>
<th>Conservation Concepts</th>
<th>• Preserve open space, farmland, natural beauty, and critical environmental areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development Concepts</td>
<td>• Strengthen and direct development towards existing developed areas</td>
</tr>
<tr>
<td></td>
<td>• Foster distinctive, attractive communities with a strong sense of place</td>
</tr>
<tr>
<td></td>
<td>• Mix land uses</td>
</tr>
<tr>
<td></td>
<td>• Create a range of housing opportunities and choices</td>
</tr>
<tr>
<td></td>
<td>• Take advantage of compact building design</td>
</tr>
<tr>
<td>Infrastructure Concepts</td>
<td>• Provide a variety of transportation choices</td>
</tr>
<tr>
<td></td>
<td>• Create walkable neighborhoods</td>
</tr>
<tr>
<td>Process Concepts</td>
<td>• Encourage community and stakeholder collaboration in development decisions</td>
</tr>
<tr>
<td></td>
<td>• Make development decisions predictable, fair, and cost effective</td>
</tr>
</tbody>
</table>

Since these principles can help support community structure and community character, opportunities to implement them should be considered, where appropriate. As has been a basic growth principle in Waterford for some time, such developments should only be located where consistent with the recommendations of this Plan and where infrastructure with adequate capacity exists to support it.

Promoting “smarter growth” could include creating new mixed-use “village-type areas” in locations supported by transit and utility infrastructure where there will be a strong focus on integrating the development within the overall structure of the community and the neighborhood, creating a pedestrian-friendly environment and a strong sense of place.

The term “mixed-use” refers to development devoted to more than one use or purpose on the same property or in the same area. Much development over the past several decades has been single-use on one property and use areas were required to be separated. For the purposes of the Plan, the term “mixed-use” generally means residential uses in combination with commercial, industrial, office, institutional, or other land uses.

D. Consider Allowing Small-Scale Neighborhood Businesses Where Appropriate

One way to begin supporting mixed use “village-type” areas might be to allow small-scale business uses (such as a small neighborhood “general store”) in areas of concentrated development provided that:

• the use is only allowed as a special permit to ensure that it is controlled and is compatible with the village character,
• the site is appropriately located (such as on a major street), and
• strict floor area limitations and design guidelines are utilized in order to ensure that the proposed use is integrated into the existing neighborhood.

See the “Implementation Element” of the Waterford Plan of Preservation, Conservation and Development for information on tasks and actions currently programmed for implementation of these Overall Structure strategies.
Examples of Mixed Use Buildings And Pedestrian-Oriented Streetscapes
Residential Development

GOAL

Encourage a variety of housing types and densities to meet the housing needs of current and future residents.

Waterford is, and will continue to be, a predominantly residential community. Since about 78 percent of Waterford is zoned in ways that allow for residential development, planning for appropriate residential development is an important element of the Plan.

Overall, the residential development program for Waterford is to continue the patterns of residential type and intensity that have served the Town well. Single-family residential development is permitted in most areas of town at densities compatible with soil type, terrain, and infrastructure constraints. Multi-family development has occurred in areas near Route 1 that are served by public water and public sewer.

Another key policy objective for the future is to provide for housing options which will continue to meet the needs of present and future residents of Waterford.

A. Protect Existing Residential Neighborhoods

Waterford’s residential neighborhoods are key determinants of the overall quality of life for residents. Encouraging the preservation and enhancement of these areas is a continuing strategy for the Town.
B. Provide For A Diverse Housing Portfolio In Waterford

Waterford’s housing “portfolio” consists primarily of owner-occupied, single-family dwellings which were constructed over the years to meet the housing needs of Waterford residents at those times. However, what was built in the past may not be what is needed to meet the housing needs of future residents because:

<table>
<thead>
<tr>
<th>Conditions and Trends</th>
<th>Possible Housing Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>• People are living longer and healthier lives</td>
<td>• There may be more interest in smaller homes, homes with accessory units, and homes with less maintenance</td>
</tr>
<tr>
<td>• The cost of a typical home is exceeding the ability of many people to afford it</td>
<td>• There may be a demand for more assisted living options</td>
</tr>
<tr>
<td>• People are focusing more on housing for shelter and comfort rather than an investment</td>
<td>• There will be increasing interest in housing options that are less expensive</td>
</tr>
<tr>
<td>• People are considering other housing choices for energy and lifestyle reasons</td>
<td>• This may result in housing units which are smaller but have more amenities</td>
</tr>
<tr>
<td>• The cost of a typical home is exceeding the ability of many people to afford it</td>
<td>• There may be interest in newer housing units with lower operating costs and newer technologies</td>
</tr>
</tbody>
</table>

The housing needs of the community are evolving and Waterford will continue to consider ways to address the housing needs of current and future residents. This includes housing options for an aging population as well as housing opportunities for younger persons and families.

In the telephone survey, residents supported the concept of diversifying the types of housing in Waterford. Participants tended to feel that Waterford had the right amount of single family homes and condominiums but that there may be too few other types of housing opportunities.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Amount Is Too Little</th>
<th>Amount Is Just Right</th>
<th>Amount Is Too Much</th>
<th>Not Sure / Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single family homes</td>
<td>17%</td>
<td>63%</td>
<td>5%</td>
<td>15%</td>
</tr>
<tr>
<td>Condominiums</td>
<td>14%</td>
<td>49%</td>
<td>21%</td>
<td>16%</td>
</tr>
<tr>
<td>Rental housing for young people</td>
<td>51%</td>
<td>22%</td>
<td>1%</td>
<td>26%</td>
</tr>
<tr>
<td>Affordable housing for first-time home buyers</td>
<td>47%</td>
<td>30%</td>
<td>1%</td>
<td>22%</td>
</tr>
<tr>
<td>Smaller houses for senior citizens</td>
<td>44%</td>
<td>31%</td>
<td>1%</td>
<td>24%</td>
</tr>
<tr>
<td>Affordable apartments for senior citizens</td>
<td>40%</td>
<td>30%</td>
<td>3%</td>
<td>27%</td>
</tr>
<tr>
<td>Rental housing for families with children</td>
<td>36%</td>
<td>30%</td>
<td>3%</td>
<td>31%</td>
</tr>
</tbody>
</table>

Waterford will seek to encourage the availability of housing for a variety of age and income groups. At the same time though, the Planning and Zoning Commission may seek to moderate the location and or pace of certain proposals in order to ensure that the ability of the community to assimilate such housing is maintained.
C. Encourage Flexible Residential Subdivision Layouts

Since most of the undeveloped land in Waterford is zoned for residential use, how this land is developed in the future will have a major impact on the community. Experience over the years has shown that conventional subdivision development has not always been successful at preserving or providing the types of features important to Waterford residents.

In areas outside of mixed use nodes, a more flexible approach to residential subdivision (often referred to as a “conservation development”) could be effective at preserving important resources while still allowing development elsewhere on the parcel. Significant areas of open space can be preserved in exchange for concentrating the same amount of development as in a conventional subdivision elsewhere on the parcel.

The overall density on the parcel remains the same as in a conventional layout (i.e. – the same number of units on the parcel) but development is situated in a smaller area and the remainder of the land is preserved as open space. A density limitation (maximum number of units permitted per acre of buildable land) can help accomplish this. Design guidelines can help ensure that the overall appearance of the development is appropriate for Waterford.

In the future, Waterford will encourage the use of flexible subdivision layouts.

D. Implement Locational Guidelines For Multi-Family Development

To provide for housing diversity and “smarter growth” patterns, it is important that housing developments have appropriate densities for their location within the community.

For multi-family developments, a location may be considered appropriate if:

- adequate infrastructure (road and utility) is available,
- the proposed density is in character with the existing surrounding development or the density recommended on the Residential Densities Plan on page 57, and
- the overall design is compatible with the character of the community and/or the neighborhood.

See the “Implementation Element” of the Waterford Plan of Preservation, Conservation and Development for information on tasks and actions currently programmed for implementation of these Residential Development strategies.
GUIDE

Business / Economic Development

GOAL

Promote business and economic development to meet local needs and maintain a favorable tax base.

Communities typically desire business / economic development for one or more of the following reasons:

- employment for residents,
- availability of goods and services, and/or
- provision of tax revenue (especially when it is greater than the demand for local services).

Waterford has been very fortunate to have been able to provide for these things within the community over the years as a result of the business and economic development. Still, Waterford is interested in additional economic development for all of these reasons.

A. Continue to Pursue Economic Development

Waterford’s strategic location, excellent infrastructure system (roads and utilities), low property taxes, existing business base, and progressive regulations are significant assets in terms of retaining and attracting economic development. Waterford should continue to pursue economic development which is consistent with community goals and objectives.
B. Promote Appropriate Business Development

In order to promote appropriate overall growth patterns, Waterford will continue to encourage future business activity in three separate and distinct areas:

- the regional business areas adjacent to the major highways,
- areas on state roads where businesses have located to date, and
- small business areas for meeting neighborhood needs.

As part of this overall strategy, Waterford should review the current business zones to be sure that the requirements and locations of business zones are appropriate and strike an appropriate balance between the interests of the community and the needs of businesses. In terms of regulatory requirements, a comprehensive review might find that:

- some permitted uses could be added or deleted to reflect current conditions,
- some changes to dimensional standards may be appropriate, and/or
- it may be desirable to eliminate or combine some zoning categories.

In addition, it may make sense to adjust the boundaries of some zoning district locations, including the combined residential/commercial zone designations, based on natural resources, roadways, infrastructure availability, sewer policy, desired future uses, and/or neighborhood changes. Some specific areas for investigation might include:

- the 85/395 interchange area (Waterford Speedbowl / Industrial Drive),
- the western edge of the Business Triangle,
- along Route 85 south of Interstate 95 (Broad Street Extension), and
- the western side of Gardiner’s Wood Road.

In the telephone survey, participants were receptive to most types of additional business development except for retail (about 90% of participants felt Waterford had enough or too much of this use).

<table>
<thead>
<tr>
<th>Issue</th>
<th>Amount Is Too Little</th>
<th>Amount Is Just Right</th>
<th>Amount Is Too Much</th>
<th>Not Sure / Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>43%</td>
<td>35%</td>
<td>3%</td>
<td>19%</td>
</tr>
<tr>
<td>Village-style development</td>
<td>37%</td>
<td>42%</td>
<td>5%</td>
<td>16%</td>
</tr>
<tr>
<td>Warehouses</td>
<td>31%</td>
<td>42%</td>
<td>5%</td>
<td>22%</td>
</tr>
<tr>
<td>Business or professional offices</td>
<td>24%</td>
<td>59%</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td>Shopping mall-style developments</td>
<td>9%</td>
<td>62%</td>
<td>29%</td>
<td>0%</td>
</tr>
<tr>
<td>Strip mall-style developments</td>
<td>8%</td>
<td>60%</td>
<td>27%</td>
<td>5%</td>
</tr>
</tbody>
</table>

C. Invest In Infrastructure To Encourage Business Development

To enhance the development prospects of Waterford’s business areas, the Town may wish to consider making necessary infrastructure investments in certain areas. In particular, this might include extending water and sewer utilities.
D. Address Needs In The Business Triangle Area

As development has continued in the Business Triangle area, it has become evident that traffic circulation (interchanges, connecting roads) is becoming an even more important issue. For example, significant traffic congestion can result at the ramps on Interstate 95 from traffic traveling between Crystal Mall area and the Cross Road / Parkway North area.

In addition, there can be access issues due to the ramp configuration onto Interstate 95 from Route 85, Cross Road, and Parkway South.

During the planning period, Waterford should continue to work with the Connecticut Department of Transportation and others to study the traffic and land use strategies for this area in order to promote the optimal outcome. A special study of this area may be warranted.
E. Address Needs In The Mago Point Area

As the only area in Waterford with a concentration of water-dependent uses, Mago Point attracts many visitors to the blend of restaurant, recreation, marina, public boat launch, and fishing charter operations. This overall character should be maintained and enhanced.

Even though there may only be limited development or redevelopment opportunities in this area, Waterford should continue to guide activities in the Mago Point area in ways which will maintain the waterfront village ambience, enhance its vitality, and attract customers and visitors to this area. As part of this, efforts should be devoted to extending and enhancing public access like the East Lyme boardwalk.

A special study of this area may be warranted. With all of the activities occurring in this area, involvement should include the State of Connecticut (boat launch and transportation), Amtrak (rail line), and property owners and business operators in the area.
F. Support Appropriate Home-Based Businesses

Due to technological and other improvements, more and more people are working from home. Waterford should maintain regulations to allow and manage home-based businesses (professional uses, business services, personal services, and contractors). Waterford can be an “incubator” for such businesses so that, as they grow and prosper, they can move from residential neighborhoods to business areas.

Special efforts should continue to:

- managing the activities of home-based contractors,
- limiting the parking of commercial vehicles in residential areas, and
- mitigating negative effects of home-based businesses.

See the “Implementation Element” of the Waterford Plan of Preservation, Conservation and Development for information on tasks and actions currently programmed for implementation of these Business Development strategies.
Support ...

A successful society is characterized by a rising living standard for its population, increasing investment in basic infrastructure, and the generation of new discoveries.

Robert Trout
American News Reporter
Transportation

Utility Infrastructure
A Plan of Preservation, Conservation and Development reviews the physical aspects of community services (such as education, public works, public safety, social, and recreation) to ensure that they are appropriately located and sized to meet community needs. These services and facilities contribute to Waterford’s character and quality of life.

Since the 1998 Plan, Waterford has undertaken a school consolidation and modernization program, built a community center, and upgraded some buildings and systems to meet community needs.

In the survey, residents indicated that they were very satisfied with quality and quantity of the following Town services:

<table>
<thead>
<tr>
<th>Service</th>
<th>Good And Very Good</th>
<th>Not Sure / Don’t Know</th>
<th>Poor And Very Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire services</td>
<td>93%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Schools</td>
<td>82%</td>
<td>12%</td>
<td>6%</td>
</tr>
<tr>
<td>Park/recreation facilities such as fields</td>
<td>80%</td>
<td>8%</td>
<td>12%</td>
</tr>
<tr>
<td>Park/recreation activities such as classes or programs</td>
<td>78%</td>
<td>11%</td>
<td>11%</td>
</tr>
</tbody>
</table>

Town Hall

Community Center
A. Monitor And Adapt To Changing Community Facility Needs

Overall, people are living longer and healthier lives and the increasing portion of the population in older age groups will affect the services communities provide. Waterford actually preceded this broader trend (perhaps due to the fiscal benefits of Millstone) and is in the process of adapting to this new reality.

Waterford will continue to configure its community services and facilities to meet the needs of the community of the future rather than for what has been done in the past. This may include more senior housing, more social services, different types of transportation, and program activities for older residents.

See the “Implementation Element” of the Waterford Plan of Preservation, Conservation and Development for information on tasks and actions currently programmed for implementation of these Community Facility strategies.
Provide for the transportation and mobility needs of the community, including pedestrians, bicyclists, vehicles, and transit.

The transportation element of the Plan of Preservation, Conservation and Development is concerned with the means by which people and goods move from one place to another. The key strategy of the Plan is to manage the transportation system to ensure that it:

- operates safely with a reasonable level of service,
- supports community structure, and
- enhances community character.

### Vehicles / Traffic

![Vehicles / Traffic](image1)

### Sidewalks / Trails

![Sidewalks / Trails](image2)

### Bicycles

![Bicycles](image3)

### Transit / Options

![Transit / Options](image4)
A. Maintain The Roadway System We Have

It is important for Waterford to maintain the roadway system it has in place today. We will need to rely on this roadway system for years to come so it must be maintained in a way that allows it to serve its function. This includes pavement condition, drainage, safety improvements, capacity improvements, and other maintenance. It also includes access management (control over the number and placement of driveways in commercial areas) in order to preserve roadway capacity.

In the telephone survey, about two-thirds of participants generally felt that road conditions in Waterford were good or very good.
B. Study Overall Road Connectivity Needs

Most of the major roads in Waterford extend radially from New London. Since village settlements often developed along these routes, this radial pattern supported community development for a couple of hundred years.

However, what may have worked in Colonial times may not work today in an automobile-dependent community of 19,000 people and 11,000 jobs which is divided by two limited access highways (with limited crossing opportunities). Further, since some of the schools and other community facilities which had been located on the basis of village settlements are now being consolidated on a community-wide basis, Waterford needs to be sure the roadway system is configured to best meet the mobility and accessibility needs of the community.

Waterford should consider whether some sort of circumferential road circulation pattern might help people get to different parts of the community efficiently and provide alternative travel routes.

As part of this, Waterford might want to consider the desirability of promoting road connections with regional implications (State involvement):

- Route 11 from Salem to the I-95 / I-395 interchange,
- new ramp configurations from the Route 32 connector,
- from Parkway North to the I-95 / Route 85 interchange,
- from Parkway South to the I-95 / Route 85 interchange, and
- from Parkway North to Crystal Mall / Route 85.

In addition, Waterford might want to consider the desirability of promoting primarily local road connections:

- from Niantic River Road to Parkway South,
- from Route 85 near Cross Road to Vauxhall Street Extension,
- from Clark Lane or Fog Plain Road to Parkway South,
- from Route 85 and/or Vauxhall Street Extension to Bloomingdale Road, and
- From Gardiner Wood Road to Spithead Road.

While only about one-third of residents support the concept of more connecting roads, this issue may evolve in the community over time.

C. Balance Circulation Needs With Possible Impacts

The preceding strategies (maintain roadways and study connectivity) need to be balanced with other objectives of the Plan such as enhancing community character and mitigating environmental impacts. In addition, overall impact on other strategies in the Plan should also be considered.
D. Promote Pedestrian And Bicycle Circulation

While previous Plans mainly focused on vehicular circulation, participants in the telephone survey indicated that they also wanted the Plan to address other forms of transportation such as sidewalks and bicycle lanes. For health, environmental, and recreation reasons, many more people are aware of the benefits of walking and bicycling and they want convenient and safe facilities to do so.

Waterford has a policy that the Town maintains the sidewalk system in the community. Most communities have a policy that residents must clear snow from the sidewalk in front of their property within 24 to 48 hours after snowfall has ended. Although Waterford’s program is resource intensive and time consuming, the telephone survey results indicate that Waterford residents do not favor the elimination of the sidewalk plowing program at this time.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Strongly And Somewhat Agree</th>
<th>Not Sure / Don’t Know</th>
<th>Somewhat And Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Town should provide more sidewalks for pedestrian access to schools, shopping centers, and other facilities.</td>
<td>70%</td>
<td>5%</td>
<td>25%</td>
</tr>
<tr>
<td>The Town should provide for alternative modes of transportation such as ... bicycle lanes.</td>
<td>64%</td>
<td>6%</td>
<td>30%</td>
</tr>
<tr>
<td>The Town should stop plowing sidewalks in Waterford and have residents maintain them.</td>
<td>31%</td>
<td>14%</td>
<td>55%</td>
</tr>
</tbody>
</table>

E. Support Provision Of Other Transportation Services

Waterford’s bus service includes scheduled / fixed route services as part of the Southeast Area Transit (SEAT) system as well as dial-a-ride and other on-demand services within the community. Other transportation options include carpooling and vanpooling with commuter parking facilities. Participants in the telephone survey also support the provision of other forms of transportation such as bus services.

In terms of rail service, Waterford supports passenger service on the Amtrak main line (part of the Northeast Corridor route) and freight service (and possible future passenger service) on the Thames River line. On the Amtrak main line, Waterford supports grade-separated crossings for public safety and a possible future passenger station. While trolley services within Waterford do not appear feasible during the planning period, the Plan would also support these services if they were to become available.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Strongly And Somewhat Agree</th>
<th>Not Sure / Don’t Know</th>
<th>Somewhat And Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Town should provide for alternative modes of transportation such as buses ...</td>
<td>64%</td>
<td>6%</td>
<td>30%</td>
</tr>
</tbody>
</table>

See the “Implementation Element” of the Waterford Plan of Preservation, Conservation and Development for information on tasks and actions currently programmed for implementation of these Transportation strategies.
Utility Infrastructure

Provide for adequate utility infrastructure to meet community needs.

Having adequate utilities to meet the needs of residents, customers, and visitors is important to the future of Waterford. The types of utilities and services to be considered include:

- piped infrastructure (public water service, public sewer service, storm drainage, natural gas),
- wired infrastructure (electricity, street lighting, wired telephone, cable entertainment), and
- wireless infrastructure (cellular telephone, wireless networks).

A. Use Infrastructure To Guide Desired Community Growth Patterns

It has long been the policy in Waterford that the location and capacity of infrastructure should support, but not dictate, the land use plan. While this sounds simple and logical, a surprising number of communities make land use decisions on the basis of infrastructure availability regardless of the impact on overall community structure or character.
B. Maintain Adequate Water Supply And Infrastructure

Since the 1998 Plan, the water system in southeastern Connecticut has been enhanced by the Thames River Basin Regional Water Interconnection Project, which involved interconnecting the water systems of six communities and one Tribal Nation via a pipe under the Thames River.

While this has provided an added measure of redundancy and resiliency to the overall water supply in the region, there may still be a need to augment water supply sources (such as increasing the capacity of Lake Konomoc or other reservoirs, adding surface or groundwater sources, etc.) to support future growth in Waterford and the region. For example, East Lyme is taking steps to connect to the regional system in order to provide additional water in the winter months and draw adequate water during the summer months. Strategies related to water conservation were discussed in the Sustainability / Resiliency section of the Plan.
C. Maintain Adequate Sewer Capacity And Infrastructure

Since 1976, Waterford has established an extensive public sewer network to meet local needs. Waterford maintains pipes, pump stations, and other facilities and utilizes sewage treatment capacity at the New London treatment facility. The most recent sewer master plan recognizes that the role of the sewer system has transitioned from focusing on public health issues (septic failures) to a larger role which also considers the economic and physical development of the community.

Future sewer extensions should:
- Address documented septic problems in accordance with the overall sewer policy,
- be in accordance with the sewerage master plan, and/or
- support the recommendations of this Plan of Preservation, Conservation and Development.
D. Enhance Overall Drainage Systems

Stormwater drainage is an important consideration in Waterford due to its impact on overall water quality and impact on potential flooding. The overall goals include:

- improve run-off water quality,
- reduce water quality impact to receiving waterways, wetlands and estuaries,
- reduce run-off volume and velocity,
- manage peak and sustained flood flows to reduce stream erosion and flood impacts, and
- retrofit existing stormwater outfalls and discharge locations.

The Town will continue efforts to accomplish these goals through:

- regulating private development,
- undertaking stormwater management initiatives in Town,
- implementing watershed management plans,
- administering the CTDEP Stormwater Manual, and
- implementing the requirements of the Clean Water Act (MS4 general permit).

As previously indicated, Waterford has been a leader in implementing “low impact development” approaches where storm runoff is treated and infiltrated on the site before being discharged off-site. Waterford has accomplished a great deal through the technical expertise of staff, the next step is to codify low impact development standards into local land use regulations.

As mentioned in the Sustainability/Resiliency section of the Plan, Waterford has experienced some significant flooding events in recent years. Whether caused by climatic changes, evolving storm frequency or intensity, or increasing development activity, it has brought new attention to the need to evaluate existing drainage structures and approaches to help prevent flooding which threatens life or property. It also supports the strategy of continuing the hazard mitigation planning process.
E. Continue to Manage Wired Utilities

Waterford residents obtain electrical service, telephone service, and cable communications through wired utilities. In many parts of the community, these utilities are underground.

Waterford should continue to work with providers of wired utility services to ensure that the utility services are adequate to meet the needs of Waterford residents and businesses. One example of this cooperation is the recent construction of an electrical sub-station for Waterford on Oil Mill Road. In the future, utility improvements should continue to be done in ways that preserve and enhance the overall character of the community, such as continuing to place wired utilities underground in new developments and promoting existing wired utilities to be placed underground when and where possible.

F. Enhance Wireless Communications Coverage

More and more people in Waterford and elsewhere are relying on wireless communications (such as cellular phones and other devices) for their communication needs. It is hard to imagine that such phones were fairly rare just 20 years ago.

When such systems were first “rolled out”, there was a strong push to provide service over as wide an area as possible from each antenna location. Since call volume was low, antenna capacity was not a major concern and, due to the expense of new antennae and towers, the approach was to build as few antennae locations as possible to provide coverage. This resulted in tall and visible communication towers and people tended to react negatively to the visual impact of such towers.

Over time, antennae capacity has become a limiting factor in some places as call volume has increased and the data services provided has increased. When antenna capacity becomes an issue, communication companies provide additional antennae within their networks thereby creating smaller cells and providing more capacity in the same area. Since these cells are typically smaller, the antennae can be lower and can more effectively be located on buildings or in other “stealth” locations.

Waterford should investigate ways to work with telecommunication providers to provide more service capacity within the Town for residents and visitors while maintaining the overall character and ambience of Waterford. Stealth applications are an excellent way to meet communication needs while minimizing impacts on the character and ambience of the community.

The box on the facing page suggests some telecommunications policy preferences which the Town of Waterford can use as parts of its efforts to enhance wireless communications coverage while maintaining community character and ambience.

See the “Implementation Element” of the Waterford Plan of Preservation, Conservation and Development for information on tasks and actions currently programmed for implementation of these Utility Infrastructure strategies.
Town Of Waterford

TELECOMMUNICATIONS POLICY PREFERENCES

Statement of Purpose

The Town of Waterford recognizes that wireless communication services are an important part of the daily lives of many people. The Town wishes to allow for the availability of adequate wireless communications service while striving to find the least obtrusive means of having such services available.

The Town of Waterford encourages the siting of wireless telecommunications facilities in ways that will:
- Protect the Town’s visual quality and character.
- Minimize any adverse visual impacts through proper design, siting, and screening.

Basic Policy Preferences

1. In order to minimize negative visual impacts, more short towers providing capacity in smaller geographic areas are generally preferred over fewer tall towers providing service over a larger geographic area.

2. The location should preserve the integrity of environmentally sensitive areas including unique wildlife habitats, wetlands, historic, and archaeological resources.

3. The location should not negatively impact any officially designated historic areas including any resource on the National Register of Historic Places.

4. The location should not have any detrimental impact to any scenic area, scenic vista, scenic road, or significant geologic or natural features within Waterford.

5. The use of stealth technologies should be employed whenever possible.

6. Signage and/or lighting is expressly not permitted.

7. Provisions should be made for removal of a tower if it is no longer being used.
Conclusion

Future Land Use Plan

As the Plan is implemented, the map on the facing page illustrates the location and intensity of future land uses that are desired. Since this map illustrates the goals, policies, objectives, and recommendations of each of the Plan sections when combined together, it is called the Future Land Use Plan for Waterford.

It is important to state that this is not a fixed vision for Waterford. Rather it reflects the application of the programs and strategies of this Plan as they are currently envisioned. Over time, this Plan can (and should) be changed as circumstances warrant.

<table>
<thead>
<tr>
<th>Future Land Use Plan</th>
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<tr>
<td>The Future Land Use Plan presented on the facing page contains the following categories:</td>
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<tr>
<td>Nodes</td>
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<td>Natural Resources</td>
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<td>Open Space</td>
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<td>Residential Areas</td>
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<tr>
<td>Business Areas</td>
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<td>Other Areas</td>
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The major highlights of this Future Land Use Plan are as follows:

- Natural resources and coastal resources will be protected.
- Efforts will be devoted to creating an open space / greenway trail system throughout Waterford.
- Efforts will be devoted to enhancing community character and quality of life.
- Enhancing and creating mixed use nodes is a key recommendation in the Plan.
- The Plan recommends protecting and enhancing existing residential neighborhoods.
- The Plan recommends diversifying Waterford’s housing portfolio and configuring residential development patterns to help establish an overall open space / greenway trail system.
- Waterford will manage and guide development in business areas to ensure that the development will contribute to and enhance the overall community.
- Community facilities and institutional uses will be encouraged and configured to enhance the overall community.
- Waterford will continue to promote transportation solutions that will help manage traffic on local streets and provide transportation alternatives for the future.
- Waterford will continue to support its desired growth patterns through the provision of appropriate utility infrastructure.
Consistency With Other Plans

Connecticut Conservation and Development Plan - Locational Guide Map

In accordance with Section 8-23 of the Connecticut General Statutes, the Plan of Preservation, Conservation and Development was compared with the State Plan of Conservation & Development (2005) and found to be generally consistent with that Plan and the Locational Guide Map. It is understood that utilization of the sewer lines in the Lake Brandegee watershed will likely not be considered inconsistent with the State Plan since the sewer lines are already installed and the City of New London has indicated they will discontinue designating Lake Brandegee as a possible future water supply source.
Regional Plan Of Conservation and Development

In addition, this Plan was compared with the Regional Plan of Conservation and Development (2007) prepared by the Southeastern Connecticut Council of Governments and found to be generally consistent with that Plan and the Regional Conservation and Development Plan map.
Connecticut Conservation and Development Plan – State Growth Principles

In accordance with Section 8-23 of the Connecticut General Statutes, the Plan of Preservation, Conservation and Development has been evaluated for consistency with statewide growth management principles.

<table>
<thead>
<tr>
<th>Principle</th>
<th>FINDING – Consistent</th>
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| Principle 1 – Redevelop and revitalize regional centers and areas of mixed-land uses with existing or planned physical infrastructure. | The Plan encourages and promotes the creation of mixed land uses. The Plan recommends supporting the overall community structure with physical infrastructure. Waterford does not have a designated “regional center”.
| Principle 2 – Expand housing opportunities and design choices to accommodate a variety of household types and needs. | The Plan recommends that Waterford seek to diversify its housing “portfolio” and address recognized housing needs – housing that is more affordable and housing for an aging population.
| Principle 3 – Concentrate development around transportation nodes and along major transportation corridors to support the viability of transportation options and land reuse. | The Plan continues with the overall zoning framework of more intensive development along arterial roads and bus lines, In addition, the Plan supports the concept of development of a mixed use “node” near the Civic Triangle.
| Principle 4 – Conserve and restore the natural environment, cultural and historical resources, and traditional rural lands. | An entire segment of the Plan (“Preserve”) identifies strategies to conserve and restore the natural environment and another segment (Enhance) identifies strategies to conserve cultural and historical resources and undeveloped land.
| Principle 5 – Protect environmental assets critical to public health and safety. | The Plan contains recommendations to protect environmental assets critical to public health and safety. In particular, the Plan stresses the importance of protecting water quality.
| Principle 6 – Integrate planning across all levels of government to address issues on a local, regional, and statewide basis. | The Plan is part of the process of integrating planning with other levels of government and with other agencies. The Plan will be used to coordinate efforts with:  
  • adjacent communities,  
  • regional organizations, and  
  • state agencies.  

Implementation

Implementation was a key consideration during preparation of the Plan of Preservation, Conservation and Development for Waterford. Experience over the years has shown that, without implementation, the strategic recommendations of the Plan are unlikely to come to fruition.

To help aid implementation, this “Policy Element” of the Plan is accompanied by an “Implementation Element” which will be used to identify and prioritize strategies which contribute to attaining the overall goals of the “Policy Element” of the Plan.

The Implementation Element consists of a series of pages which identify specific tasks and programs which will be considered to accomplish the overall strategies.
It is anticipated that the Implementation Element will be used and updated on a regular basis by a number of different agencies:
- A Plan Implementation Committee (recommended in the Plan),
- The Planning and Zoning Commission,
- The Board of Selectmen,
- The Board of Finance,
- The Representative Town Meeting,
- Other local boards and agencies, and
- Municipal staff.

This format has been recommended so that the Plan of Preservation, Conservation and Development (POPCD) will have the maximum long-term value for the Town of Waterford. Some communities prepare a POPCD which only guides those elements of growth and change within the purview of the Planning and Zoning Commission. However, Waterford believes that the Plan will have the greatest benefit if it is also used as a guide for all staff and agencies of the Town as a way to:
- Coordinate activities, and
- Guide public and private investment.
Looking Ahead

Planning is an ongoing process. It never stops.

While the preparation of this Plan of Preservation, Conservation and Development is a milestone, the practice of identifying and addressing community-wide issues or averting future problems will never cease.

Waterford’s Plan is a dynamic document that is intended to be updated and maintained so that it incorporates ideas that are deemed to advance our best interests. The Plan has been set up with a two-volume arrangement so that this section – the Policy Element –promotes overall strategic directions that tend to stay relevant over a longer period of time.

The companion document – the Implementation Element – is intended to be used often and updated regularly. It is envisioned that those who are responsible for implementing the Plan will identify new ways to accomplish strategic goals and will think of new and better ways for the Town to accomplish more.

Even while the Plan is in its early years of implementation, it is envisioned that the Planning and Zoning Commission and others will continue to encourage community-wide discussion of the Plan recommendations and will seek suggestions of ways to make the Plan even better over time.

In any event, by preparing this Plan, Waterford has taken another step towards ensuring that the overall character, ambience, and quality of life in the community will be maintained and enhanced.
Acknowledgements

Planning and Zoning Commission

Edwin J. Maguire, Chairman
Gwendolyn Hughes, Secretary
Joseph Auwood
Dana Award
Thomas E. Ward

Bertrand L. Chenard, Alternate
Adam Laben, Alternate

Board of Selectmen

Daniel M. Steward, First Selectman
Paul Konstantakis
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Board of Finance

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Alan Wilensky, Clerk
Rosalyn C. Dupuis
Norman Glidden
George A. Peteros
John W. “Bill” Sheehan
G. Brian Vachris
## Acknowledgements

### Representative Town Meeting

<table>
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<th>Moderator</th>
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<td>Sharon M. Palmer</td>
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<td>Kimberly Ann Alfultis</td>
<td>Gerard J. Gaynor Jr.</td>
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<td>Mark Robert Gelinas</td>
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<td>Andrea F. Kanfer</td>
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### Technical and Administrative Assistance Provided By

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<td>Carol Libby</td>
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<td>Dawn Choisy</td>
<td>PZC Clerk</td>
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#### Planimetrics

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<td>Heidi Samokar, AICP</td>
<td>Senior Planner</td>
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<tr>
<td>Leonard Desson, GISP</td>
<td>GIS Manager</td>
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