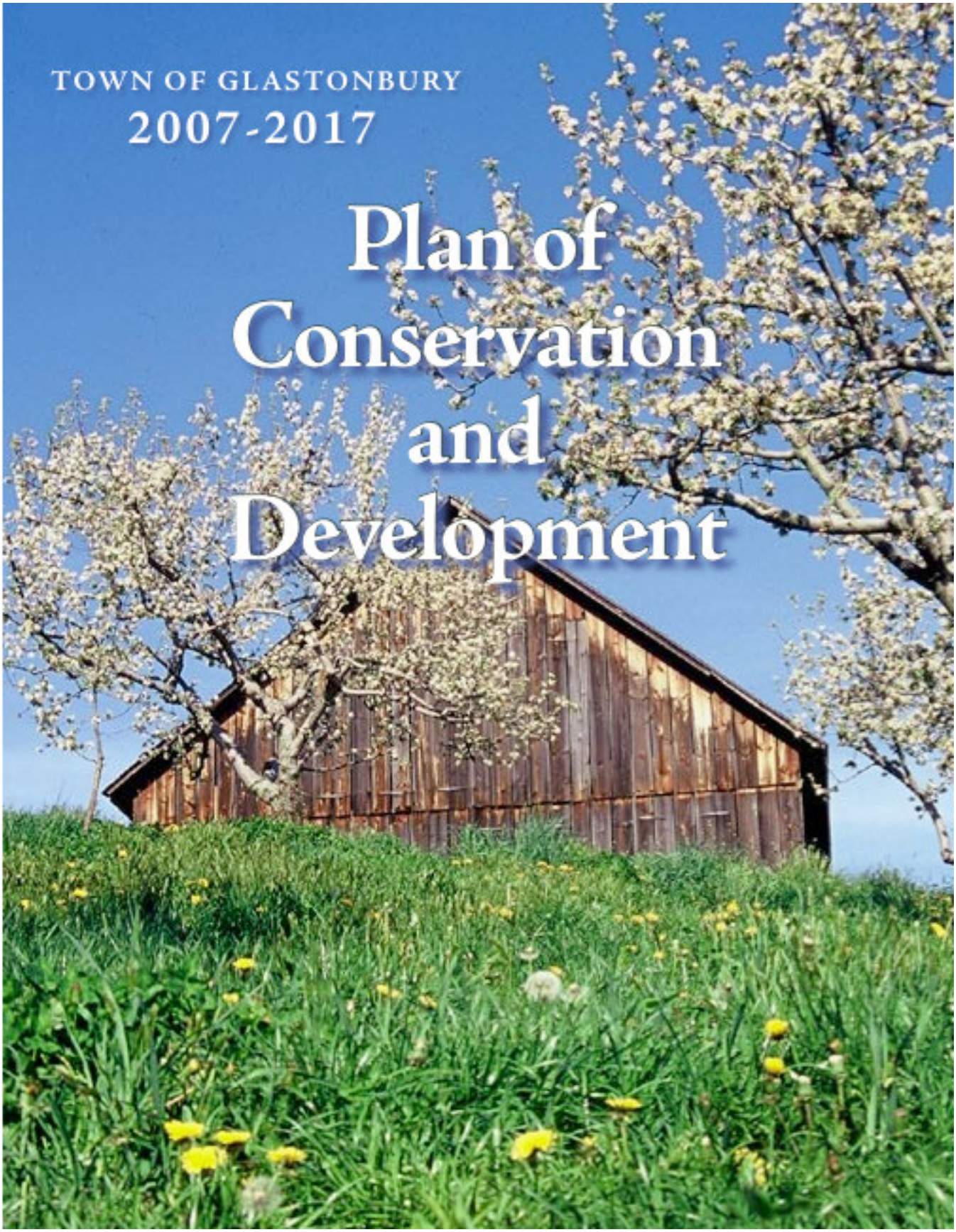

TOWN OF GLASTONBURY
2007-2017
Plan of Conservation and Development

— TOWN OF GLASTONBURY —

2007-2017

Plan of Conservation and Development

& Land Use and Historic District Maps

EFFECTIVE: SEPTEMBER 23, 2007

— TOWN *of* GLASTONBURY —

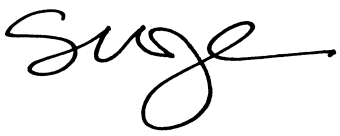
2007-2017
PLAN OF CONSERVATION AND DEVELOPMENT
– & –
LAND USE AND HISTORIC DISTRICT MAPS

EFFECTIVE SEPTEMBER 23, 2007

It has been my pleasure to work on this document over the past two years, and I am proud of the final product. A subcommittee of the Town Plan and Zoning Commission was appointed to review the plan as is required under Connecticut law. We conducted workshop meetings over the course of 26 months. In fact, we held approximately 26 meetings, and we met for approximately 70 hours. Not only did our appointed Town Plan and Zoning Commission members participate, but also our elected officials and members of the local community contributed as well. Most impressive to me was the outpouring of help from community volunteers, whose knowledge and insight were educational and invaluable. The enthusiasm and commitment shown by all these individuals help to make Glastonbury a great town.

I hope you will take the time to review the Plan of Conservation and Development, as it embodies our goals for the next ten years. Admittedly, it will be a challenge to meet the sometimes competing goals of conservation and growth. I hope it is clear that we are proud of our heritage as a river community rich in natural resources, historical sites and agricultural business, and that these are characteristics that we cherish and will fight to preserve. Equally important is our desire to provide services and infrastructure to support our growing community. As residential and commercial building continues, we will strive to ensure that the structures are built in a manner that enhances our community. Finally, all building projects and the provision of services must be balanced with our desire to protect and maintain our precious
natural resources.

I know that we are up to the challenge!



Sharon M. Jagel, Chairman

Town Plan and Zoning Commission

Town Plan and Zoning Commission

Sharon M. Jagel, Chairman*
William T. Finn, Vice Chairman*
Sharon H. Purtill, Secretary*
Patricia V. Low
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B.J. White, Executive Secretary
Glynis McKenzie, Administrative Secretary

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Revised: September 2007

INTRODUCTION

This Plan of Conservation and Development has been prepared as required under Connecticut General Statutes Section 8-23. All towns and municipalities must amend and adopt a new plan at least once every ten years. In Glastonbury, the last revision was done in 2003. This plan will be in effect until 2017, unless sooner amended.

Review and amendment to any Plan of Conservation and Development within the ten-year term is not uncommon. Indeed, it is intended as a living document, to address any number of changing conditions and circumstances in areas such as the: economy, demographic trends, housing availability, etc.

The plan is intended to be a statement of Glastonbury's policies, goals, and standards for the development of the Town over the next ten years. Equally important are the policies for conservation of our resources.

This document is divided into several general sections. The Community Profile provides some basic descriptive information. While there is a section entitled Town-Wide Policies, there are further, more detailed policies enumerated under each Planning Area and Resource Category. Please note that the Planning Areas are not the same as zoning districts. Planning Areas One through Six represent distinct geographic areas of Town and contain different zoning districts.

Implementation of the policies and goals stated herein will be through enforcement of our current laws, ordinances, regulations, and planning tools. In some cases, we will review and change certain laws, ordinances, and/or regulations in order to further our goals. It is our desire to utilize our zoning regulations and planning tools to the full extent of the law, in order to achieve these goals and maximize the general welfare and prosperity of our citizens.

Community Profile

— TOWN OF GLASTONBURY —

PLAN OF CONSERVATION AND DEVELOPMENT

COMMUNITY PROFILE

General Characteristics

Glastonbury has a land area of 52.5 square miles, the eleventh largest town in Connecticut**.** The Town was incorporated in 1693. The form of government is Council/Manager established in 1959. Regulatory commissions include the Town Plan and Zoning Commission, the Zoning Board of Appeals, and the Inland Wetlands and Watercourses Agency/Conservation Commission.

Settlement began with the tribes of the Connecticut River Indians, known as the Wongunks. Fertile Connecticut River meadows attracted increased settlement in the mid-1600s, with the first house (no longer standing) built around 1649. Our agricultural heritage remains an important component of the Town's overall cultural and economic makeup.

Shipbuilding was an important activity through the 1870s, with over 250 major sailing vessels built, and supplies exported to as far as the West Indies. Major watercourses, namely Roaring and Salmon Brooks, provided opportunities for industries such as the Hartford Manufacturing Company (cotton), the Hopewell Woolen Mill, and the Glastonbury Knitting Company at Addison.

The Town regulates building activity within the local Historic District along Main Street. Numerous examples of various historic architectural styles from the 1700s and 1800s exist today throughout Town, most notably along Main Street. National Register Historic Districts in Town include: Glastonbury**,** South Glastonbury, Curtisville, J. B. Williams, and the Glastonbury-Rocky Hill Ferry.

It is an important goal of Glastonbury to balance historic preservation with development in an equitable way. Glastonbury's unique historic assets add value to the business environment and contribute to the character of the Town. Additional historic districts both local and national, as well as ordinances geared toward preservation of historic assets, including buildings, open spaces, and streetscapes, should be considered.

The land rises gradually from near sea level at the Connecticut River to 881 feet above sea level in the eastern highlands. The western section of Glastonbury is part of the central Connecticut lowlands that run from Long Island Sound to Massachusetts, including the Connecticut River Valley and its floodplains. The lowlands are formed over soft bedrock which has been eroded to a relatively low level and subsequently covered by glacial deposits. The Connecticut River floodplain and the Great Meadows are found in this section of Glastonbury. The southeastern section of Glastonbury is part of the eastern highland, characterized by more rugged topography. The highlands are underlain by hard bedrock and are mostly covered with thin layers of glacial till.

Demographics

During the final decade of the 20th Century, Glastonbury's population increased by 14.2% or 3,975 persons. Of significance is the nearly equal rate of growth that occurred during the two prior decades. Between 1970 and 1980 the population increased by 3,670 persons, and between 1980 and 1990 the increase was 3,574 persons. This very consistent growth rate over 3 decades was preceded by a significantly different rate of growth between 1960 and 1970. During this period the Town grew by 42.5% or 6,160 persons. Detailed demographic data is provided in Table 1 following this section.

2000 Census data reports 81.7% of housing units as owner occupied with the remaining 18.3% being renter occupied. These percentages correspond to 10,017 owner occupied units and 2,240 renter occupied units.

Another notable element of the 1990-2000 period was the 31.2% growth in residents between the age of 5 and 19. The average for all Capitol Region towns for the same period was 20.9%. Clearly, the growth in school age children was fueled by the widespread availability of new single-family homes constructed during the 1980s and 1990s. The Board of Education enrollment figures provided in Table 2 following this section provide a more detailed picture.

Looking ahead to the 2008-2020 period, it is likely that population growth will not exceed 10%. Primary factors contributing to this projection are the dwindling amount of developable properties and the overall maturation of the community after a half century of significant development. Also contributing is the likely aging population profile of Glastonbury and the State as the northeast region of the United States experiences continuing migration of residents to rapidly expanding "sunbelt states." Energy costs, outsourcing of jobs and high real estate values are key factors that will ultimately determine the continuation and strength of this trend.

TABLE 1

COMMUNITY DEMOGRAPHICS • 1990 – 2005

	1990[1]	Change	2002[2]	Change	2005[3]
Total Population	27,901	+14.2%	31,876	3.8%	33,089
Households	10,533	+16.3%	12,257		N
					O
Median Age	37.8 yrs	5.3%	39.8		T
Under 5	1,719	+30.7%	2,248		A
5-9	1,869	+39.2%	2,603		V
10-14	1,743	+37.2%	2,393		A
15-19	1,763	-.45%	1,755		I
20-24	1,535	-45%	834		L
25-44	9,286	-.43%	9,246		A
45-64	6,681	+30.8%	8,738		B
65+	3,305	+22.8%	4,057		L
					E

Source – U.S. Census
[1] Final Count
[2] Final Count
[3] Estimate 6-21-06

COMMUNITY DEMOGRAPHICS PROJECTIONS • 2005 – 2020

	2005	Change	2010	Change	2015	Change	2020
Total							
Population	33,089	3.2%	34,150	2.4%	35,000	2%	35,700

Source – Town of Glastonbury, Office of Community Development

TABLE 2

MASTER GLASTONBURY PUBLIC SCHOOLS

4 yr. average

Enrollment Projection 2007-2008 to 2015-2016 (+Magnet)

	Actual 06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16
K	477	459	467	460	460	461	461	462	462	463
+M	21	20	20	20	20	20	20	20	20	20
1	505	504	485	494	486	486	487	487	488	488
+M	19	21	20	20	20	20	20	20	20	20
2	487	514	513	494	503	495	495	496	496	497
+M	22	19	21	20	20	20	20	20	20	20
3	531	489	516	515	496	505	497	497	498	498
+M	20	22	19	21	20	20	20	20	20	20
4	542	540	498	525	524	505	514	506	506	507
+M	21	20	22	19	21	20	20	20	20	20
5	566	544	542	500	528	526	507	516	508	508
+M	14	21	20	22	19	21	20	20	20	20
K-5	3108	3050	3021	2988	2997	2978	2961	2964	2958	2961
+M	3225	3173	3143	3110	3117	3099	3081	3084	3078	3081
6	533	553	538	535	493	519	520	499	508	500
+M	24	40	40	40	40	40	40	40	40	40
6+M	557	593	578	575	533	559	560	539	548	540
7	496	541	562	546	543	501	527	528	506	515
+M	25	24	40	40	40	40	40	40	20	20
8	552	493	538	559	543	541	498	524	525	503
+M	23	25	24	40	40	40	40	40	40	20
7-8	1048	1034	1100	1105	1086	1042	1025	1052	1031	1018
+M	1096	1083	1164	1185	1166	1122	1105	1132	1091	1058
9	495	554	499	541	577	562	560	519	544	545
+M	0	0	0	0	0	0	0	0	0	0
10	517	490	548	495	536	572	557	554	514	539
+M	0	0	0	0	0	0	0	0	0	0
11	511	522	495	554	500	542	577	562	560	519
+M	6	6	6	6	6	6	6	6	6	6
12	480	511	523	496	554	500	542	578	563	560
+M	6	6	6	6	6	6	6	6	6	6
9-12	2003	2077	2065	2086	2167	2176	2236	2213	2181	2163
+M	2015	2089	2077	2098	2179	2188	2248	2225	2193	2175
K-12	6692	6714	6724	6714	6743	6715	6742	6728	6678	6642
+M	6893	6938	6962	6968	6995	6968	6994	6980	6910	6854

Printed 3/27/2007

	Based on Students already enrolled
	Based on Children born but not yet enrolled
	Based on Children not yet born

Housing

Across the Town**,** densities range from high through medium, and then to low as you proceed from the Connecticut River Valley easterly and southeasterly. The highest densities are found within the western valley area primarily due to the general availability of public water and sanitary sewers and level, easily buildable terrain. This area provides a variety of housing types: apartments, single-family attached units or condominiums, duplexes, and single-family homes. Also located in this sector are public housing developments managed by the Glastonbury Housing Authority, that include: Welles Village, Center Village, Knox Lane and Herbert T. Clark Congregate**/**Assisted Living Housing. Residential zones and minimum required lot areas are: (A) 15,000 sq. ft., (AA) 25,000 sq. ft., (AAA) 40,000 sq. ft., and Rural Residence (RR) 40,000 sq. ft.

The medium density area is primarily comprised of single-family homes on a minimum of one acre, with the exception of a number of dwellings on one-half acre lots along Main Street, Dayton Road, and their neighboring local roads. On-site sewage disposal systems and private wells generally service this area. The residential zones and minimum required lot areas are: (AA) 25,000 sq. ft., and Rural Residence (RR) 40,000 sq. ft.

The low density area is primarily comprised of single-family homes on at least one acre and serviced by on-site sewage disposal systems and private wells. This area also contains the majority of the Town's apple orchards and protected open space**.** The residential zones and minimum required lot areas are: Rural Residence (RR) 40,000 sq. ft. and Country Residence (CR) 80,000 sq. ft. Lots of greater size do exist.

The rugged topography, near surface ledge, and extensive web of wetlands and watercourses commonly found in the southern and eastern sections of the community make it difficult for the extension of public sewer and water services. The 1994 Roaring Brook Master Sewer System Study recommends no major sanitary sewer extensions in that watershed. Such extensions require extensive blasting, excavation upon slopes, and disturbance within floodplains and wetlands. The 1994 Roaring Brook Master Sewer System Study does recommend minor sanitary sewer extensions into identified trouble spots where on-site community sewage disposal systems are not feasible.

Town Facilities

Major public facilities located through the Town are as follows:

Administrative/Service

Town Hall – 2155 Main Street
Police Department – 2108 Main Street
Parks & Recreation – 1086 New London Turnpike
Board of Education – 232 Williams Street
Bulky Waste Facility – 1145 Tryon Street
Solid Waste Transfer Station – 2340 New London Turnpike
Public Works Garage – 2380 New London Turnpike
Wastewater Treatment Plant – 2149 (rear) Main Street
Housing Authority – 25 Risley Road

Schools

Glastonbury High School – 330 Hubbard Street
Gideon Welles School – 1029 Neipsic Road
Smith Middle School – 216 Addison Road
Buttonball School – 376 Buttonball Lane
Eastbury Elementary School – 1389 Neipsic Road
Hebron Avenue School – 1363 Hebron Avenue
Hopewell School – 1068 Chestnut Hill Road
Naubuc School – 84 Griswold Street
Nayaug Elementary School – 222 Old Maids Lane

Cultural

Welles Turner Library – 2407 Main Street
East Glastonbury Library – 1389 Neipsic Road
South Glastonbury Library – 80 High Street
Community Center – 300 Welles Street
The Cider Mill – 1287 Main Street

Parks

Addison Park and Pool – Addison Road
Cotton Hollow & Grange Pool – Hopewell Road
Eastbury Pond & Butler Field – Fisher Hill Road & Forest Lane
J. B. Williams Park – Neipsic Road
Earle Park – Main Street
Shoddy Mill Park – Shoddy Mill to Hebron Avenue

Parks, *continued*

Buckingham Park – Manchester Road
Blackledge Falls Park – Hebron Avenue
Riverfront Park – Welles Street
Welles Park – Griswold Street
Great Pond Preserve – Great Pond Road
Addison Bog and Woodland
Ferry Landing & Ferry Landing Park – Ferry Lane at Connecticut River
High Street School Park – High Street

Business/Commercial/Employment

Glastonbury began the 21st Century with a thriving business sector including significant Class A offices, a variety of retail venues, traditional manufacturing, and personal service businesses. Continued vitality of the Town's strong, regionally significant economic base is an important objective of this plan. It is anticipated that Glastonbury will continue to offer excellent opportunities for high quality new business expansion as well as upgrades to existing commercial buildings.

The Town's last large block of commercially zoned property known as "Gateway" is now ready for development following the extension of Eastern Boulevard to Addison Road. This property has the potential to provide significant new development opportunities during the term of this Plan.

Somerset Square is nearly at full build-out with only one parcel remaining for development. The recent introduction of two high quality hotels has filled a need that had existed for quite some time. Additionally, a large scale retail center has been developed within the major commercial area located north of Route 3. Another significant trend is the construction of Class A medical office buildings, including complexes at Somerset Square, at Oakwood Drive and Hebron Avenue, and within the Gateway Corporate Park. Other notable developments include a grocery store on the corner of Oak Street and New London Turnpike, as well as major upgrades to the car dealerships in this area. Upgrades and additions have occurred at several sites in the Commerce Street, Oakwood Drive, Kreiger Lane industrial areas, including construction of a new high-end self storage facility.

The Town Center area has also been the focus of building renewal and modification to include pedestrian friendly designs, outdoor dining, and enhanced pedestrian access to the Riverfront Park and Community Center. Renewal activities are anticipated to continue on other Town Center properties. Community groups have expressed great interest in enhancing the Town Center and its streetscapes to encourage outdoor activities and gathering spaces for the community at large.

Open Space

As an environmentally conscious town, Glastonbury has long pursued a policy to preserve and protect natural features of ecologic and aesthetic significance. These include streambelts, wetlands, forest lands, floodplains, prominent scenic places, agricultural land, and tracts that contain unique or unusual topographic features and animal or plant life.

Glastonbury has been quite successful in setting aside valuable properties for preservation in their natural state with several hundred acres conserved in recent years through acquisition and donation. Additionally, an important land and water protection tool has been to receive many private (and some public) conservation easements from landowners and developers. The 300-plus easement areas granted to the Town over the past 35 years have proven particularly effective in protecting stream channels from erosion and sedimentation, steep slopes and scenic areas from uncontrolled vegetation removal, and providing buffers surrounding the wetlands. These easements also represent the building blocks for the Town's long-term goal of creating and maintaining greenbelts and greenways along stream valleys and linear open space links between existing public and private open spaces.

We recognize the importance of balancing development with environmental protection in an equitable way. These two objectives are not incompatible, but as Glastonbury continues to grow and development reaches the truly sensitive environmental areas identified herein, the balancing act becomes more difficult, and often quite technical. We must evaluate the impact of human actions upon the interrelated web of resources with which Glastonbury is so richly endowed.

Development of open space for recreational uses, such as ballfields, parklands, boating facilities, a concert facility, and festival grounds in addition to existing recreational lands is essential to the community.

Where appropriate, open space land should also be made accessible for public enjoyment of activities such as fishing, hunting, hiking, horseback riding, wildlife and plantlife observation and outdoor education. Also, large level and easily usable tracts of open space should be acquired for recreational uses and other municipal uses.

Additional Town maps and resources available include*:*

- Glastonbury Building Zone Map
- Glastonbury Groundwater Protection Zones Map
- State DEP Protected Species/Significant Natural Communities Map for the Town of Glastonbury
- Parks and Recreation Plan of Development
- Master Sewer Plans
- Master Drainage Plans
- Master Traffic Plan (underway – to be completed Fall 2007)
- Master Bicycle Plan Map

Town-Wide Policies

TOWN-WIDE POLICIES

Open Space

1) As Town-owned open space holdings increase in number and in acreage, formulate management objectives for those parcels designated for natural resource conservation to maintain the overall health, integrity and diversity of the resources.

2) Continue participation in partnerships with the Connecticut Department of Environmental Protection, private land trusts, and conservation organizations to achieve open space preservation goals and to protect habitat, including protected species habitat areas.

3) Preserve large tracts of land, which ideally would connect to adjacent existing open space or undeveloped parcels, as opposed to small, scattered, fragmented areas. Support and participate, if possible, in ecological studies and inventories on open space parcels. Consideration should be given to create a position of open space/natural resource manager to fulfill these objectives and oversee Town-owned conservation land. Creation of small "neighborhood" parks should also be considered. (See Policy 12, Open Space for Parks and Recreation.) Please see Resource Categories for additional policy information.

4) Complete revisions to Open Space/Conservation Subdivision Regulations to allow for increased design flexibility to enhance open space objectives through increased land conservation and reduced building coverage, while maintaining the overall density of the underlying zone.

Housing

1) Promote non-traditional development design and open space subdivision layouts that will preserve large, unfragmented tracts of land and significant natural resources.

2) Provide affordable housing for individuals and families, and senior housing/housing for the elderly and the disabled, to include rental and owner occupied units. Work in partnership with CRCOG to strengthen the objectives of affordable and senior housing, recognizing the ever changing dynamics associated with affordable housing.

3) Evaluate the PAD process to achieve open space preservation and enhancement objectives in conjunction with Open Space/Conservation Subdivision Regulation revisions.

4) Identify significant watershed areas and enact regulatory changes that would restrict residential development (impervious surface) to 10% of the land area.

5) Continue to support opportunities for the establishment of accessory apartments in order to allow for a variety of housing opportunities. Consider updates to the Accessory Apartment regulations to provide guidelines within the regulation for potential users and the Town Plan and Zoning Commission relative to the application of size increase waiver provisions.

6) Promote energy efficient housing designs and construction techniques and "green buildings" using the standards and rating system of the Leadership in Energy and Environmental Design (LEED) of the U.S. Green Building Council. LEED promotes a whole building approach to sustainability by recognizing performance in 5 key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

Transportation

1) Implement appropriate Master Traffic Study recommendations (to be completed Fall 2007) to maximize and induce safe and efficient vehicular circulation throughout Town.

2) When feasible, considering topographical and environmental conditions, encourage the interconnection of roadways to provide improved traffic distribution and multiple points of access for emergency service.

3) When feasible, develop bicycle facilities to further the goal of making Glastonbury a bicycle friendly community. Bicycle facilities could include, but are not necessarily limited to, bike lanes, bikeways, multi-use trails, bike racks, and "share the road" signs.

4) Establish an on and off road bikeway system in the Town, following standards developed in the Town of Glastonbury, Connecticut Bicycle Master Plan, presented July 2006. Consider the needs for safe bicycling during the review

process for commercial and residential development proposals.

5) Promote the use of traffic calming techniques where desirable and feasible.

6) Continue implementation of the comprehensive sidewalk construction program to eliminate existing gaps in the sidewalk network. Support design and construction of a bikeway system. Consideration should also be given to pedestrian pathways and traffic calming measures (speed control).

7) Review the Master Traffic Plan for necessary roadway upgrades and safety improvements.

8) Support funding for design and implementation of a regional/Town bikeway network. Continue implementation of the comprehensive sidewalk construction program to eliminate existing gaps in the sidewalk network.

Education

1) Continue to acquire large parcels of land for schools and educational uses in all of the designated planning areas of the Town.

2) Permit adaptive reuse of buildings for educational uses in all planning areas throughout the Town.

Stormwater Management

1) Promote utilization of innovative techniques and Best Management Practices to benefit surface water and groundwater quality and overall ecological integrity. When feasible, apply these techniques to improve existing conditions and incorporate a Town-wide inspection, maintenance and improvement program. Provide funding to update master drainage plan studies.

Commercial Development

1) Minimize light pollution through the incorporation of standards that reduce light spillage while maintaining sufficient lighting for safe vehicular and pedestrian movement within commercial sites.

2) Promote adherence to LEED standards relative to construction of commercial buildings.

Transmission Facilities

1) Promote utilization of existing structures and buildings for new communication transmitting towers, with new tower facilities supported only after all other alternatives are exhausted.

Historic Preservation

1) Protect and preserve structures and streetscapes of historic significance as found in various locations throughout Town, including our historic district areas.

Town Center

1) Continue redevelopment to enhance the character of the Town Center. Use planning and design tools to promote a pedestrian and bicycle friendly environment.

Planning Areas & Policies

PLANNING AREAS & POLICIES

Suburban (PLANNING AREA ONE)

Definition

The suburban area is generally the "valley area" of the community and is highly developed with a land use pattern similar to that of many other Connecticut River Valley towns. The suburban area functions as the principal residential district with a variety of housing types and sizes. The widespread availability of public water and sewers has resulted in many one-half acre residential lots and higher density attached developments. The area is adjacent to the Town's central business district and the Hebron Avenue employment area.

The ready availability of utilities, direct access to major roadways, and public transportation has made the suburban area very desirable for continued residential uses of a diversified nature, however, continued use of land for open space, recreation/park land and agricultural purposes is important. Major Town-owned parcels include open land east of Smith Middle School and Earle Park on the Connecticut River.

An important feature of this planning area is the historic Addison Mill neighborhood characterized by mixed uses. Historically, the mill structures were used for clothing/wool production in the early to mid 1800's. A knitting company as well as a post office also existed at that time. A general store operated in Addison Village until the mid 1900's and was located on Addison Road. The old mill dam and mill buildings add diversity to the neighborhood while preserving some of Glastonbury's history. Additional historical features of this planning area include the Old Cider Mill (now Town-owned) as well as the numerous period homes along Main Street. Historically much of this area was used for agricultural purposes; some farmland/orchard land remains and should be preserved.

Policies

HOUSING

1) Encourage vacant properties zoned Residence A and AA, larger than five acres, and serviceable by public water and sewer for development in accordance with Open Space Subdivision or Planned Area Development regulations. Suggested locations for higher density affordable housing could be better defined through the use of performance criteria and/or a general geographical designation (design quality, utilities, soil compatibility, roadway capacity, proximity to commercial centers, and public transportation).

2) Consider a variety of housing types including non-traditional development designs with detached single-family homes, rental apartments, condominiums, townhouses, cooperatives, and duplexes, as well as affordable housing and housing for the disabled and elderly. Include design components that would enhance quality of life features.

HISTORIC ADDISON AREA

Bounded by Hebron Avenue on the south to the old velvet textile mill building (recently approved for conversion to residential) on the north and from the east side of Addison Road to Glenwood Road.

1) Continue to provide opportunities for a variety of residential densities in the historic village of Addison, with its existing mix of housing types and styles.

2) It is anticipated that the recently constructed commercial/convenience center

at the intersection of Hebron Avenue and Village Place will meet the needs of the Addison area. For the term of this plan, retail expansion easterly or westerly along Hebron Avenue is not recommended, in order to avoid further encroachment into residential areas.

3) Minimize new curb cuts and encourage cross easements for shared parking and lot connectivity.

PUBLIC FACILITIES

1) Develop Cutter Lane acreage as an expansion of Rotary Field to meet increased demand for rectangular fields, baseball fields and tennis courts.

2) Continue to acquire land suitable for future municipal uses such as schools, recreation and public safety services.

TRANSPORTATION

1) Continue to renovate and upgrade existing roadways with a long-term capital improvements program, with consideration for historical features.

2) Continue implementation of the comprehensive sidewalk construction program to eliminate existing gaps in the sidewalk network. Support design and construction of a bikeway system. Consideration should also be given to pedestrian pathways and traffic calming measures (speed control).

3) When feasible, after consideration of topographic and environmental conditions, encourage the interconnection of roadways to provide improved and equitable traffic distribution and neighborhood connectivity and multiple points of access for emergency service. Possible roadway connections include, but are not limited to: Sherwood Drive to Westledge Road, and Kelsey Road to Oakwood Drive.

4) Review the Master Traffic Plan for necessary roadway upgrades and safety improvements.

5) Support funding for design and implementation of a regional / Town bikeway network. Continue implementation of the comprehensive sidewalk construction program to eliminate existing gaps in the sidewalk network.

STREAMBELTS, GREENWAYS AND OPEN SPACE
(Land Protected for Conservation and Recreation Purposes)

1) Encourage the creation of small parks, scenic view areas and landscape buffers between differing land uses.

2) Consider acquiring large open space tracts for a future natural resource preserve and for recreational use.

3) Preserve the existing streambelt gaps along Salmon Brook and the Meadow Drain watercourses with available conservation tools. Coordinate efforts with the proposed greenway which will traverse Earle Park and run north and south along the Connecticut River.

4) Promote preservation of steep slopes and summits, including those of the Taylor Hill and Tara Hill drumlins, in order to preserve the integrity of unique glacial features and their scenic outlooks and views from the lowland.

5) See Resource Categories section for more specific policies.

AQUIFERS — Protect the Salmon Brook and Wickham Brook stratified drift aquifers from pollution through the implementation of methods outlined in the Aquifers section and through application of the Town's Groundwater Protection Regulations. Protect in similar fashion the stratified drift aquifer extending from Stockade Road, on the south, to the area opposite Curtis Road, and from Main Street to the Meadows and Connecticut River escarpment.

STORMWATER MANAGEMENT — Storm drainage systems to be upgraded or newly constructed should adhere to guidelines set forth in the Salmon Brook and Meadow Drain watershed master drainage studies. (See also Town-wide Policies)

AGRICULTURE — Encourage policies established in the agricultural section of Planning Area Three, Rural**,** in order to preserve the agricultural heritage of the Town.

Fringe Suburban (PLANNING AREA TWO)

Definition

Generally, central Glastonbury is characterized by one-acre single-family residential lots with limited or no public utilities. Extensive ledge running from northeast to southwest serves as a natural boundary between the suburban and fringe suburban areas. The fringe suburban area provides a transition from the valley lowlands in the west and the upland hills in the east. The topography throughout the fringe suburban area creates difficulties for extensions of gravity sewers and MDC water service. Major public land holdings within this planning area include MDC property along Keeney Street, Coldbrook Road, Howe Road, and Hebron Avenue and Town lands at
J. B. Williams Park, Cotton Hollow Preserve, and Shoddy Mill Park.
The Glastonbury-Rocky Hill Ferry, accessed from the historic Nayaug neighborhood, is an important historic feature adjacent to this Planning Area. There are also some farmlands and orchards within this area. Continued preservation of conservation lands and agricultural land is considered a priority.

Policies

HOUSING

1) On larger parcels of land generally at least 10 acres in size where public water and/or sanitary sewer service is available, and where conservation of natural resource lands is a priority, encourage non-traditional residential development. Such designs may include open space subdivisions, and/or planned area developments, including detached single family homes, attached townhouses or condominiums.

2) If not in conflict with goals to protect flora and fauna, promote the utilization of solar resources by encouraging residential roadway and house layouts that maximize solar exposure and utilization. Encourage energy efficient house designs and construction techniques. Simultaneously, encourage overall development design which is compatible with acceptable Town engineering standards and environmental management policies.

3) Unless topographic and soils conditions allow otherwise, permit residential development without public water and sewer only on lots of 40,000 sq. ft. or larger. Allowances for higher density developments shall be dependent upon suitable infrastructure (e.g. sewer, water, road improvements) being in existence or funded and in progress.

4) Consider streetscape impacts in the evaluation of residential developments.

ECONOMIC DEVELOPMENT

1) The vacant Matson Hill industrial complex along Roaring Brook is functionally obsolete and is also not suitable for adaptive residential reuse. Open space preservation along the Roaring Brook Valley should be an integral component of any new residential development.

2) The existing convenience commercial centers at Buckingham and Bucks Corners provide important business services to residents of the central and easterly portion of the Town. Recognizing that there is limited area available for new development, commercial build-out for retail, restaurant, and professional purposes should be approximately 25,000 sq. ft. at Bucks Corners and approximately 50,000 sq. ft. at the Buckingham PAD, concentrated within

the northeast quadrant. The layout and design of new projects should incorporate significant site upgrades in order to enhance compatibility with the surrounding neighborhood and to complement the historic character of each area.

HISTORIC PRESERVATION

1) The historic structures and "streetscapes" including dams and bridges around East Glastonbury, Buckingham, Matson Hill, and Hopewell areas, and the Nayaug neighborhood in South Glastonbury, are significant to the Town's history and should be preserved. Structures of historic significance are found in various locales including: Manchester Road, near the intersections of Neipsic Road and Quarry Road; Cricket Lane and South Main Street.

2) Consider the establishment of a Nayaug Historic District with specific standards for construction to maintain the character of the neighborhood.

TRANSPORTATION

1) Continue to improve collector roadways and bridges in accordance with an ongoing capital improvement program, with consideration given for the protection of historical features of significance.

2) Review the Master Traffic Plan for necessary roadway upgrades and safety improvements.

3) Support funding for design and implementation of a regional/Town bikeway network. Continue implementation of the comprehensive sidewalk construction program to eliminate existing gaps in the sidewalk network.

4) Support the continuance of the State scenic road designation of Tryon Street from the Main Street Bridge at Roaring Brook south to and including Ferry Lane to the Glastonbury-Rocky Hill Ferry Landing.

5) Support the continued operation of the Glastonbury-Rocky Hill Ferry.

PUBLIC FACILITIES

1) Acquire the MDC land and where appropriate, and with consideration of conservation and community goals, consider permitting a portion of the land for active recreational use. Acquire Coldbrook Reservoir from MDC to expand and enhance the potential of the property.

2) Acquire land for future municipal uses in the vicinity of Bucks Corner.

3) Expand Smutt Pond open space and provide better public access.

4) Evaluate potential sites for expansion of emergency service facilities and schools.

STREAMBELTS, GREENWAYS AND OPEN SPACE

1) Actively pursue purchase of MDC lands at Keeney Street and Coldbrook Road as Town open space.

2) Maintain adequate buffers around wetlands and vernal areas and preserve vegetation/habitat transition zones via open space purchase, donation or conservation easements.

3) Continue protection of watercourses such as Roaring Brook with available preservation tools.

4) Provide for open space as detailed by policies in the Resource Categories section.

AQUIFERS

1) Protect the stratified drift aquifers including those which underlie Roaring Brook and Salmon Brook Valleys, with special attention for those areas occupied by industrial uses at Eastbury and Matson Hill, from pollution by encouraging the implementation of methods outlines in the Aquifer section and through application of the Town's Groundwater Protection Regulations.

2) Evaluate areas not serviced by sanitary sewer but containing shallow ledge, (less than 10 ft from surface), steep slopes greater than 20%, stratified and bedrock aquifers, or extensive wetlands, for the necessity for increased lot sizes in order to protect underlying groundwater resources.

STORMWATER MANAGEMENT — Storm drainage systems to be upgraded or newly constructed should adhere to guidelines set forth in the Roaring Brook and Salmon Brook watershed master drainage studies.
(See Town-wide Policies)

AGRICULTURE — Encourage policies established in the Agricultural section of Planning Area Three, Rural**,** in order to preserve the agricultural heritage of the Town.

Rural (PLANNING AREA THREE)

Definition

The rural area encompasses the eastern third and southernmost portions of Glastonbury. Geographically, the area is classified as eastern uplands and it is characterized by rugged topography, steep slopes, terraces and elevations ranging up to 881 feet above sea level. The upper and middle courses of Connecticut River tributary streams traverse this rural area. The main components of the rural area are: agricultural land; public landholdings and water utility landholdings; and rural and country residential zones and housing.

Agricultural Land

Glastonbury recognizes the economic, cultural and aesthetic value of active agricultural land use and farming throughout Town. Agribusinesses such as the Arbor Acres Chicken Hatchery, Grayledge Turkey Farm and farm store

(no longer operational), and the Longo Dairy Farm (now Town-owned) located in the rural zone operated in Town for decades. For years, a variety of crops, mostly fruits and vegetables, as well as tobacco, have been produced by local farmers. Many locally grown food products are available at local farm stands and markets. The continued success of the local farm stands is fully supported. In support of continued agriculture, the Town should try to preserve productive agricultural land and assist the farm community through a number of land use techniques.

Farm land and orchard land which is currently not in active use may be preserved for future agricultural use by allowing it to become open field, forest land, parkland or a similar condition. Such use provides open space and habitat benefits, maintains the agricultural soils and makes it possible for these lands to be farmed in the future.

Policies

1) Maintain and support the continuation of family agriculture and its related activities, such as farm stands and food service operations, thus conserving agricultural land through economic success. Promote and support local, State and Federal legislation, programs and funding which may assist the preservation of the family farm and agriculture in general. Encourage accessory commercial ventures such as: tourism sites, public harvest, equestrian centers, bed and breakfast inns, and retreat/learning centers. Such building and activity sites should be designed to maintain large surrounding open areas.

2) Continue leasing Town land for agricultural use when such use is deemed appropriate and not detrimental to the natural environment, surrounding properties and established public land uses.

3) Review all development proposals adjacent to agricultural land for the provision of effective buffers. Such buffers can include but are not limited to vegetation, conservation easements, open space, and fences.

4) Review all development proposals adjacent to agricultural land for potential disturbances and conflicts which might jeopardize farmers and their agricultural land. Require caveats be associated with these developments in order to provide notice to prospective owners of the existing farming

activities. Promote developments designed to provide adequate land area between residential units and adjacent farmland.

5) Continue to strictly regulate the 100 year flood zone in the Glastonbury Meadows as a "no build area" according to present flood zone regulations.

6) Encourage agricultural land and woodlot owners to participate in the State Public Act 490 Program which supports such preservation by offering tax relief.

7) Utilize transfer or purchase of development rights to maintain land in agriculture.

8) For the purpose of preserving agricultural land, promote the use of planned area development and open space subdivisions in order to minimize land disturbance.

Public and Public Water Utility Landholdings

Major public landholdings classified as open space include the Cotton Hollow and Great Pond Preserves, Blackledge Falls Park, the former Longo Farm and Greyledge Farm properties, Old Maids Lane acreage, as well as several school properties, land trust parcels, and many small Town open space parcels. Public water utility landholdings include those of Manchester Water Department and Metropolitan District Commission in northeastern Glastonbury. The Meshomasic State Forest in eastern Glastonbury is also a major publicly-owned landholding which has experienced continued expansion through cooperative acquisition efforts by the Town, State Department of Environmental Protection, and land trusts such as The Nature Conservancy and The Kongscut Land Trust. These lands are typically protected for natural resource preservation and appropriate recreational use. Commercial, industrial and residential development in areas classified as Reserved Land is not permitted.

Policies

1) Acquire as public land woodlands surrounding existing State forest and those linking separate State forest tracts together. Also, provide linkages with Manchester Water Department land. Promote the use of the Forest Legacy Program by private landowners to assist in the purchase of key parcels.

2) Protect large private forest tracts via open space dedication, purchase or conservation easement for passive recreation and, most importantly, to provide land for unfragmented wildlife habitat on acreage currently available for development. Connect these forest tracts where possible to maintain unfragmented conditions. Protect scenic features and environmentally sensitive areas such as steep slopes, ridgelines, wetlands, vernal pools and areas with significant ledge outcrops or unusual vegetation. Consider development of ridgeline protection regulations. Continue cooperative efforts with the State Department of Environmental Protection and private land trusts in order to protect important habitat areas, including protected species habitat.

3) Promote land trust efforts to preserve environmentally significant areas near State forest and other public or water utility lands including the temporary stewardship by land trusts pending Town or State acquisition of desirable open space tracts.

4) Actively pursue the purchase of MDC property for long term public benefit.

5) See the Resources Categories section which details policies for natural resource protection, parks and recreation, and streambelts, greenways and trails.

Rural and Country Residence

This area occupies the eastern half of Town as well as land between Main Street and Belltown Road, bordering Portland. It contains rugged, forested land dissected by many watercourses and often has shallow ledge. Rural Residence with minimum lot size of approximately one acre (40,000 sq. ft.) and Country Residence with minimum lot size of approximately two acres (80,000 sq. ft.) are the densities throughout this rural area. Such single-family development is predominately located on one and two-acre lots; however, several farm residences

are located on much larger parcels. While new road construction to Town standards has occurred, some older local roadways exhibit limited drainage facilities and varying, often limiting, road widths. Lots are typically serviced by on-site septic systems and well water supply. Public sewer and water extensions are not appropriate for this area due to physical limitations of the land, economic construction constraints, and environmental impacts associated with sewer construction.

Policies

ZONING, LOT SIZE AND DEVELOPMENT

1) Require lots to be sized in accordance with natural resource constraints, with increased lot sizes for areas containing shallow ledge, (less than 10 ft. from surface), steep slopes greater than 20%, significant aquifers, or extensive wetlands. When favorable conditions exist, utilize open space/conservation subdivision designs if meaningful land conservation would result.

2) Protect the Diamond Lake watershed by continuing a density policy of one dwelling unit per two acres and seek maximum shoreline protection by additional conservation easements. Continue ongoing practice of septic system repair and replacement to current technical standards.

3) If not in conflict with goals to protect flora and fauna, promote the utilization of solar resources by encouraging residential roadway and house layouts that maximize solar exposure and utilization. Encourage energy efficient house designs and construction techniques. Simultaneously, encourage overall development design which is compatible with acceptable Town engineering standards and environmental management policies.

4) Identify significant watershed areas and enact regulatory changes that would restrict development (impervious surface) to 10% of the land area.

ON-SITE SEWAGE DISPOSAL AND WELL WATER SUPPLY

1) Maintain the aquifer water budget balance through simultaneous use of on-site sewage disposal (according to State Health Code and Groundwater Protection Regulations) and well water supply. Furthermore, utilize leaching field designs intended to protect against system failure and groundwater contamination.

TRANSPORTATION

1) Continue to improve various collector roadways, bridges and culverts in accordance with an ongoing Capital Improvements Program.

2) When feasible, considering topographical and environmental conditions, require the interconnection of roadways to provide improved traffic distribution and multiple points of access for emergency service.

HISTORIC PRESERVATION — Continue to protect old stone walls, natural historic sites such as the Indian caves, old homes, barns, and foundations. Such protection can be achieved by land purchase or donation for open space or through State or Federal programs, and through regulatory changes. Consider the appropriateness of additional local historic districts.

PUBLIC FACILITIES

1) Advocate multiple use communications antenna towers and multi-users on single towers clustered in designated areas such as Birch Mountain to avoid extensive dispersal of such towers throughout Town.

2) Expand where necessary Town and emergency facilities such as Fire Company #4. Utilize construction techniques that would adhere to LEED standards.

3) Promote the creation of artificial ponds which can provide a source of firefighting water while also serving as drainage basins and aesthetic amenities. Continue the dry hydrant and underground water storage tank installation program to enhance the level of emergency service.

4) Develop a phased plan of development for the recreational portion of the Town-owned Great Pond property and coordinate this plan with the conservation preserve around Great Pond and the buffer around Potter Pond.

5) Continue to acquire large parcels of level land suitable for municipal uses.

HOUSING

1) When feasible, utilize open space/conservation subdivisions and small single-family non-traditional developments in order to accomplish land conservation and/or recreational goals.

ADAPTIVE REUSE — Should large historic industrial buildings become available for reuse, adaptations for residential use should be considered, and these should include preservation of significant architectural themes, stone bridges and granite buildings, and accessory structures as important elements of the Town's heritage.

STREAMBELTS, GREENWAYS AND OPEN SPACE

1) Protect via open space purchase, donation or conservation easement, the numerous unprotected brooks in Glastonbury and the segment of the Blackledge River and its tributaries lying within the Town. Protect those stretches of these watercourses in which a unique or fragile environmental condition is identified.

2) Protect Great Pond, Potter Pond and lower Grindle Brook and the stratified drift aquifer beneath this area. Acquire as much land as possible surrounding the two ponds and Grindle Brook to assure preservation of these fragile glacial features. Keep an adequate buffer around the ponds in passive use to prevent habitat disturbance, erosion and pollution to surface and groundwaters, excluding those areas stated in the Parks and Recreation Plan of Development and approved for active use, provided such use is approved by Town agencies.

AQUIFERS

1) Protect the extensive bedrock aquifer in the eastern and southern parts of Glastonbury as well as stratified drift aquifers by establishing appropriate lot size minimums in accordance with natural resource constraints, with increased lot sizes for areas with steep slopes greater than 15%, shallow ledge (0 - 10' below grade), high groundwater tables, brooks and wetlands, in order to avoid contamination by long-term use of on-site sewage disposal. Establish maximum lawn sizes through conditions of subdivision approval and/or through use of conservation easements.

2) Protect from further threat of contamination to promote water quality improvements over time, the stratified drift aquifer located between the Connecticut River and Main Street and south of Pease Lane. Utilize groundwater protection methods outlined in the Aquifers section.

3) Provide homeowner education regarding protection of groundwater resources and use of household and lawn care chemicals by such means as direct mailings, newsletters, and public notices.

STORMWATER MANAGEMENT

1) Storm drainage systems to be upgraded or newly constructed within the Roaring Brook watershed should adhere to guidelines set forth in the Roaring Brook Master Drainage Study. Storm drainage systems to be upgraded or newly constructed within the Blackledge River watershed, including Flat Brook, should follow recommendations established in Blackledge River Watershed Study. Updates of those studies are recommended.

2) In addition to detention and retention basins, continue to utilize innovative stormwater management techniques including use of vegetation swales and basins, biofilters, rain gardens, and created wetlands.

3) Continue programs to mitigate/remediate existing drainage problems.

Town Center (PLANNING AREA FOUR)

Definition

The Town Center is Glastonbury's most diverse planning area and home to a majority of the Town's retail and service businesses, government center, the high school, as well as established neighborhoods containing a variety of housing types. Several neighborhood streets also contain a mix of residential and small business venues within older and historic homes that have been renovated. Traditional residential neighborhoods include Griswold, Clinton, Linden, House and Melrose Streets as well as mixed use neighborhoods along Naubuc Avenue and Pratt Street.

The Town Center is generally bounded by the Connecticut River floodplain to the west, the East Hartford Town line to the north, Route 2/Route 3/New London Turnpike to the east, and Hubbard Street to the south.

The commercial core of the Town Center, the Central Business District, contains a high concentration of retail, service, and other business uses, with minimal residential uses.

The southerly section of the Town Center, dominated by the Main Street Historic District, continues to showcase the Town's earliest buildings along a newly reconstructed street. Business uses are generally limited to customary home occupations in small offices contained within residences. The "walkability" of this area has continued to improve with renewed efforts to complete sidewalk links.

Directly to the north there is an abundance of retail and other small businesses, and the Riverfront Park and Community Center to the west along the Connecticut River. Continued public and private infrastructure upgrades and streetscape enhancement efforts should continue to be a high priority including improved pedestrian amenities, new outdoor dining venues, and redevelopment of aging commercial properties. The most significant commercial project, the complete redevelopment of 124 Hebron Avenue, with its enhanced street presence, is well underway.

Somerset Square, in the northwest section of the Town Center, has experienced continued development with the completion of two hotels, as well as construction of additional office and restaurant space. The planning objectives established in the early 1980's have produced one of Connecticut's premier major activity centers.

Public facilities, namely a community center and recreational park, have been built on Town land adjacent to the Town Center off Welles Street. A contiguous sector of municipal property now extends from Naubuc Avenue southerly along the Connecticut River to the Town Hall on Main Street. These public spaces, together with the historic homes along Main Street, a nucleus of locally-owned shops, restaurants with outdoor dining, and a configuration of streets that are relatively short in length and narrow in width, are contributing to this area becoming a true pedestrian-friendly, mixed use Town Center.

Policies

RESIDENTIAL AND MIXED USE

1) Introduce a new Mixed Use Residential zoning district to replace the outdated Planned Industrial and Planned Travel zoning districts encompassing neighborhoods along Naubuc Avenue, Parker Terrace, and Pratt Street. These neighborhoods can be strengthened by such a district that allows residential and modest commercial uses to be established within existing buildings. Several conversions on Naubuc Avenue during the last 10+ years reflect key district characteristics such as streetscape preservation, parking to the rear of existing buildings, and the preservation of existing building architectural features. The recently adopted village zoning in South Glastonbury can serve as a general guide.

2) Promote compact residential design use for the lands located northerly of Roser's Pond and westerly of the Hubbard Brook environs, utilizing planning and design principles that enhance property line buffers from existing residential areas, maximize preservation of existing topography and vegetation, and preserve steep slopes, wetland buffers and other environmental features. Promote mixed adaptive reuse of the Flanagan Industries mill/factory buildings should they become available. Unified pedestrian and vehicular access should be coordinated with any such adaptive reuse.

3) Support the establishment of a variety of residential opportunities in the Town Center area, including new construction, adaptive reuse, accessory apartments, and upper level residential above street level retail uses.

4) Rezone the remaining Planned Travel zoned lands to a new Town Center North zoning district and encourage a mix of residential, office, neighborhood scale retail venues, and public open space consistent with the ability of the surrounding roadway system to support such development. Balance specific goals and needs with potential neighborhood impacts and traffic management. Major traffic generating retail centers and big box retail facilities are not recommended and should be managed by building size regulations. Funding for the implementation of traffic calming techniques along Griswold Street should also be supported.

5) Encourage a Building Zone Regulation amendment that would allow for mixed use development on the vacant undeveloped parcel on the easterly side of House Street at the eastern edge of the Town Center, to potentially include a retail and office component. The site is also well suited for high density attached rental or ownership housing due to its close proximity to the Central Business District and a high potential to be serviced by improved public transit.

6) Consider the vacant parcel on the northerly side of Welles Street across from the Riverfront Park for attached senior housing consistent with the adjoining Naubuc Green development.

7) Support/maintain the residential streetscape along Griswold Street east of Main Street/Griswold Street commercial properties (Griswold Mall and Walgreens).

8) Promote affordable housing as a component of new residential development in the Town Center when economically feasible.

9) Maintain the existing residential use and character of the westerly side of Sycamore Street and assure any development on Sycamore Street does not adversely impact adjoining residential units or neighborhoods and encourage continued residential use in the residence zone.

10) Protect, maintain and enhance the streetscape trees and plantings within the Town Center.

HISTORIC PRESERVATION

1) Promote adaptive reuse of existing commercial/industrial buildings including the Nap Brothers complex, Flanagan Industries, and the Hubbard Street warehouse (former Consolidated Cigar) should they become available.

2) Continue to promote and support the rehabilitation of older commercial buildings in the Central Business District that have architectural interest.

3) Consider expansion of the Main Street Historic District and possibly the Curtisville area along Naubuc Avenue.

VEHICULAR AND PEDESTRIAN CIRCULATION/PARKING

1) Implement traffic management initiatives recommended by the Master Traffic Study now underway, and to be completed in the Fall of 2007.

2) Coordinate development within the Town Center between adjacent parcels of land. Facilitate shared parking, common driveways, and curb cuts to arterial roads in adjacent developments.

3) Continue to include pedestrian and bicycle friendly access and amenities on properties within the Town Center that are subject to Special Permit action by the Town Plan and Zoning Commission. Completion of a unified sidewalk system is strongly encouraged. Install additional bike racks in appropriate locations.

4) Support ongoing efforts to improve pedestrian crosswalk opportunities within the Central Business District and to pursue traffic management solutions that assist in overall traffic calming.

5) Support improvements to, and increased utilization of, public transportation. Promote the establishment of additional bus shelters while renovating and enhancing existing shelters.

6) Continue to encourage shared parking, common driveways, and on-street parking when feasible within the Central Business District. Consider increased design flexibility relative to parking standards to reduce paved areas/increase green space. Allow for application of parking deferral standards for all commercial uses.

7) Provide pedestrian linkages between the Central Business District sector and the adjoining Riverfront Park area as part of any property renovations or new building projects.

8) Establish a municipal sponsored parking facility primarily for Central Business District employees to reduce parking pressure on existing commercial sites and to encourage increased pedestrian activity.

9) Consider the needs of the physically challenged and senior citizens in association with development/redevelopment projects.

ECONOMICS

1) Seek local, regional State and Federal funding and services to provide financial opportunities and incentives for small business ventures, architectural and/or historic preservation, park design or land purchase.

2) Promote and support the continued introduction of "bed and breakfast" style inns within the Town Center planning area, especially south of Hebron Avenue.

3) Continue efforts to enhance the streetscapes along Main Street and Hebron Avenue through landscaping and architectural improvements. Continue to support outdoor dining proposals where appropriate.

4) Support the continued redevelopment of the Town Center in a manner which encourages congregation of its residents for community gathering spots.

PUBLIC FACILITIES

1) Continue to acquire, via purchase or donation, land between Main Street and the River, for recreational uses, Town parks, boat launch, open space preservation and/or other future public use. Land available outside of the 100-year flood zone could be considered for future municipal buildings, depending upon environmental constraints.

STREAMBELTS, GREENWAYS, OPEN SPACE, AND NATURAL RESOURCES

1) Consider creation of small parks and landscape buffer zones, walkways and connections to open space lands.

2) Continue to create mini-parks for residents, employees and business patrons adjacent to or near Salmon Brook and Hubbard Brook. Establish foot and bicycle paths where appropriate.

3) Protect sections of lower Salmon Brook and Hubbard Brook not currently protected by open space or conservation easement.

4) Maintain a continuous wildlife greenway to Keeney Cove. Coordinate this effort with East Hartford's plan for a greenway riverside trail connecting to Keeney Cove and Porter Brook.

5) Protect the Salmon and Hubbard Brook stratified drift aquifers which underlie much of the town center by encouraging the implementation of methods outlined in the Aquifers section.

6) Consider increased open space/green space requirements for commercial sites.

STORMWATER MANAGEMENT

1) Storm drainage systems to be upgraded or newly-built drainage systems to drain streets, parking lots, driveways and roofs into Salmon Brook, Hubbard Brook and associated wetlands should adhere to guidelines set forth in the Town Master Drainage Study or more stringent environmental standards.

South Glastonbury (Village) Center (PLANNING AREA FIVE)

Definition

The historic village of South Glastonbury has long served as a focal point for community activities and continues to provide basic retail and civic services. Today, the Village contains a working mix of land uses within a core retail area and a variety of housing types and styles. Three residential Planned Area Developments in the Village are Southgate, South Mill Village, and Roaring Brook Common. Characteristic of the Village is its tree-shaded pedestrian sidewalks along South Main Street and Water Street. In response to previous

recommendations in the Plan of Conservation and Development, the South Glastonbury Village Zone was established (adopted December 29, 2004) specific to both the commercial and residential elements of the Village.

The recommended boundaries acknowledge established flood lines and natural features and support long-standing perceptions of the Village limits. The southernmost lots of Stockade Road represent the northern border. The southern border is the Still Hill Cemetery. The eastern border is the eastern property boundary of St. Augustine's Church. The floodplain borders the Village on the west just north of High Street and the border continues south of High Street following Roaring Brook to its sharp bend and continues along Carini Road to Main Street. Specific regulatory zone boundaries are depicted on the Glastonbury Building Zone Map. The Cotton Hollow Preserve is adjacent to the Village.

Policies

ARCHITECTURE AND LAND USE

1) Promote use of wood signs of limited color and the village-type architecture at retail areas within the Village. Support renovation and expansion of existing businesses within the core area.

2) Maintain all commercial activities and limit further retail/commercial development to established Village Commercial Zone boundaries.

3) Promote the construction of residential development to complement the natural setting and overall ambience of the Village.

4) Protect and maintain streetscape trees and plantings within the South Glastonbury Village Commercial Zone.

PEDESTRIAN ACCESS

Construct a pedestrian bridge across Roaring Brook at the intersection of Tryon and Water Streets.

AGRICULTURE

Promote policies established in the agricultural portion of Planning Area Three (Rural).

STREAMBELTS, GREENWAYS, AND OPEN SPACE

1) Protect the reach of Roaring Brook, its floodway, floodplain and associated wetlands from Main Street to the Connecticut River via open space purchase, donation or conservation easement.

2) Establish a walkway from Cotton Hollow at Main Street to the former High Street School playfield and link it to the river greenway path which will connect to Earle Park and continue northward to Salmon Brook.

PUBLIC FACILITIES

Maintain the High Street Park within the Village.

AQUIFERS

Protect the Roaring Brook aquifer as well as surface waters which drain directly into the Connecticut River by encouraging the implementation of methods outlined in Aquifers section.

STORM DRAINAGE

Adhere to recommendations for storm drainage system upgrade and new drainage system construction in the Roaring Brook Watershed Master Drainage Study (See Town-wide Policies and Resource categories).

HISTORIC PRESERVATION

Continue to support the preservation of historic structures, neighborhoods, and streetscapes.

TRANSMISSION FACILITIES

Encourage limiting any new communication towers permitted by the State Siting Council to a single location. Strongly promote the use of existing buildings for communications antennas.

Employment Area (PLANNING AREA SIX)

Definition

The Town's major employment area is generally located proximate to the intersection of Connecticut Routes 2, 17 and 94 extending easterly along both sides of Hebron Avenue and both sides of Oak Street. This area is home to several Class A office parks and contains many other buildings serving the legal, banking, medical, research and development, general business and manufacturing sectors.

The employment area represents a significant portion of the Town's economic base and is considered an important capitol region business center. Most recently, a new medical office campus has been approved on an 11 acre portion of the 96 acre Town-owned Gateway property. Looking ahead, development in the employment area will be affected by transportation challenges on Routes 2 and 94. Both roadways will continue to be impacted by new development occurring in towns easterly of Glastonbury.

Policies

LAND USE AND DEVELOPMENT

1) Continue to locate office, light manufacturing, warehousing, research and corporate center uses northerly of Hebron Avenue; and locate heavier industrial/manufacturing uses southerly of Hebron Avenue.

2) To assist in the management of peak hour traffic volumes westerly towards the Town Center, provide for the development of architecturally integrated food service operations within the employment area. These establishments should be directed at users of the employment area and not be intended to serve the community as a whole.

3) Continue to significantly and effectively buffer employment area land uses from adjoining residential development.

4) Incorporate park-like design features in the employment areas with landscaped vistas, parking areas and internal roadways by a well-designed internal vehicular and pedestrian circulation system. Continually evaluate actual parking demand at existing facilities in order to reduce the size of new parking lots. Encourage deferred parking in appropriate situations.

5) Encourage development opportunities on the remaining Town-owned Gateway property by utilizing the Planned Area Development zoning mechanism.

6) Support and encourage the construction of energy efficient "green buildings" by encouraging new construction to meet LEED standards.

7) Minimize light pollution through the incorporation of standards that reduce light spillage while maintaining sufficient lighting for safe vehicular and pedestrian movement within commercial sites.

PUBLIC FACILITIES

1) Encourage municipal/private sector partnerships in order to preserve public facilities including trails, bikeways, green areas, and sidewalks as new development occurs within the employment area. Improve pedestrian access to the historic Addison neighborhood.

STREAMBELTS, GREENWAYS AND OPEN SPACE

1) Preserve unprotected sections of Salmon Brook north of Winding Brook Drive via conservation easements. Protect the Salmon Brook streambelt between Eastern Boulevard and Addison Road with open space purchase, donation or conservation easement.

2) Protect from further contamination and continue to take steps to improve the quality of the unprotected stretch of Hubbard Brook from Roser's Pond to Route 2 along with its floodway, floodplain and associated wetlands with open space purchase, donation or conservation easement.

AQUIFERS

Aquifer protection is most critical within the Route 2 to Route 17 to Williams Street area where a stratified drift aquifer exists. Industrial and commercial land uses at Nutmeg Lane, Oak Street, Commerce Street and Williams Street, including the former Consolidated Cigar plant on Oak Street, are potential pollution hazards to the aquifer. Therefore, it is encouraged that measures outlined in the Aquifers section be implemented.

STORMWATER MANAGEMENT

Storm drainage systems to be upgraded or newly-built systems to drain streets, parking lots, driveways and roofs into Salmon and Hubbard Brooks and associated wetlands should adhere to guidelines established in the Town master drainage studies for Salmon Brook and the Meadow Drain. (See Town-wide Policies as well as the Town's Master Drainage Study available at the Town Hall.)

Town-Wide Transportation and Traffic Circulation

(PLANNING AREA SEVEN)

Definition

The goal of the circulation network in Glastonbury is to provide for safe and efficient movement of vehicular traffic and to promote the continued preservation of Glastonbury's historical and natural settings. An inventory of the circulation network indicates that the Town possesses 175.8 miles of improved road and 4.3 miles of unimproved road.

The Town's roads fall into four categories: expressway, arterial, collector, and local street, all serving different functions.

- An **Expressway** is limited in access and serves the purpose of rapid movement of traffic. Examples are Route 3, Route 2, and Route 17.
- An **Arterial Street** is one which provides for through traffic movement between areas and across the Town, direct access to abutting property, and where the projected average daily traffic 20 years after the completion of construction is over 3,000 vehicles. Examples of arterial streets include Hebron Avenue and New London Turnpike.

- A **Collector Street** is one which provides for traffic movement between arterials and local streets, direct access to abutting property, and where the projected average daily traffic 20 years after completion of construction is between 1,500 and 3,000 vehicles. Examples of collector streets include Hopewell Road and Chestnut Hill Road.
- A **Local Street** is one which provides for direct access to abutting land, where the projected average daily traffic 20 years after completion of construction is between 500 and 1,500 vehicles.

Policies

1) Reconstruct and maintain Town roads in accordance with an ongoing Capital Improvement Program.

2) With each development proposal, evaluate the effect on the safe and efficient movement of pedestrian and vehicle traffic. Provide multiple points of access for emergency service. Provide walking connections where feasible to provide for neighborhood connections/continuity.

3) Design, orient and construct proposed roads in such a way as to maximize and induce efficient and safe vehicular movements throughout the Town. Evaluate the need for traffic calming techniques on a case-to-case basis.

4) Limit the number of new curb cuts along arterials. Provide shared and connected parking lots for adjacent commercial properties.

5) Encourage connections at existing road gaps as well as those necessary for ultimate development of large employment areas and neighborhoods.

   a) Complete the connection of Western Boulevard in conjunction with the commercial development in that area. Recommend appropriate road signs and traffic controls to help minimize traffic and safety hazards.

   b) When feasible, considering topographical and environmental conditions, encourage the interconnection of roadways to provide improved traffic distribution and multiple points of access for emergency services.

6) Promote and enhance the aesthetic quality of all roads through landscaping, signage and layout.

7) Continue to support a comprehensive sidewalk construction program to eliminate existing gaps in the sidewalk network. Modify zoning regulations to require sidewalks for commercially zoned projects.

8) Improve street lighting where required for increased public safety. Consider the impacts of light pollution for any proposals for street lighting.

9) When feasible, based upon topographical and environmental conditions, orient roads in such a way as to promote exposure of buildings to solar radiation.

10) Continue to support the existing bus routes for public transportation and encourage additional routes. Promote improvements, advancements and usage of public transportation systems.

11) Provide pedestrian crosswalks where needed, especially in the elderly housing areas.

12) Town-wide, create opportunities for Glastonbury residents to walk, hike and bicycle safely through the Town. Provide improvements for adequate and safe bicycle lanes. Encourage, where possible, the incorporation of bicycle lanes into the rights-of-way of existing local streets and potential new streets. Where bicycle lanes are not feasible, provide other improvements, such as widening of roadway shoulders and re-striping, to safely accommodate bicycles. Connect Glastonbury's walking trails and roadway bicycle paths located near Salmon Brook to the State Charter Oak Greenway at I-384 in Manchester. Complete the Town's Master Plan for a bikeway system.

13) Maintain an acceptable level of safety on Town designated unimproved roads while preserving their scenic and aesthetic character.

14) Review and evaluate Master Traffic Study (to be completed Fall 2007) for implementation where desirable and practical.

15) Continue to explore opportunities for boat launch locations on the Connecticut River.

Resource Categories

RESOURCE CATEGORIES

Open Space for Natural Resources Preservation

The Town's goal is to continue to receive land in fee by donation or purchase, or to protect with conservation easements land containing unique, significant or fragile natural resources; and furthermore, to link these lands, where appropriate, with adjacent and nearby open space lands, stream valleys, greenways and forestlands. Other land use tools available for open space preservation include transfer or purchase of development rights, open space subdivision, cluster development, and planned area development.

Open space can be defined as any undeveloped land, public and private, whether farmed, grassed, forested, or occupied by a wetland, meadow, stream or a river. Open space can also be parkland and outdoor recreational facilities, agricultural land, school yards, and even managed woodlots. Open space preservation protects unique land forms and other natural resources. Approximately one-third of the land in Town has been protected by purchase or donation and through conservation easements voluntarily granted to the Town over the last three decades. However, there are important areas which remain worthy of protection, and the Town remains committed to their conservation.

Public open space includes Town-owned facilities, parks such as J. B. Williams, Angus Park Pond, Addison Park, Blackledge Falls, and Earle Park, Town-owned facility grounds, preserves such as Cotton Hollow and Great Pond, and undeveloped woodlands and wetland parcels, the Manchester Water Department tract and State forest.

Private open space includes undeveloped lands or farmed lands, and areas protected by private and public conservation easements. The latter contain restrictions yet permit limited public access (usually walking trails and access to watercourses for fishing). There are also land trust holdings in the Great Meadows and in Eastern Glastonbury (Great Meadows Conservation Trust, Kongscut Land Trust and The Nature Conservancy).

Private and public conservation easements are agreements between the Town and

private landowners which contain use restrictions aimed at natural resource protection. Each easement is mapped over designated areas and is formalized by an "Easement Agreement" between the landowner and the Town which is filed in the Glastonbury land records.

It is important to note that the State *Conservation and Development Policies Plan for Connecticut* finds that "Environmental Quality is one of Connecticut's strongest assets in attracting and maintaining viable businesses. As the state proceeds in economic development planning, environmental quality must be part of the balance." In Glastonbury, open space set aside for natural resource preservation helps to meet this State goal, as well as the Town's objectives as a leader in conservation and land acquisition. It also enables the Town to maintain its rural New England character. The Town also adheres to natural resource conservation goals adopted by the Capitol Region Council of Governments.

Large contiguous tracts of wetlands, rocky and forested hillsides, and extensive woodlands exist in central and east Glastonbury. Continued efforts to permanently protect these lands is vital for maintaining habitat and species diversity, as transition zones between wetlands and uplands, and to provide suitable habitat for wildlife.

As time progresses these open space lands will become increasingly important for natural resource preservation, renovation of air and water quality and for recreational use. Furthermore their inclusion within a regional open space network will make more of these lands accessible to the public for outdoor pursuits.

Policies

1) Actively pursue Town acquisition of available MDC water utility lands.

2) Pursue State/Federal funding, use the Town's open space funding mechanism, the State's Recreation and Natural Heritage Program and the Forest Legacy programs, and the cooperation of land trusts and other available programs to acquire key parcels for natural resource preservation and open space linkage (please refer to Land Use Map – potential acquisition).

3) Protect large forest tracts via open space dedication, purchase or conservation easement for renovation of air and water quality, recreation and, most

importantly, for adequate wildlife habitat on land susceptible to development. Connect these forest tracts with greenbelts and streambelts, where possible.

4) Maintain communication with CRCOG and the neighboring towns of Portland, East Hampton, Bolton, Marlborough, Hebron, Manchester, East Hartford, Cromwell, Rocky Hill and Wethersfield to coordinate interconnecting greenways and open space lands, for natural resource preservation and public access.

5) Evaluate the effects upon natural resources prior to the expansion or creation of recreational facilities, and seek to minimize adverse impacts.

6) Identify and preserve, through open space purchase, donations or conservation easement, unique historic sites and foundations, streambelts, prominent ledge outcrops, significant glacial features and stone walls.

7) Protect slopes greater than 20% and prominent ridgelines, hilltops, and scenic vistas by minimizing disturbance and vegetation removal in order to maintain wildlife corridors, habitat, woodland integrity and visual amenity for those areas where a unique or fragile environmental condition is identified. Consider the adoption of a ridgeline protection regulation.

8) Provide and maintain adequate protection around wetlands, vernal pools, and vegetation/habitat transition zones via open space purchase, donation or conservation easements.

9) Preserve the river meadows, 100-year flood zone and environmentally sensitive areas of flood fringe by open space purchase, donation, conservation or agricultural easements and by continued agricultural use.

10) Utilize non-traditional development design as a means of minimizing land disturbance while maximizing open space preservation.

11) Permanently protect the Town Open Space property adjacent to Smith Middle School, as a significant natural resource known as Addison Bog and Woodlands, allowing for passive recreational and educational opportunities.

12) Refer to Rural (Planning Area Three) for policy statements regarding agricultural land.

Open Space for Parks and Recreation

Open space can be defined as any undeveloped land, whether farmed, grassed, forested or occupied by wetland, meadow, stream or river. Open space can also be park land and other recreational facilities, school yards, and even managed woodlots. Town sponsored programs, public parks and open space work together to meet the diverse needs and interests of the community and its members.

In keeping with the Town's size and population, a *Plan of Development for Parks and Recreation* was adopted in 1981 and updated most recently for the 2000 – 2010 period. The Plan of Development for Parks and Recreation contains policies for open space acquisition and the development of recreational areas based upon local need and land use limitations, as well as policies for the improvement of existing parks and recreational facilities. They are distinct from the policies listed below for the Town-wide Plan of Conservation and Development.

Policies

1) Systematically develop new recreational facilities and continue to improve existing facilities to meet current and anticipated recreational needs of the community. Specific improvements should be in accordance with the new plan.

2) Continue parks and recreational development within the Town's ongoing Capital Improvement Program.

3) Acquire open space by purchase, donation, or easement for future recreational development as guided by the Parks and Recreation Plan of Development using the following criteria: community need, location, utilities, access, economic feasibility, and existence of natural, cultural, and historic features. Enhance the conservation of natural resources in conjunction with the development of recreational areas, by

   a) minimizing impervious surfaces to the extent reasonably possible and practical and,

   b) minimizing the application of chemicals, fertilizers and pesticides by practicing the principles of Integrated Pest Management (IPM) and low-impact practices that help reduce the need for chemical and fertilizer applications.

4) Provide appropriate access to all Town properties capable of serving current and future recreational needs of the Town.

5) Continue to assess community recreational needs in order to maintain a comprehensive program of indoor and outdoor recreational opportunities.

6) Continue to support plans to expand and enhance the riverfront park and other recreational areas for public use.

7) Continue efforts to establish a public access area for a boat launch facility on the Connecticut River.

8) Accommodate overall community recreational needs as well as school uses with the design, construction or expansion of any school building.

9) Enhance public enjoyment of the Connecticut River in its natural state for future generations through an aggressive land acquisition/river greenway expansion program.

10) Continue to plan for the purchase of open space areas (such as MDC lands and floodplain land) for active and passive recreational uses.

11) Implement the establishment of walking and biking trails in appropriate locations throughout the Town.

12) Develop centralized, multi-purpose parks in close proximity to residential areas that can accommodate a wide variety of community needs and interests. Evaluate opportunities for open space preservation, linkages and connections, especially for multi-use trails, within the proposed residential developments. Consider small neighborhood parks and playgrounds, dependent upon localized need, and only if adequate land area and park infrastructure can be provided and economically supported in a fiscally responsible manner.

13) Support continued operation of public and private golf course facilities as an important community amenity.

14) Promote the establishment of community gardens in appropriate areas throughout Town.

15) Prohibit inappropriate and illegal use of all public properties.

Streambelts, Greenways and Trails

Glastonbury has been assembling protected streambelts and greenways by means of open space, conservation easements and outright fee simple land acquisition since the early 1970s. According to the Council on Environmental Quality (CEQ): "Greenways are corridors of open space that protect natural resources, link urban, suburban and rural open space; and give residents convenient access to the outdoors. They can be as narrow as a bikeway or as wide as a river valley." The long-established goal has been to create continuous linear buffers along major watercourses, including the Connecticut River, and to provide public pathways within some of these greenway buffers. Such significant natural features as kettle ponds, bogs, ridgetops and public land are to be interconnected with the greenways. Currently, major portions of Roaring Brook and Salmon Brook are protected streambelts but each still has stretches in need of future preservation and, ultimately, linkage to other natural features of Glastonbury's landscape. Preservation of linkages to form a continuous streambelt along Roaring Brook, Salmon Brook and other streams and tributaries to provide greenbelt preservation from their headwaters to the Connecticut River is a major goal, as is the provision for low impact walking trails where appropriate to create a link from Coldbrook Reservoir to the Connecticut River crossing Earle Park and continuing onward to Keeney Cove and East Hartford's riverwalk.

In addition to providing access, protected streambelts and their buffers provide habitat for wildlife and vegetation, they minimize the danger of erosion, provide renovation of air, and enhance surface water quality as well as groundwater quality within aquifer recharge areas. It is important to protect significant acreage adjacent to streambelts as part of the riverine system in order to provide adequate buffering and suitable habitat areas.

Connecticut's *Policies Plan for Conservation and Development* and the State's Council on Environmental Quality both indicate greenways on their State-wide open space maps. Their intent is to foster linkages between the streambelts, major state parks and forestland so as to provide a regional system of linear parks. Access to the Connecticut River is a major goal of that plan.

To illustrate the local importance of linear green "spaces," it is possible that lower Roaring Brook at Main Street in South Glastonbury can be connected to the Connecticut River Meadows and the riverfront by a public-accessible path originating behind High Street School. This trail could be extended to Portland via Tryon Street and/or by overland access. In the future, it may be possible to hike from Coldbrook Reservoir located midway along Roaring Brook, to Earle Park, onward through the Meadows to Glastonbury Center and eventually, this path could connect to East Hartford's planned greenway along the Connecticut River. In addition, the Salmon Brook streambelt/greenway could link to the Charter Oak greenway of I-384 in Manchester which will have both pedestrian and bicycle access. Fulfillment of such goals are occurring and ongoing through successful Connecticut Riverfront land acquisition and reestablishment of a trail system in and around the Town Center.

Public access can be provided to some of the streambelts and greenways. However, it should be noted that many areas are too fragile and/or cross private properties, thus making public access inappropriate. In concert with the State and neighboring towns, Glastonbury has and will continue to implement a greenways policy to provide public access to suitable areas. For example, the Town has continued its land acquisition efforts, resulting in ever-expanding protection of the Eastern Highlands, working in close partnership with the State and private land trust organizations, and successfully obtaining State grant funds for land purchase. Other policies to implement development of streambelts, greenways and trails are found in the *Planning Area and Policies* section including *Town-Wide Transportation and Traffic Circulation* and the Resource Categories sections.

Policies

1) While providing public walkways in appropriate areas, continue to protect the flood channels, streambelts and the habitat integrity of the Connecticut River and other important watercourse systems, including but not limited to:

    a) **Salmon Brook** — fill existing gaps in the open space/conservation easement system from Keeney Cove to Main Street, sections north of Winding Brook Drive and Salmon Brook Drive, Eastern Boulevard to Glenwood Road, and miscellaneous sections from Oxbow Drive up to

MDC property. Similarly protect Wildcat Brook which drains from J. B. Williams Park into Salmon Brook.

b) **Porter Brook** — Protect the Porter Brook streambelt, its floodway, floodplain and associated wetlands. Plan for an adequate buffer to maintain a contiguous wildlife corridor to Keeney Cove. Coordinate this effort with the Town of East Hartford's plan for a riverwalk connecting to Keeney Cove and Porter Brook.

c) **Meadow Drain** — Protect undeveloped sections of the Meadow Drain watercourses (Hubbard Brook, Wickham Brook, Smith Brook, and Holland Brook) and their associated wetlands. Seek preservation of the Meadow Drain watercourses by voluntary private conservation easements where these watercourses and associated wetlands lie within existing residential lots.

d) **Roaring Brook** — Protect gaps in the open space streambelt system north and south of Water Street, from Matson Hill Road to Smutt Pond, and miscellaneous sections from Coldbrook Road to Hebron Avenue.

e) **Grindle Brook, Great Pond, and Potter Pond** — Expand protection of and provide appropriate buffering for Grindle Brook, its associated kettle ponds and the underlying aquifer to assure preservation of these features, and to minimize downstream impacts within the Great Pond Preserve. Keep the buffer area in passive use to prevent erosion, pollution and habitat disturbance. Coordinate this plan with the recreational use of adjacent open space.

f) **Other Watercourses** — Continue to protect environmentally sensitive and unique stretches of Slab Gut Brook, Cold Brook, Mott Hill Brook, Wintergreen Brook, Dickinson Creek, Dark Hollow Brook, Flat Brook, the Blackledge River, and other ecologically important watercourses.

2) Promote voluntary action by private property owners in granting conservation easements to the Town along watercourses throughout the Town.

Wetlands and Watercourses

Glastonbury's Inland Wetlands & Watercourses are regulated by the local Inland Wetlands and Watercourses Agency. According to its regulations and State Statutes, wetlands and watercourses are defined as follows:

> "**Watercourses**" means rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs, and all other bodies of water, natural or artificial, perennial, vernal or intermittent, public or private, which are contained within, flow through or border upon the Town or any portion thereof, not regulated pursuant to Sections 22a-28 through 22a-35, inclusive, of the Connecticut General Statutes. Intermittent watercourses shall be delineated by a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (a) evidence of scour or deposits of recent alluvium or detritus, (b) the presence of standing or flowing water for a duration longer than a particular storm incident and (c) the presence of hydrophytic vegetation.
>
> "**Wetlands**" means land, including submerged land, not regulated pursuant to Sections 22a-28 through 22a-35, inclusive, of the Connecticut General Statutes, which consists of any of the soil types designated as poorly drained, very poorly drained, alluvial and flood plain by the National Cooperative Soils Survey, as it may be amended from time to time, by the Natural Resource Conservation Service of the U.S. Department of Agriculture (USDA). Such areas may include filled, graded, or excavated sites or made land which possess an aquic (saturated) soil moisture regime as defined by the USDA Cooperative Soil Survey.

The official Town Wetlands and GIS maps do not show all known wetlands, especially those under three acres in size and isolated vernal ponds, springs and seeps. Field survey is needed to locate such wetlands and to accurately delineate all wetland and watercourse boundaries whenever an application for an encroachment is filed with the agency. While it is important to protect most wetland and watercourse systems in Glastonbury, some are considered especially significant and include:

a) The Connecticut River and its associated wetlands, and its alluvial floodplain known as the Great Meadows.

b) An extensive system of watercourses which rise in the eastern uplands, most of which drain into the Connecticut River at three locations: Salmon Brook, the Meadow Drain Brook system and Roaring Brook.

c) Inland ponds, kettle ponds, e.g. (Great Pond, Pond Pasture), a lake (Diamond Lake), swamps, (Ash Swamp) and bogs (Neipsic Bog and Addison Bog).

d) Numerous hillside seeps, springs and vernal ponds.

Some of these wetlands and watercourses are extensive. Others, including small systems, are "one of a kind." Glastonbury continues to preserve these wetlands and watercourses by regulation, open space acquisition, conservation easements, and through purchase of development rights. Preservation of wetlands and watercourses must be considered in all land use decisions as essential to maintaining the integrity of the Connecticut River basin.

Policies

1) Discharge of stormwater into wetlands and watercourses shall be done according to best management practices, as outlined in the Town's master drainage studies and the Department of Environmental Protection guidelines. Stormwater should be pre-treated through utilization of compartmentalized detention basins, sediment traps, sediment basins, grassed swales, biofilters, rain gardens, or with created wetlands located upgradient of any wetlands and watercourses into which discharge is contemplated.

2) Maintain adequate preservation buffers around wetlands and watercourses and, where appropriate, protect these areas by conservation easements or acquisition. Preserve ecologically significant wetlands in perpetuity by open space dedication or conservation easement encumbrance.

3) Avoid, to the maximum extent possible, sewer extensions within streambelts and across wetlands in order to prevent disturbance of these areas.

4) Avoid, wherever possible, wetland and watercourse crossings by roads, driveways and utilities; vigorously pursue alternate alignments.

5) Continue to regulate development within 100 feet of wetlands and watercourses to minimize short-term impacts and to avoid long-term impacts. Consider wider buffers for certain streambelts, including the Connecticut River and its associated wetlands. It is recommended that these streambelts be identified within the Town's Inland Wetlands and Watercourses Regulations and appropriate buffers established.

Floodplain Management

Glastonbury contains floodplains along its watercourses and along the Connecticut River. All flood periodically as a result of spring thaw, spring rains, and major storm events. The Great Meadows of Glastonbury, Wethersfield and Rocky Hill are among the largest unobstructed floodplains along the Connecticut River. Their continued protection for flood storage is of paramount importance to central Connecticut. Floodplains are natural storage areas for flood-related overflows. It should be noted that while overlap mapping occurs in some areas, floodplains and wetlands are not interchangeable and are defined by different resource features. Furthermore, the term "Floodplain" describes the natural condition of flooding while "Flood Zone / Flood Hazard Area" is a regulatory term with specific boundaries demarcated based upon topographic elevations. In 1978, the Town of Glastonbury adopted a flood zone regulation which placed strict limitations upon development or use of designated flood prone areas. Flood Zone (i.e., Flood Hazard Area) boundaries were adopted on the basis of maps provided by the Federal Emergency Management Agency (FEMA) National Flood Insurance program. FEMA mapping is currently in the process of being updated. This initiative qualified the Town as a participant in that Program. As delineated on these maps, the floodplain is divided into two zones.

- The 100-year Flood Zone / Flood Hazard Area (Zone A): an area which statistically is expected to flood at least once every 100 years (or have a 1% chance of flooding within any given year). Within the previous 100 years, however, this area has been flooded at least five times (1927, 1936, 1938, 1955, 1984). As regulated by the flood zone ordinance, this is usually considered as a "no build" and "no fill" area. Activities within 100-year

flood zone are carefully reviewed by the Town and generally require a Special Permit. No activity is permitted that will decrease the flood storage capacity of a given area. Compensatory storage is required to maintain this balance.

- The 500-year Flood Hazard Area (Zone B): an area which statistically is expected to flood at least once every 500 years (or have a .02% chance of flooding within any given year). This area lies above and beyond the 100-year flood zone / Flood Hazard Area. The last such "flood of record" occurred in 1936 when runoff from heavy, continuous rains caused a flood crest at 37 feet. Much of downtown Glastonbury, Main Street, and many stream valleys were inundated. Development within this zone is regulated with somewhat fewer limitations than the 100-year flood zone. In general, development within this zone is carefully controlled.

Building, grading, road construction and other activities proposed within flood zone / Flood Hazard Area must be carefully reviewed by the Town (the Conservation Commission, with the Town Plan and Zoning Commission being the ultimate regulatory authority) in accordance with Section 4.11 of the Building Zone Regulations designed to:

- prevent or minimize loss of life and injuries to persons and property and other losses, both private and public;
- promote the health, public safety and general welfare of the community;
- control and minimize the extent of floods and reduce the impact and occurrence of flooding, and to minimize downstream flood impacts; and
- preserve the Connecticut River floodplain as a valuable agricultural, recreational, ecological and aesthetic resource.

Policies:

1) Continue to use the Storm Drainage Management Reports adopted in 1981 and 1982 as policy guidelines for development within the Roaring Brook, Salmon Brook, Grindle Brook and Meadow Drain watersheds to prevent downstream flooding, erosion and property damage. Updating these documents to reflect current conditions and standards is recommended. Apply the same flood damage prevention guidelines to the Connecticut River floodplain and other isolated flood zones not associated with the above referenced watercourses.

2) Pursue State and Federal funds available for the repair and restoration of flood and erosion-damaged properties and drainage systems.

3) Continue to review every land development proposal for management of on-site stormwater runoff generated from roads, parking lots, driveways, walkways and roofs. Also, control runoff to prevent watercourse overloading and associated downstream flooding and erosion. Require adequate soil erosion and sedimentation controls and site stabilization measures. Protect inland wetlands, watercourses and floodplains from filling and disturbance.

4) Continue to regulate permitted uses within 100-year and 500-year flood zone / Flood Hazard Areas. Continue to require that no activity results in a decrease in flood storage capacity.

5) Limit the use of the 100-year flood zone within the Connecticut River Meadows to agricultural, low impact recreational, and natural resource preservation purposes.

Aquifers

An aquifer is any earth material that is saturated with groundwater and capable of yielding adequate quantities of water to a properly constructed well. Glastonbury has within its borders two types of aquifers - stratified drift and bedrock. *Stratified drift* is a subsurface layer of glacial sediment sorted and deposited by glacial meltwater streams, the coarser the sediment the higher the water holding capacity. *Bedrock aquifers* in contrast, comprise the voids and fractures within bedrock that can collect and store groundwater. *Stratified drift aquifers* are found in Glastonbury beneath the Connecticut River and the river meadows and terraces (Glastonbury-Rocky Hill Aquifer) and beneath major streams, mainly Salmon Brook, Roaring Brook, and Wickham Brook (hence called stream aquifers). These aquifers can yield water in a range of approximately 1-50+ gallons per minute (g.p.m.) for each residential well. The yield of these aquifers depends on grain coarseness, saturated thickness and hydraulic connection with recharge areas. The higher yield aquifers are of regional importance since they are capable of providing future water for serving hundreds or thousands of users. The Glastonbury-Rocky Hill regional aquifer is thought to be the second largest in the

State with an estimated potential yield of 20 million gallons per day.

Bedrock aquifers, located in the eastern part of Town underlain by crystalline rocks, currently provide about one-third of the Town's residents with potable water from individual wells that yield of 1-25 (g.p.m.). Such aquifers are essential to provide a drinking water source in areas of the Town that are not serviced by public water utilities.

The State of Connecticut has adopted a comprehensive groundwater strategy and a model regulation designed to protect individual and community wells, both current and future. Basically the strategy is to control the types of land use above and surrounding the aquifers deemed important for present and future water supplies. Specific aquifer protection requirements have been established and incorporated in the Town's Groundwater Protection Regulations (adopted in 1996). The Town requires specific measures be followed in order to protect this invaluable resource. Certain uses are regulated and in some cases prohibited, depending upon the Groundwater Protection Zone designation.

Some of Glastonbury's aquifers in the past have been affected by contaminants. This was the case for the Glastonbury-Rocky Hill Aquifer (Gardiner Wellfield) beneath the Tryon Street/Old Maids Lane vicinity. E.D.B. used in tobacco cultivation prior to 1980 affected the water quality there. Further contaminants must be avoided since this aquifer is very vulnerable and someday may become an important water supply resource. An overlay zone and accompanying regulations have been established for the Gardiner Wellfield based upon State requirements.

Aquifer protection requires the control of point and non-point pollution sources which may enter the aquifer, through the wellfield, at the drawdown area or at its indirect and direct recharge areas. The Town has a Groundwater Protection Zone map in association with the Groundwater Protection Regulations, which depicts stratified drift and bedrock aquifer locations subject to specific standards established in the regulations.

Policies

1) Support the adaptive reuse of present industrial sites that, based upon their locations, could adversely impact the Roaring Brook and Salmon Brook recharge areas, with uses and activities that are much less likely to damage

groundwater resources.

2) Regulate and restrict use of agricultural chemicals and lawn care chemicals Town-wide, especially in the major aquifer areas.

   a) Require adherence to State requirements for agricultural operations including proper use of fertilizers and pesticides and their handling, waste management, and fuel and chemical storage.

   b) Promote non-chemical, natural alternatives for both lawn care products and household cleaning products for residential use. Educate consumers through such means as articles, newsletters and public notices on the damages associated with the use of chemical products.

3) Promote safe storage and use of salt, chemicals, fuels, oil, solvents and other potential groundwater pollutants of industrial, commercial and institutional land uses. Utilize innovative procedures to minimize impact on groundwater resources in association with snow removal on Town roads.

4) Maintain the aquifer water budget balance through simultaneous use of on-site sewage disposal (according to State Health Code) and well water supply. Where site conditions permit, use single linear-trench type leaching fields installed parallel to existing ground contours. Use other aquifer recharge techniques, such as use of dry wells for roof and foundation drain runoff, where conducive to site conditions.

5) Require lots to be sized in accordance with natural resource constraints, with increased lot sizes for areas where ledge is usually less than 10 feet below ground level according to U.S.G.S. resource maps.

6) Avoid sanitary sewer extensions into the upland-bedrock aquifer area in order to maintain the groundwater budget by simultaneous on-site sewage disposal and well-water supply. Extend sanitary sewers only into existing "trouble spots", as identified in the 1994 Roaring Brook Watershed Sewer Study, which cannot be serviced by community septic systems. This area has been mapped for the 1994 Roaring Brook Watershed Master Sewer Plan and it represents the primary bedrock aquifer recharge area.

7) Continue and formalize the Town’s practice of utilizing low impact best management practices relative to chemical application on Town land.

8) Protect aquifers and recharge areas, especially high yield aquifers of regional significance, through land acquisition, purchase of development rights, and utilization of conservation easements by the Town and private land trust organizations.

Stormwater Management

Because of its topography, its extensive system of lowland and upland streams, its flood-prone areas, erodible soils, and continuing land use development, Glastonbury has adopted strategies for the mitigation of stormwater peak flows, volume and stormwater quality impacts on wetlands and watercourses. These impacts are twofold and interrelated: a) EROSION AND FLOODING: damage to wetlands and watercourses from uncontrolled stormwater peak flows, which cause erosion and flooding downstream, and b) WATER QUALITY: adverse water quality impacts upon wetlands and watercourses as a result of erosion-generated sedimentation and transport of pollutants from paved surfaces, landscaped areas and from use and disposal of
water-polluting substances.

Storm Drainage Management: This involves the comprehensive management of surface water runoff in order to reduce adverse impacts such as loss of life, property damage, channel erosion, habitat destruction, water quality degradation and damage to roads and utilities. In recognition of the importance of a comprehensive, Town-wide storm drainage management program, the Town contracted with a consultant in 1980 to prepare a detailed inventory and analysis of each watershed. Each report is based on an investigation of local geology, soils, climate, flood problems, drainage systems and land use. The primary goal of each report is to provide guidance on how to reduce the impact of urbanization on the natural and man-made drainage systems. Recommendations are made for improvement of existing drainage systems and for the construction of new drainage systems.

Now adopted by the Town, the following three master drainage management reports provide Town-wide coverage and serve as policy guidelines for development within four watersheds:

- Salmon Brook Watershed (Salmon Brook and its tributaries).
- Roaring Brook Watershed (Roaring Brook, Wintergreen Brook and several other tributaries).
- Meadow Drain and its tributaries such as Holland and Hubbard Brooks.
- Grindle Brook Watershed

Also, there is a similar study sponsored by CRCOG entitled *Blackledge River Watershed Study* which covers the Blackledge River and Dickinson Creek drainage basin. Although not formally adopted by the Town, it is a good reference.

Policies

1) For all development projects, continue to require that the stormwater management system be subject to review and approval by the Conservation Commission and the Town Plan and Zoning Commission. Innovative techniques should be promoted.

2) Continue to utilize stormwater renovation through best management practices including the use of vegetated swales and basins, biofilters, rain gardens, or created wetlands.

3) Promote minimization of paved/impervious surfaces and utilize stormwater temperature mitigation techniques for all development projects.

4) Pursue Town, State and Federal funding to remediate long-term stream channel erosion problems.

5) While the Town requires innovative techniques to treat stormwater, such as biofilters and rain gardens, it is recommended that funding to update the Town-wide storm drainage management program/master drainage studies be provided. These reports would consider current land use conditions, while providing recommendations pertaining to the latest techniques to manage stormwater quality and quantity.

Wildlife Habitat / Flora / Fauna

Glastonbury Meadows/Great Meadows/ Connecticut River Floodplain/Riverine System

The Connecticut River floodplain known as Great Meadows, and the associated riverine corridor are endowed with a variety of vegetative cover types and habitat zones, providing habitat to several wildlife species classified as having "protected status" by the State Department of Environmental Protection. Natural meadows, characterized by heavy herbaceous and shrub/brush growth, and berry producing shrubs provide food, cover and nesting sites for many bird species, including migratory songbirds, as well as food sources for deer and cottontail rabbit. It is also becoming fairly common to observe bald eagles soaring over the Connecticut River Meadows. Active farmland offers secondary benefits by providing food for wildlife including deer, rabbit, raccoon, stocked pheasant and various rodents. Predators such as red fox, red-tail hawk and barn owl in turn feed on the rodents.

The tributary watercourses that meander towards the River, and the numerous ponds and wetlands, are utilized by aquatic and semi-aquatic reptiles and amphibians, including snapping, spotted and painted turtles; bull, green and pickerel frogs; and ribbon, garter and northern watersnakes. Various waterfowl and wading birds – the great blue and green heron, killdeer and sandpipers, find these areas attractive. Beaver, muskrat and mink also inhabit them. Large coves, such as Keeney Cove, are very important as fisheries habitat. Many fish species, including northern pike and large-mouth bass, are found there. These larger coves and the smaller, more protected coves and inlets provide extremely valuable waterfowl habitat. Mallard, black and wood ducks frequent these areas. Mature hardwoods, such as ash, cottonwood and silver maple, grow along the River banks. These hardwoods provide wildlife nesting sites and habitat to cuckoos, vireos and numerous warblers, and other species, enhance the protective buffer for the River and the associated floodplains, and also help purify the air.

Policies

1) Support continued agricultural practices on the very productive floodplain soils. (Please also refer to Agricultural Land Policies, Planning Area Three, page 29.)

2) Support land acquisition and conservation efforts to protect both natural areas and agricultural land. Continue successful land conservation partnerships with land protection organizations such as the Great Meadows Conservation Trust.

3) Support agricultural land leasing programs on both private and Town lands. For Town lands, adopt a policy where wildlife habitat enhancement work could be an option as the form of lease payment.

4) Protect and promote an unbroken natural north/south corridor throughout the Connecticut River floodplain/riverine system from East Hartford south to Portland.

5) Encourage passive activities that serve to educate users to the beauty and overall importance of the "River region " and its extensive habitat areas.

6) Establish/maintain the meadow habitat necessary to support the needs of several declining wildlife species.

Interior Lands

In *central* areas of Town that have experienced significant development and "suburbanization" extensive natural and diverse habitat are limited. Hardwood species, such as maple, oak and hickory are situated on developed lots. Wildlife habitat, though disrupted or fragmented due to human occupancy, still exists for suburban adaptive species such as grey squirrel, raccoon, opossum, skunk, cowbirds, mockingbirds, and those species of songbirds tolerant of suburban conditions. Existing habitat corridors along Salmon, Hubbard, Wickham, Smith and Holland brooks, though flanked by development, are still available to enhance the limited wildlife potential in this area; numerous conservation easements are in place, preserving portions of the brook corridors. Gaining additional easements or protection through open space acquisition should be supported.

Areas to the *east and south* just beyond the central core, while still characterized by residential development, differ from the central area by the lower density of

development and more remaining open space/natural area acreage. Mixed hardwood forests, including wooded residential lots, predominate. More extensive coniferous stands can also be found, notably on the MDC property and within the Roaring Brook corridor. Red pine (dead or declining) and hemlock comprise portions of these stands.

Fairly sizable open space parcels include MDC properties off Keeney Street and in the Coldbrook Reservoir area; and Town open space off Neipsic Road (Neipsic Bog and J. B. Williams Park), Brook Street, the Shoddy Mill area, east of Smith Middle School, and the Stanley Drive/Grey Rocks area. Additionally, many private conservation easements protecting numerous wetlands and streambelt corridors have been established. Both suburban tolerant species, as well as species better suited to less congested zones, such as red fox, deer, beaver, various raptors – red-tailed hawk, barred owl, sharp-shinned hawk, wood and box turtle, wood frog and spring peeper, spotted and marbled salamander, milk snake and black racer are found.

The most rural/remote areas in the *southern and eastern* portions of Town (the Eastern Highlands) typically have lower residential density and contain large tracts of public (protected) and private (unprotected) land. Mixed hardwood forest occurs on steep, ledge-exposed terrain. Very rugged topography, interspersed with old abandoned quarries now filled with water, is found in the Dayton Road area of South Glastonbury. In the Matson Hill Road/Woodland Street areas, mixed hardwood forests surround active agricultural land (orchards, nurseries and berry farms) on high terrain. Great Pond and the surrounding nature preserve provide valuable habitat to numerous wildlife species (reptiles, amphibians, waterfowl). Dense stands of conifers are interspersed with mixed hardwood forest. Very large cedar trees are found as well as some rare herbaceous plants.

Extensive prime upland habitat occurs throughout the southeastern section of Town. Much of the land south of Ash Swamp Road and east of Thompson Street is in State forest, in addition to Town and private land trust ownership. Many private holdings remain undeveloped. In addition to the more common wildlife species, uncommon and protected/endangered species that have little tolerance for human presence and whose habitats are severely impacted by fragmentation, occur in this area. Songbirds, including scarlet tanagers, evening grosbeaks, whip-poor-wills, and several species of thrushes and warblers find this area suitable. These birds are intolerant of aggressive

edge species and have specific nesting requirements found in unbroken forest land and undeveloped tracts. Coyote, black bear, bobcat, fisher, grey fox and wild turkey are found here. Nesting turkey vultures have been verified in the area; other woodland raptors such as barred and great horned owl, red-shouldered hawk, coopers hawk, sharp-shinned hawk and goshawk would be expected. Mole salamanders, such as the spotted and marbled salamander, as well as other terrestrial amphibians utilize the undisturbed vernal (seasonal) pools for breeding. The State-endangered timber rattlesnake occurs here; this species is very sensitive to human disturbance, development and habitat fragmentation. New roads and developments act as barriers and obstacles to rattlesnakes traveling to and from hibernaculums (denning sites) and summer foraging areas.

The majority of the land in the rural area north of Hebron Avenue is undeveloped and is owned by the State and the Town of Manchester (Water Department). Much of it, containing both hardwood and softwood stands, is actively managed by the forestry division of the Manchester Water Department. Lands in the easternmost section of this area are within the Blackledge River Watershed which warrants special protection due to its relatively undeveloped state and its inclusion in the State's salmon restoration program.

Policies For All Interior Lands

1) Require minimal tree clearing for newly developed lots. Promote native species and natural landscaping in residential areas.

2) Promote the continued use of conservation easements to protect stream corridors and the associated riparian habitat. Target suitable habitat areas linking these corridors.

3) Continue the Town's successful open space acquisition program to protect environmentally sensitive areas and wildlife habitat suitable for sustaining valuable and endangered species and to minimize fragmentation in the Eastern Highlands. Seek tracts that link previously protected land, including State forestland, to provide an unbroken habitat area.

4) Discourage development east of Thompson Street and south of Hebron Avenue and along Mott Hill Road and Dickinson Road that would result in forest intrusion and cause fragmentation of Eastern Highlands habitat and

further stress uncommon and endangered species, such as the timber rattlesnake.

5) Continue successful land conservation partnerships, with the Connecticut Department of Environmental Protection and private land protection organizations such as The Nature Conservancy and the Kongscut Land Trust.

6) Continue to pursue State and Federal land acquisition grants.

7) Work closely with forestry and natural resource professionals to encourage resource and forestry management on both public and private land that will enhance and improve wildlife habitat conditions.

8) Promote habitat enhancement efforts such as vegetation management and placement of bird-nesting boxes to attract songbirds and other wildlife species to residential lots. Promote establishment of small meadows on residential lots, which in addition to providing increased diversity, enhances stormwater renovation capabilities.

9) Target the permanent protection of open space areas through active acquisition efforts for the MDC properties off Keeney Street and the Coldbrook Reservoir.

10) Harvest red pine which are infected by red pine scale in areas where standing dead trees present a safety hazard or when it is done as part of a sound resource management plan. Where no safety hazards exist, these and other standing dead trees can remain to provide valuable sources of food (birds eat the insects in the trees) and provide cover (hollowed out dens). Monitor hemlock stands for impacts caused by hemlock woolly adelgid and harvest where appropriate.

11) Maintain a cooperative relationship with Manchester to ensure continued sound resource management practices on Water Department Land.

12) Continue to protect vernal pools in association with development projects. Promote use of “Cape Cod” curbing for road construction and road repair to reduce impediments to vernal pool dependent amphibians.