

Produced by the Conservation Subcommittee of the Salem Inland Wetlands and Conservation Commission

October 9, 2001

### Acknowledgements

This document was prepared by the **Conservation Subcommittee** of the **Salem Inland Wetlands and Conservation Commission** to summarize the many natural and cultural resources of our Town.

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  - Jonathon Parker and Andrew Zemko for list of common trees;
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  - George Ziegra for historic homes and sites data.

### NATURAL RESOURCES INVENTORY



EXECUTIVE SUMMARY

The soils and land contours of Salem reflect ages of glacier action and weathering of bedrock formations. Soils with moderate to severe developmental limitations comprise an important portion of the landscape.

Salem's drainage basins and streambelts, wetlands, aquifers and impoundments make up its vital water resources. The majority of our streams are small with notable exceptions being the east branch of Eight-Mile River and Harris Brook.

The area within the geographic boundaries of the Town supports diverse plant and animal populations that are typical of eastern Connecticut and southern New England. The scenic and cultural values of our community are a further source of pride to our residents.

While the majority of our Town is currently undeveloped, Salem has only 15% of its land in permanently preserved open space.

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### INTRODUCTION

People in Salem feel they live in an attractive, desirable town where quiet country roads pass by green open fields, and productive farmlands. Perhaps the most important natural assets of the Town are its clean brooks and rivers, unspoiled woodlands, and clean, fresh air. More people move to Salem every year since it is such an attractive place.

The Town has, to date, avoided being swept up in the expressways, urban sprawl and pollution afflicting many nearby communities. It is tempting to feel that because Salem has escaped such problems, the Town's future and its natural resources will remain the same. This is unlikely. When the Route 11 Limited Access Highway is completed, Salem will be within ten minutes of New London, making the Town an ideal choice for the commuter who is seeking less crowded living space. Aside from the completion of Route 11 and its potential impact, other pressing issues of concern to the Town include open space preservation, septic and solid waste disposal and streambelt encroachment.

According to the 2000 U.S. Census, Salem's population is 3858. Reflecting a growth of 65.2% since 1980 and 16.6% since 1990. Salem's percentage growth rate ranked 4<sup>th</sup> in the Southeast Region and (tied for) 18<sup>th</sup> in the State during the 1990's. Four neighboring towns also had growth rates exceeding 10%, (Colchester 32.5%, East Haddam 24.8%, East Lyme 18.1%, and Montville 11.2%). The area is developing much faster than the Southeast Region average of 1% and the New London County rate of 1.6%. If the growth rate of 16.6% continues for this decade, Salem's population could reach about 4500 people by the year 2010. Using a more common estimate of 2.5% growth per year indicates the possibility of having close to 5000 residents by 2010.

Salem should be able to manage growth so that the Town retains its rural character and attractive qualities. If this is to be done, action must be taken now. Many towns have discovered that because they did not preserve important open space land, it was irretrievably lost or could be regained only at tremendous cost. Action now will put Salem in the enviable position of being able to avoid such negative consequences.

Initiatives for Salem resource preservation were taken in August 1973 and March 1992, when the Inland Wetlands and Conservation Commission ("IWCC" or the "Commission") was established by ordinance. The Commission currently operates under Town regulations adopted in February 1988 and By-laws adopted in July 1982. The IWCC established the Conservation Subcommittee in January 2000.

The Subcommittee's original mandate was to assess natural and cultural resources of the Town. The purpose of this document is to inform the Townspeople about these resources. The IWCC intends this document to be updated at least annually and reviewed by the full Commission at the end of each fiscal year (June 30).

**Note on Data Sources:** The majority of the data used in compiling this document came from the State's "Magic" website, the SCS, and the Town Assessor's office. They are known to have errors and omissions and except for those instances where the fix was obvious or where it may significantly affect the results, no concerted effort was made to clean up the database. Also change is continual, laws change, lots change hands, subdivisions appear, etc. Until direct links to the various databases are made, all presentations will be somewhat out of date. No third party audits are contemplated.

### SALEM NATURAL RESOURCES INVENTORY

A necessary prerequisite to a Plan of Conservation and Development, is a town-wide inventory of its current natural and cultural resources. Numerous changes have occurred in Salem since the 1991 Plan of Development. The current Salem Inland Wetlands and Conservation Commission (IWCC) has sought to document the Town's resources in this report and in a series of large scale maps available for public use at the Town Office Building. (See Appendix A). The IWCC welcomes public input and contributions.

This report highlights various resources so each may be more clearly understood. It should be stressed that this separation of resources is totally artificial, and that in a natural system, all resources are interdependent. However, before the whole can be understood, the parts must be identified.

The resources analyzed are Soil Resources, Water Resources, Plant & Animal Resources, Scenic & Cultural (man-made) Resources, People Resources and Open Space

### SOIL RESOURCES

First a few words about the Town's topology. The topology will help define the relationship of land and water. Water flows from high ground to low ground; it flows fast over steep terrain and slow across flat terrain. It carries particles (rock, soil, and organic) down the steep slopes and deposits them in the lower and flatter areas.

Salem's topography shares the same genesis as the rest of the Northeast. It started with the collision of the North American and African tectonic plates during the formation of the super continent known to paleogeologists as Pangea. This collision raised a range of mountains of Himalayan proportions along the coast of North America. The plates remained welded together for only a few million years and Connecticut is made up primarily of this weld material. The old coast of the North American continent was on the very west edge of Connecticut. The marble valleys of western Connecticut are the remnants of a coral-like reef that was just off of the coast, the schist and gneiss of most of the State are the metamorphic remains of the sediments that were trapped between the colliding plates. The southeast corner of the State contains considerable granite, a component of continental plates. When the plates broke apart and began to drift to their present positions, the break occurred along the east edge of the weld. The granite ledges so common in Salem were once a part of that long departed African plate. The mountain range was subjected to millions of years of erosional processes, the most significant being many periods of glaciation. All told, the erosional processes have removed in excess of five miles of rock off of this once majestic mountain range, wearing it right down to its roots.

The last glacier retreated northward about 15,000 years ago leaving various deposits of pulverized bedrock in its wake. With the miles thick ice sheet gone, the land began to rise and tilt southward. Glacial meltwater flowing in huge quantities formed channels through the glacial debris rearranging and sorting some of it in the process. This set the basic topology of Salem. Erosion continued at a more leisurely pace, lichens established themselves on the exposed rocks, higher forms of flora followed as more nutritional soils gradually formed. Wind, water, flora, and fauna (including man) continue to contribute to the erosional and soil forming processes.

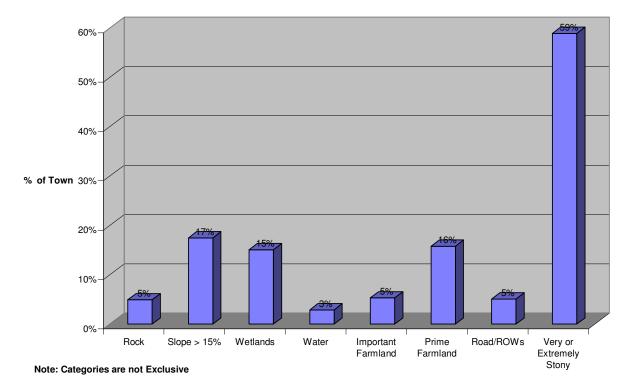
Examinations of the topographical map of Salem (Map 1) reveals the maximum elevation in Salem just touches 600 feet. This occurs in two places, just north of Cockle Hill, and a few yards north of Rattlesnake Ledge Road west of the junction of Round Hill Road. The lowest elevation is about 185

feet at the very southeast corner of Town. Many areas of Town exceed 500 feet, especially in the steeper slope areas in the north and east.

The formation of soils helps to determine the land's potential support of flora and fauna (including use by humans). The details of Salem's soils may be understood through study of Maps 2 (Soils) and Map 3 (Development constraints), and reference to the Natural Resources Conservation Service, USDA's "New London County Soil Survey" manual.

Salem contains 53 cataloged soil types. The most economically important soil types are those that support farming. Early in Salem's history, most parts of Town were farmed. The farms that persist today lie largely in areas of prime farmland where such operations are economical. A list of current farms in Town is in Appendix C. Map 4 shows the prime farmland soils.

Soils certainly influenced early development in Salem. First residences were built on dry ground with easy access to water and fields and had egress/ingress routes over dry land. As the population increased, areas with severe or moderate soil limitations began to see housing appear. Today's Planning and Zoning and Inland Wetland regulations aim at monitoring and limiting development in these less suitable areas. Nearly 55% of the soils in Salem have soil limitations listed as severe for septic systems (Map 2A). Not shown are other limitations such as shallow depth to bedrock. A list of all soils may be found in Appendix B.



#### **Distribution of General Soil Characteristics**

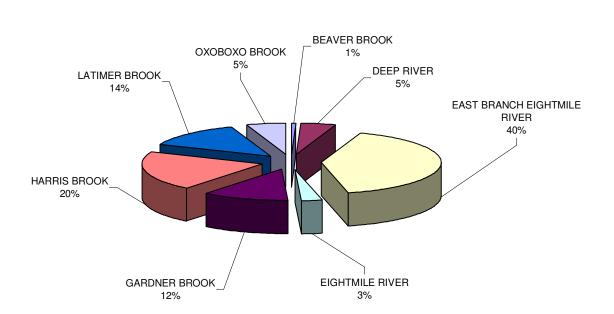
#### WATER RESOURCES

Water resources are vital to the future of Salem. Drainage basins, streams/streambelts, impoundments, wetlands, and aquifers are the major components of our water resources that must be understood and properly protected. Salem will rely on its surface and groundwater for drinking water and septic waste disposal for the foreseeable future.

#### Streams, Streambelts, & Drainage Basins

A streambelt is defined as a natural environmental corridor along a stream or watercourse; sometimes referred to as a riparian zone. Streambelts are important ecological structures that protect the streams by buffering, filtering, and biologically mitigating contaminates before they can enter the stream.

Salem's streambelts are contained in eight Subregional drainage basins or watersheds. Shown on Map 6, they are Eightmile River, East Branch Eightmile River, Beaver Brook, Harris Brook, Deep River, Gardner Brook, Oxoboxo Brook, and Latimer Brook. Each is composed of smaller drainage basins (Map 6A) just as each is a portion of a yet larger Regional drainage basin. For example, the East Branch Eightmile River, Beaver Brook, and Harris Brook Subregional basins all drain to the Eightmile River, which is a Regional basin. This is over half of the Town (64%). Salem is in the unusual and enviable position of having nearly all of its water originate within its own boundaries. The only significant exception is the north end of East Branch Eightmile River drainage basin that extends about two miles into Colchester. This means Salem is in charge of its own destiny when it comes to maintaining water quality. The neighboring towns are also depending on Salem to prevent any water quality problems from draining into their water systems. This is of particular concern with Latimer Brook drainage basin, which is part of the New London Water Authority supply and Deep River drainage basin which is part of the Norwich watershed.



#### Drainage Basin areas

### Aquifers

An aquifer is commonly thought of as an underground lake or very slow moving river. More technically it is a water-bearing stratum of permeable rock, sand, or gravel. Water-bearing rock aquifers may be fractured rock or a permeable rock such as sandstone. They tend to have a small flow suitable for residential or small farm use. Sand or gravel aquifers (stratified drift) yield much greater amounts of water and large ones are better suited for municipal or industrial use. Salem is entirely dependent on these underground water supplies for drinking water.

Salem has a number of stratified drift aquifers of determinable dimensions (Map 7). The two largest areas containing the most important aquifers lie just south of Gardner Lake and near Mitchell Pond. While aquifer protection is State-mandated for aquifers that are used as public water supplies, Salem's aquifers are not so used and, hence, have no legal protections.

#### Lakes and Ponds

Salem has 548 acres of open water (3% of the Town's area). The largest impoundment is the Towns portion (approx. half) of Gardner Lake at 313.6 acres, followed by Fairy Lake at 88.8 acres, most of Barnes Reservoir at 33.5 acres, Mitchell Pond at 18.0 acres, Witch Meadow Pond at 15.8 acres, Horse Pond at 12.2 acres, Shingle Mill Pond at 8.6 acres and a host of smaller ponds.

Gardner Lake was initially a smaller naturally impounded body of water that was further dammed to supply water for a mill operation in Norwich. It later came under control of the State Department of Environmental Protection (DEP). Most of the shoreline that is not wetlands has been heavily developed. Initially, this was primarily seasonal housing but is increasingly being converted to year-round residences. A State owned access and boat ramp are located at the south end of the lake.

Fairy Lake, Mill Pond, and Barnes Reservoir are part of and under the control of the New London Water Authority. They are usually kept in a drawn down condition by the Authority, which stores the water in Lake Konomoc in Waterford.

A list of lakes, ponds, streams, and dams may be found in Appendix C.

### Wetlands

In 1972 the State of Connecticut passed legislation known as the Inland Wetland and Watercourses Act (CGS Sec.22a-36 to 45). With this legislation the State acknowledged the important nature of wetlands and provides that the "preservation and protection of the wetlands and watercourses from random, unnecessary, undesirable, and unregulated uses, disturbance or destruction is in the public interest and is essential to the health, welfare and safety of the citizens of the State". The State defines wetlands as very poorly drained Soil, poorly drained soils, alluvial soils, and floodplain. Wetlands provide a natural physical protection and biological mitigation to our surface and subsurface waters. They are an important, even essential, habitat for an extremely diverse biological community. In the nearly three decades since the act was passed, the improvements in the water and associated habitats of the State have been dramatic and are ongoing. Salem has 2880 acres of wetlands (+548 acres of water), most of which are viable and healthy. See Map #8.

#### PLANTS & ANIMALS

Salem provides a wide range of habitats including upland forest, pasture and cultivated field, pond and lake, swamp and marsh. There are, consequently, a wide range of plants and animals in Town. Presently, there are some areas where species or natural communities of special concern are known to exist (See Map 12). Exact locations and the particular species of the flora or fauna are not revealed to prevent public "prospecting". Any part of a project or disturbance within a shaded area, or overlapping a lake, pond, or wetland that has any shading; or upstream or downstream (by less than  $\frac{1}{2}$  mile) from a shaded area, may have a potential conflict with a species or a natural community. These projects require a Data Base Request Form to be submitted to the Natural Diversity database maintained by the State DEP along with a map and project description.

Appendix E contains listings of common trees, fish, birds, butterflies, mammals, reptiles, and amphibians. Some of these lists are not exhaustive and more inclusive inventories would be desirable. Also being sought are lists of shrubs, annuals, perennials, insects, fungi, and freshwater flora and fauna.

### Game Animals

Most of the game animals whose harvest is regulated by the State DEP reside in Salem. In addition to deer and turkey there are also most of the birds (pheasant, ruffed grouse, chukar partridge, bobwhite quail, crow, woodcock, common snipe, coot, duck, merganser, and goose) and mammals (gray squirrel, cottontail rabbit, European hare, snowshoe hare, woodchuck, raccoon, opossum, red & gray fox, and coyote) for which the State has designated hunting seasons. Some game animals may be taken only by trapping; these include river otter, beaver, mink, muskrat, and weasel.

Fish

Several brooks and ponds in Town are stocked with trout by the State (i.e., the East Branch Eightmile River, Fraser Brook, Harris Brook, and Horse Pond). From these waters, some fish move into the tributaries such as Shingle Mill Brook and Big Brook. In general, the Town's streams are of appropriate water quality and temperature to provide spawning areas for most native fish species.

Some larger lakes and ponds in Town are also stocked or have native populations. Appendix C contains a list of lakes, ponds, dams, and streams. Appendix E has lists of fish found in various bodies of water in Salem.

#### SCENIC & CULTURAL RESOURCES

Scenic resources are those that emphasize natural beauty. Since "beauty is in the eye of the beholder", the identification of scenic resources is necessarily subjective. A Town-wide survey identified a number of scenic sites. These are listed in Appendix C. The IWCC has also identified a number of cultural resources. These are areas that have significance due to prehistoric, historic or current use by humankind. These are listed in Appendix D.

Botanical resources identify sites with unusual plants or plant communities.

*Ecological* resources identify sites with special and unique organisms and communities.

*Geological* resources refer to sites of particular geological interest because bedrock is exposed either naturally or through blasting.

*Agricultural* sites have also been identified, as many feel that farms are an important part of our rural character. The New England farm as open space adds a unique aesthetic value to the landscape. The panorama of rolling hills covered with pastures or crops growing along our rural roads adds to the quality of life of our community.

*Historical* sites consist of areas where buildings, ruins, cemeteries, or the shape of the land bear evidence of earlier Salem residents. Again, part of the Town's unique character is determined by its historical heritage. The Salem Town Green vicinity has been designated a historical district by the State as have various other structures in Town (see Appendix D). Other historical sites are scattered about town and consist of evidence of early houses, schools, and mills.

*Vistas* identify locations where there exists a view of an essentially natural area at least one-half mile distant. Another name for a vista might be a scenic overlook. These exist at various high points in Town, often where trees have been cleared for power lines or agriculture.

#### **PEOPLE RESOURCES**

While technically more of a "native" than a "natural" resource, no discussion of resources would be complete without mentioning the people of our Town. Anyone driving into Salem will notice the signs proclaiming our pride in Town volunteers. Salem could not function without them. Our two firehouses are staffed with them. Our civic boards, commissions, and committees are almost entirely composed of uncompensated citizenry. Many of these individuals are involved in more than one facet of community service. These people vastly enrich the character of Salem and we owe them our immense thanks.

### **OPEN SPACE**

Salem appears resplendent with open space. With only a few exceptions, one can drive along Town roads and see a pleasing mixture of fields, forest, and single-family homes with spacious yards. When one evaluates the growth in Town during the past two decades, it is easy to see that these open spaces are rapidly being reduced by ongoing development. HMA has mapped and quantified Salem's current land use patterns for the Build-Out Analysis. The results may be seen in Map 13.

While most of the land in Town is assessed as residential, over half of the parcels (696) are less than 2 acres and account for less than 5% of the Town's total parcel area. The remainder consists of lots of two acres or greater, and 60% of the Town remains in parcels of 50 acres or greater. While this pattern of current land use creates an impression of open space bounty, most all large lots may be subject to future subdivision. An open space plan is being developed to guide development towards places that would best support it while encouraging preservation in more sensitive or pristine areas.

Connecticut State law defines Open Space as "land whose preservation or restricted use would maintain and enhance the conservation of natural or scenic resources, protect natural streams or water supply, promote conservation of soils, wetlands, beaches or tidal marshes, enhance the value to the public of abutting or neighboring parks, forest, wildlife preserves, natural reservations or sanctuaries or other open space, enhance public recreation opportunities, preserve historic sites or promote orderly urban or suburban development".

This definition conveys two important ideas. First, open space can serve a variety of purposes, all of them contributing to the quality of life in a community. Second, for land to remain open space, it must be legally preserved or have its use permanently restricted in order to attain certain goals. There are various means available for such protection of open space. Once such action is taken to protect open space, it may be referred to as "Dedicated Open Space" or "Permanently Preserved Land".

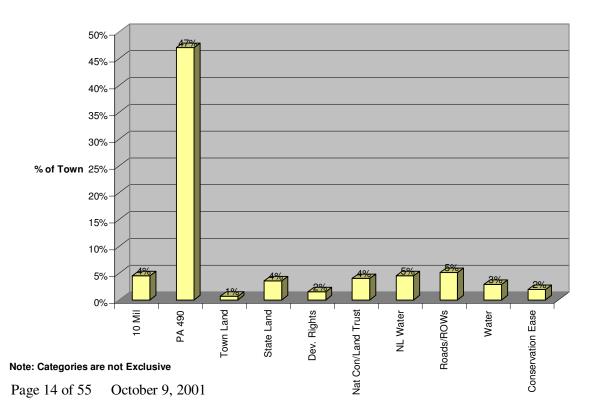
There is another type of open space defined under Public Act 490, Connecticut's Open Space Tax Law (CGS 12-107a-d). PA490 provides reduced assessments on three types of land classification: Farmland, Forestland, and Open Space. All three classifications could be included in the above definition except for the very important "permanent restriction". Although PA490 provides reduced assessment for as long as the property is enrolled in the program, the property may be sold or its use changed at any time, which cancels the classification. A prorated conveyance tax penalty will apply if this occurs within the first ten years (CGS 12-504a-h). Even though the classification is temporary, PA490 is still useful in open space planning in that it generally provides at least a ten-year delay in development activities.

Classification as Farmland or Forestland under PA490 is statewide. To have land classified as Open Space under PA490 requires that the Town Planning Commission include a designation/definition of the land it recommends as Open Space in the Plan of Conservation and Development, which then must be approved by the local legislative body (Town Meeting). The designation/definition may specify Open Space land as broadly as any land in excess of the minimum lot size (as established by the Zoning Commission) or as specifically as parcel by parcel. Once land has been designated or defined as desirable for Open Space, the landowner may apply for its classification as Open Space on the Grand List of the municipality. For all three classifications, the Assessor will value the land according to its actual use instead of its open market value. In no case can the valuation be less than if the land were farmland (CGS 12-63). Currently Salem has no local option for designation of Open Space.

In addition to the PA490 classifications, there are other parcels of reduced assessment (and temporary) open space in Town classified as 10 Mil Forestland (CGS 12-96 to 12-103). To be eligible for this classification, land has to be forested as defined by the statutes, approved by the State Forester, and be valued under \$100 per acre excluding the value of the timber. The values of the land and timber are determined separately and fixed for fifty years. These values are then annually taxed at the local rate, but cannot exceed 10 mils. At the end of fifty years, a revaluation of both land and timber is to be done by the Assessor and these new values are taxed at the local rate not to exceed 10 mils annually for another fifty years. At the end of the second fifty years, another revaluation is to occur and the local rate will apply. Any timber harvested will be subject to a yield tax of 2% to 10% depending on the length of time from the original classification and the specific statutory section that applies to the land. Exceptions are firewood and material for domestic improvements on the land. Cancellation of the classification invokes a tax penalty of 5% per annum on the change in valuation since first classified. Selling the land does not cancel the classification nor invoke a conveyance tax penalty. This statute is no longer useful in open space planning as land valuations are currently well above the \$100 per acre

In determining the amount Open Space in Town, the IWCC looked for land whose use has been permanently restricted or preserved as defined above. The Commission found 762 acres preserved by land trust, 432 acres held as conservation easements, and a 289-acre parcel with development rights held by the State under the Farmland Preservation Program. State forest and roadside rest areas in Town account for 679 acres. The New London Water Authority owns 864 acres. This 3026 acres constitutes all the Dedicated Open Space in Town (See Map 9).

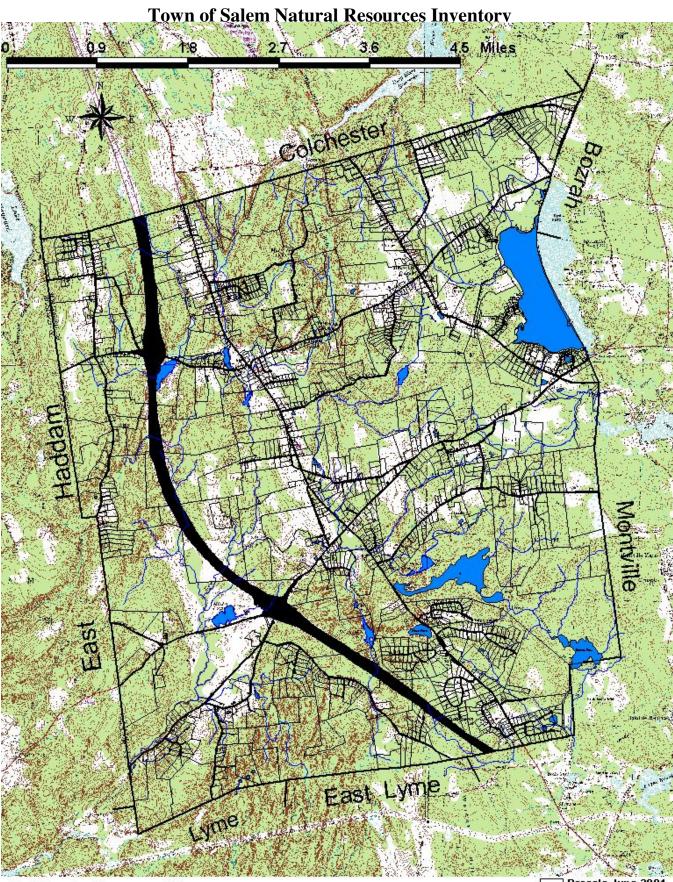
Additionally, there are 9002 acres in PA490 Farmland/Forestland, 0 acres of PA490 Open Space, and 860 acres in 10 Mil Forestland for a total of 9862 acres of **temporary** Open Space.



**Open Space** 

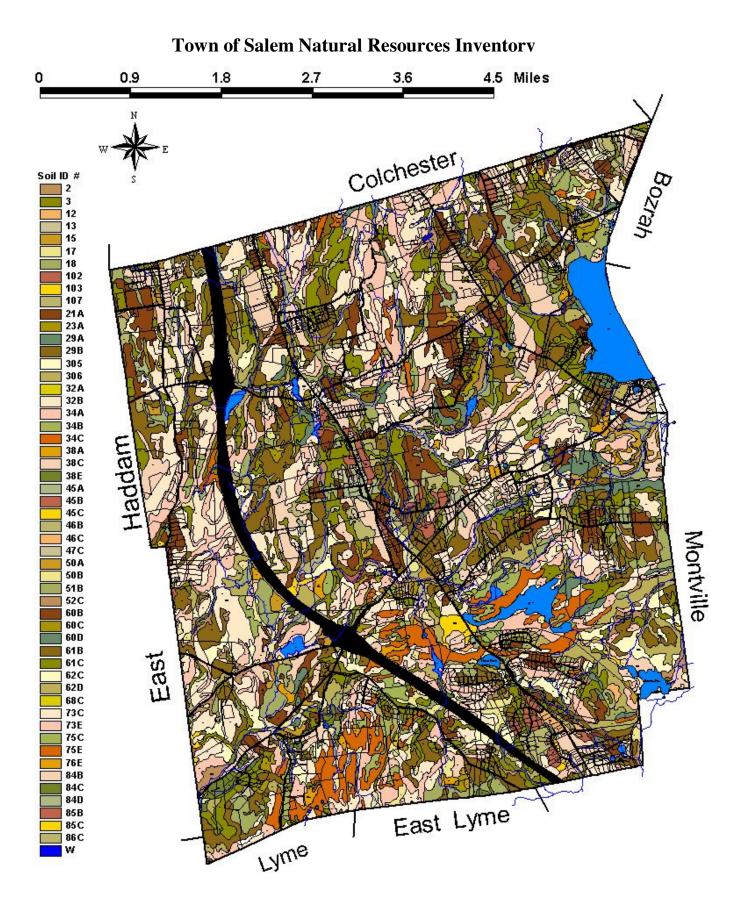
### APPENDIX A: Maps

- 1. Topographic Map
- 2. Soils
- 2A. Septic Limitations by Soil Type
- 3. Development Constraints
- 4. Farmlands
- 5. FEMA Floodplains
- 6. Subregional Drainage Basins
- 6A. Small Stream Drainage Basins
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- 10. PA 490 and 10 Mil/Forestland
- 11. Town Owned Property
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- 13. Land Use June 2000

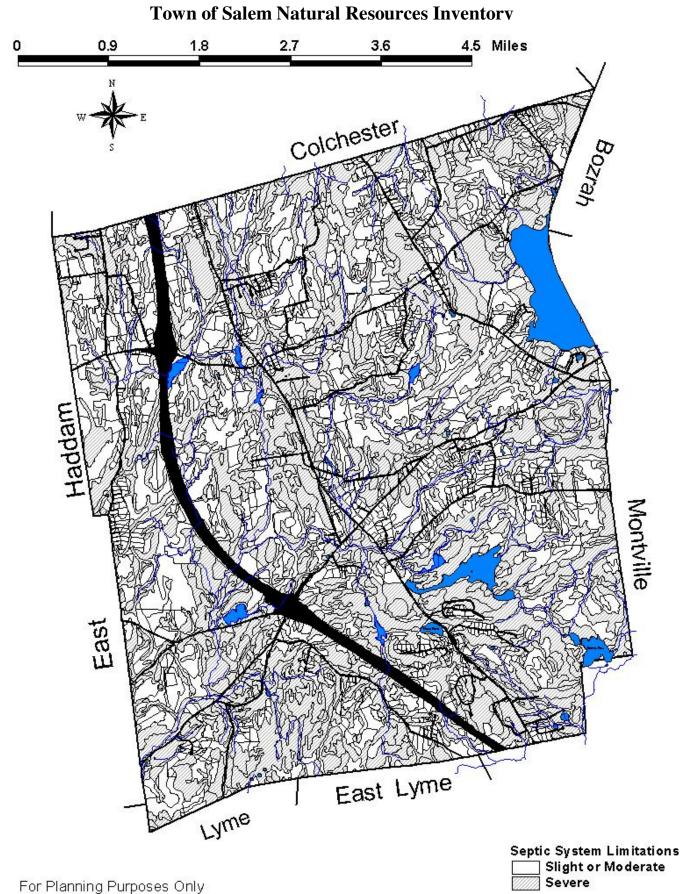


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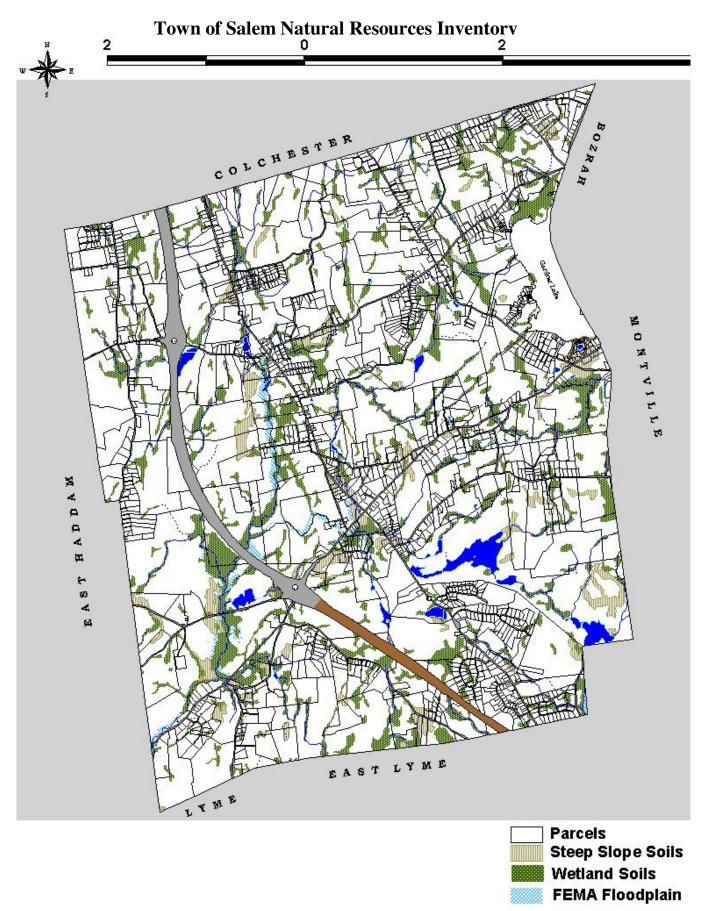
Map 1, Topographic Map



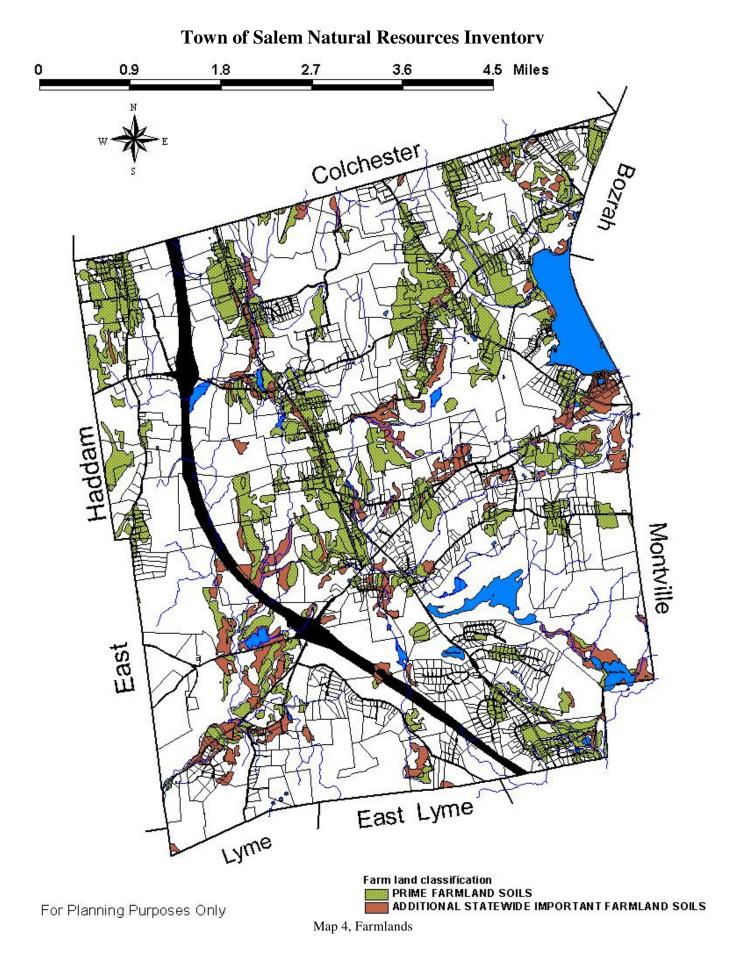
Map 2, Soils

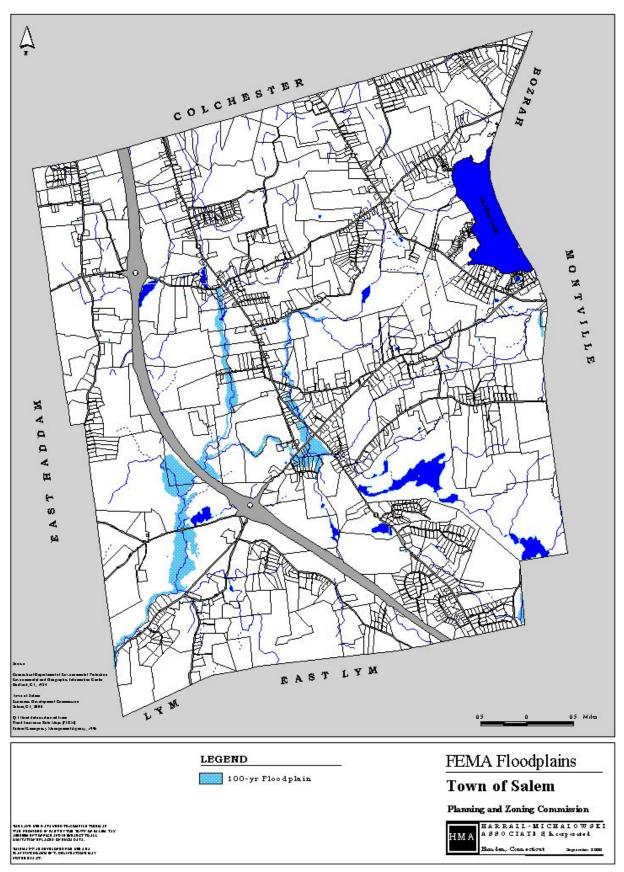


Map 2A, Septic Limitations by Soil Type



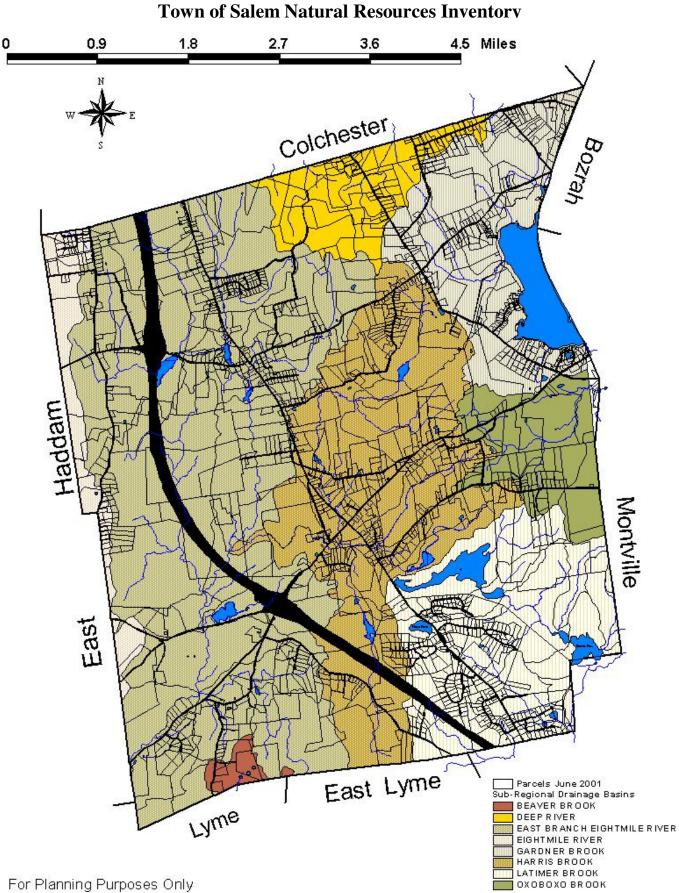
Map 3, Development Constraints



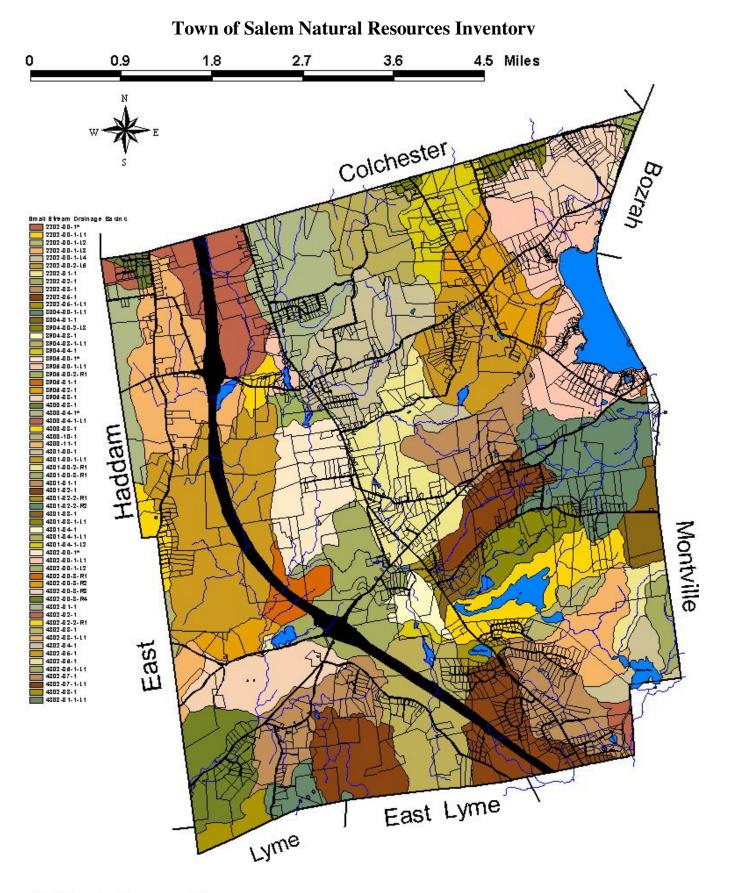


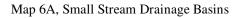
**Town of Salem Natural Resources Inventorv** 

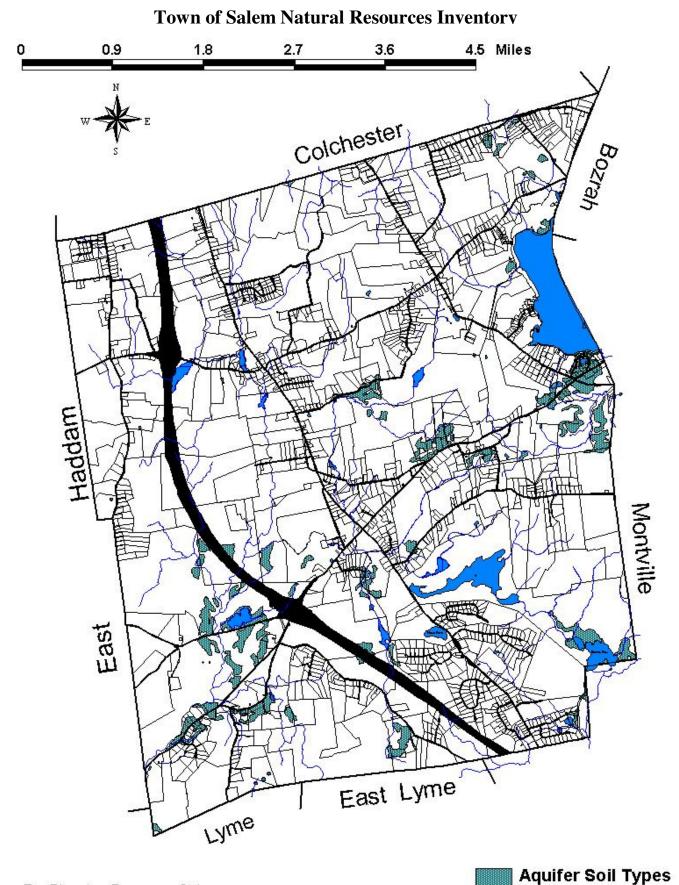
Map 5, FEMA Floodplains



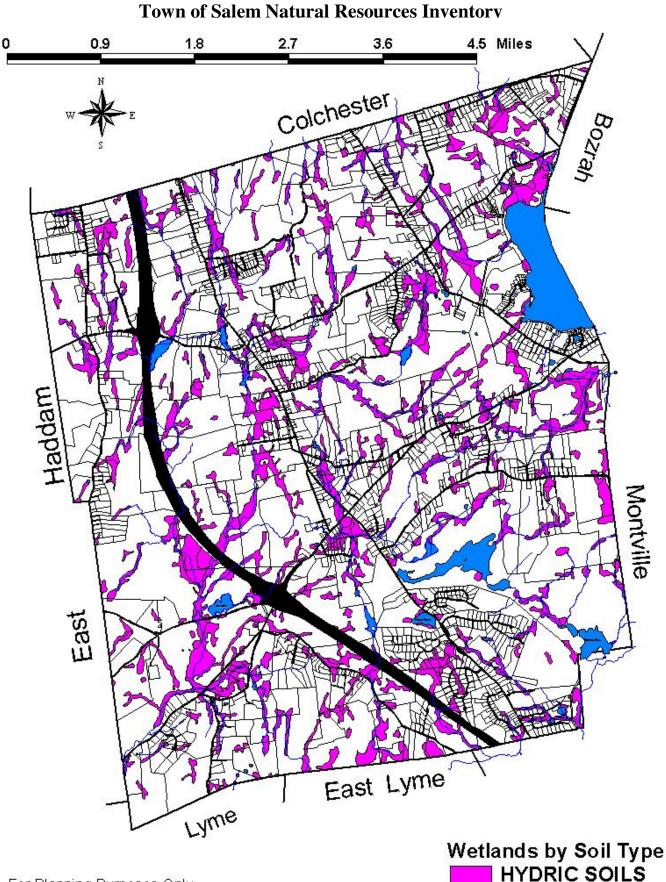
Map 6, Subregional Drainage Basins



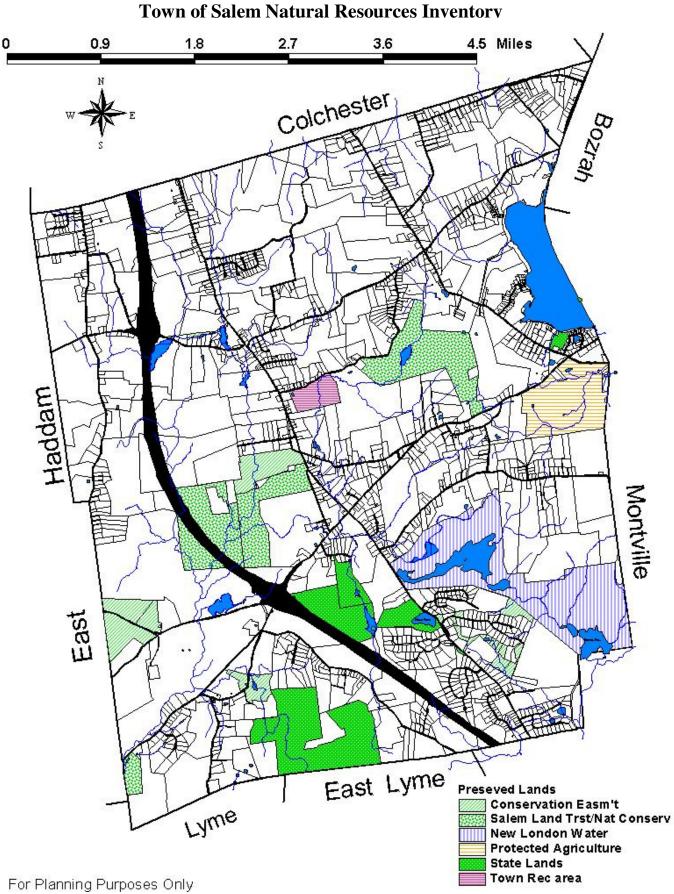




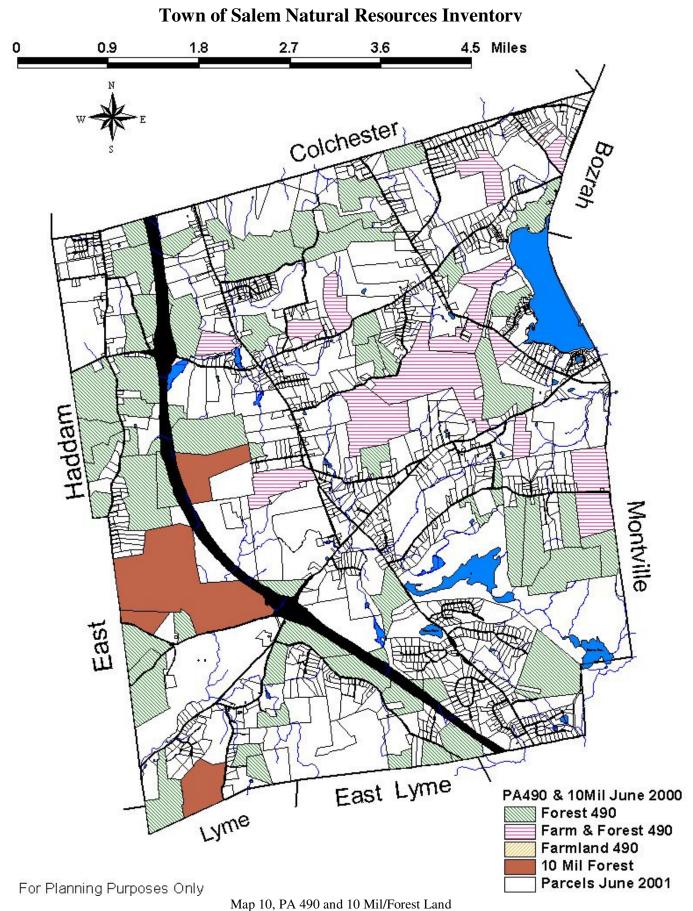




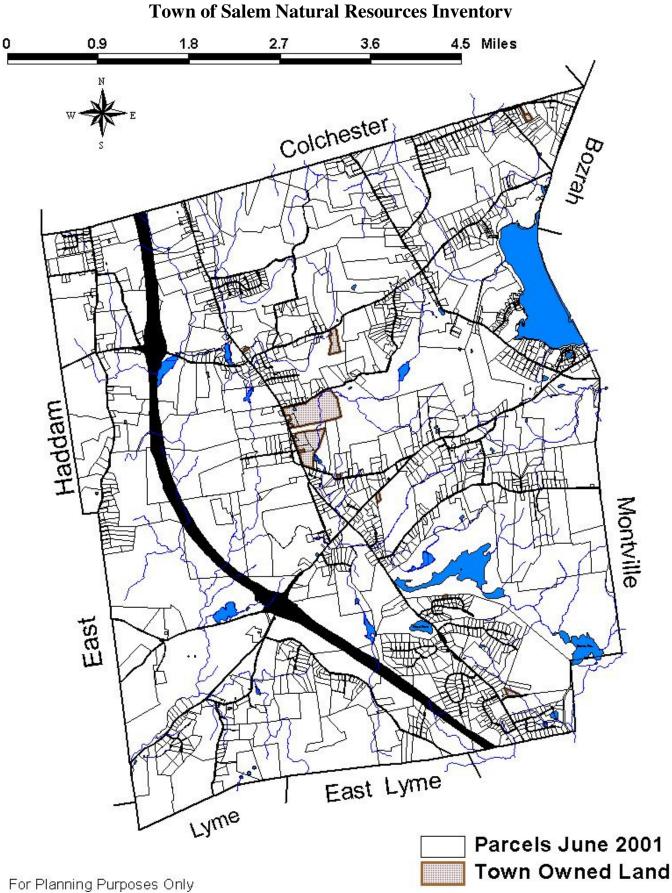
Map 8, Wetlands Soils

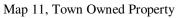


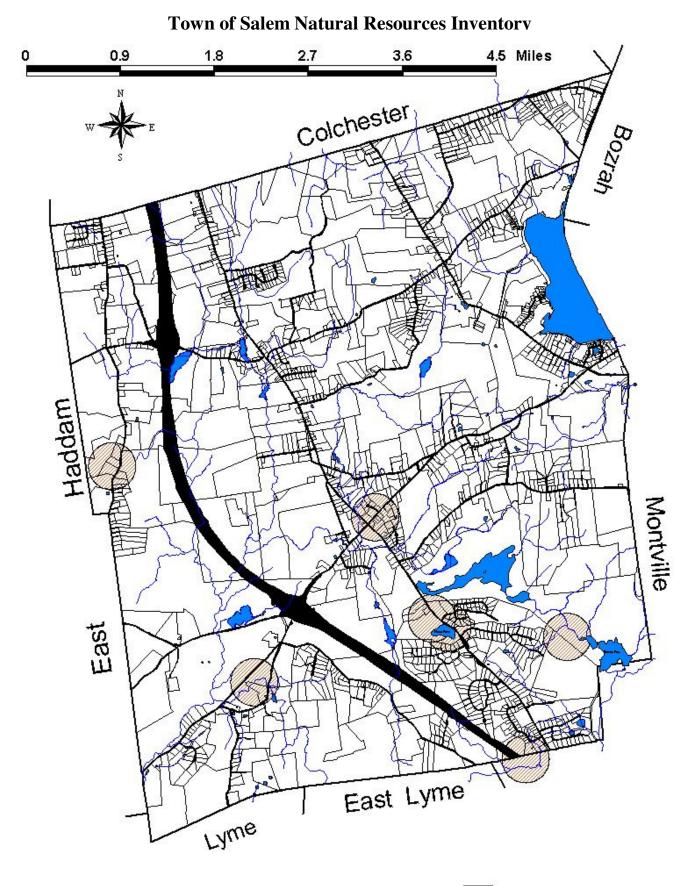


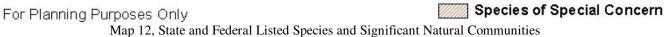


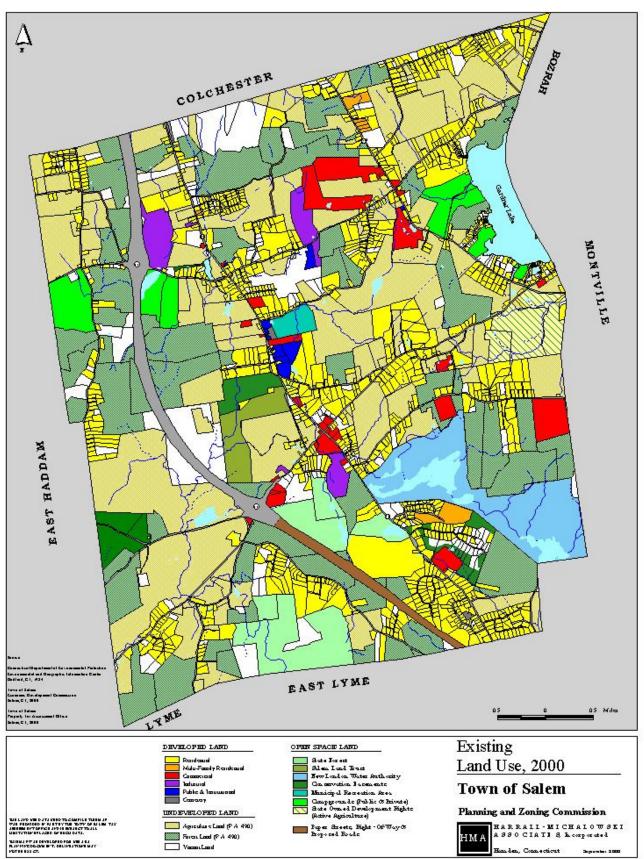












**Town of Salem Natural Resources Inventorv** 

Map 13, Land Use – June 2000

### **APPENDIX B: Soils**

#### Prime Farmland

Soils Type	ils Type Soils Name/ Description	
21A	NINIGRET AND TISBURY SOILS, 0 TO 5 PERCENT SLOPES	169.5
23A	SUDBURY SANDY LOAM, 0 TO 5 PERCENT SLOPES	96.1
29A	AGAWAM FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	77.4
29B	AGAWAM FINE SANDY LOAM, 3 TO 8 PERCENT SLOPES	187.2
32A	HAVEN AND ENFIELD SOILS, 0 TO 3 PERCENT SLOPES	3.2
32B	HAVEN AND ENFIELD SOILS, 3 TO 8 PERCENT SLOPES	68.8
34A	MERRIMAC SANDY LOAM, 0 TO 3 PERCENT SLOPES	72.2
34B	MERRIMAC SANDY LOAM, 3 TO 8 PERCENT SLOPES	90.2
45A	WOODBRIDGE FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	144.4
45B	WOODBRIDGE FINE SANDY LOAM, 3 TO 8 PERCENT SLOPES	121.6
50A	SUTTON FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	47
50B	SUTTON FINE SANDY LOAM, 3 TO 8 PERCENT SLOPES	29.8
60B	CANTON AND CHARLTON SOILS, 3 TO 8 PERCENT SLOPES	959.4
84B	PAXTON AND MONTAUK SOILS, 3 TO 8 PERCENT SLOPES	953.5
102	POOTATUCK FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	17.7

### Important Farmland

2	RIDGEBURY FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	3.4
12	RAYPOL SILT LOAM, 0 TO 3 PERCENT SLOPES	5
13	WALPOLE SANDY LOAM, 0 TO 3 PERCENT SLOPES	28.7
34C	MERRIMAC SANDY LOAM, 8 TO 15 PERCENT SLOPES	15.2
38A	HINCKLEY GRAVELLY SANDY LOAM, 0 TO 3 PERCENT SLOPES	101.2
38C	HINCKLEY GRAVELLY SANDY LOAM, 3 TO 15 PERCENT SLOPES	516.9
45C	WOODBRIDGE FINE SANDY LOAM, 8 TO 15 PERCENT SLOPES	1.2
60C	CANTON AND CHARLTON SOILS, 8 TO 15 PERCENT SLOPES	175.8
84C	PAXTON AND MONTAUK SOILS, 8 TO 15 PERCENT SLOPES	27.6
103	RIPPOWAM FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	39.8
107	LIMERICK AND LIM SOILS, 0 TO 3 PERCENT SLOPES	109.1

Other Soils

ils Type	Soils Name/ Description	# of Acres		
3	RIDGEBURY, LEICESTER AND WHITMAN SOILS, EXTREMELY	1459.9		
	STONY, 0 TO 3 PERCENT SLOPES			
15	SCARBORO MUCKY LOAMY SAND, 0 TO 3 PERCENT SLOPES	212.1		
17	ADRIAN AND PALMS SOILS, 0 TO 2 PERCENT SLOPES			
18	CARLISLE MUCK, 0 TO 2 PERCENT SLOPES	530.1		
38E	HINCKLEY GRAVELLY SANDY LOAM, 15 TO 45 PERCENT SLOPES	113.7		
46B	WOODBRIDGE FINE SANDY LOAM, 2 TO 8 PERCENT SLOPES, VERY STONY	274.7		
46C	WOODBRIDGE FINE SANDY LOAM, 8 TO 15 PERCENT SLOPES, VERY STONY	45.6		
47C	WOODBRIDGE FINE SANDY LOAM, 2 TO 15 PERCENT SLOPES, EXTREMELY STONY	35.9		
51B	SUTTON FINE SANDY LOAM, 2 TO 8 PERCENT SLOPES, VERY STONY	415.5		
52C	SUTTON FINE SANDY LOAM, 2 TO 15 PERCENT SLOPES, EXTREMELY STONY	381.9		
60D	CANTON AND CHARLTON SOILS, 15 TO 25 PERCENT SLOPES	218.2		
61B	CANTON AND CHARLTON SOILS, 3 TO 8 PERCENT SLOPES, VERY STONY	1768.		
61C	CANTON AND CHARLTON SOILS, 8 TO 15 PERCENT SLOPES, VERY STONY	835.8		
62C	CANTON AND CHARLTON SOILS, 3 TO 15 PERCENT SLOPES, EXTREMELY STONY	515.3		
62D	CANTON AND CHARLTON SOILS, 15 TO 35 PERCENT SLOPES, EXTREMELY STONY			
68C	NARRAGANSETT SILT LOAM, 3 TO 15 PERCENT SLOPES, EXTREMELY STONY			
73C	CHARLTON-CHATFIELD COMPLEX, 3 TO 15 PERCENT SLOPES, VERY ROCKY	3022.		
73E	CHARLTON-CHATFIELD COMPLEX, 15 TO 45 PERCENT SLOPES, VERY ROCKY	1706		
75C	HOLLIS-CHATFIELD ROCK OUTCROP COMPLEX, 3 TO 15 PERCENT SLOPES	262.6		
75E	HOLLIS-CHATFIELD ROCK OUTCROP COMPLEX, 15 TO 45 PERCENT SLOPES	652.4		
76E	ROCK OUTCROP-HOLLIS COMPLEX, 3 TO 45 PERCENT SLOPES	28.8		
85B	PAXTON AND MONTAUK SOILS, 3 TO 8 PERCENT SLOPES, VERY STONY			
85C	PAXTON AND MONTAUK SOILS, 8 TO 15 PERCENT SLOPES, VERY STONY			
86C	PAXTON AND MONTAUK SOILS, 3 TO 15 PERCENT SLOPES, EXTREMELY STONY	4.2		
305	UDORTHENTS-PITS COMPLEX, GRAVELLY, 0 TO 80 PERCENT SLOPES	51.5		
306	UDORTHENTS-URBAN LAND COMPLEX, 0 TO 35 PERCENT SLOPES	543.2		

#### **APPENDIX C: Rural Features**

#### Farms

Avery - Rathbun Hill Rd - Dairy Birch Wood- Norwich Rd - Stables Bourdeau - Old Colchester Rd - Pheasants Cricklewood Farm - Old Colchester Rd - Stables Cunningham - Round Hill Rd - Cattle Maegog Farm – Old Colchester Rd – Dairy Marvel Farm – East Haddam Rd – Horses Vaill – Forsyth Rd – Hay/produce L & M Enterprises - Shingle Mill Rd - Stable/horse show equipment Woodbridge Farm - Woodbridge Rd - Horses Snowood Farm - East Haddam Rd - Horses Dimmock - Hagen Rd - Hay/silage Sherwood Farm - Old Colchester Rd- Stables Hecklinger Farm - Buckley Rd O'Connor - Forsyth Rd - Horses Stone's Throw Farm - Music Vale Rd - Organic Produce Teel's Farm - Norwich Rd - Organic Produce The Herb Farm - Hartford Rd - Plants/Herbs Clark's Greenhouse - Rattlesnake Ledge Rd - Nursery, Plants/Herbs

### Cemeteries

Name	Nearest Road	Lot Number (closest one)	# Graves	Earliest	Last
Woodbridge	Woodbridge Rd	04/005-000	17	1795	1996?
Baptist #2	Rt. 354	12/025-000	64	1820	1931
Lathrop	Rt. 354	22/044-001	8	1797	1860
Baptist #1 (Old Rathbone)	Rt. 354	11/038-000	29	1750	1860
Rathbone	Round Hill Rd	11/054-000	3	1818	1831
Congregational Church of Salem (Wesley Brown)	Witch Meadow Rd	20/008-000	Active	?	1996?
Newton-Ransom	West Rd	13/001-001	15	1809	1894
Niles (Morgan)	West of Walden Rd	07/024-000	31	1797	1925
Gilbert	Music Vale Rd	19/031-000	7	1733	1816
Hillard	Music Vale Rd	08/009-000	77	1762	1892
Harris, Rogers	Harris Rd	09/035-000	27	1802	1883
1 Stone, Palmer	Forsyth Rd	09/006-000	1	?	?
Miner	Forsyth Rd	09/029-000	9	1786	1873
Raymond	Forsyth Rd	09/020-001			
1 Stone (H. Bingham Farm)	Darling Rd	04/011-000	1	?	?
Rogers	Rt. 85	09/058-A00	6	1792	1813
Fox	Rt. 354	21/009-000	21	1816	1930
Whittlesey (Mosswood Glen)	Off Rt. 85	08/005-000	23	1834	1998
Fish	Buckley Rd	15/006-003	3	1827	1837
Way	Way Rd	15/029-000	14	1810	1904
Loomis	Stone Wall Rd	06/001-000	3	1820	1838
Dewolf Farm #1	Old Colchester Rd	12/023-000	3	1743	1759
Dewolf Farm #2	Round Hill Rd	11/054-000			
Rogers	N. L. Reservoir	05/023-000	6	1814	1845
Dolbeare	Rt. 82	08/021-000	2	1811	1832
9 Field stones	Norwich Rd Airport entrance	09/030-000	9	No Stones	?
Cockle Hill	Cockle Hill Rd	11/007-000	11	No inscriptions	?
Ransom (Raymond)	Rt. 85	16/044-000	30	1790	1930
Salem Green	Rt. 85	19/021-000	Active	1982	2001
Wilcox	Rt. 354	?	6?	No Stones	?

Headstone inscriptions, Town of Salem, CT, Dec. 1937 filed in Town Clerks Office.

Lakes and Ponds

**Barnes Reservoir Bingham Pond** Bond Reservoir Browns Pond Byron Clark Pond Denison Pond Fairy Lake Carr Pond Mill Pond Gardner Lake Hales Pond Horse Pond Kent Pond Major Kenny Pond Mitchell Pond Shingle Mill Pond Witch Meadow Lake (Machnik Pond)

#### Unnamed Ponds

Fishing Preserve – Round Hill Road Silver Valley – Valley Drive Silver Valley – Corrina Lane

Major Dams in Salem

East Branch of Eightmile River Zemko Property – Route 85 Pond at Witchmeadow Road Witchmeadow Lake at Witchmeadow Campground

### Harris Brook

Dimmock – Salter Road Robinson – Music Vale Road Fishing Preserve – Round Hill Road

#### Shingle Mill Brook

Shingle Mill Pond – Shingle Mill Park Partial – lower pond in Shingle Mill Park

New London Reservoir System Fairy Lake – South End

Rivers/Brooks/Streams

Big Brook Eightmile River – East Branch Fraser Brook Harris Brook Horse Pond Brook Little Brook Shingle Mill Brook Sucker Brook Witch Meadow Brook

### Vistas & Scenic Views

Vistas	Scenic Views
Horse Pond from Rte 85	Avery Farm (pp)
Along East Branch of Eightmile River	Shingle Mill Forest and ponds
From top of Emerald Glen	Mitchell Pond (pp)
Route 11 – both sides	Maegog Farm (Gadbois) (pp)
From top of rocks on unfinished end of	Music Vale (Bodman Farm area) (pp)
Route 11	
	Fields on Darling and White Birch Roads (pp)
	Town Green Area
	Fishing Preserve (pp)
	Stone Bridge (pp)
	Toad Hollow (pp)
	The Wales (pp)

(pp) denotes Private Property

Not included are generic fields, walls, woods, farmlands, pastures, historic buildings, rivers, streams, and ponds.

#### **APPENDIX D: Historical**

National Historic Register (202-343-9559) Salem Historic District

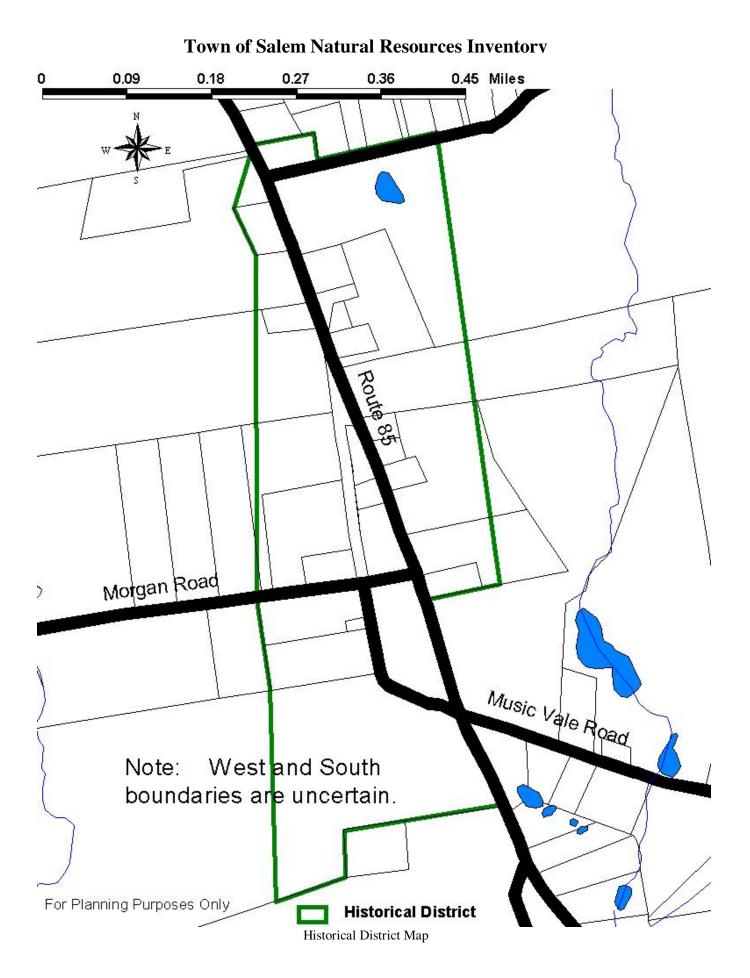
State Historical Commission (860-566-3005) John Herzan (National Register Coordinator)

Connecticut National Register of Historic Places:

Salem Historic District (Rte 85) Simon Tiffany House (Darling Road) Abel Fish House (31 Buckley Road) Woodbridge Farm (29, 30, and 90 Woodbridge Road)

Buildings/Areas on State Register (no locations given) – verbal from J. Herzan:

Assembly of God Greek Revival Church – 1835 Henry Bland House (Willoughby Tavern – Brick and frame, 3 story) – 1785 Mumford House (2 story gambrel) – 1769 Snyder Farm (2 story) - 1815 South Wing of Town Office Building Town Green Center School (Grange)



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1/02/01	OLD BUILDINGS (From Salem Assessor's	s Records)
<u>No.</u>	<u>Street</u>	<u>Date</u>
	Before 1701	
	Hartford Road	1690
	Old Colchester Road	1700
110	Rathbun Hill Road	1650
	Between 1701 – 1800	
31	Buckley Road	1750
170	Darling Road	1750
249	Darling Road	1780
340	Darling Road	1775
390	Darling Road	1730
460	Darling Road	1783
300	East Haddam Road	1800
159	Forsyth Road	1780
389	Forsyth Road	1780
246	Hartford Road	1749
343	Hartford Road	1750
376	Hartford Road	1795
531	Hartford Road	1760
90	Music Vale Road	1799
220	Music Vale Road	1799
509	New London Road	1780
625	Old Colchester Road	1792
	Rattlesnake Ledge Road	1800
4	Round Hill Road	1750
149	Round Hill Road	1765
9	Shingle Mill Road	1780
59	Way Road	1790
3	White Birch Road	1769
104	Witter Road	1781
30	Woodbridge Road	1792

ristoric Dunumes	Historic	Buil	ldings
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	Between 1801 – 1900	
80	Buckley Road	1830
	Eden Park Drive	1890
363	Forsyth Road	1900
	Forsyth Road	1890
	Hagen Road	1880
11	Harris Road	1900
149	Hartford Road	1820
210	Hartford Road	1900
222	Hartford Road	1880
	Hartford Road	1855
243	Hartford Road	1838
244	Hartford Road	1856
	Hartford Road	1885
	Hartford Road	1838
	Hartford Road	1892
	Hartford Road	1830
	Hartford Road	1870
	Hartford Road	1830
	Hartford Road	1900
	Hartford Road	1900
	Lakeview Drive	1900
	Morgan Road	1890
	Morgan Road	1870
	Morgan Road	1844
	Morgan Road	1900
	New London Road	1900
	New London Road	1900
	Norwich Road	1890
	Norwich Road	1880
	Norwich Road	1810
	Old Colchester Road	1840
	Old Colchester Road	1840
	Old Colchester Road	1861
	Old Colchester Road	1890
	Old Colchester Road	1846
	Old Colchester Road	1900
	Old Colchester Road Old Colchester Road	1810
		1870
	Old Colchester Road Old New London Road	1900 1900
	Old New London Road	1900
	Old New London Road Pratt Road	1900 1830
	Rathbun Hill Road	
		1900
4	Rattlesnake Ledge Road	1810

89	Rattlesnake Ledge Road	1870
393	Rattlesnake Ledge Road	1880
40	Way Road	1900
649	West Road	1900
729	West Road	1850
50	White Birch Road	1840
89	Witchmeadow Road	1850
101	Witchmeadow Road	1900
235	Witter Road	1900

Common Name	Latin Name
Apple, Domestic	Pyrus malus
Ash, Black	Fraxinus nigra
Aspen (White Poplar)	Populus alba
Beech, American	Fagus grandifolia
Birch (Black, White, Yellow)	Betula lenta, papyrifera, lutea
Butternut	Juglans cinerea
Cedar (Red, White)	Juniperus virginiana
Cherry (Red, Black)	Prunus seritina, pennsyllvaniea
Chestnut, American	Custanea dentata
Dogwood (Flowering, Alternate Leaved)	Cornus forida, alternifloria
Elm (American, Slippery)	Ulmus americana, fulva
Hawthorn	Crataegus (many sp.)
Hemlock	Tsuga canadensis
Hickory (Shagbark)	Cayra ovata
Hickory (Pignut, Bitternut)	Cayra glubra cordiformis
Hornbeam, American (Blue Beech)	Carpinus caroliniana
Locust (Black, Honey)	Robinia pseudoacacia, Gleditsia triancan
Maple (Rock or Sugar)	Acer saccharum
Maple (Red or Swamp)	Acer rubrum
Oak, Northern Red	Quercus rubra
Oak, Burr	Quercus macrocarpa
Oak, White	Quercus alba
Oak, Chestnut	Quercus prinus
Oak, Black	Quercus velutina
Oak, Scarlet	Quercus coccinea
Peppperidge (Tupelo)	Nyssa sylvatice
Pine (Eastern White)	Pinus strobus
Pine (Red)	Pinus resinosa
Poplar (Yellow) or Tuliptree	Liriodendrom tulipifera
Poplar (White)	Populus alba
Spruces Blue or Colorado (not native) Black	Picea pungens Picea mariana
Red White	Picea rubus
white Norway (not native)	Picea glauca Picea abies or cyucelsa
Sassafras	Sassafras albidum
Sycamore (Buttonball)	Platanus occidentlis
Willows (most not native) Black	Salix nigra
Walnut (Black)	Juglans nigra

### **APPENDIX E. Common Species Lists**

#### Wildlife species of Salem

#### Fish

	Gardner Lake	East Branch- Eightmile River	Horse Pond	NL Reservoir <sup>1</sup>	Fraser Brook
American Eel	Х	X	Х		Х
Atlantic Salmon		Х			
Banded Killifish	Х				
Black Crappie (Calico Bass)	Х		Х		
Blacknose Dace		Х			
Bluegill Sunfish	Х		Х		Х
Brook Trout		Х	Х		Х
Brown Bullhead	Х	Х	Х		
Brown Trout	Х	Х	Х		
Chain Pickerel	Х	Х	Х		
Common Shiner		Х			
Fallfish		Х			
Golden Shiner	Х				
Grass Pickerel		Х			Х
Largemouth Bass	Х	Х			
Longnose Dace		Х	Х		
Pumpkinseed	Х	Х			Х
Rainbow Trout	Х	Х	Х		
Red Breasted Sunfish	Х	Х			
Rock Bass	Х				
Smallmouth Bass	Х		Х		
Tessellated Darter	Х	Х			Х
Walleye	Х				
White Catfish	Х				
White Sucker	Х				
Yellow Perch	Х		Х		

<sup>1</sup> No Data Available (Ref: Ed Paul – New London Water Authority)

East Branch of Eightmile River is assumed to include its waters north to dam on A. Zemko land, and Harris Brook to dam just south of Salter Road.

Fraser Brook is common to Harris Brook (from above dam south of Salter Road to dam on Robinson property) and Shingle Mill Brook to dam at Shingle Mill Pond.

### Birds

Common Name	<b>Relative Frequency</b>	Common Name	<b>Relative Frequency</b>
European Starling	Abundant resident	Gray Catbird	Common summer resident
Common Merganser	Common migrant	Great-crested Flycatcher	Common summer resident
Common Snipe	Common migrant	Killdeer	Common summer resident
Lesser Scaup	Common migrant	Northern Oriole	Common summer resident
Palm Warbler	Common migrant	Ovenbird	Common summer resident
Ring-necked Duck	Common migrant	Prairie Warbler	Common summer resident
Yellow-rumped Warbler	Common migrant	Red-eyed Vireo	Common summer resident
American Black Duck	Common resident	Ruby-throated Hummingbird	Common summer resident
American Crow	Common resident	Rufous-sided Towhee	Common summer resident
American Goldfinch	Common resident	Scarlet Tanager	Common summer resident
American Robin	Common resident	Swamp Sparrow	Common summer resident
American Woodcock	Common resident	Tree Swallow	Common summer resident
Black-capped Chickadee	Common resident	Veery	Common summer resident
Blue Jay	Common resident	Warbling Vireo	Common summer resident
Brown-headed Cowbird	Common resident	Wood Thrush	Common summer resident
Canada Goose	Common resident	Wood Infusi Worm-eating Warbler	Common summer resident
Carolina Wren	Common resident	Yellow Warbler	Common summer resident
Cedar Waxwing	Common resident	Yellow-throated Vireo	Common summer resident
Common Grackle	Common resident	Great Black-backed Gull	Common visitor
Downy Woodpecker	Common resident	Herring Gull	Common visitor
Eastern Bluebird	Common resident	Ring-billed Gull	Common visitor
Hairy Woodpecker	Common resident	Dark-eved Junco	Common winter resident
House Finch	Common resident	White-throated Sparrow	Common winter resident
	Common resident		Common winter visitor
House Sparrow House Wren	Common resident	American Tree Sparrow American Coot	Rare migrant
			0
Mallard	Common resident	American Pipit	Rare migrant
Mourning Dove	Common resident	Bay-breasted Warbler	Rare migrant
Northern Cardinal	Common resident	Canada Warbler	Rare migrant
Northern Flicker	Common resident	Cliff Swallow	Rare migrant
Northern Mockingbird	Common resident	Common Golden-eye	Rare migrant
Red-bellied Woodpecker	Common resident	Glossy Ibis	Rare migrant
Red-tailed Hawk	Common resident	Gray-cheeked Thrush	Rare migrant
Red-winged Blackbird	Common resident	Greater Yellowlegs	Rare migrant
Rock Dove	Common resident	Lesser Yellowlegs	Rare migrant
Song Sparrow	Common resident	Lincoln's Sparrow	Rare migrant
Tufted Titmouse	Common resident	Merlin	Rare migrant
Turkey Vulture	Common resident	Northern Pintail	Rare migrant
White-breasted Nuthatch	Common resident	Peregrine Falcon	Rare migrant
Wild Turkey	Common resident	Red-breasted Nuthatch	Rare migrant
Wood Duck	Common resident	Rough-legged Hawk	Rare migrant
American Redstart	Common summer resident	Sharp-tailed Sparrow	Rare migrant
Barn Swallow	Common summer resident	Snow Goose	Rare migrant
Black-and-white Warbler	Common summer resident	Solitary Vireo	Rare migrant
Blue-gray Gnatcatcher	Common summer resident	Sora	Rare migrant
Blue-winged Warbler	Common summer resident	Swainson's Thrush	Rare migrant
Chimney Swift	Common summer resident	Tennessee Warbler	Rare migrant
Chipping Sparrow	Common summer resident	Virginia Rail	Rare migrant
Common Yellowthroat	Common summer resident	Wilson's Warbler	Rare migrant
Eastern Kingbird	Common summer resident	Red-headed Woodpecker	Rare resident
Eastern Phoebe	Common summer resident	Acadian Flycatcher	Rare summer resident
Eastern Wood-peewee	Common summer resident	Cerulean Warbler	Rare summer resident
Field Sparrow	Common summer resident	Golden-winged Warbler	Rare summer resident

Hooded Warbler	Rare summer resident	Indigo Bunting	Uncommon summer resident	
Yellow-breasted Chat	Rare summer resident	Least Flycatcher	Uncommon summer resident	
Cattle Egret	Rare summer visitor	Louisiana Waterthrush	Uncommon summer resident	
Great Egret	Rare summer visitor	Mute Swan	Uncommon summer resident	
Snowy Egret	Rare summer visitor	Nashville Warbler	Uncommon summer resident	
Bald Eagle	Rare winter visitor	Northern Rough-winged	Uncommon summer resident	
Common Redpoll	Rare winter visitor	Swallow Northern Waterthrush	Uncommon summer resident	
Horned Lark	Rare winter visitor	Pine Warbler	Uncommon summer resident	
Northern Saw-whet Owl	Rare winter visitor	Purple Martin	Uncommon summer resident	
Northern Shrike	Rare winter visitor	Rose-breasted Grosbeak	Uncommon summer resident	
Pine Siskin	Rare winter visitor	Savannah Sparrow	Uncommon summer resident	
Snow Bunting	Rare winter visitor	Whip-poor-will	Uncommon summer resident	
Winter Wren	Rare winter visitor	White-eyed Vireo	Uncommon summer resident	
American Kestrel	Uncommon migrant	Willow Flycatcher	Uncommon summer resident	
Blackburnian Warbler	Uncommon migrant	Yellow-billed Cuckoo	Uncommon summer resident	
Blackpoll Warbler	Uncommon migrant	Black Crowned Night Heron	Uncommon summer visitor	
Common Loon	Uncommon migrant	Double-crested Cormorant	Uncommon summer visitor	
Common Nighthawk	Uncommon migrant	Great Blue Heron	Uncommon summer visitor	
Fox Sparrow	Uncommon migrant	Osprey	Uncommon summer visitor	
Green Winged Teal	Uncommon migrant	Golden-crowned Kinglet	Uncommon winter visitor	
Hooded Merganser	Uncommon migrant	Great Cormorant	Uncommon winter visitor	
Magnolia Warbler	Uncommon migrant	Ruby-crowned Kinglet	Uncommon winter visitor	
Northern Harrier	Uncommon migrant	Ruby-crowned Kniglet	Uncommon winter visitor	
Northern Parula	Uncommon migrant	Terms:		
	υ			
Philadelphia Vireo Pied-billed Grebe	Uncommon migrant	Common – more than a few each yea		
	Uncommon migrant	Uncommon – a few generally seen es	ach year	
Ruddy Duck	Uncommon migrant	Rare – not seen most years		
Rusty Blackbird	Uncommon migrant	Resident – likely to nest in Salem		
Solitary Sandpiper	Uncommon migrant	Migrant – seen during migration		
Spotted Sandpiper	Uncommon migrant	Visitor – seen in Salem but is not likely to nest in the Town		
Yellow-bellied Sapsucker	Uncommon migrant	Listed in the sequence used by the "I		
Barred Owl	Uncommon resident	Connecticut" published by the Connecticut	ecticut Ornithological	
Broad-winged Hawk	Uncommon resident	Association.		
Brown Creeper	Uncommon resident			
Cooper's Hawk	Uncommon resident			
Eastern Meadowlark	Uncommon resident			
Eastern Screech Owl	Uncommon resident			
Great Horned Owl	Uncommon resident			
Northern Bobwhite	Uncommon resident			
Pileated Woodpecker	Uncommon resident			
Purple Finch	Uncommon resident			
Red-shouldered Hawk	Uncommon resident			
Ring-necked Pheasant	Uncommon resident			
Sharp Shinned Hawk	Uncommon resident			
Alder Flycatcher	Uncommon summer resident			
Bank Swallow	Uncommon summer resident			
Belted Kingfisher	Uncommon summer resident			
Black-billed Cuckoo	Uncommon summer resident			
Black-throated Blue Warbler	Uncommon summer resident			
Black-throated Green Warbler	Uncommon summer resident			
Bobolink	Uncommon summer resident			
Brown Thrasher	Uncommon summer resident			
Chestnut-sided Warbler	Uncommon summer resident			
Green Heron	Uncommon summer resident			
Hermit Thrush	Uncommon summer resident			

### Butterflies

COMMON NAME	Family	Genus/species	Relative Frequenc
American Copper	Lycaenidae	Lycaena phlaeas	Common
American Lady	Nymphalidae	Vanessa virginiensis	Common
Banded Hairstreak	Lycaenidae	Satyrium calanus	Common
Black Swallowtail	Papilionidae	Papilio polyxenes	Common
Cabbage White	Pieridae	Pieris rapae	Common
Clouded Sulphur	Pieridae	Colias philodice	Common
Common Buckeye	Nymphalidae	Junonia coenia	Common
Common Wood Nymph	Satyridae	Cercyonis pegala	Common
Crossline Skipper	Hesperiidae	Polites origenes	Common
Delaware Skipper	Hesperiidae	Atryone delaware	Common
Dun Skipper	Hesperiidae	Euphyes ruricola	Common
Eastern Comma	Nymphalidae	Polygonia comma	Common
Eastern Tailed Blue	Lycaenidae	Everes comyntas	Common
Eastern Tiger Swallowtail	Papilionidae	Papilio glaucus	Common
European Skipper	Hesperiidae	Thymelicus lineola	Common
Great Spangled Fritillary	Nymphalidae	Speyeria cybele	Common
Hobomok Skipper	Hesperiidae	Poanes hobomok	Common
Juvuenal's Duskywing	Pyrginae	Erynnis juvenalis	Common
Least Skipper	Hesperiidae	Ancyloxpha numitor	Common
Little Glassy Wing Skipper	Hesperiidae	Pompeius verna	Common
Little Wood Satyr	Satyridae	Megisto cymela	Common
Long Dash Skipper	Hesperiidae	Polites mystic	Common
Monarch	Danaidae	Danaus plexippus	Common
Mourning Cloak	Nymphalidae	Nymphalis antiopa	Common
Northern Broken Dash	Hesperiidae	Wallengrenia egeremet	Common
Pearl Crescent	Nymphalidae	Phyciodes tharos	Common
Pecks Skipper	Hesperiidae	Polites peckius	Common
Question Mark	Nymphalidae	Polygonia interrogationis	Common
Red Admiral	Nymphalidae	Vanessa atalanta	Common
	Nymphalidae		Common
Red Spotted Purple Ringlet	Satyridae	Basilarchia astyanax	Common
Spicebush Swallowtail	· · · · ·	Coenonympha tullia	Common
*	Papilionidae	Papilio troilus Celastrina ladon	
Spring Azure	Lycaenidae		Common
Striped Hairstreak	Lycaenidae	Satyrium liparops	Common
Summer Azure	Lycaenidae	Icaricia icarioodes	Common
Tawny Edge Skipper	Hesperiidae	Polites themistocles	Common
Viceroy	Nymphalidae	Basilarchia archippus	Common
Wild Indigo Duskywing	Pyrginae	Erynnis baptisiae	Common
Zabulon Skipper	Hesperiidae	Poanes zabulon	Common
Dusted Skipper	Hesperiidae	Atrytonopsis hianna	Common-Local
Olive Hairstreak	Lycaenidae	Callophrys gryneus	Common-Local
Southern Cloudywing	Pyrginae	Thorybes bathyllus	Common-Local
Cloudless Sulphur	Pierdae	Phoebis sennae	Migrant
Fiery Skipper	Hesperiidae	Hylephila phyleus	Migrant
Little Yellow	Pierdae	Eurema lisa	Migrant
Common Checkered Skipper	Pyrginae	Pyrgus communis	Rare
Henry's Elfin	Lycaenidae	Callophrys henrici	Rare
Hoary Edge	Pyrginae	Achalarus lyciades	Rare
Tawny Emperor	Nymphalidae	Asterocampa	Rare
White Admiral	Nymphalidae	Limenitis arthemis arthemis	Rare

Aphrodite Fritillary	Nymphalidae	Speyeria aphrodite	Uncommon
Applachian Brown	Satyridae	Satyrodes appalachia	Uncommon
Baltimore	Nymphalidae	Euphydryas phaeton	Uncommon
Black Dash	Hesperiidae	Euphyes conspicua	Uncommon
Broad Winged Skipper	Hesperiidae	Poanes viator	Uncommon
Brown Elfin	Lycaenidae	Callophrys augustinus	Uncommon
Common Sootywing	Pyrginae	Pholisora catullus	Uncommon
Coral Hairstreak	Lycaenidae	Satyrium titus	Uncommon
Dreamy Duskywing	Pyrginae	Erynnis icelus	Uncommon
Eastern Pine Elfin	Lycaenidae	Incisalia niphon	Uncommon
Gray Hairstreak	Lycaenidae	Styrmon melinus	Uncommon
Indian Skipper	Hesperiidae	Hesperia sassacus	Uncommon
Leonard's Skipper	Hesperiidae	Hespena leonardus	Uncommon
Meadow Fritillary	Nymphalidae	Clossiana bellona	Uncommon
Mulberry Wing Skipper	Hesperiidae	Poanes massasoit	Uncommon
Northern Cloudywing	Pyrginae	Thorybes pylades	Uncommon
Northern Pearly Eye	Satyridae	Enodia anthedon	Uncommon
Painted Lady	Nymphalidae	Vanessa cardui	Uncommon
Pipevine Swallowtail	Papilionidae	Battus philenor	Uncommon
White M Hairstreak	Lycaenidae	Parrhasius m-album	Uncommon

Common-Local: Specific Habitats only,

Uncommon: Not always found

Rare: Not likely to be found,

Migrant: Not known to breed in Salem, migrates to our area

### **Common Mammals**

Common Name
Bat
Beaver
Bobcat
Chipmunk
Coyote (eastern)
Deer (white-tail)
Fox (red, gray)
Mink
Mole
Mouse
Muskrat
Opossum
Rabbit (cottontail)
Raccoon
Rat
Shrew
Skunk (Striped)
Squirrel (red, gray)
Vole
Weasel
Woodchuck

### Amphibians

Common Name	Scientific Name	<b>Relative Frequency</b>
Bull Frog	Ranna catesbeiana	Common
Eastern American Toad	Bufo amercanus	Common
Gray Tree Frog	Hyla vericolor	Common
Green Frog	Ranna clamitans	Common
Northern Spring Peeper	Pseudacris c. crucifer	Common
Northern Two-Lined	urycea bislineata	Common
Pickerel Frog	Ranna palustrus	Common
Redback Salamander	Plethodon cinereus	Common
Red-spotted Newt	Notophthalmus viridescence	Common
Spotted Salamander	Ambystoma maculatum	Not common
Wood Frog	Ranna sylvartica	Not common
Four-toed Salamander	Hemidactylium scutatum	Possible
Fowler's Toad	Bufo woodhousii fowler's	Possible
Northern Dusky Salamander	Desmognathus f. fuscus	Possible

### Reptiles

Common Name	Scientific Name	<b>Relative Frequency</b>		
Black Rat Snake	Elphe obsoleta	Common		
Common Snapping Turtle	Chelydra serpentina	Common		
Eastern Garter Snake	Thamnophis sirtalis	Common		
Northern Brown Snake	Storeria dekayi	Common		
Northern Ringneck Snake	Diadophis p. edwardsii	Common		
Northern Water Snake	Nerodia sipedon	Common		
Painted Turtle	Chrysemys picta	Common		
Common Musk Turtle	Sternotherus odoratus	Not common		
Eastern Milk Snake	Lampropeltis triangulum	Not common		
Northern Black Racer	Coluber constrictor	Not common		
Northern Copperhead	Agkisttrodon mokasen	Not common		
Smooth Green Snake	Opheodry vernalis	Not common		
Eastern Box Turtle**	Terrapene carolina	Possible		
Eastern Hognose Snake**	Heterodon platirhinos	Possible		
Eastern Ribbon Snake**	Thamnophis sauritus	Possible		
Eastern Worm Snake	Carphophis ammoenus	Possible		
Spotted Turtle	Clemmys guttata	Rare		
Wood Turtle**	Clemmys insculpta	Very rare		
	** indicates Connecticut Species of Special Concern			

### **APPENDIX F: Open Space**

### Listing by Parcel

		Lot	Number	Comments/Restrictions/Etc
Source	Туре	Number	Acres	
Subdivision - Emerald Glen	CC Ease	25/002-006	2.7	See mylar in Town Clerk Office
	CC Ease	25/002-007	2.8	(Rte 85 - across from Horse Pond)
	CC Ease	25/002-029	20.0	
	CC Ease	25/002-032	13.46	
	CC Ease	25/002-033	14.7	
	CC Ease	25/002-036	4.2	
	CC Ease	25/002-037	2.4	
	CC Ease	25/002-038	2.14	
	CC Ease	25/002-039	1.9	
	CC Ease	25/002-040	2.46	
	CC Ease	25/002-046	4.76	
	CC Ease	25/002-047	5.38	
	CC Ease	25/002-052	1.74	
	CC Ease	25/002-054	0.46	
Subdivision – Field Stone Farms	CC Ease	26-35		Rte 85 - south of Horse Pond
	CC Ease	26-36		(44 lots)
	CC Ease	26-37	1.9	
	CC Ease	26-38	2.5	
	CC Ease	26-39	4.8	
	CC Ease	26-41	4.9	
	CC Ease	26-42	6.1	]

Subdivision - Tranquil Woods	CC Ease	15-1	22.2*	Forsyth & Harris Rd Ext 10 lot)
	CC Ease	15-2		* Total for all lat-
	CC Ease	15-3		* Total for all lots
	CC Ease	15-4		
	CC Ease	15-5		
	CC Ease	15-6		
	CC Ease	15-7		
	CC Ease	15-8		
	CC Ease	15-9		
	CC Ease	15-10		
Witchmeadow Rd	Open	48A-1	13.5*	Along brook and pond
	Open	48A-2	10.0	* Total for all lots
	Open	48A-3		
	Open	48A-4		
	Open	48A-5		-
	Open	48A-6		-
	Open	48A-8		-
	Open	48A-9		
	Open	48A-10		
	Open	48A-11		
Town of Salem				
Town Office	Offices	20-63	76*	* Sum of lot 20-63
Recreation Field/Area	Recreation	20-63	/0	
Library	Library	19-24	.5	
Center School	Multi Use	19-24	.5	
Town House	Hist. Soc.	19-20	C. **	Sull of lot 19-20
Salem School	School	19-20	10.0	
			18.6	4
Salem Green Cemetery Corner Music Vale & Rte 85	Cemetery	20-63 19-30A	21.1	
Chyinski Property	Open	19-30A 19-25	.75	
	Vacant		-	
Field Stone Farms	Open Space	26-45		Behind lots 16, 17,18, 19, 33, 34
Woodchuck Road	BSA/Rec.	06/04-04-00	5.5	
City of New London	Reservoir	5/023-000	863.7	

State of CT				
Gardner Lake	Lake	-	0.6	
Gardner Lake	Lake	21/085	315.2	
Minnie Island	Scenic Rest	-	0.4	Middle of Gardner Lake
Gardner Lake Boat Launch	Access	21-45	2.7	Rte 354 - next to G. L. Park
Nehantic State Forest	Forest	05/019-000	61.2	Shingle Mill
Nehantic State Forest	Forest	05/026-000	66.2	Horse Pond
Nehantic State Forest	Forest	02/009-000	374	
Nehantic State Forest	Forest	02/007-A00	36.5	
Nehantic State Forest	Forest	005/010- A00	136	
Brookside	Rest Area	10/052-000	0.3	Rte 85 south of Getty Granite
Music Vale Rd	Picnic Area	-	0.1	Rte 82 & Music Vale Rd
Shady Brook	Picnic Area	-	0.2	Rte 85 across from Salem Country Gardens
Gardner Lake Park	Park Area	21-47	9.7	
Other Perm. Protected Open Space				
Bailey-Shapere property	CC Ease	02/007-000	53	
Bailey-Shapere property	CC Ease	04/014-000	13	
Bodman property	CC Ease	8-5	90	
Gadbois Property	Ag Dev Rights	12/007-001	96	
Gadbois Property	Ag Dev Rights	09/030-000	138	
Gadbois Property	Ag Dev Rights	09/033-000	53.8	
Nature Conservancy	Open	8-3	179.6	
Nature Conservancy	Open	07/024-A00	152.2	
Nature Conservancy	Open	04/008-000	63.7	
Nature Conservancy	Open	01/003-000	35.4	
Nature Conservancy	Open	11-60	331	Norwich Rd
Woodbridge Property	CC Ease	04/004-000	68.1	
Woodbridge Property	CC Ease	04/005-000	26.4	
Woodbridge Property	CC Ease	04/006-000	44.9	
Campgrounds				
BSA - Camp Wakenah	BSA	21-38	61.5	Forest Drive
Arrowhead	Private	22-4		Old Colchester Rd
Indian Field	Private	12-20	40	Old Colchester Rd
Salem Farms	Private	10-10		Alexander Rd
Sna-Z- Spot	Private	12-22	77	Old Colchester Rd
Witchmeadow	Private	10-46	120	Witchmeadow Rd

#### **GLOSSARY OF TERMS & ABBREVIATIONS**

AQUIFER: Underground reservoir

CGS: Connecticut General Statutes

CONSERVATION EASEMENT: Legal restrictions placed on a parcel of land's use, usually used as an open space conservation tool.

DEDICATED OPEN SPACE: Land whose use has been legally restricted to attain certain goals such as protection of natural resources.

DEP: Connecticut Department of Environmental Protection

DRAINAGE BASIN: The entire area contributing water to a particular watercourse, similar to a watershed.

EROSION: The wearing away of a material by wind and/or water.

FEMA: A federal program that maps and suggests management for floodprone areas. Flood insurance is offered for uses that conform to suggested management practices.

GEOGRAPHIC INFORMATION SYSTEM (GIS). ArcView GIS<sup>®</sup> 3.2 software by Environmental Systems Research Institute, Inc (ERSI) that gives you the power to visualize, explore, query, and analyze data geographically.

HABITAT: A place that provides the conditions necessary for survival of a particular plant of animal.

IWCC: Inland Wetlands and Conservation Commission

NRI: Natural Resource Inventory

OPEN SPACE: Land with public access or use for conservation of natural of cultural resources, or recreation.

PRIME FARMLAND: A soil classification denoting land best suited to agriculture due to natural fertility, good drainage and minimal slope.

SCS: Formerly the Soil Conservation Service, now the Natural Resources Conservation Service, USDA.

SEDIMENT: Material that settles to the bottom of a liquid. In local streams or bodies of water, sediment is usually composed of silt and sand.

STREAMBELT: A natural environmental corridor along a watercourse or body of water.

STRATIFIED DRIFT AQUIFER: An aquifer consisting of water-bearing sand and gravel.

### ITEMS TO BE INCLUDED IN FUTURE VERSIONS

During the compilation of this document, it quickly became obvious that there were many additional types and sources of data that could legitimately be included. The list below includes some of the items that we would hope to include in future versions.

- Ancient Tree list
- Archeological sites and maps
- Bedrock Geology
- Cemetery maps
- Common plant list
- Farm map
- Fresh water flora and fauna
- Fungi List
- History of Gardner Lake
- History of Salem
- Insect Lists
- Salem's Ranking in State and Region in % of land preserved
- Shrub list
- Soil Limitations on development

### HISTORY

September 2000 to October 2001

Original document compilation by Eric Belt, William Martin, and George Ziegra.