

CONSERVATION STRATEGIES WORKBOOK

4

Overview

This booklet has been prepared for the Willington Planning and Zoning Commission to use as part of the formulation of the 2018 Plan of Conservation and Development (POCD). This booklet takes the strategies from the current POCD, the Natural Resource Inventory, and other local studies and regulations and reorganizes them to create a briefing book for the “Conservation Strategies” meeting scheduled for January 2 at the Town Office Building.

Members of the Planning and Zoning Commission should review this booklet before the January 2 meeting so that they can be prepared to receive input from other boards and committees at that meeting.

Feel free to add, delete or edit any of the goals strategies, policies or tasks.

*“Conservation is
a state of har-
mony between
[people] and
land.”*

Aldo Leopold,
American philosopher
and environmentalist

Protect Natural Resources



Preserve Open Space



Maintain / Enhance Community Character



Promote Sustainability / Resiliency





PROTECT NATURAL RESOURCES

OVERVIEW

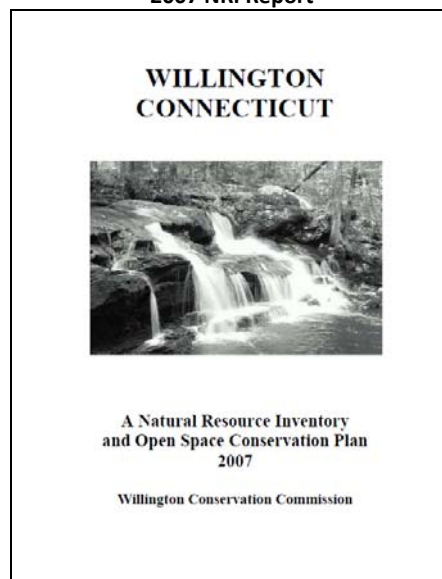
Conservation of natural resources in Willington is important in terms of preserving environmental functions, protecting community character, and enhancing the quality of life for residents. Environmentally sound planning helps find an appropriate balance between conservation and development.

Willington is fortunate to have a comprehensive Natural Resource Inventory which was prepared by the Conservation Commission in 2007 in order to:

- Identify important resources;
- Promote community awareness of the Town's resources ;
- Create goals and recommendations to protect these resources;
- Generate active support for conserving these assets; and
- Provide decision makers with data to help make informed decisions.

The Natural Resource Inventory (NRI) included the maps listed in the sidebar. While the background information in the NRI (text and maps) should be included by reference in the POCD, the policy recommendations in that document are about 10 years old and should be reviewed as part of the 2017 POCD.

2007 NRI Report



Protect Natural Resources

Overall, it appears that Willington is doing a good job protecting natural resources. The biggest threats to natural resources are:

- Climatic changes (outside of local control),
- Development changes, and
- Poor resource management.

Willington has a number of regulations in place to help preserve and protect natural resources at the time of development. For example, Willington has adopted a definition of buildable land (and unbuildable land) which helps to correlate the amount of development on a parcel to the natural carrying capacity of the land. The resources included in this definition include wetlands, watercourses, floodplains, slopes steeper than 20%, soils with low percolations rates, and soils with shallow depth to groundwater.

Willington has also adopted some other regulations that help protect natural resources:

- Zoning setbacks from wetlands and watercourses.
- State-defined “aquifer protection regulations” and locally established water protection regulations.
- Requiring “consideration” of LID in new development of 5 acres or more.

Protection of water resources and water quality may be the most important natural resource priority in Willington. This is because most residents and businesses rely on on-site wells for their own water supply and because the Fenton River drains to a public water supply reservoir.

POSSIBLE GOAL

Protect natural resources in order to maintain overall environmental health and contribute to the diversity, rural character, economy and general welfare of Willington.

KEY ISSUES?

1. Add standards for LID
2. Resolve multiple aquifer regulations
3. Add aquifer / floodplain zones to the zoning map
4. Consider a septic management ordinance?

POSSIBLE STRATEGIES

Strategy NR1	Protect surface and groundwater quality.
----------------------------	---

Policies:

A. WATER QUALITY - Willington will:

1. Maintain and enforce regulations intended to protect surface and groundwater quality, especially in the Fenton River watershed (a public water supply watershed).
 - ☐ a. Review and coordinate zoning regulations for aquifers and other groundwater areas (State-required APA regulations and ZR 5.09 and ZR 17).
 - ☐ b. Add water resource overlay zones to the zoning map
2. Consider impacts on water quality and public health as part of land use decisions.
3. Promote public education and outreach related to best management practices for wells, septic systems, underground storage tanks, fertilizers and pesticides
4. Encourage the Town to use best management practices for:
 - the application and removal of road sand and salt.
 - cleaning catch basins.
5. Promote proper maintenance of existing on-site water and sewage disposal systems.
 - ☐ a. Adopt a “septic management ordinance” to monitor the maintenance of septic systems in Willington.

B. LID (Water Quality) - Willington will:

1. Continue to promote “low impact development” (LID) strategies, where appropriate, to help protect water quality.
 - ☐ a. Incorporate specific LID standards from the Connecticut Water Quality Manual into Section 4.20 of the Zoning Regulations
 - ☐ b. Consider modifying Section 5.03 of the Subdivision Regulations to refer to LID standards in the Zoning Regulations.
 - ☐ c. Update engineering standards to incorporate “best management practices” for LID.

Protect Natural Resources

Strategy

NR2

Protect other significant water-related resources.

Policies:

A. **WATER RESOURCES** - Willington will:

1. Preserve and protect watercourses, wetlands, and floodplains and their functions.
 - ☐ a. Conduct a detailed, site-by-site evaluation of wetland systems by watershed to quantify their functional value and prioritize protection efforts.
2. Maintain regulations and enforcement procedures regarding vegetation buffers between watercourses / wetlands and development or land disturbance (such as ZR 4.13 and ZR 4.23)

B. **FLOODPLAINS** - Willington will:

1. Continue to regulate activities in flood-prone areas in accordance with FEMA requirements.
 - ☐ a. Add FEMA flood zones to the zoning map.

C. **LID (Water Quantity)** - Willington will:

1. Promote “low impact development” (LID) strategies, where and when appropriate, to help manage water runoff and water quantity (prevent major increases in runoff quantity and prevent major decreases in stormwater infiltration).
 - ☐ a. Modify regulations to minimize impervious surfaces and reduce runoff.
2. Educate homeowners about strategies to minimize surface water runoff and promote infiltration.

Protect Natural Resources

Strategy NR3	Protect other significant natural resources and the overall environment.
------------------------	---

Policies:

A. LAND RESOURCES - Willington will:

1. Continue to protect steep slopes (grade over 20%) from development pressure.

B. NATURAL DIVERSITY - Willington will:

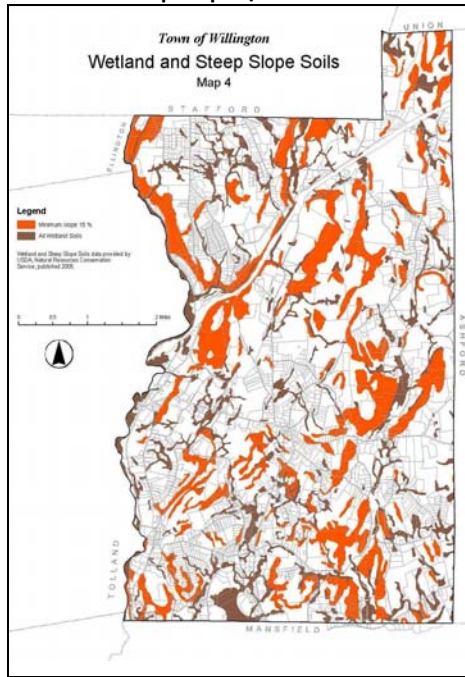
1. Continue efforts to preserve areas listed on the Natural Diversity Database (NDDDB) maintained by the Connecticut Department of Energy and Environmental Protection (DEEP) and special sensitive habitats and resources.
 - ☐ a. Modify the Zoning Regulations to require that NDDDB information be submitted on zoning applications as well.
 - ☐ b. Inventory and map vernal pools in town.
 - ☐ c. Incorporate standards for the protection of vernal pool ecosystems into land use regulations.
2. Seek to maintain wildlife corridors and minimize wildlife habitat fragmentation through design of development and provision of open space.
3. Discourage the planting or sale of non-native invasive plant species and encourage the planting of native vegetation that supports local wildlife species.
4. Educate landowners and others about sustainable forest management, and wildlife conservation practices.

A. IMPLEMENTATION - Willington will:

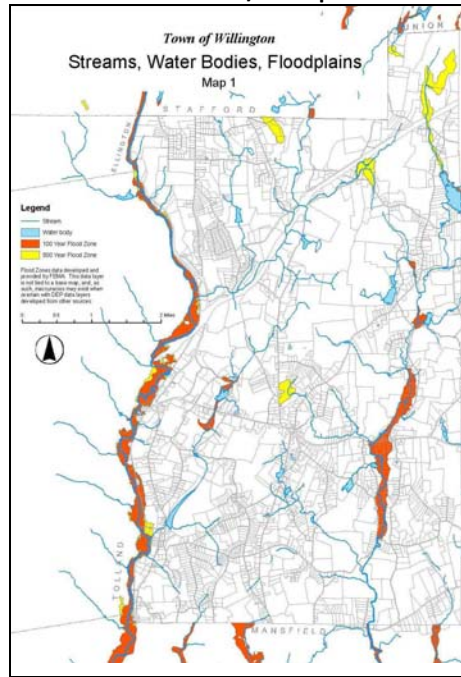
1. Maintain and update the Natural Resources Inventory as appropriate.
2. Use natural resource maps in the decision making processes of Willington's Inland Wetlands and Watercourses and Planning and Zoning Commissions.
3. Encourage use of a "pre-application" process for proposed development within sensitive environmental areas.
4. Use open space cluster and similar techniques to help preserve natural resources and direct development away from sensitive areas.
5. Coordinate with local and regional natural resource protection agencies, groups, land trusts, and other organizations to protect natural resources.

POSSIBLE MAPS

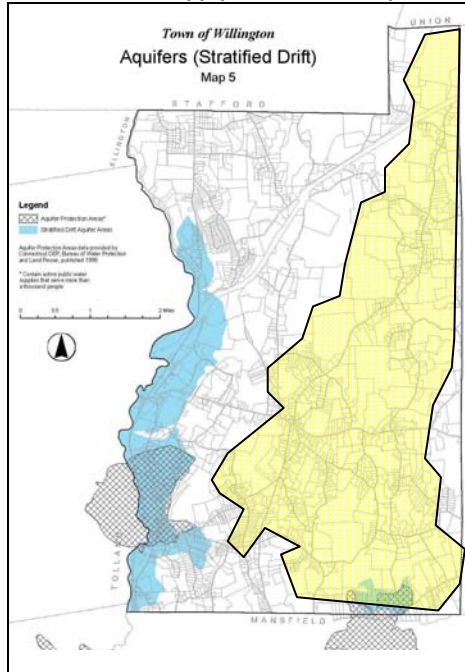
Steep Slopes / Wetlands



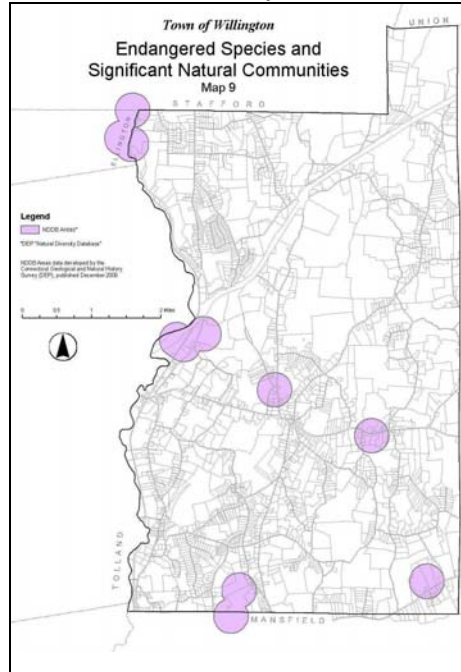
Waterbodies / Floodplain



Public Water Supply Watershed / Aquifers



Natural Diversity Database





PRESERVE OPEN SPACE

OVERVIEW

Open space, in adequate quantities and at appropriate locations, can help preserve the character of town and conserve important natural resources. It can also serve to protect water quality and enhance the quality of life by providing lands for passive recreation. Lastly, open space can provide economic benefits by improving property values. Willington has long valued the preservation of open space.

For the purposes of the POCD, open space can be defined in multiple ways (see preliminary data table on facing page):

- **Protected Open Space** (often referred to as “dedicated open space”) - The 2007 NRI defined Protected Open Space as “land or water that is permanently preserved in either a near-natural or agricultural state that is absent from commercial or residential development and where any development would be limited to agricultural structures or passive recreational improvements such as trails, swimming or picnic areas.”
- **Committed Open Space** (often referred to as “managed open space”) - - The 2007 NRI defined committed open space as land that is presently open and committed to remain as such for the foreseeable future.
- **Perceived Open Space** – Perceived open space is land that is privately owned but that has no protection or commitment to remain as open space. The presence of this land creates a sense of complacency because residents tend to feel that a community “has a lot of open space” when, in fact, such land may be developed in the future.

While there is no true standard of how much open space a community needs, the preservation of rural character is important to Willington residents. The current POCD advocates that between 15% and 24% of the town’s total land area, or 3,375 to 5,400 acres, should be committed open space.

Preserve Open Space

Data From 2007 NRI Recategorized (to be reviewed and updated)

Category		Dedicated OS (acres)	Managed OS (acres)	Public Access Allowed
State of Connecticut DEEP	Nipmuck State Forest, Nye-Holman State Forest	1,162		Yes
University of Connecticut	Moss Forest		323	No
Town of Willington	Town Green, Fenton-Ruby Park, Drobney Sanctuary, Talmadge Tract, Subdivision OS	421		Yes
Joshua's Trust	Tinkerville Brook, Chenes Roches	57		Yes
CT Forest and Park Assoc.	Mason Road	80		Yes
Private w/ Conservation Easement				
• Easement to DEEP		11		No
• Easement to Town		223		No
• Easement to Joshua's Trust		120		No
Totals		2,074	323	

POSSIBLE GOAL

Preserve open space in order to protect important resources, enhance community character, and enhance the economy and quality of life in Willington.

KEY ISSUES?

1. Are there conflicts between the economic development areas and the conservation priorities?
2. Should commercial or industrial development provide up to 15% of the land as perpetual Protected Open Space?
3. Should the recommendation for a Transfer of Development Rights program be carried over?

POSSIBLE STRATEGIES

Strategy	Preserve and protect open space.
OS1	

Policies:

A. **PRO-ACTIVE APPROACHES** - Willington will:

1. Strive to implement the Protected Open Space and Conservation Plan (POSCP) prepared as part of the Natural Resource Inventory (2007) in terms of preserving 15% to 24% land in town as open space.
2. Work with local land trusts and conservation organizations to educate land-owners about land conservation options.
3. Work with owners of land considered desirable for open space to explore means of preservation including acquisition, conservation easements, or purchase of development rights.
4. Establish programs and procedures to be prepared for open space acquisition opportunities that will arise.
 - ☐ a. Establish and fund a municipal “open space fund.”
5. Establish effective processes to adequately record, flag and enforce conservation easements.
6. Coordinate and collaborate with land trusts and other entities to preserve open space.

B. **RE-ACTIVE APPROACHES** - Willington will:

1. Preserve open space (acquisition and/or easements) at the time of development (SR 5.15.2) where preserving land in that location makes sense:
 - At least 20% open space in a “conventional” subdivision,
 - A higher open space requirement in an open space/cluster subdivision.
2. Seek a “fee in lieu of open space” payment (SR 5.15.13) where preserving land in that location may not make sense.
3. Encourage or require (SR 6.02.1 and ZR 10.0) the use of creative open space site designs that support open space goals and protect natural resources.
4. Utilize all potential funding sources (including state and federal grant programs) to preserve desirable open space when opportunities arise.

Preserve Open Space

Strategy OS2	Strive to create a meaningful open space “system” based on attributes important to Willington.
Policies:	
A. OVERALL RESOURCE VALUE - Willington will: <ol style="list-style-type: none"> 1. Focus on protecting land areas with the highest resource value as identified on the <u>Open Space Plan</u> (to be based on the <u>Conservation Priority Areas Map # 16 from 2007</u>). 	
B. WILDLIFE HABITAT - Willington will: <ol style="list-style-type: none"> 1. Seek opportunities to acquire land with significant value for wildlife habitat such as: <ul style="list-style-type: none"> • Land with important resources identified in the Natural Diversity Database maintained by DEEP. • Land contiguous with protected open space, such as the Fenton-Ruby Wildlife Preserve. 2. Work with other organizations to encourage the University of Connecticut to place permanent or long-term protection on the Moss Forest acreage in Willington. 	
C. GREENWAY SYSTEM - Willington will: <ol style="list-style-type: none"> 1. Seek to connect open spaces with each other to the greatest extent possible to establish an overall greenway system for wildlife habitat, recreation, exercise, and alternative transportation. 2. Identify and establish greenways that link open space within Willington, as well as with adjoining communities. 3. Work regionally with other organizations and towns to connect and expand greenways. 	
D. TRAILS - Willington will: <ol style="list-style-type: none"> 1. Seek to create an interconnected network of multi-purpose trails and other public ways for residents and visitors. <ul style="list-style-type: none"> <input type="checkbox"/> a. Publish maps with useful information about trails and access points for residents and visitors. 	

Greenways

Greenways are linear open spaces that can provide a number of natural resource, open space, and other benefits.

Willington contains parts of three different greenway systems:

- **Nipmuck Trail** – a trail located in southeast Willington which is part of the Blue Blazed Trail System maintained by the Connecticut Forest and Parks Association.
- **Willimantic River Greenway** – a greenway system contemplated along the Willimantic River and its tributaries to protect water quality and provide for wildlife habitat.
- **Fenton River Greenway** - a greenway system contemplated along the Fenton River and its tributaries to protect water quality and provide for wildlife habitat.

Preserve Open Space

Strategy

OS3

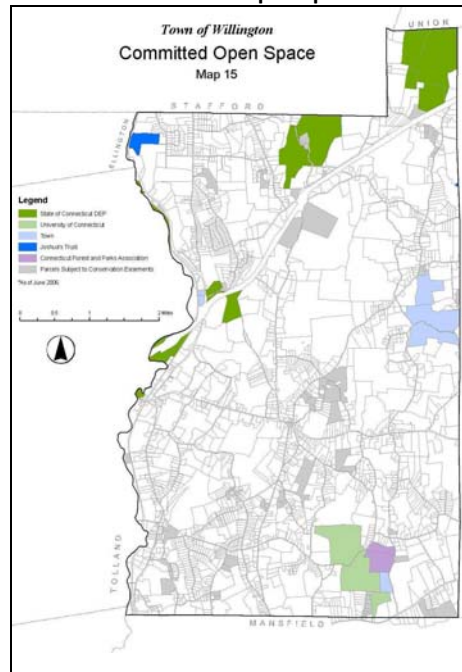
Manage, maintain, and enhance open space areas.

Policies:

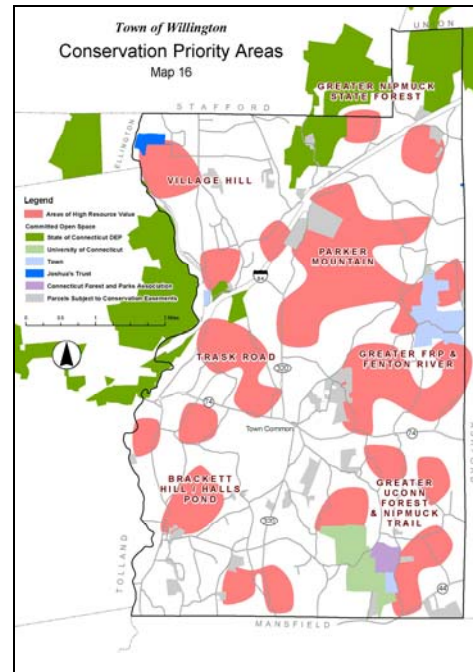
- A. **OVERALL** - Willington will effectively manage its open space resources by:
1. Maintaining a comprehensive database of information to address the unique needs of each area.
 - a. Establish “land management plans” for Town-owned open space areas in order to give them the attention they may need.
 2. Continue to encourage Town ownership of open space in order to provide the greatest control and the greatest benefit to the community (such as public access).
 3. Continue cooperative ventures with other groups for development of passive recreational opportunities on existing open space lands.
 4. Expand water based recreation sites within the current resource protection requirements in order to preserve and enhance appreciation of our water resources.

POSSIBLE MAPS

Committed Open Space



Conservation Priorities



Open Space Priorities

As part of the 2007 NRI and POSCP, the Conservation Commission established a “point scheme” as a way to identify properties which might be higher priorities for open space preservation. As part of this process, undeveloped parcels in town (25 acres or larger) were assigned a resource score based on totaling the points given for each of the following criteria below:

- Parcel between 25 – 50 acres in size (0.5 points)
- Parcel larger than 50 acres (1 point)
- Contains 10 acres or more of prime agricultural soils (1 point)
- Contains 25 acres or more of productive forest soils (1 point)
- Contains any wetland soils (1 point)
- Contains or is adjacent to a watercourse or water body (1 point)
- Overlies an aquifer protection area (1 point)
- Identified as an historic property (1 point)
- Adjacent to an area with endangered species from NDDB (1 point)
- Adjacent to existing open space (1 point)
- Adjacent to large (100+ acres) existing open space (additional 0.5 points)

Total scores ranged from 0.5 to 7.5 points for individual parcels. A total score of 5 points or more was considered to indicate the parcel had a high resource value. Using this cutoff score, the Commission then identified generalized clusters of these parcels with high resource value and mapped them as conservation priority areas. The Conservation Priority Areas Map # 16 depicts these areas which contain the highest resource value in town.



MAINTAIN AND ENHANCE COMMUNITY CHARACTER

OVERVIEW

Although every Willington resident may have their own perception and interpretation of exactly what “community character” means to them, some common elements have been identified. The POCD recommends that attributes that contribute to the overall community character of Willington be maintained and enhanced.

Natural Resources - Discussed previously.

Perception Of Open Space – In addition to the strategies discussed previously, encouraging the retention of undeveloped land is an important strategy that will help maintain and enhance community character.

Building and Site Design – For uses other than single-family residences, Willington uses the “Special Permit” process to seek building and site designs that will enhance community character. There are no architectural guidelines describing desired outcomes.

Historic Resources – The Willington Historical Society has identified 126 structures and/or sites of historic significance in the community. The largest collection of historically significant properties in town is situated on or near the Town Green and this area has some properties listed on the National Register of Historic Places (a mostly ceremonial designation), and some properties located wholly or partially within the Willington Common Historic District (a local designation that regulates changes to buildings in public view).

While other historically significant properties exist in the historic village centers of Daleville, South Willington, West Willington, and East Willington, the historic structures in these village centers are not protected by a historic district and are not always recognized on a historic register.

Archeological resources are not as visible as historic structures but are important to preserve and protect as well. The Subdivision Regulations (Section 5.14 and 3.03.1) require consideration of archeological resources at the time of development.

Enhance Community Character

Farms and Farmland Soils – Farms and agricultural lands contribute to community character, preserve the rural landscape, enhance the regional economy, and help make the region more self-sufficient in its food supply. While farms only generate modest tax revenue to a municipality, their service demands are very low and they are more “fiscally positive” than some forms of residential development which require more in service expenditures than they provide in tax revenue. Since the economics of farming are challenging, it is very important for Willington to be vigilant about supporting local farms and farming. This includes preserving farmland soils so that they will be available for future generations of farmers.

Sand and Gravel Operations - Willington has several areas with sand and gravel deposits and these areas can be targeted for mining operations and so it is important to have appropriate regulations in place to guide such activities to suitable locations, ensure that the excavation operation is conducted in a proper manner, and guarantee the site is restored upon completion.

Scenic Features – Willington has scenic resources and scenic features that contribute to community character. This includes scenic views, forests, pastures, watercourses, gravel roads, stone walls (which serve as visual reminder of areas once host to fields, pastures and livestock), and other features. Section 5.14 of the Subdivision Regulations provide for consideration of stone walls at the time of development.

SUGGESTED GOAL

Maintain and enhance the overall character of Willington by preserving and protecting the characteristics that contribute to its overall ambience and quality of life.

KEY ISSUES?

1. Does Willington want to establish a community design manual? (with material from the VCI study of South Willington?)

Importance of Design

The character of a community evolves over long periods of time. As a result, communities are the result of incremental change involving many decisions made by many individuals over the course of many years. All decisions, from the seemingly inconsequential to the most profound, make a difference.

That said, it benefits all who are engaged or affected by the building process – designers, developers, commissioners, staff and residents alike – to examine the “cause and effect” relationship of community building in order to come to a consensus and to lessen the uncertainty of the outcome.

POSSIBLE STRATEGIES

Strategy CC1	Protect the resources that contribute to the overall character and quality of life of Willington.
------------------------	--

Policies:

A. **OVERALL** –Willington will:

1. Strive to preserve natural resources, open space, and other characteristics that contribute to community character.
2. Continue to use the Public Act 490 “open space” program to encourage the retention of undeveloped land.
 - ☐ a. Consider limiting the PA 490 “open space” eligibility criteria to parcels in excess of five acres with buildable land area in excess of two acres.
3. Maintain appropriate regulations to guide sand and gravel activities to suitable locations, ensure that the excavation operation is conducted in a proper manner, and guarantee the site is restored upon completion.
4. Use techniques such as open space cluster zoning, conservation easements, and purchase of development rights to protect archaeological, historical, and other character resources.

B. **COMMUNITY DESIGN** –Willington will:

1. Promote good community design.
 - ☐ a. Adopt a “community design manual” to help guide new developments and help ensure they complement, and are compatible with, the existing fabric of site and building design in Willington.
 - ☐ b. Consider the establishment of one or more “village districts” to help promote good community design.

C. **COMMUNITY SPIRIT** –Willington will:

1. Seek ways to maintain and enhance community pride and spirit.
2. Seek ways to maintain and enhance positive impressions about the community.
3. Encourage community and civic activities that promote and enhance community spirit.

Enhance Community Character

Strategy

CC2

Protect historic and archeologic resources and celebrate their contribution to community character and sense of place.

Policies:

A. **OVERALL** –Willington will:

1. Promote sensitive ownership and stewardship of historic resources.
2. Strive to protect and preserve historic resources since they contribute to Willington's overall character and sense of place.
 - ☐ a. Establish and maintain an inventory of the town's historic and architectural resources.
 - ☐ b. Consider adoption of a Demolition Delay Ordinance for buildings or structures of a certain age.
 - ☐ c. Consider providing a density bonus or other incentive to encourage developers to retain historic structures and/or design sites adjacent thereto in ways that will maintain / enhance the historic feel (i.e. similar architectural style, scale, materials, color, etc.).
 - ☐ d. Consider tax and zoning incentives for historic properties if it would help preserve historic structures.
3. Strive to preserve and protect archeologic resources since they are an important part the history of Willington and Connecticut.
4. Promote awareness of Willington's historic sites, structures and districts.
5. Support the listing of qualified buildings, sites, structures, and districts on the National Register of Historic Places and the State Register of Historic Places.
6. Support the Willington Historic District Commission (a regulatory entity) in their efforts to protect historic sites and areas.

Strategy

CC3

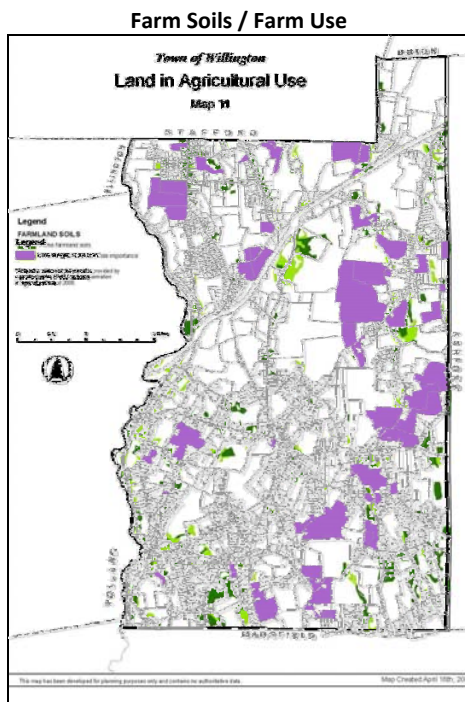
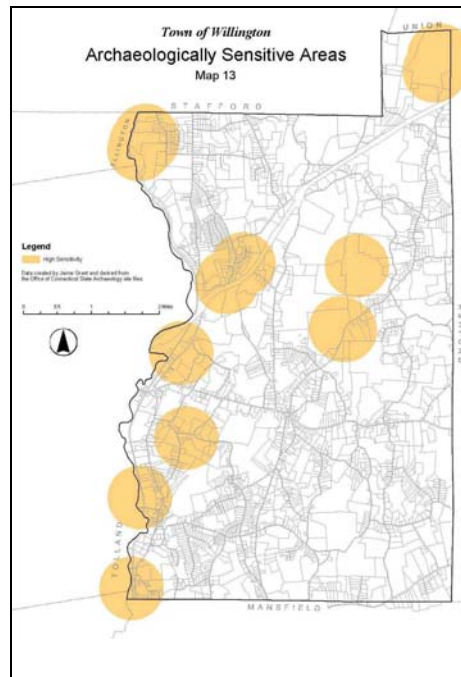
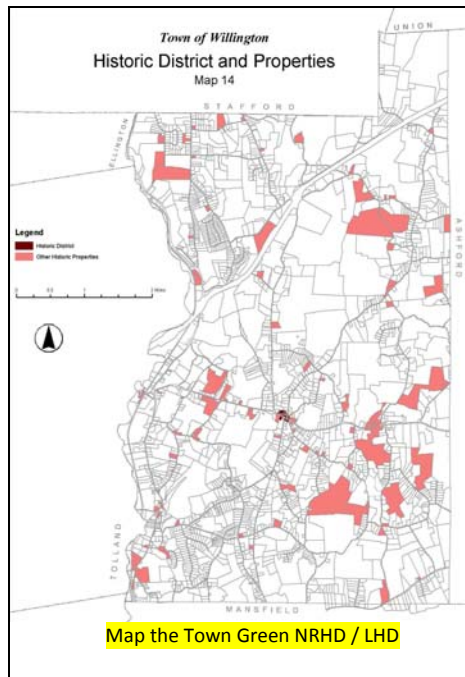
Support the preservation of working lands (farms and forests) and the availability of farmland soils.

Policies:

A. **WORKING LANDS** – Willington will:

1. Continue to use the Public Act 490 “farm” program to encourage the retention of working farms.
2. Work with local farmers and others to identify other mechanisms to support farmers and farming and preserve agricultural lands.
 - ☐ a. Consider adopting a “right to farm” ordinance to help support farming operations.
3. Promote regional opportunities to market organically-grown farm products.
4. Provide for community garden or haying opportunities on suitable town-owned open space.
5. Encourage the retention of quality agricultural soils for agricultural use.
6. Use the Purchase of Development Rights Program administered by the Connecticut Department of Agriculture (and supplemental funding from other sources, if needed) to permanently preserve farm parcels from development.
7. Use techniques such as open space / cluster development to help preserve working farms and help preserve prime or important agricultural soils that could be utilized for commercial farming.
8. Continue to use the Public Act 490 “forest” program to encourage the retention of large parcels of forest land (25+ acres).

POSSIBLE MAPS



*As part of POCD, seek to map
important viewsheds
in Willington*

Strategy

CC4

Preserve and enhance the scenic characteristics of Willington.

Policies:

A. **SCENIC FEATURES** –Willington will:

1. Preserve scenic views, vistas and resources that enhance the overall character of Willington.
2. Preserve stone walls and other cultural resources that contribute to community character.
 - ☐ a. Consider a Town ordinance to preserve stone walls along roadways.
3. Identify and maintain scenic roads.
 - ☐ a. Consider establishing a scenic road ordinance.
 - ☐ b. Consider public works department protocols for preserving and maintaining the remaining gravel roads in town.
4. Use techniques such as open space cluster zoning to preserve scenic areas and features.

B. **TREES / VEGETATION** –Willington will:

1. Recognize the importance of trees and vegetation to Willington's overall character and environment and to public health.
2. Emphasize the importance of landscaping (including berms) as part of any commercial development, especially along major thoroughfares.
3. Encourage mitigation for clear-cutting of trees on subdivisions and commercial areas.
4. Encourage the planting of native species and discourage the planting of invasive species.

D. **NOISE / LIGHT POLLUTION** –Willington will:

1. Manage artificial lighting in business and industrial areas to maintain and enhance community character and help reduce light pollution.
2. Minimize impacts of noise on residential areas from commercial and industrial uses.

PROMOTE SUSTAINABILITY / RESILIENCY



SUGGESTED GOAL

Strive to become a more sustainable and resilient community.

For the POCD, “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.

POSSIBLE STRATEGIES

Strategy	
SR1	Encourage sustainable development practices.

Policies:

A. ENERGY – Willington will:

1. Promote energy conservation by the Town and residents and businesses.
2. Encourage the use of “green building” strategies in community facilities.
3. Seek to transition to renewable energy for Town vehicles.

B. WATER CONSERVATION –Willington will:

1. Encourage water conservation since most areas of Willington rely on wells for water supply.

C. WASTE MANAGEMENT –Willington will:

1. Promote recycling and reduction of the waste stream.
2. Provide for disposal of solid waste and bulky waste with minimal environmental impacts.

Strategy	Enhance efforts to be a resilient community
SR2	

Policies:	
A. EMERGENCY RESPONSE –Willington will:	
1. Continually review and improve emergency response in order to ensure that public safety services (police, fire, and emergency medical) are trained and equipped to respond to emergencies in the community.	
B. AVOIDANCE / MITIGATION –Willington will:	
1. Seek to identify recurring hazards or threats (such as hurricanes, flooding, winter storms, etc.) and prepare to avoid, mitigate, or respond to such events.	
2. Participate with local organizations and regional agencies on updating and refining “hazard mitigation” strategies in order to identify and then reduce or eliminate risk to human life and property resulting from natural hazards.	
C. EVOLUTION –Willington will:	
1. Strive to identify and anticipate possible future “macro-level” changes to temperature, climate patterns, and/or storm frequency or intensity before they become a threat to the community.	
2. Over time, consider ways to assess the vulnerability of public and private infrastructure (e.g., utilities, transportation, structures) to climate change and increased frequency of extreme storms and develop adaptation strategies.	

Note – The hazard mitigation strategies on the facing page are from the 2015 Hazard Mitigation Plan for the region that included Willington.

Hazard mitigation studies are intended to identify a community's vulnerability to natural hazards and identify reasonable and appropriate measures to reduce or eliminate loss of human life, injuries, and/or property damage and attempt to break the expensive cycle of repeated damage and reconstruction.

General Hazard Mitigation Strategies For Willington

General Preparation Strategies	General Response Strategies
<ul style="list-style-type: none"> • Prepare emergency shelters • Obtain / maintain response equipment • Reduce tree risks / hazards • Encourage underground utility wires • Alert residents to imminent events • Encourage all buildings to be improved to meet current building codes • Educate the public about disaster preparedness and the benefits of mitigation measures 	<ul style="list-style-type: none"> • Respond / rescue • Clean up damage • Restore power

Town Strategies

As part of the hazard mitigation strategy, Willington agreed to:

1. Encourage ConnDOT to address bridges, culverts and road grading to prevent periodic flooding and icing
2. Replace the Kechkes Road bridge over the Fenton River and install new catch basins and drainage systems on roads where needed.
3. Add dry hydrants or underground cisterns in close proximity to new developments and near wildfire susceptible areas.
4. Ensure that the emergency shelters have adequate capability to respond to natural emergencies.
5. Install generators at critical facilities.
6. Obtain a tree bucket for preventative tree management to reduce the amount of debris from severe storms.

Additional Hazard-Specific Mitigation Strategies For Willington

HIGH RISK	Preparation Strategies	Response Strategies
Hurricanes	<i>See above</i>	<i>See above</i>
Severe Winter Storms	<i>See above</i>	<i>See above</i>
MODERATE RISK	Preparation Strategies	Response Strategies
Flooding	<ul style="list-style-type: none"> • Limit development in flood-prone areas • Keep drainage systems clear • Manage stormwater discharge 	<i>See above</i>
Thunderstorms	<ul style="list-style-type: none"> • Securing outdoor objects • Install lightning rods 	<i>See above</i>
LOW RISK	Preparation Strategies	Response Strategies
Dam Failure	<ul style="list-style-type: none"> • Periodic dam inspections by dam owners • Prepare emergency response plans 	<ul style="list-style-type: none"> • Implement emergency response plans
Drought	<ul style="list-style-type: none"> • Relate development to water availability • Promote groundwater recharge • Promote water conservation 	<ul style="list-style-type: none"> • Implement water conservation strategies
Earthquake	<ul style="list-style-type: none"> • Enforce building codes • Upgrade buildings to code 	<i>See above</i>
Ice Jams	<ul style="list-style-type: none"> • <i>See "Flooding"</i> 	<i>See above</i>
Tornado / Wind Damage	<ul style="list-style-type: none"> • Securing outdoor objects • Prepare mobile homes • Upgrade buildings to code 	<i>See above</i>
Wildfire	<ul style="list-style-type: none"> • Educate the public on safe fire practices • Maintain fire ponds / cisterns 	<i>See above</i>

[illegible]

24