



NORWICH

2002 PLAN OF CONSERVATION & DEVELOPMENT

September 2002

To Norwich Residents,

The State of Connecticut requires municipalities to update Plans of Conservation and Development every ten years. The last Norwich Plan was adopted in 1989. As a result of much hard work by the Norwich Commission on the City Plan, City of Norwich staff, and input received from public meetings this document has been revised and is the adopted 2002 Plan of Conservation and Development for the City of Norwich. With the start of a new century, this is an opportune time for Norwich to consider changes in policy and thinking that will result in renewed physical, economic, and social vitality.

Norwich has long been committed to planning for the future. Many plans for specific areas of the City have been written since the 1989 City Plan was adopted. The 2002 Plan consolidates many of these recommendations and focuses on how these common elements might help create a more livable urban environment. Good cities don't just happen they are made.

2002 is a year of significant change for Norwich. A mayor was elected under a revised charter. In addition, the City Council was reduced in number and no longer is elected by precinct. The Governor of Connecticut visited the city to illustrate the State's commitment to urban revitalization efforts.

The success of these efforts and the future of Norwich depend on the ability of City leadership to bring together disparate opinions around a common vision. It is the hope of the Commission on the City Plan that this document reflects the consensus of the community, and becomes a guide for the City's future.

This plan represents eighteen months of work by the Commission. Issues important to the future of Norwich were discussed at monthly meetings. Public meetings were held, and a number of written comments were received on various aspects of the Plan. The success of the planning process is however, is not the publication of this Plan. The success of the planning process will be measured by the extent the strategies incorporated in the Plan are implemented by the City over the next decade.

Sincerely,

Norwich Commission on the City Plan
Ralph Page, *Chairman*



ACKNOWLEDGEMENTS

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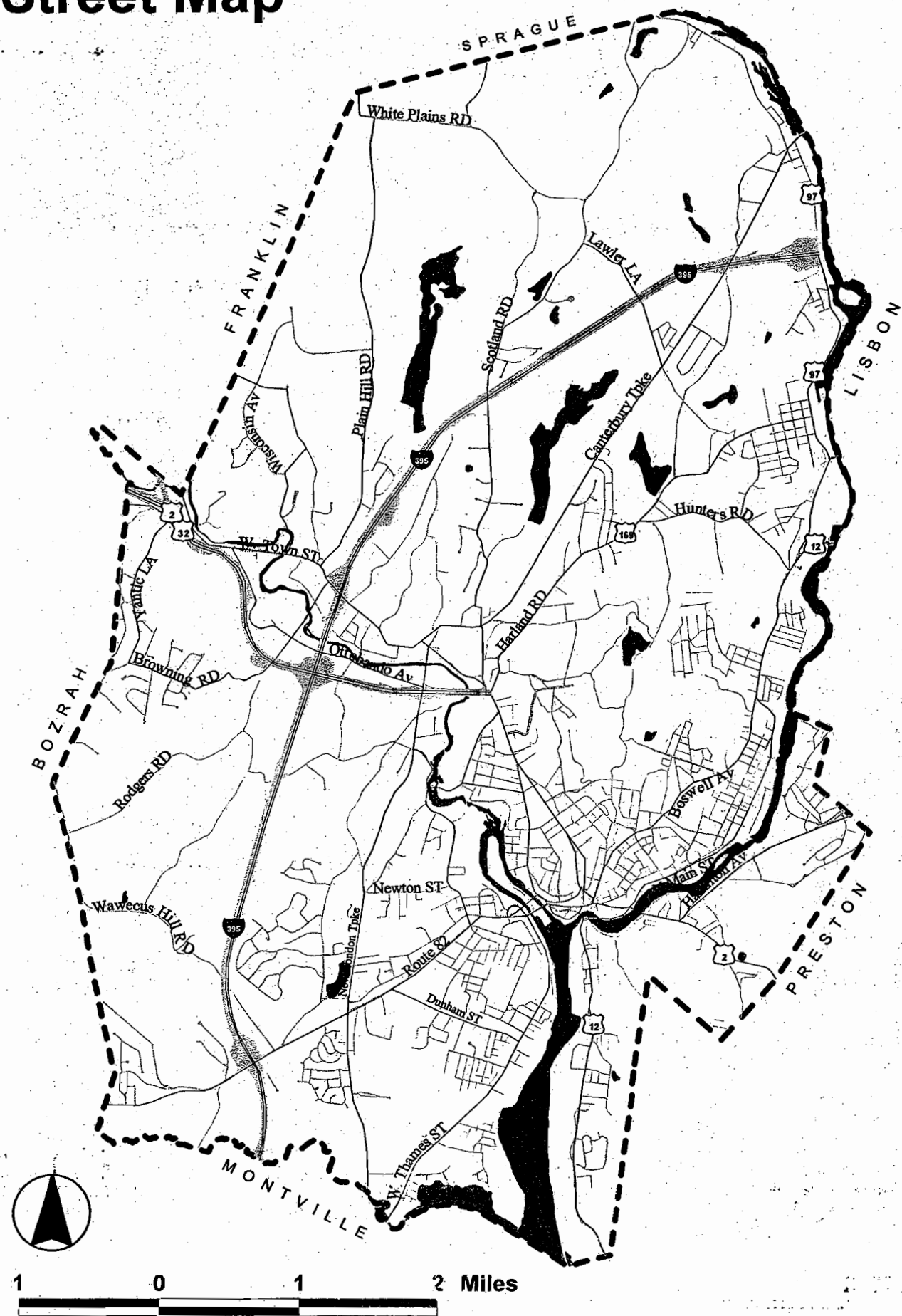
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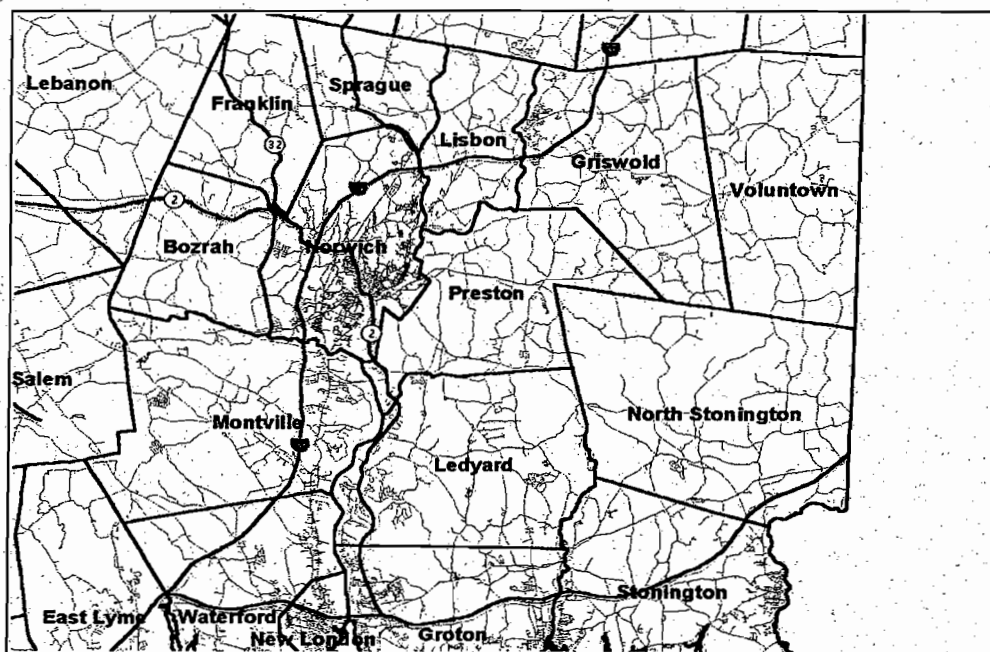
INTRODUCTION

1

Location

The City of Norwich is located in New London County in southeast Connecticut. The City is bounded to the north by Sprague, Lisbon, and Preston to the east, Montville to the south, and Franklin and Bozrah to the west. Norwich is located about 34 miles southeast of Hartford, and 39 miles southwest of Providence, Rhode Island.

According to estimates from the U. S. Census Bureau, Norwich had a 2000 population of 36,117. It contains 28.34 square miles (18,750 acres) and is situated prominently at the confluence of the Thames, Shetucket, and Yantic Rivers.



Implementation

Implementation is the real purpose of the planning process. While preparing a plan is an interesting and exciting venture it will not be considered a success if it is not implemented.

Plans of Conservation & Development

A Plan of Conservation and Development is a tool for guiding the future of a community. The goals and recommendations of a Plan reflect the overall consensus of what policies are appropriate for a community and what changes are desired in the future.

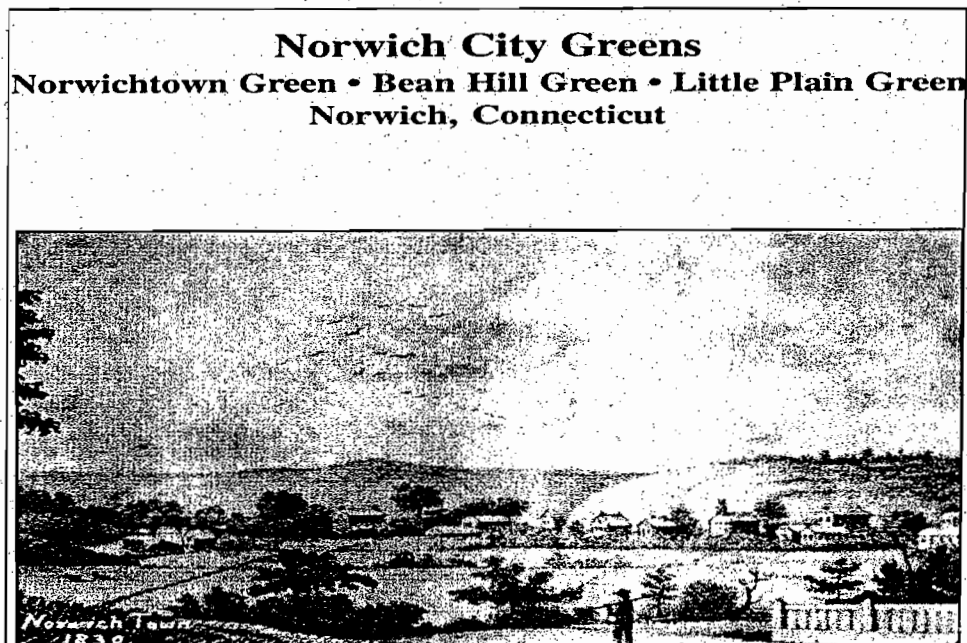
A Plan is first and foremost a series of recommendations for the physical layout of a community. The quality of life for residents can be shaped by the choices a community makes relative to its physical layout. A good plan maps the optimum areas to be the economic engine of a community. It also balances the need for economic development with maintaining desirable residential neighborhoods and open space areas.

Recent History of Planning In Norwich

Norwich has a rich history of planning for the future. The last plan of Conservation & Development was prepared for Norwich in 1989. The plan had significant influence in prioritizing transportation and sewage treatment projects for the City.

Other more recent plans have also been prepared to address particular issues of importance to the community. These plans were considered in the preparation of this Plan of Conservation and Development:

- Norwich Economic Development Plan (1990)
- Feasibility & Planning Study The Historic Mills of Norwich, (1992)
- Norwich Downtown Plan of Development (1993)
- Marketing Plan, Norwich Connecticut (1996)
- Norwich City Greens (May 1998)
- City of Norwich Harbor Management Plan (July 1996)



State Requirements

Section 8-23 of the Connecticut General Statutes requires that the Planning Commission prepare, adopt, and amend a Plan of Conservation and Development. The statute states that the plan...

"shall be a statement of policies, goals, and standards for the physical and economic development of a municipality goals...and show the commission's recommendation for the most desirable use of land within the municipality for recreational, commercial, industrial, and other purposes."

Planning Period

Statutes require that the plan be updated every ten years. This Plan looks ten to twenty years into the future and is intended to guide public and private actions for the next ten years.

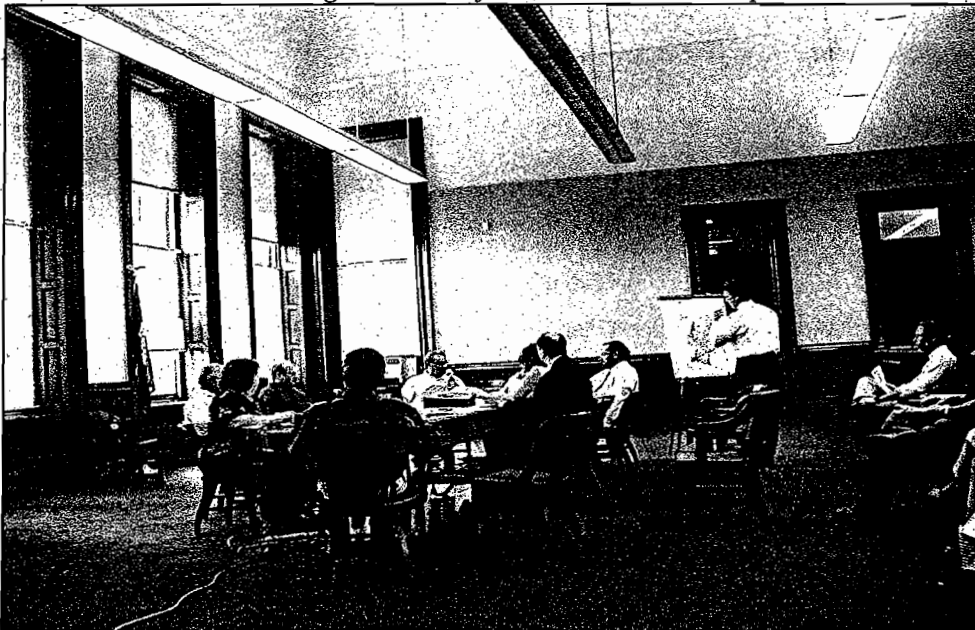
The 2002 Planning Process

Many people were involved in the preparation of this plan, but the Commission on the City Plan has the leadership role in its preparation and adoption. Both City planning staff and consulting staff provided the information and strategies for discussion by the Commission.

Mapping

The planning process was initiated in August 2000 with the preparation of a digital mapping system for Norwich. The many maps included in this plan were made possible by this new Geographic Information System (GIS). Information about Norwich was assembled and illustrated in an effective way, never before available to assist in preparation of the Plan.

Public Hearing-2002 Plan of Conservation & Development



Planning Workbooks

The following is a list of detailed workbooks done in the past year. They can be accessed on-line at the City of Norwich web site at www.norwichct.org.

1. *Planning Primer*
2. *Preliminary Issues*
3. *Natural Resources*
4. *Land Use*
5. *Planning Districts*
6. *Transportation*
7. *Historic Preservation*
8. *Economy Overview*
9. *Economic Development*
10. *Zoning Ordinances*
11. *Regional Factors*
12. *Housing and Residential Areas*
13. *Social Services*
14. *Utility Infrastructure*
15. *Community Facilities*
16. *Future Land Use*
17. *Coastal Resources*

The Planning Process

- Initial work began in September of 2000 when a series of interviews were held. Over forty Norwich City department heads and representatives of other private and public organizations in Norwich were interviewed by consulting staff.
- A summary of these interviews was presented to the Commission on the City Plan. This summary was entitled *Preliminary Issues Report* and outlined Norwich's strengths, weaknesses, threats, and opportunities. In addition, a summary booklet listing many of the recommendations of special planning reports done for the City over the last ten years was presented to the Commission.
- From January 2001 until January 2002 the Commission reviewed Planning Workbooks, (listed by topic in the side-bar). These booklets presented information, summarized issues, and developed strategies on topics to be addressed by the Plan.
- Norwich residents were kept involved in the planning process. Two public meetings and one public presentation (on economic development) were held by the commission to review plan topics with Norwich residents and officials. The Norwich Bulletin summarized plan workbooks as they were reviewed by the Commission on the City Plan.

Plan Organization

Introduction

This first section of the Plan of Conservation and Development includes an Executive Summary that highlights major strategies for Norwich's future development. This section also presents a brief history of the City, an analysis of significant current trends, and analysis of current land use.

Specific Topics

Subsequent chapters are arranged under the general topic heading of *Conservation, Development and Infrastructure*. Each chapter contains a summary of strategies to be pursued relative to the topic.

Conclusion

This last section of the plan summarizes future land use recommendations based on strategies outlined in the plan. The Future Land Use Map is a graphic presentation of the changes in land use the City will be working towards to improve economic competitiveness and the quality of life for residents.

CONDITIONS & TRENDS

2

Location

The City of Norwich is part of the Eastern Uplands of Connecticut characterized by chains of hills running north-south and rivers winding their way through the region, emptying into either the Connecticut or Thames Rivers. The topography of Norwich typifies the region and the diverse development of the City was primarily affected by this rolling terrain and extensive river system.

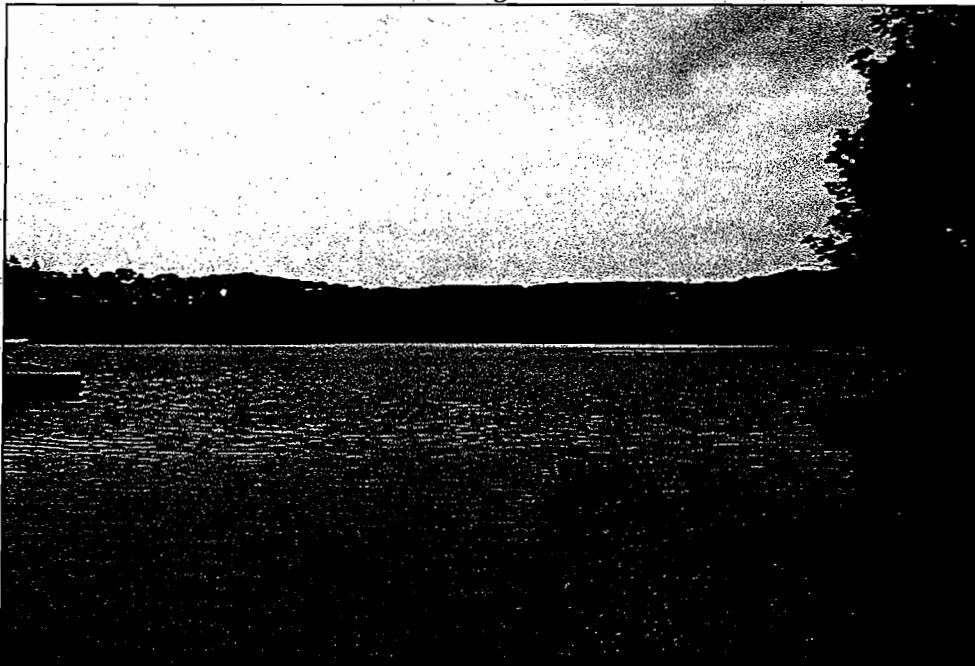
The first town established in the Eastern Uplands was Norwich due to its prized location at the head of the Thames River. It was settled in 1659 after English settlers from Saybrook purchased land from the Mohegan Indians. Norwich became a legal township in 1662 and was one of five cities incorporated by the General Assembly of Connecticut in 1784.

Topography

Norwich has some of the roughest topography of any city in Connecticut. This results in an urban community that is irregular & fragmented with a street pattern that is eccentric, twisting, and occasionally as steep as San Francisco

1989 Plan of Development

Trading Cove



HISTORY

Early History

Settled around 1660 Norwich developed as an important colonial seaport during the 1700's. Norwich grew to become the most densely populated City in Connecticut by 1750, with the second largest population. Chelsea Landing, the urbanized center of the city, experienced rapid development of wharves and warehouses, becoming a center for commerce. A shipyard built in Norwich in 1717 contributed to the "urbanization" of the community due to the large scale of labor employed and capital invested. Support industries such as rope making and ironworks also developed, broadening the economic base. In 1774 Chelsea became incorporated as one of the first five Connecticut cities.

1800's

Norwich was at its peak from 1820-1880, due not only to its prominent shipping location, but also the establishment of two railroad lines through the city. In 1860 it was still the third largest city in Connecticut, exceeded only by New Haven and Hartford. Yantic Falls, with its impressive display of water power, became the first area of industrial concentration in Norwich. There were a number of large mills built that operated in various sections of the city, but the highlight of industrial development of the time was Taftville's Ponemah Mill.

As a commercial and industrial center Norwich became "The Rose of New England" and fine homes along Chelsea Parade spoke to the importance and wealth of the community during this golden age. Much of the physical structure of Norwich evident today reflects this era. Congested housing and business areas along hillsides leading up from river areas, where mills, ferries, and railroads once flourished, continue to form the basic structure of the Norwich community.

As industry expanded during the 1800's and early 1900's the demand for power exceeded the hydropower capacity of the City. As coal fired steam engines replaced water power, Norwich's competitive advantage declined. Textile mills, which had become major employers, began to relocate to the south closer to coal fields and raw cotton. The completion of the railroad bridge across the Thames River at New London in 1888 also allowed trains heading west to New York or east to Rhode Island and Boston to bypass Norwich.

Early 20th Century

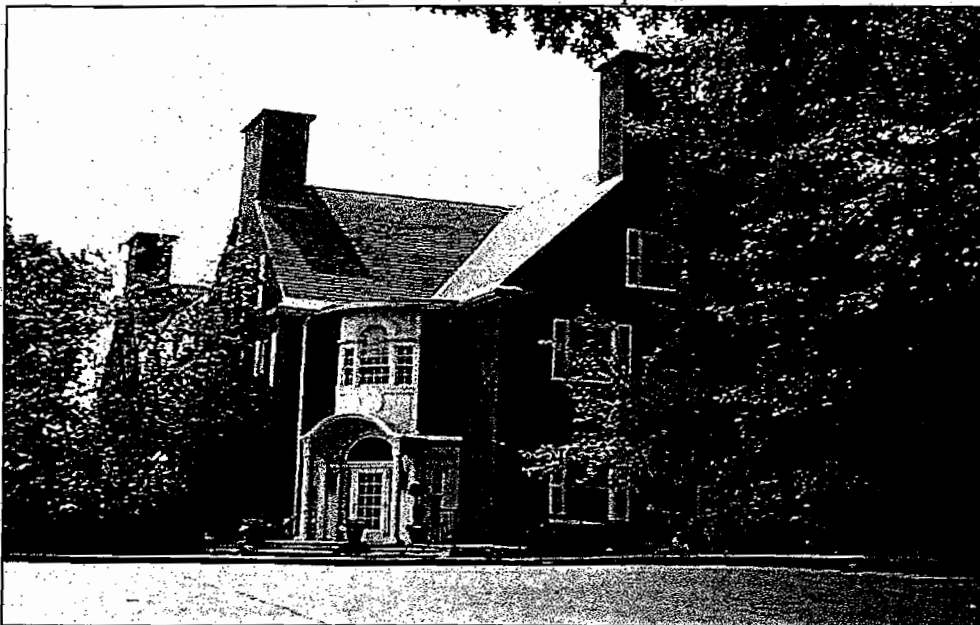
Perhaps Norwich began a city planning legacy as early as the late 1880's to try to combat the transportation disadvantages that were evolving. The Norwich Board of Trade was established in the late 1800's to improve the economic development climate in the city. The Board initiated activities such as widening the Thames River Channel to ensure prosperity at the start of the new century.

The City's greatest accomplishment in promoting business came in 1912 when American Thermos Products was convinced to locate in Norwich (American Thermos Company was the City's largest employer until the 1980's). As the textile industrial waned in the mid part of the twentieth century however, so did the fortunes of Norwich. Large industrial mills remained largely empty and the population of Norwich began to decline. By 1930 Norwich had declined to become the tenth largest community in Connecticut. The future use of vacant land and buildings is a constant cause for speculation.

As the twentieth century continued to evolve, automobiles and trucks eventually became the major modes of transportation making the water and rail advantages Norwich had to offer businesses no longer significant. I-95, the most traveled interstate built in Connecticut, bypassed Norwich and became the major route linking New York, Providence, and Boston.

Of significance is that along with its business prominence, Norwich also established a strong social service legacy. Norwich was home of one of the first social service agencies in the State, eventually providing social work and in-home nursing services. Two large state health facilities in the city (Norwich Hospital and Uncas On Thames) are remnants of this heritage.

Historic Norwich Inn & Spa

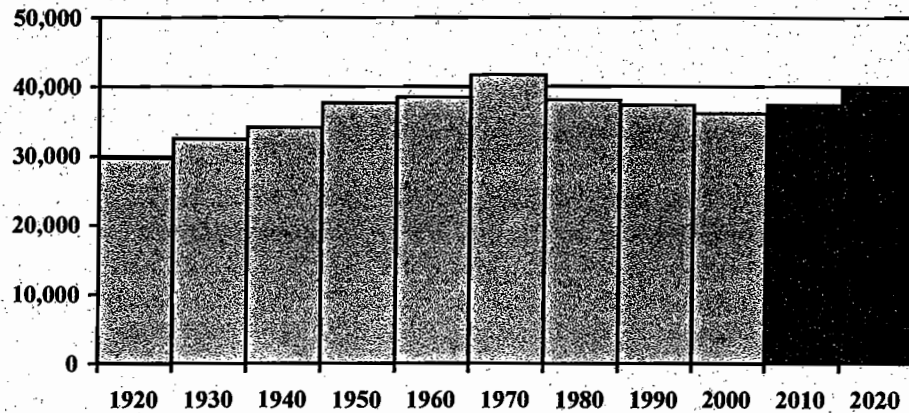


Census Data

2000 Census Data used in this report, and other data not yet released, can be obtained on-line at www.census.gov

TRENDS

Historic Population



US Census, OPM Projections

As the chart above illustrates, Norwich has had relatively slow population growth since 1910 and declining population since 1970. Norwich, along with many older industrial cities in the Northeast has not been able to compete with spacious suburban communities made accessible by highway development. Slight growth is projected by the CT Office of Policy and Management in the near future as nearby casino employment continues to rise.

Of more significance than the overall population data is the change in racial composition of the City since 1990. The number of minority residents in Norwich grew by 46% from 1990 to 2000. Most of this growth was due to a large increase of residents of Hispanic and Asian origin, as illustrated by the table below.

Comparison 1990-2000 Norwich Racial Composition

	1990		2000	
	Number	%	Number	%
Black	1,974	5.3%	2,469	6.8%
Hispanic	1,161	3.1%	2,208	6.1%
Asian	400	1.1%	758	2.1%
Other	872	2.3%	998	2.8%
Total	4,407	11.8%	6,433	17.8%

US Census

Employment

The era of industrialization is waning. By 1987 manufacturing comprised 17% of employment in Norwich and by 2000 only 10%. The flip side of the lack of industrial employment in the city is the increase in service producing employment. Norwich is no longer a place where things are made, rather it has become a service center. Casino and tourism related employment continues to be the fastest growing source of employment for Norwich workers and for the Southeast Region.

June 2000 Employment Composition

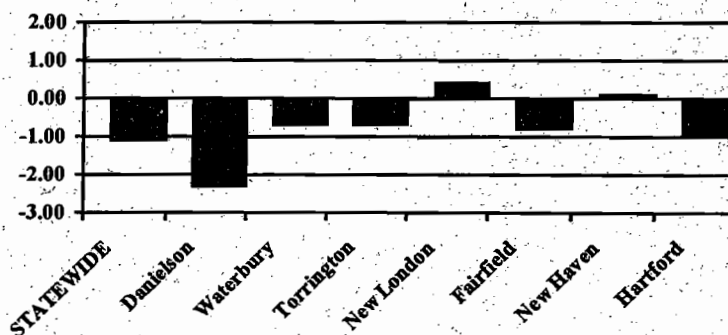
	Norwich	Region	State
Goods Producing	12%	20%	21%
Manufacturing	10%	16%	15%
Construction	2%	4%	4%
Service Producing	88%	80%	79%
Trade	24%	21%	22
Government	16%	12%	14
Services	40%	26%	31
Other	8%	21	12

CT Department of Labor

The growth in casino related employment has brought over 20,000 jobs to Southeastern Connecticut resulting in low unemployment and continued job growth, even in the current economic recession. Continued job growth, however, may be in jeopardy if other casinos are opened closer to New York City and Boston Metropolitan Areas, where a large number of casino patrons live.

The chart below represents the change in number of jobs in Connecticut by Labor Market Area. All labor market areas lost jobs in 2001, with the exception of the New London Labor Market Area (includes Norwich), which had a +0.4 % growth rate, and the New Haven Labor Market Area which had 0% growth.

Connecticut 2001 Job Growth



CT Department of Labor

Median Property Value

The Connecticut Policy and Economic Council in 1999 ranked Norwich 152nd of 155 communities in median residential property values.

Income

The high composition of service and tourism related employment may impact income levels for Norwich residents. *The Department of Economic Development* for the State estimates that in 2000 Norwich ranked 140th of 169 Connecticut Towns in Per Capita Income.

Per Capita Income in Norwich has risen at a slightly lower rate than the state as a whole since 1990, but at a comparable rate to New London County.

Comparison Of Per Capita Income

	1990	2000	Increase
Norwich	\$14,844	\$22,942	54%
New London County	\$16,702	\$25,919	55%
Connecticut	\$20,189	\$31,816	57%

1990-US Census, 2000-CT Dept of Economic Development

The high rise in casino and related travel service employment is compensating for lost goods production and trade employment in Norwich. However, the relatively lower wages of this kind of employment are not raising the level of income in Norwich to a level comparable to the state average.

Real Estate Values

Lower income levels are a major contributing factor to low Norwich residential real estate values. Values are significantly lower than the state average. This is reflected in the lower than average value of the Norwich Grand List. The relatively low tax base, however, is somewhat offset by increased state aid that Norwich receives.

Comparison Of 1999* Median Sales Price of Residential Property

State Rank	Town/City	Median Sales Price
58	Stonington	162,000
	State Avg	\$149,900
78	East Lyme	\$145,500
96	Ledyard	\$133,000
102	Groton	\$128,500
103	Waterford	\$128,000
108	Franklin	\$125,000
117	Montville	\$118,250
126	Lisbon	\$114,500
136	Griswold	\$105,000
149	New London	\$91,550
152	Norwich	\$86,000

Source :CT Policy & Economic Council,

* Sales between 10/98 and 9/99, 155 Towns reporting

COMMUNITY TAX PROFILE

Median residential property taxes in Norwich are low in comparison with other state and neighboring communities. The table below illustrates this. Norwich is fortunate to have a higher than average business tax base contributing to the relatively low amount of residential tax paid.

**1998-1999 Median Residential
Property Taxes SE CT Largest Towns**

State Rank	Town/City	Median Property Tax
	State Avg	\$2,631
84	East Lyme	\$2,569
105	Ledyard	\$2,381
124	New London	\$2,253
148	Montville	\$1,934
153	Norwich	\$1,785
155	Groton	\$1,658
164	Waterford	\$1,279

Connecticut Policy & Economic Council

Although the equalized mill rate in Norwich is high when compared to other southeast Connecticut communities (as illustrated on the table below), it ranks well below most cities in the state. The equalized mill rate for Norwich is comparable to smaller cities in the state as illustrated on the next page.

**1998-1999 Equalized Mill Rate*
Southeastern CT top 8 ranked Towns**

Rank	Town	Equalized Mill Rate	State Rank
1	New London	26.01	11
2	Norwich	21.00	31
3	Salem	20.23	44
3	N. Stonington	19.00	67
	State Average	18.14	
4	Ledyard	18.11	82
5	Voluntown	16.76	105
6	Sprague	16.67	108
7	Franklin	16.47	113
8	Griswold	15.11	132

Connecticut Policy & Economic Council
 *Equalized mill rates or effective tax rates are used to compare municipal taxes, since the rates are based on comparable property values. This means the rates have been adjusted for the date the community last revalued property.

The equalized mill rates and percentage of grand list generated by business for Connecticut's smaller cities (most similar in population to Norwich) are shown on the table below.

**1998-1999 Equalized Mill Rate
CT Cities 20-45,000 Population
(ranked by decreasing Equalized Mill Rate)**

State Rank	Town	1998 Est Pop	Equalized Mill Rate	Business % of GL
11	New London	23,869	26.01	39.9%
20	Torrington	34,451	22.30	23.6%
31	Norwich	34,931	21.00	31.0%
	Avg of Group		20.69	37.86%
49	Middletown	43,640	19.95	46.3%
	State Average		17.55	26.9%
143	Groton	41,284	14.23	48.5%

Connecticut Policy & Economic Council

Although the tax rate in Norwich is higher than average for the state, it is typical of other similar size cities in the state. Due to a combination of low residential property values and declining business tax rolls, cities in Connecticut generally pay a higher local tax rate than other communities. Even significant state aid has not compensated for this disparity.

Cities such as Groton, with a high percentage of business tax base, have lower mill rates, as would be expected. Higher tax rates can be offset by continuing to encourage businesses to stay or relocate in Norwich. Future land use planning in Norwich must also recognize the need to increase the tax base and promote a higher quality of development to enhance the tax base and character of the city.

Norwich City Hall



2002 NORWICH LAND USE SUMMARY

Use	Acres	% Committed Land	% Total Land
Residential	7,673	55%	41%
Single-family	7,062	50%	38%
Multi-family	394	3%	2%
Mobile Home	218	1%	1%
Business	1130	8%	6%
Retail /Commercial	746	5%	4%
Industrial	384	3%	2%
Public & Institutional Uses	666	5%	4%
Roads and Railroads	1,707	12%	9%
Recreation & Open Space	1,723	12%	9%
Transportation & Utility	278	1%	1%
Misc (River/ Cemetery)	825	6%	5%
Developed / Committed	14,002	100%	75%
Vacant	4,748		25%
Total Land Area	18,750		100%
* Planimetrics (Totals may not add due to rounding.)			

These land uses are illustrated on the 2002 Land Use Map found on the facing page.

EXISTING LAND USE

Since the Plan of Conservation and Development is a tool for guiding the future physical development of Norwich, an existing land use map is a fundamental component of the plan. The methodology used to determine existing land use is based upon the use of the assessor's database and a field review.

The table on the facing page outlines current land use in Norwich. Norwich contains approximately 18,750 acres. The land use survey found that about 75 percent of the community (14,002 acres) is either developed land or committed to a specific use. Conversely, about 25% of land (4,748 acres) is considered vacant.

Residential Land Use

Residential is the largest land use category with 7,674 acres or 55% of total developed or committed land. This category can be further broken down into the following uses:

1. Single Family Residential	7,062	Acres
2. Multi-Family (3 or more units)	394	Acres
3. Mobile Home	218	Acres

Many single-family lots in Norwich are actually what we would call under-developed, that is, they are large parcels of land with a very small amount of acreage actually required for the existing single family use. A total of 3,521 excess or underdeveloped acres were determined by the land use survey. Under-developed land was determined by identifying existing single family parcels that were 2 1/2 times the minimum lot size, assuming further subdivision may be possible.

Recreation and Open Space

Recreation and Open Space is the second largest land use category in Norwich with 1,723 acres or 12% of committed land used for this purpose.

Retail/Commercial

About 746 acres or 5% of committed land is used for retail and commercial uses. This use category encompasses a variety of activities such as shopping centers, restaurants, hotels, as well as mixed apartment and retail uses. This calculation is a significant increase from the 301 acres of commercially developed land included in the 1989 Plan of Conservation & Development, and is the highest percentage increase of any land use category.

Definitions

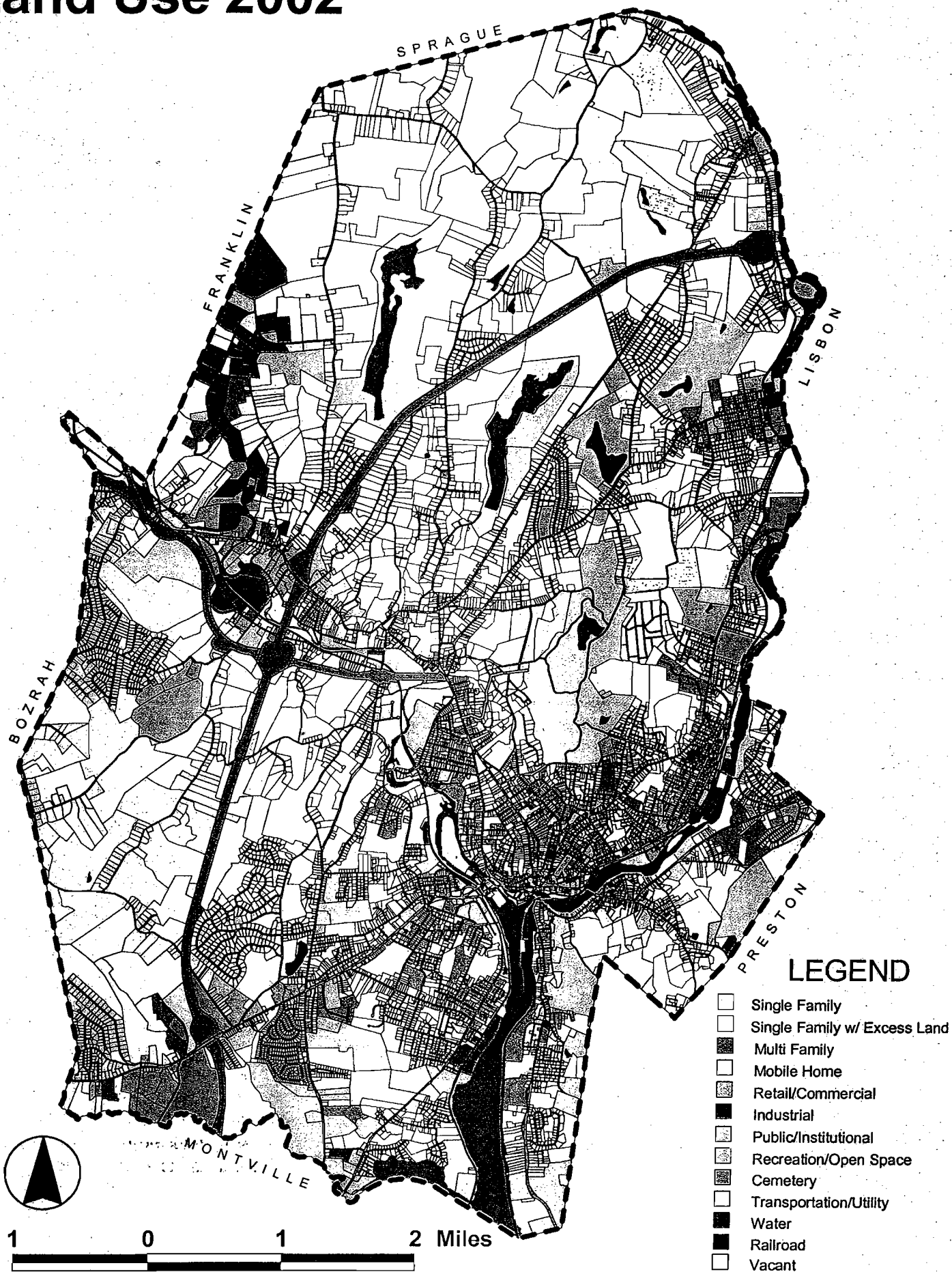
Developed Land
land that has buildings used for a particular economic or social purpose (such as residential or institutional).

Committed Land
land that is used for a particular economic or social purpose (including open space).

Vacant Land
land that is not developed or committed.

Under-Developed Land
developed land that is not used to its full potential (such as a 50-acre parcel with one house in a two acre zone).

Land Use 2002



Development Potential

For purposes of this land use analysis, constrained land is defined as either land comprised of wetland type soils and/or within the 100 year flood FEMA Zone. The land use survey found there are about 4,748 acres of land in Norwich that is not committed to particular uses and may be capable of supporting additional development in the future. This does not include any of the land indicated as Open Space (such as public water supply land) noted on the Land Use Map.

The following chart shows the amount of vacant land in each zone in Norwich with constrained land subtracted. A total of 4,027 acres remain, which have some potential for development.

Development Potential/Acres

Zone	Vacant Land	Constrained Land	Vacant - Not Constrained
<i>R-10</i>	324.1	58.5	265.6
<i>R-17.5</i>	202.6	26.4	176.2
<i>R-25</i>	1,236.5	137.2	1,099.3
<i>R-40</i>	1,309.5	169.3	1,140.2
<i>R-80</i>	809.7	89.7	720
<i>R-O</i>	1.3	.3	1
<i>MF-5</i>	119.1	4.4	114.6
<i>MF-8</i>	106.7	22.2	84.5
<i>I-1</i>	52.6	32.7	19.9
<i>I-2</i>	50.6	35.5	15.1
<i>IP</i>	377.7	100.2	277.5
<i>CC</i>	1.8	0.1	1.7
<i>CCI</i>	3.8	2.3	1.5
<i>GC</i>	115.6	32.8	82.8
<i>NC</i>	5.3	1.8	3.5
<i>PC</i>	30.9	7.6	23.3
<i>WD</i>	0.2	0.2	0
TOTAL	4,747.7	720.9	4,026.8

Single Family Residential Potential

After considering constraints, an analysis of vacant parcels was done to estimate the number of additional single family residences that could be developed in Norwich. The result was that an estimated 4,000-5,000 additional single-family units could be built in Norwich given current zoning. This does not take into account other factors such as steep slopes or non-wetland soil constraints that may inhibit development. Since there are approximately 16,600 housing units in Norwich, per the 2000 census, Norwich could eventually contain about 21,000 single-family housing units under current zoning.

Commercial/Industrial

The amount of Commercial and Industrial vacant land without severe constraints was determined to be 425 acres.

NATURAL RESOURCE CONSERVATION

3

Introduction

Natural resources are integral elements of a community's sense of character and its citizens' quality of life now and for future generations. Planning with respect to natural resources insures that the delicate balance between development and conservation is maintained and reinforced. The major strategies of the Natural Resource section of this Plan of Conservation and Development are to:

- Protect Norwich's important natural resources including flood plains, steep slopes, water, and biological resources.
- Preserve farmland and open space areas.
- Maintain woodland areas as buffers between developed areas.
- Consider water quality issues, especially riparian buffers in land use decision making.
- Identify areas of the city that are sensitive to development.
- Implement federal and state law requirements for coastal management.

Spaulding Pond



Ledge

As a result of glacial forces Norwich has been left with large areas of shallow bedrock soils and rock outcrops commonly referred to as "ledge."

Land Resources

Shallow Bedrock Soils

Soils are an extremely important factor in determining the conservation or development potential of a site. In particular, shallow soils and bedrock outcrops can be a significant constraint to orderly development. These types of soils can interfere with:

- The ability of septic systems to function properly, and
- Can increase the difficulty and expense of installing foundations, roads, and utilities.

The majority of ledge areas are distributed along the city's three major river corridors. Ironically, much of Norwich's urban core was developed on these soils though large areas still lie undeveloped atop Hinckley Hill and scattered about the Wawecus Hill region. Due to their location on the landscape, these areas can provide additional conservation value due to their association with scenic view sheds.

Steep Slopes

Excessively steep slopes can also be a serious constraint to development. Slopes greater than 15% typically create problems for residential, commercial, and industrial development. These slopes can:

- Increase the potential for septic failure,
- Cause on-site erosion,
- Contribute to high maintenance costs, and
- Create access difficulties.

Although low-intensity development is possible in some of these areas, conservation activities are commonly best suited for these slopes. Areas of steep slopes are concentrated along the developed banks of the major river corridors, in almost every region of the city.

Woodlands

Woodlands: provide a vital habitat for many species of wildlife and

- Contribute to maintaining the rural character of a community,
- Afford important buffers to development,
- Help in regulating temperature,
- Assist in maintaining air quality, and
- Filter overland water flow.

Although the most significant contiguous blocks of forestland exist in the northern and southwestern regions, there are fragmented stands of trees in almost every neighborhood. These woodlands provide a rural backdrop to an urbanized community. There are opportunities to conserve and protect significant blocks of woodland. Conservation activities can include protecting large uninterrupted blocks of woodland in rural areas of the city, as well as individual trees in urbanized locations.

Prime Farmland

Prime farmland consists of soils that are the best suited to produce a sustained yield of crops with minimal inputs of energy and additional resources. Their high productivity makes them an asset to communities with agricultural land uses. In addition, prime farmland contributes significantly to the rural character of a community and to the scenic value of the landscape.

Norwich has a long history of farming and agricultural land use. However, as the number of working farms continues to dwindle, farmland is becoming increasingly threatened by development. The last remaining areas of undeveloped prime farmland exist in the northern reaches of the city atop Plain Hill and north of Interstate 395. Although opportunities exist to conserve and protect smaller fragments of farmland in other areas throughout the city, this area provides the last opportunity to preserve a portion of Norwich's agricultural heritage on a large-scale.

Significant Natural Communities

The conservation and preservation of significant plant and animal communities is fundamental in protecting the diversity of a community's environment. In particular, identifying the habitats of endangered or threatened flora and fauna is essential in insuring that development takes place outside of these areas. Connecticut's Natural Diversity Database lists six general areas in Norwich that may support rare or endangered species.

- Four of these areas are located just north of Taftville on the public utility reservoir property and along the Shetucket River.
- Another area has been identified along the Thames River directly east of Thamesville.
- Finally, the state has also identified the area along Trading Cove Brook, east of Interstate 395, as a significant natural community.

Plain Hill



Definitions

Floods

are natural disasters that have the potential to cause extensive property damage and loss of life.

Floodplains

are areas outside the normal channel of a watercourse that are defined by the periodic inundation of floodwaters at a particular frequency, typically 100 years.

Floodways

are the areas of high velocity flow during flood events that typically are found along the established channels of rivers and brooks.

Aquifers

Permeable layers of underground rock, sand, or gravel that store or convey water.

Water Resources

Floodplains

Development within floodplains and floodways can lead to:

- The loss of flood storage capacity,
- Increased flooding,
- Exacerbated property damage, and
- Potential for deadly consequences.

In areas where they have not been developed, floodplains and floodways present significant opportunities for conservation by providing linear corridors along waterways that offer recreational and scenic value. Extensive floodplains lie along the banks of Norwich's three major rivers, the Yantic, the Shetucket, and the Thames.

Norwich strictly regulates new development within the 100-year floodplain, a requirement of the National Flood Insurance Program that provides financial protection to owners of floodplain properties. Despite efforts to curb future development in these areas, large numbers of structures still stand within floodplains and floodways along watercourses like the Yantic River. Norwich has opportunities to continue to work on removing and relocating these structures. Flood zones are also good locations for creating parks and recreation areas.

Watercourses & Waterbodies

Watercourses and waterbodies are part of a complex hydrologic network that drains the landscape. They include:

- Rivers,
- Reservoirs,
- Streams,
- Ponds,
- Brooks, and
- Underground Aquifers.

Each of these contributes to the natural resources of a community by providing critical aquatic habitat, a supply of clean water, or recreational opportunities. In addition to waterbodies, the city has two unused stratified drift aquifers under the Yantic River and Trading Cove Brook.

Wetland/Riparian Buffers

Although technically a land resource, upland buffers to wetlands and watercourses are an essential element to protecting the quality of a community's water resources from pollution. Wooded buffers, typically 100 feet in width, provide an important transition zone and connection between upland areas and aquatic resources.

Through its inland wetland regulations, the City regulates development within 100 feet of any wetland, watercourse, or waterbody. Although development still occurs in these areas, precautions are taken to protect and make allowances for buffer strips to be maintained based on the significance of the resource.

Wetland Soils

Wetlands are much more than their soil classification. Wetlands are land and water resources, critical interfaces between the terrestrial and aquatic environments. Historically considered as wastelands, wetlands are now protected by federal, state, and local regulations due to their significant biologic and hydrologic functions. Wetlands are typically referred to as swamps, marshes, bogs, and pools, but in Connecticut they also include the floodplain areas along watercourses.

Wetlands provide vital wildlife habitat, flood control, nutrient retention, sediment trapping, groundwater recharge, recreational opportunities, and a host of other ecological and societal benefits. While they are a great asset to the community they can also present significant development constraints. Wetland soils typically have a high water table that can:

- cause septic system failure,
- flooding of basements, and
- added expense during the construction process.

The irregular landscape of Norwich provides for an intricate drainage network and an extensive collection of wetlands. Typically located in depressions, wetlands are located along the numerous rivers, streams, and brooks that run throughout the city as well as along the edges of Norwich's reservoirs, ponds, and woodland pools. Although the dominant types of wetlands in Norwich are forested swamps, the community also has freshwater and tidal marshes, wet meadows, floodplains, and even vernal pools.

Vast areas of wetlands still exist in the northern and southwestern regions of Norwich. The association of these wetlands with existing water resources enhances opportunities for conservation activities throughout the city.

Forested Wetlands



Wetland Definition

In Connecticut, state law defines wetlands as those areas with poorly drained, very poorly drained, floodplain, or alluvial soils.

Water Quality Considerations

When projecting future land use and zoning, consideration should be given to the fact that:

Commercial
development can generate an average of 70%-90% impervious surfaces, and

Residential
areas can range from 15% (1 acre zoning) to 65 % (1/8 acre zoning) impervious surfaces depending on the density allowed.

NEMO-Non Point Pollution
Program for Municipal Officials

Water Quality

Centuries of urban development along Norwich river areas have led to water quality problems. The three major rivers each fail to meet state water quality standards for a variety of reasons. Largely because of this, Norwich's water supply is provided from surface waterbodies in other municipalities. Norwich however, maintains several emergency surface reservoirs in the northern region of the city.

Water pollution can come directly from a known *point* such as sewage treatment plants, landfills or industrial locations. Sewer separation projects over the last decade have made significant improvements in treating this kind of pollution. However, high bacteria counts, nitrogen loading, and low dissolved oxygen continually plague the Thames River. Both the Shetucket and Yantic Rivers still contain industrial-age dams that restrict fish passage and both suffer from excessive nutrient loading.

A number of landfills and contaminated industrial sites continue to pose threats to both surface water and groundwater quality. Despite these factors, the progress made in cleaning up Norwich's watercourses and waterbodies is assisting conservation efforts by unlocking unexploited recreational and scenic values throughout the city.

Non- Point Pollution

Most pollution currently comes from *non-point* sources in the form of polluted runoff. Polluted runoff occurs when water runs over the land (whether from rain, car washing, or watering lawns) and picks up contaminants. Common contaminants can be salt/sand from roads, oil/gas from roads, agricultural chemicals from farmlands, and nutrients and toxic material from lawns.

Polluted runoff is largely a result of how land is developed and used. As more impervious surfaces are built less water percolates into the soil and more runoff flows into streams and rivers. As development increases, it should be a goal of the community to increase protection of water quality from non-point sources.

Much of Norwich has been developed in the past along its watercourses and adjacent to its wetlands, removing most riparian and wetland buffer zones in the process. Runoff from urban areas and impervious surfaces has very little area to be filtered, creating water quality problems in areas like the Yantic River and Norwich Harbor. Maintaining these buffers and limiting impervious surfaces are considered the most important steps Norwich can take in protecting water quality.

Open Space Preservation

Open Space & Greenways

Designated open space and greenways provide a core for community conservation efforts. These lands include those that have been protected or excluded from all future development. They include:

- Public lands such as parks, forests, reservoirs, and wildlife preserves, as well as
- Privately owned conservation lands and utility corridors.

Although all of these lands contribute individually to the protection of natural resources, it is the sum of these lands and their physical inter-connections that provide the backbone for all future conservation activities.

Norwich has an impressive collection of open space and protected lands that it has preserved for its future. Large blocks of public land, including Mohegan Park and the public utility reservoirs, complement a collection of smaller parcels distributed throughout the city that provide almost 1,300 acres of valuable open space.

Considering the extent of development in Norwich as a whole, this amount of land set aside for conservation purposes is a clear strength of the community. Unfortunately, these parks, forests, and significant natural features remain fragmented and lack any clear physical linkages between them. Several utility rights-of-way and corridors located in the western and northern regions of the city may provide a means to connect these lands through a trail or similar type of system. The Norwich Heritage Riverfront Walkway, constructed along the Yantic River, is an excellent example of this type of linear connection.

Shetucket River



Natural Resource Preservation Assessment

In the future, Norwich's conservation of natural resources will be as important as its development and growth. Steps taken now to address conservation issues will insure the sustainability of the community for future generations. By assessing the opportunities and constraints different resource conditions create for conservation and development, the community can plan wisely for the future by designating areas for both purposes.

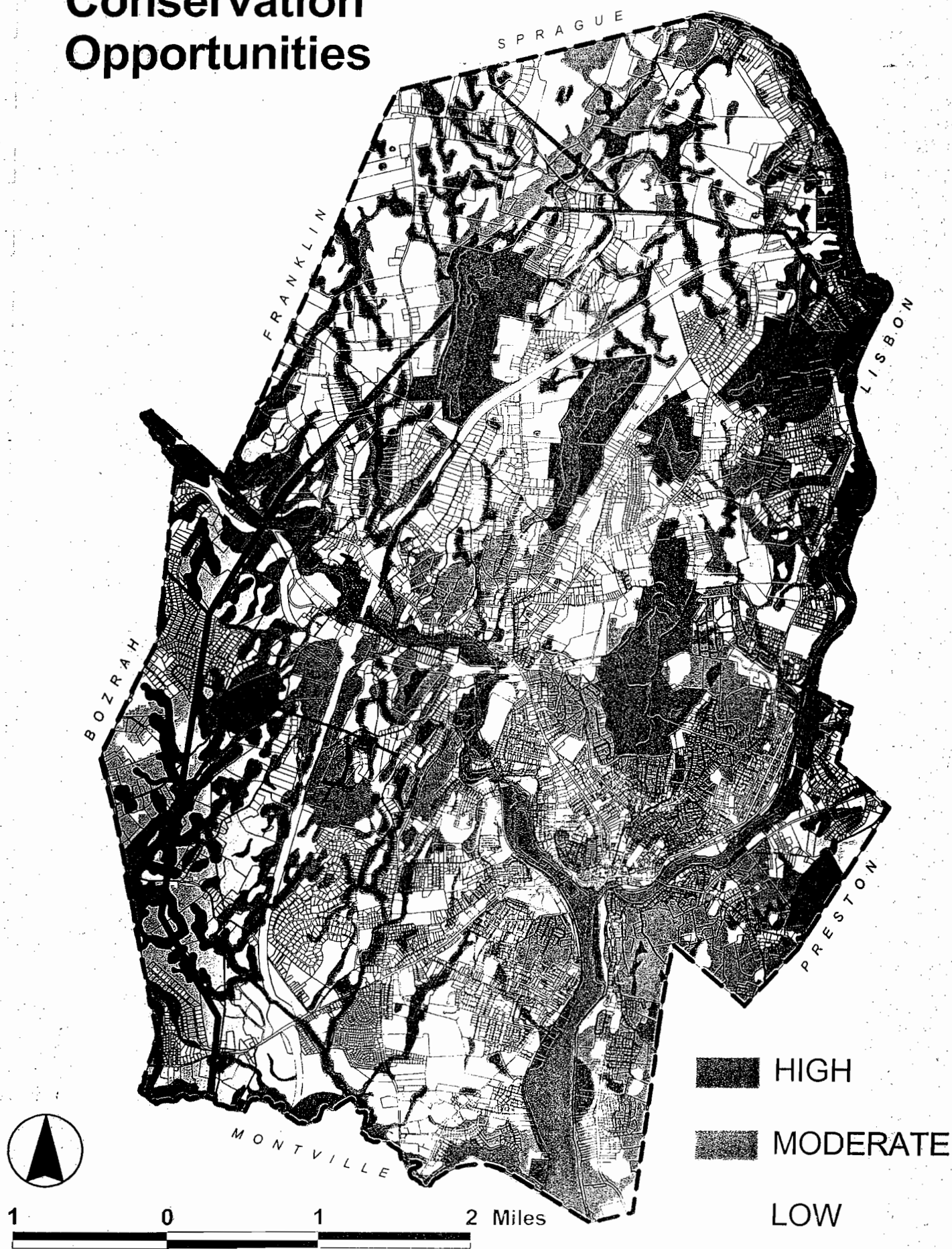
The following table summarizes the natural resource conditions that most affect conservation and development activities in Norwich. These resources have been ranked in terms of their potential to create conservation opportunities as well as to present constraints to development.

Natural Resource Summary Table

Natural Resource Condition	Conservation Opportunity	Development Constraint
Open Space & Greenways	HIGH	HIGH
Floodplains	HIGH	HIGH
Watercourses & Waterbodies	HIGH	HIGH
Wetland Soils	HIGH	HIGH
Natural Communities	HIGH	NONE
Shallow Bedrock Soils	MODERATE	MODERATE
Steep Slopes	MODERATE	MODERATE
Wetland/Riparian Buffers	MODERATE	LOW
Prime Farmland	LOW	NONE
Woodlands	LOW	NONE

The map on the facing page reflects areas where conservation is a priority.

Conservation Opportunities



Coastal Legislation

To promote prudent management of coastal areas, the U. S. Congress in 1973 and the State of Connecticut in 1980 passed legislation including guidelines for:

- *Coastal resource protection,*
- *Coastal land and water uses, and*
- *Facilities in the National Interest.*

Coastal Management

Norwich is one of 41 municipalities in Connecticut influenced by the tidal water of Long Island Sound. Norwich completed and adopted a Municipal Coastal Management Area Plan in 1982. Connecticut law also requires that all significant private and municipal development projects be subject to the coastal site plan review by municipalities.

The Coastal Boundary and Resources

Norwich's coastal area is formally delineated pursuant to *Connecticut's Coastal Management Act*. Norwich Coastal Area is shown on the coastal area boundary map on the facing page. Within this area, the appropriate City commissions conduct coastal site review.

The Norwich Coastal Area is formed by the confluence of the Yantic and Shetucket Rivers into the Thames River. The coastal area encompasses land on either side of these rivers and over 14 miles of shoreline from above Norwich Harbor to the Montville and Preston town lines. The coastal area extends along the Yantic River to Uncas Leap and along the Shetucket River to Greeneville Dam.

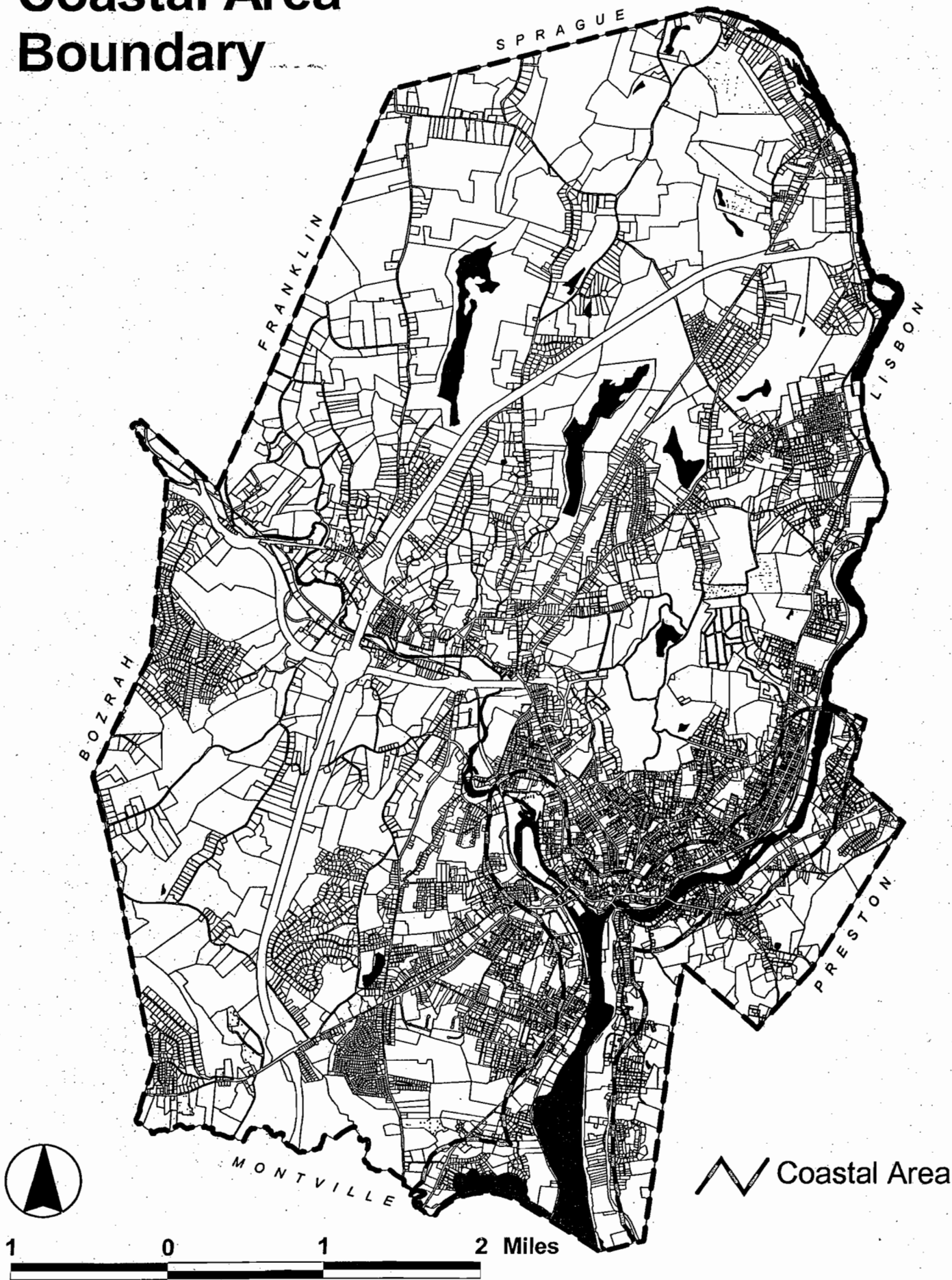
Norwich's coastal resources are quite common to inland estuarine environments and differ from those resources that might be found in towns situated directly on Long Island Sound. Norwich's coastal resources are well documented in the *Municipal Coastal Management Area Plan*. These resources consist of a series of estuarine embayments. *Embayments* are protected bodies of water having an open connection to Long Island Sound. Norwich's Coastal Area includes four discrete estuarine embayments:

- Yantic River
- Shetucket River
- Thames River
- Trading Cove

Coastal areas also include several coastal flood hazard areas, a variety of freshwater wetlands, and two distinct tidal wetlands. These tidal wetland areas are located near Trading Cove, perhaps the most significant coastal resource in Norwich. Trading Cove is located on the western bank of the Thames River at the Montville Town Line. Fed by Trading Cove Brook, this sheltered cove contains tidal wetlands and an intertidal flat.

The balance of lands within the coastal boundary are classified as shorelands. *Shorelands* are defined in the Connecticut Coastal Management Act as those coastal areas best suited for development.

Coastal Area Boundary



Coastal Water Quality

Coastal water quality within Norwich is generally fair. Although low dissolved oxygen levels and nutrient loading continue to remain problems within the Thames River, this can be somewhat expected due to:

- Upstream land use (extensive agricultural lands higher in the watersheds of the Yantic and Shetucket Rivers),
- The wastewater treatment plant on Hollyhock Island, and
- Historic industrial use of the rivers.

These land uses have led to a diminished coastal water quality. It should be noted however, that efforts by the City to separate combined sewer systems over the last decade have made dramatic improvements to the overall water quality of the Thames River. In Trading Cove, issues related to storm water management and urban runoffs remain concerns of both local residents and City officials.

Water Dependent Uses

Waterfront land uses in Norwich are varied and include the American Wharf Marina, historic residential neighborhoods and mill complexes, heavy industrial areas like New Wharf and Shipping Street, and two freight rail lines.

A key policy of the *Connecticut Coastal Management Act* is to preserve most waterfront lands for water-dependent uses. This is best done through planning and zoning efforts that restrict use of coastal lands to activities that are functionally dependent upon proximity to coastal waters. Examples include some industrial and commercial uses dependent upon water for processing or cooling, marinas, commercial fishing and shellfishing facilities, recreational beaches, and others. The Act also provides that non-water-dependent uses (such as a restaurant or a housing development) may be considered water-dependent if reasonable accommodation is made for public access.

Public Access

The majority of coastal associated land is within private ownership. A general lack of reinvestment in the waterfront over the last several decades has not provided many opportunities for the City to develop public access. Despite this fact, the City is actively pursuing means to create additional riverfront public space. This is being done through the extension of the existing Heritage Walkway (along the Yantic River), to the Shetucket River and down both sides of the Thames River.

American Wharf is a full-service marina facility that provides excellent boating access opportunities. In addition to commercial marina facilities, Norwich's harbormaster also maintains a large vessel dock. A boat launch at Howard Brown Park provides free public access for recreational fishermen and boaters. Norwich has adopted, and the state has approved, a harbor management plan that is currently being updated.

Coastal Management Progress

Since the adoption of its Coastal Management Area Plan in 1982, Norwich has made some significant progress in managing coastal areas and coastal resources. In particular, several major improvements and enhancements have been implemented:

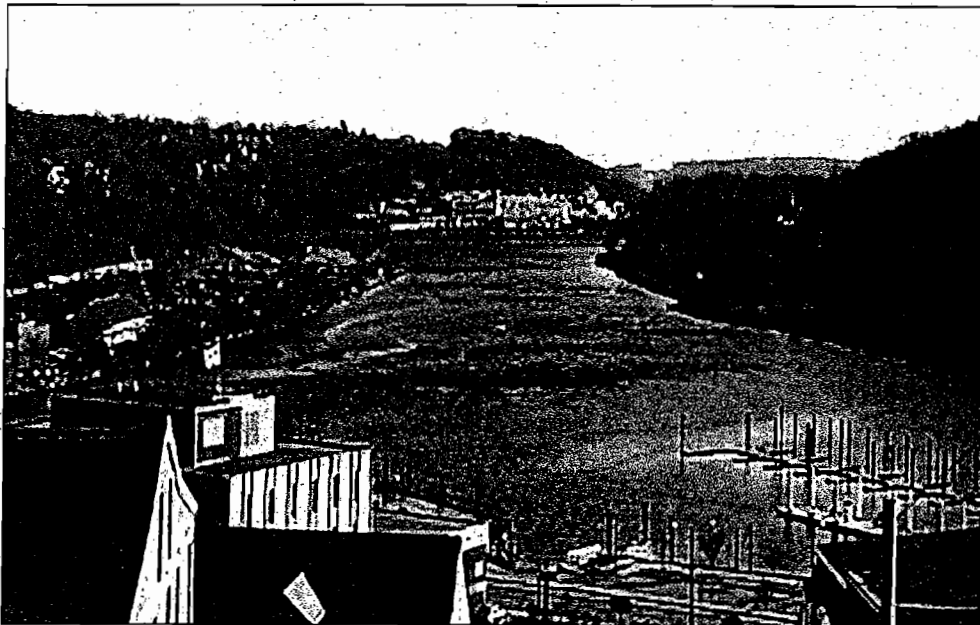
- Development of a full-service marina and large vessel docking facility,
- Establishment of the Heritage Walkway along the Yantic River,
- Construction of a public access area and boat launch at Howard Brown Park,
- Substantial separation of the City's sanitary and storm water sewers, and
- Creation of a Waterfront Development District to encourage water-dependent uses.

Coastal Management Issues

While many coastal management issues have been resolved successfully through policy, plan, regulation or time, a few remain. Important coastal management-related issues can be categorized under the following general headings:

- Creation of public access and recreation/open space areas,
- Protection of scenic vistas,
- Redevelopment of environmentally contaminated sites; and
- Comprehensive rezoning to encourage water-dependent uses.

Norwich Harbor



Natural Resource Conservation Strategies

Land Resources			
	Strategy	Lead Agency	High Priority
1	Encourage the development of buildings and roads to avoid shallow bedrock soils.	Commission on the City Plan	
2	Identify rock outcrops with additional natural resource potential, such as those located atop ridgelines or those located along rivers, and prioritize them for conservation efforts.	Inland Wetlands, Watercourses & Conservation Commission	
3	Consider additional regulations and design standards for the development of properties with slopes greater than 15%.	Commission on the City Plan	
4	Identify steep slopes with additional natural resource potential, such as those associated with scenic view sheds or those within proximity to surface waterbodies, and prioritize them for conservation efforts.	Inland Wetlands, Watercourses & Conservation Commission	√
5	Promote cluster development that will prevent forest fragmentation and maintain large uninterrupted blocks of forestland.	Commission on the City Plan	√
6	Identify important neighborhood tree stands and significant individual trees and work with the surrounding community to protect and preserve these resources.	Inland Wetlands, Watercourses & Conservation Commission	
7	Coordinate efforts with state farmland preservation programs to protect the most significant farmlands remaining in the community.	Planning & Neighborhood Services Department	
8	Encourage developers to integrate farmland, fields, and meadows into their subdivisions to preserve rural character and scenic view sheds.	Commission on the City Plan	
Water Related Resources			
1	Continue the strict enforcement of floodplain regulations to minimize potential flood hazards and property damage during flood events.	Commission on the City Plan	√
2	Explore means to remove existing structures from the floodplain and relocate associated residents and businesses.	Planning & Neighborhood Services Department	
3	Seek additional funding to complete the sewer separation projects for the Greeneville, Downtown, and Thamesville neighborhoods.	Norwich Public Utilities	√
4	Support efforts to provide sanitary sewer to high density residential neighborhoods and to upgrade sewage treatment facilities.	Norwich Public Utilities	√

Natural Resource Conservation Strategies

Water Related Resources (continued)			
	Strategy	Lead Agency	High Priority
5	Continue concerted efforts to clean up contaminated landfill and "brownfield" sites adjacent to significant water resources.	Planning & Neighborhood Services Department	√
6	Investigate means to remove outdated industrial-age dams on the major rivers or to provide adequate fisheries passage through them.	Norwich Public Works Department	
7	Ensure septic systems in rural areas of the city are in good working order and do not discharge waste into rivers and aquifers.	Uncas Health District	
8	Continue to regulate development within and adjacent to inland wetlands and encourage alternatives to the permanent destruction or impairment of these resources.	Inland Wetlands, Watercourses & Conservation Commission	
9	Seek out additional funding sources for updated mapping of the community's wetland habitats	Planning & Neighborhood Services Dept.	
10	Identify the most significant inland wetland resources within the community and prioritize them for conservation efforts.	Inland Wetlands, Watercourses & Conservation Commission	
Water Quality			
1	Encourage alternatives to impervious surfaces and storm water management techniques that direct water to point discharges.	Commission on the City Plan	√
2	Maintain existing buffer zones through the enforcement of the inland wetland regulations and sensitive design of future development activities.	Inland Wetlands, Watercourses & Conservation Commission	
3	Explore opportunities to restore lost wetland and riparian buffers in urban areas.	Commission on the City Plan	
4	Promote the use of upland buffer areas for the filtering of storm water as an alternative to direct discharges into wetlands and other waterbodies.	Inland Wetlands, Watercourses & Conservation Commission	√
5	Ensure the City of Norwich has a system in place for periodic cleaning of storm sewers and drainage systems	Norwich Public Works Department	
6	Ensure City of Norwich sites for outdoor storage of sand/salt and vehicle washing facilities will not jeopardize water quality.	Norwich Public Works Department	

Natural Resource Conservation Strategies

Biologic Resources			
	Strategy	Lead Agency	High Priority
1	Initiate efforts to identify and locate additional significant natural communities as well as individual rare and endangered species.	Planning & Neighborhood Services Department.	
2	Continue to monitor development activities in proximity to these critical habitats.	Commission on the City Plan	
Open Space Preservation			
1	Continue to support linear park and trail systems along Norwich's major rivers, including a possible expansion of the Norwich Heritage Riverfront Walkway.	Commission on the City Plan	√
2	Establish a municipal land acquisition fund to expand existing public land holdings or to purchase other significant natural areas.	Norwich City Council	
3	Seek out additional funding for open space acquisition from federal/state programs & encourage the private donation of open space.	Planning & Neighborhood Services Department	√
4	Coordinate with Norwich Public Utilities to provide full access to all emergency surface water supplies.	City Managers Office	
5	Explore the possibilities of creating trails between existing open space lands using public and private utility easements.	Norwich Parks & Recreation Department	
Coastal Management			
1	Improve public access to coastal areas and expand river walkways.	Commission on the City Plan	√
2	Relocate the boat launch in Howard Brown Park to a larger and less congested site.	City Managers Office	
3	Protect scenic vistas, including ridgelines along the rivers, by acquiring these lands or requiring conservation easements.	Commission on the City Plan	
4	Relocate and/or buffer industrial uses and abandoned industrial buildings that negatively impact the aesthetics of the harbor.	Norwich Redevelopment Agency	
5	Promote the use of upland buffers for the filtering of storm water as an alternative to discharging into wetlands and waterbodies.	Inland Wetlands, Watercourses & Conservation Com.	
6	Expand the City's existing Brownfields Program. Target key properties located in the coastal area for redevelopment, and acquisition by the City.	Norwich City Council	√
7	Rezone both banks of the Thames River to Waterfront Development District. to encourage appropriate redevelopment to water-dependent uses.	Norwich City Council	√

HISTORIC PRESERVATION

4

Preservation Overview

Preservation of cultural resources, like historic buildings and sites, is a valuable way for Norwich to preserve its community character. Since historic resources can significantly influence a community's sense of place, their preservation is an essential component of a Plan of Conservation and Development.

Important preservation strategies included in this section of the plan include:

- Complete an inventory of important historical resources and preparing a cultural resources plan for the City.
- Examine areas for future designation as Local Historic Districts and possibly Village Districts, under recent State Legislation.
- Provide local tax abatement and building code flexibility to encourage restoration of historic properties.
- Encourage public recognition of historic properties.

Leffingwell Inn



Norwich Overview

Norwich is truly significant for its extraordinary wealth of historic resources from different eras, including:

1. **Pre-Colonial Native American**
Scattered sites and monuments honor the Native peoples of the region including Uncas, great chief of the Mohegans, whose tribe drove the Narragansetts from the field in the Battle of Great Plains.
2. **Colonial Settlement**
Originally founded in 1659, Norwich was an agricultural settlement centered around the Green at Norwichtown with a secondary settlement at Bean Hill.
3. **Maritime Enterprises**
Early shipbuilding and warehousing on The Point at Chelsea Landing helped Norwich become the head of commerce and trade on the Thames River by the mid 1700s. In later years, steamboats replaced sailing ships, as Norwich remained a major inland seaport.
4. **Industrial Revolution**
The convergence of railroads within the City and the investment in textile mills along the City's rivers fueled Norwich's boom during the Industrial Revolution of the late nineteenth century. Villages sprung up alongside the mills and the City grew in wealth and size.
5. **Downtown**
By the late 19th and early 20th century, the Downtown had become the retail, commercial, and financial center of Norwich as well as the region.

Laurel Hill Avenue



Inventory of Resources

Norwich's recognized major historic areas are listed below and on the following pages. Additional information can also be obtained at the Otis Library, from the City Historian, from the Norwich Historic District Commission, or from the Connecticut Historical Commission.

State and Nationally Recognized Resources

The City of Norwich has forty-two listings on the National Register of Historic Places, 11 districts and 31 individual buildings and/or sites. Entries on the National Register are also on the State Register of Historic Places. The National and State Register designations recognize historical merit and only affect activities involving federal or state funding. Recognition may prevent unreasonable destruction of important resources, but carries no special protection.

National Historic Places

Resource	Address
American Thermos Bottle Company, Laurel Hill	11 Thermos Avenue
Nathaniel Backus House	44 Rockwell Street
Bradford-Huntington House	16 Huntington Lane
Broad Street School	100 Broad Street
William A. Buckingham House	307 Main Street
Carpenter House (Red House)	55 East Town Street
Converse House and Barn	185 Washington Street
Joseph Carpenter Silversmith Shop	71 East Town Street
Commonwealth Works Sited	Address Restricted
Carroll Building (Flat Iron Building)	9-15 Main Street
Captain Richard Charlton House	12 Mediterranean Lane
East District School	365 Washington Street
Colonel Joshua Huntington House	11 Huntington Lane
General Jedidiah Huntington House	23 East Town Street
Governor Samuel Huntington House	34 East Town Street
Dr. Daniel Lathrop School	69 East Town Street
Dr. Joshua Lathrop House	377 Washington Street
Leffingwell Inn,	348 Washington Street
Norwich Town Hall	Union Street and Broadway
Occum Hydroelectric Plant and Dam	North of Bridge Street
Perkins-Rockwell House	42 Rockwell Street
Telephone Exchange Building	23 Union Street
Dr. Philip Turner House	29 West Town Street
U.S. Post Office-Norwich Main	340 Main Street
Yantic Woolen Company Mill	6 Franklin Road

State & Local Resources Historic Places

Norwich has approximately two hundred historic buildings and places that are listed on the State Register of Historic Places and two Local Historic Districts.

National Register Historic Districts

<i>District</i>	<i>Formed</i>
<i>Yantic Falls</i>	<i>(1972)</i>
<i>Norwichtown</i>	<i>(1973)</i>
<i>Little Plain</i>	<i>(1973)</i>
<i>Taftville</i>	<i>(1978)</i>
<i>Bean Hill</i>	<i>(1982)</i>
<i>Downtown</i>	<i>(1984)</i>
<i>LittlePlainExt.</i>	<i>(1987)</i>
<i>Laurel Hill</i>	<i>(1987)</i>
<i>Norwich Hosp</i>	<i>(1988)</i>
<i>ChelseaParade</i>	<i>(1989)</i>
<i>Jail Hill</i>	<i>(1999)</i>
<i>Local Historic Districts</i>	
<i>Norwichtown</i>	<i>(1967)</i>
<i>Little Plain</i>	<i>(1970)</i>

Preservation Programs

There are numerous activities and programs that a community can participate in to preserve historic resources.

National Register Historic Districts

National historic districts consist of groups of properties that are *recognized* as being of significant historical importance. National designation is largely of ceremonial benefit; it offers no real protection from destruction. Designation affects negative impacts resulting from activities involving state and federally funded programs only. The eleven Norwich National Historic Register Districts are illustrated on the map on the facing page.

Local Historic Districts

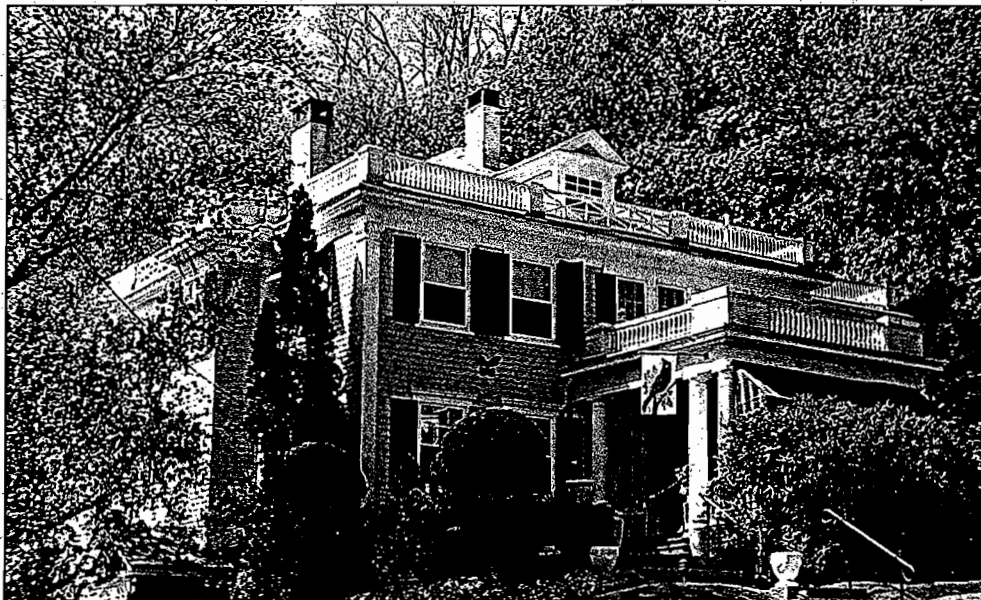
A local historic district *regulates* activities in designated areas and protects historic resources from destruction. The construction or demolition of buildings or structures or the alteration of external architectural features require a "Certificate of Appropriateness" in these districts. Local districts are established by local ordinance and property owners must vote on and agree to be subjected to special regulations, implemented by a local historic district commission.

The steps required to establish a local historic district (CGS 7-147b) include:

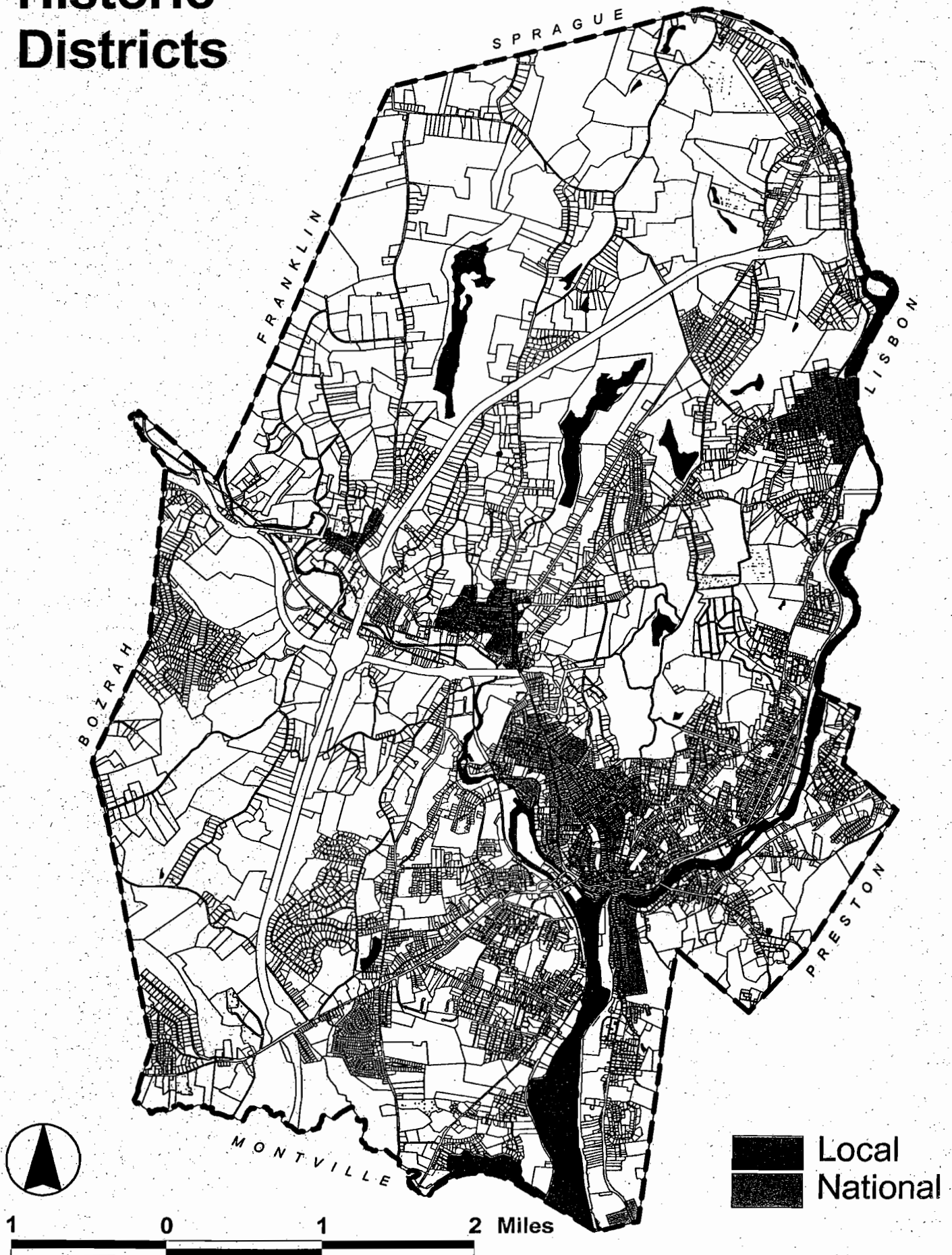
1. Establishment of a historic district study committee by the City.
2. Preparation and submission of a preliminary report on the area.
3. Holding a public hearing.
4. Preparation and submission of a final report.
5. Balloting of all property owners in the proposed district.
6. Adoption of the district ordinance by two-thirds vote of property owners.
7. Adoption of the ordinance by the local legislative body.

The two Norwich Local Historic Districts are also illustrated on the facing page.

Little Plain Local Historic District



Historic Districts



The table on the facing page shows a variety of programs that are available to further historic preservation efforts. It should be noted that Norwich already participates in many of these programs (indicated by a symbol in the table).

General Programs

Perhaps the most fundamental step to preserving historic assets is to identify historic resources. Norwich has conducted a number of historic property surveys over the last four decades, most recently, completing an architectural survey for Taftville and Occum in 1999. Other areas of the city have yet to be evaluated with this level of detail. Unfortunately, Norwich has not formulated a comprehensive historic preservation plan for the diverse wealth of cultural resources found throughout the city.

Federal Programs

National designation best reflects the location of identified historic areas while the local designation ensures that historic areas have some measure of protection. It should also be noted that federally funded projects are reviewed for their impact on resources within National Historic Districts. Federal tax credits are available for the certified rehabilitation of properties listed on the National Register of Historic Places. Norwich has a large number of listings on the National Register of Historic Places. Nominations of local resources for additional recognition (such as historic landmarks) may be possible in the future.

Listings on the National Register of Historic Places recognize properties and places that have local, state, and national significance in architecture, archeology, culture, and American history as a whole. In addition to this recognition, such designation means that:

- Federal, federally licensed, and federally assisted projects must assess the impacts of said projects on the listed properties in the National Register, and
- Owners of listed properties may be eligible for federal tax benefits for the rehabilitation of historic properties, and federal historic preservation matching grants-in-aid.

National Historic Landmark Listing identifies, designates, recognizes, and directly monitors properties that pose exceptional historic significance to the nation.

State Programs

Historic properties significant to the state may be listed on the State Register of Historic Places. Since 1977, all properties accepted for nomination to the National Register of Historic Places are automatically entered on the State Register. Norwich has approximately 200 properties and places listed on the State Register. The Certified Local Government program, administered by the Connecticut Historical Commission, recognizes local historic preservation efforts. Financial assistance is available to communities that participate in this program, and Norwich has often used these grants to fund historic property surveys and other preservation initiatives.

Programs & Activities Summary	
General Programs	
Historic Resource Surveys	•
Cultural Resource Preservation Plans	
Federal Programs	
National Register Listing	•
National Historic Landmark Listing	
State Programs	
State Register Listing	•
Certified Local Government Program Grants	•
Local Staff & Organizations	
Municipal Historian	•
Local Historical Society	•
Historic Preservation Trust	•
Property Study Committee	
Municipal Preservation Planner	
Historic District Committee	•
Municipal Preservation Board	
Design Review Board	•
Local Programs	
Demolition Delay Ordinance	•
Tax Abatement	
Assessment Deferral	
Village District and/or Overlay Zoning	•

Local Staff & Organizations

Norwich has designated a municipal historian to maintain local history, no staff has been assigned for historic preservation planning. Local historical societies and local preservation trusts are privately funded non-profit organizations established to promote and pursue historic protection. Two such organizations, the Norwich Heritage Trust and the Society of Founders, have had some success in preservation efforts in the city.

Local Historic District Commissions are permanent bodies that govern local historic districts and review proposed development projects and building alterations to insure that the character of districts is maintained. The Norwich Historic District Commission is responsible for the Norwichtown and Little Plain Local Districts. A design review board reviews proposed developments to ensure design consistency and review overall appropriateness. Local Historic District Commissions are also empowered to designate landmarks of local distinction.

In addition to local commissions, the Norwich Design Review Board evaluates all proposed development projects in the Downtown National Historic District. A Municipal Preservation Board reviews National Register of Historic Places nomination forms and submits comments to the State Historic Preservation Board.

Tax Incentives

Municipalities can:

Adopt

an ordinance that will reduce or abate taxes on a historic property if the taxes are a factor that threaten the continued existence of the structure, and

Designate

rehabilitation areas and establish criteria for deferring tax assessment increases resulting from rehab.

Historic Preservation Efforts

Zoning Tools

Norwich's regulations already contain several provisions that promote historic resource protection, such as:

- An ordinance that imposes a 60-day waiting period before the demolition of historic structures, allowing time to explore alternatives to demolition,
- The Chelsea Central (CC) Zone which is intended to enhance and protect the historic character of the Downtown area, and
- The Historic Design Overlay Zone that contains provisions to encourage the adaptive reuse of historic properties, including historic mills.

Village district zoning provides an opportunity to develop regulations that protect the character of village areas. Since the zoning authority can adopt a village district, it differs from a local historic district that must be endorsed by property owners. For example, such a designation might be appropriate for the mill villages of Greeneville or Taftville.

Overlay zoning involves the establishment of an additional layer of zoning regulations for a specific area, which are superimposed over the existing zoning districts. Norwich's Historic Design Overlay Zone has been an important component of the rehabilitation and revitalization of a number of historic mill properties throughout the city.

Carroll Building (Flat Iron Building)



Public Recognition

One of the easiest and most overlooked methods of preserving historic resources is through public recognition of significant properties. The City of Norwich and its many historic organizations have been working to increase public awareness of the rich legacy of significant cultural resources and historic treasures located throughout the city. Activities to increase awareness include:

- A grant to develop an informational pamphlet delineating historic districts and providing examples of historic rehabilitation techniques.
- Recent efforts to form new historical societies and to organize and coordinate the efforts of the City's many preservationists, and
- The Norwich Historic District Commission and other local preservationists activities to improve historic signage.

Future Preservation Efforts

The sheer number and quality of the City's historic places rival that of any other community in Connecticut. Although the City has made substantial progress toward the preservation of its historic resources, it has failed in part to formulate a comprehensive historic preservation plan for the entire community.

Although large areas of the city have been evaluated by historical and architectural surveys, work still needs to be done in some regions. In addition to identifying resources, a comprehensive plan must also address the need to prioritize historic properties in blighted neighborhoods and areas like the Downtown for preservation efforts. The early identification of distressed and endangered properties prior to demolition plans being submitted can assist in the pro-active allocation of funds for rehabilitation and the long-term preservation of these important resources.

Norwichtown Green



Historic Preservation Strategies

Planning Activities			
	Strategy	Lead Agency	High Priority
1	Seek additional grant funding from the Certified Local Government program, as well as other federal and state sources, to finish historical and architectural surveys of other areas of the City.	Planning & Neighborhood Services Department	✓
2	Prepare a Comprehensive Historic Preservation Plan for Norwich.	Planning & Neighborhood Services Department	
3	Foster better communication and cooperation between local preservation groups and City government regarding development projects involving historic resources.	Mayor's Office	✓
4	Examine the potential for Village District Zoning to encourage preservation of historic resources in villages such as Taftville and Greeneville.	Commission on the City Plan	
Local Programs			
1	Consider establishing additional local historic districts within previously designated National Historic Districts like Chelsea Parade.	Norwich City Council	
2	Make historic preservation more economically feasible by encouraging technical assistance from building officials.	Planning & Neighborhood Services Department	✓
3	Assist in requests for modifications to existing building codes and regulations to make rehabilitation more viable.	Planning & Neighborhood Services Department	✓
4	Assess the potential impact of local programs such as local tax incentives to help preserve and rehabilitate historic properties.	Norwich City Council	
5	Encourage the efforts of local organizations that promote historic preservation.	Norwich City Council	
6	Nominate appropriate sites for the National and State Registers of Historic Places.	Norwich City Council	
Recognition			
1	Explore the potential of National Landmark designations for Ponemah Mill and City Hall.	Norwich City Council	
2	Continue to encourage historic organizations to publicly recognize significant historic resources through signage, publicity, and ceremonies.	Historic District Commission	

COMMUNITY CHARACTER

5

Introduction

Community structure and community character are closely related.

Community Structure reflects how people, both residents and visitors, perceive and understand a community.

Community Character is the defined elements that make a community unique and a special place in which to live and work.

In the context of the continued debate about urban decline and suburban sprawl, Norwich needs to consider how maintaining community structure and enhancing community character will translate into a more vibrant community.

Major Strategies

- Identify and protect scenic resources in Norwich.
- Continue efforts to reuse historic mill and industrial buildings for uses that will enhance waterfront property and create river vistas.
- Provide financial incentives and streetscape improvements to enhance older neighborhood business areas.

Yantic



Sense of Place

A “sense of place” is enhanced when areas have:

- *identifiable focal points*
- *defined edges*
- *strong structures.*

Areas, such as Yantic and Norwichtown have such features and are easily distinguishable from other areas, both in Norwich and elsewhere, that have development patterns that do not exhibit these attributes.

In many respects, the current debate about “suburban sprawl” is a recognition that some areas do not have any real sense of place.

Community Structure

Recognizing and reinforcing a strong community structure will enhance a “sense of place” for residents. The physical structure of the Norwich landscape, with its many waterways, hills, and valleys, has created natural structural boundaries in the city. Some man made elements, such as the many greens that dot the city, also contribute to community structure.

Norwich is fortunate to have many distinct “places”. Reinforcing their structure and their unique characteristics will enhance the overall character and “livability” of the City. The eight planning districts illustrated on the map on the facing page and summarized below define community structure.

1. Taftville/Occum

This district is characterized by the remnants of mill villages that were built in the mid 1800’s along rivers. They are very distinct neighborhoods that consist of typical mill housing and what is left of neighborhood business districts.

2. Greeneville

The industrial and mill buildings built along the Shetucket River dominate the riverfront here. Dense housing and strip commercial areas along major highways characterize this village area.

3. Downtown

The junction of the three rivers, within the Norwich Harbor, is the focal point of Norwich. The commercial core is just north of where the Shetucket and Yantic Rivers meet and is made-up of a historic Downtown District.

4. Norwichtown

This area is defined by its prominent historic greens (Norwichtown Green and Chelsea Parade Green). There are hundreds of residences of notable architecture from the 1700’s and 1800’s located in this first Norwich settlement.

5. Plain Hill

The high rolling plateau land that stretches northward from Norwich Business Park defines this area. This is an area of contrast between dense industrial development and open farmland.

6. Wawecus Hill

Is a residential area of rolling farmland and extensive woods in the southwestern part of Norwich.

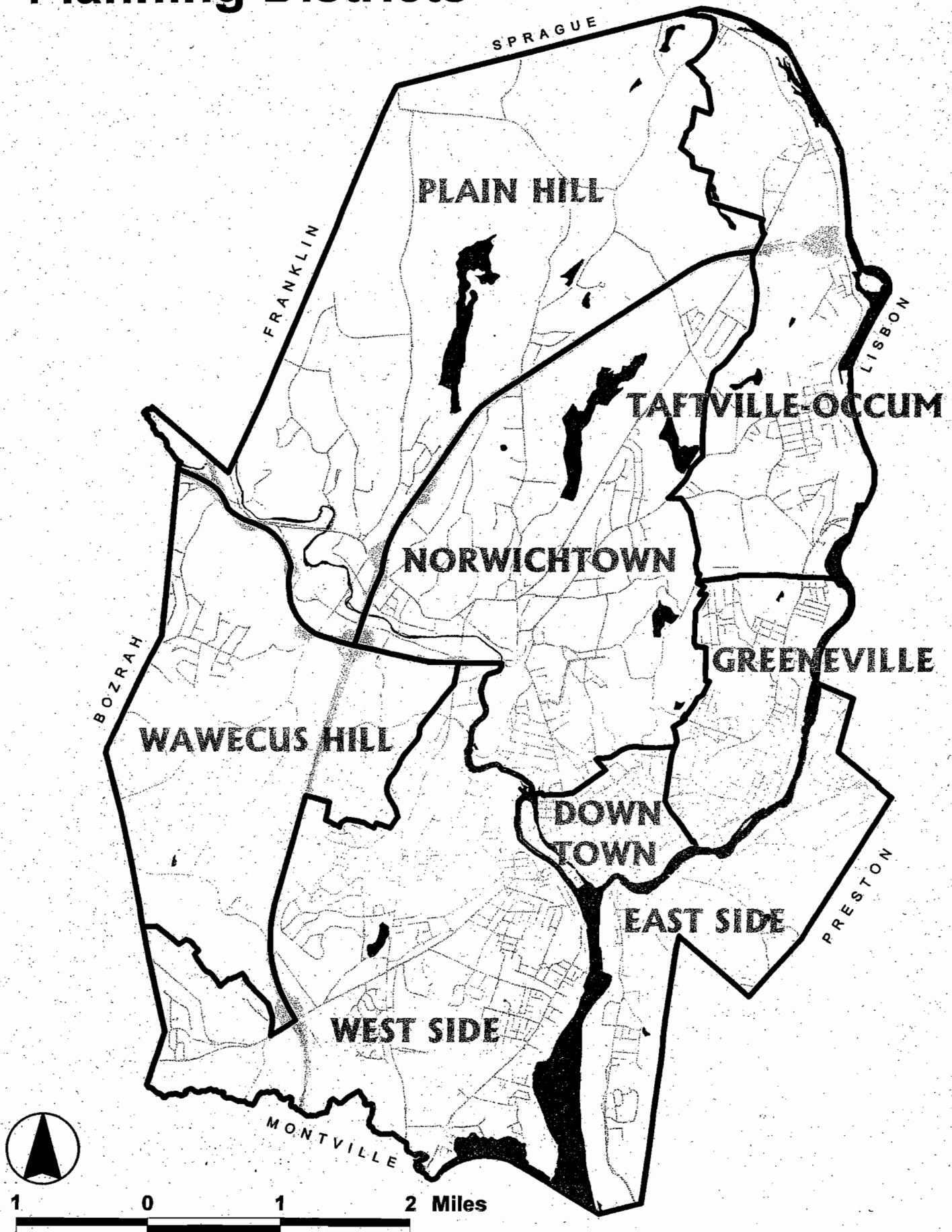
7. West Side

This is an area noted for diversity. Dense mixed urban development is found in the area closest to Downtown, while suburban-like residential areas and newer commercial development are moving west along Route 82.

8. East Side

Linear corridors surrounded by dense residential uses on steep sided plateaus overlooking the Thames and Shetucket Rivers characterizes this area.

Planning Districts



Community Character

While the elements of what comprises community character are different for each person, there are some common elements that are important for the City to consider in all planning activities. Many of these elements are natural resource related such as:

- Trees & Vegetation,
- Scenic Features and Areas,
- Waterways,
- Undeveloped land, and Open Space.

Other elements of community character are part of the built-environment and include:

- Village Areas,
- Public facilities such as schools and libraries,
- Architectural Characteristics,
- Historic Resources, and
- Agricultural features such as barns.

Planning Districts

The pages that follow in this section of the Plan contain a more detailed analysis of each of the planning districts in Norwich. Major character resources that contribute to community character are included for each district. An analysis of land use based on Geographic Information System (GIS) data is also incorporated, as well as strategies for reinforcing community structure and enhancing community character.

Norwichtown Green



Taftville/Occum

The Taftville/Occum Planning District is located in the northeast section of the Norwich. Taftville and Occum are older mill villages, built in the 1800's. They were constructed around thriving mill complexes and as such are still self-contained communities with a variety of land uses.

Land Use

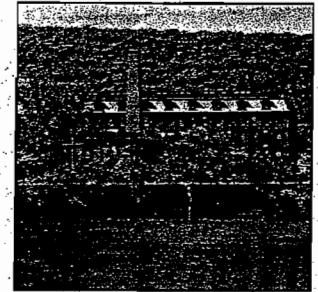
The table in the side bar illustrates land use in the Taftville/Occum District of Norwich. The land use survey found that this District contains about 2,100 acres of land and about 74 % of the area is either developed land or committed to a specific use. Single Family land use (47%) and Mobile Home Parks (16%) make up the highest percentages of committed land. Parks & Recreational uses comprise 10% of committed lands.

Character Resources

Important elements of the Taftville/Occum District that contribute to the character of Norwich include:

- The Taftville Historic District, including the expansive Ponemah Mill Complex along the Shetucket River.
- River vistas along Route 97 in Occum
- Occum Riverside Park
- Taftville Reservoirs and Park

The area along the Shetucket River in this District is part of the Quinebaug-Shetucket Heritage Corridor, an affiliate of the National Park Service, which highlights the great industrial heritage of Taftville and Occum. Norwich is the southern gateway of this Heritage Corridor encompassing over 30 communities in two states.



Land Use

Total Area	2,100Ac
Committed Land	74%
Vacant Land	26%
Committed Land	1,552Ac
Single Family Residential	728
Multi Family Residential	47
Mobile Home	196
Parks / rec.	160
Commercial	80
Institutional	27
Industrial	12
Utility/Trans	302

Significant Strategies

	Strategy	Lead Agency	High Priority
1	Create trails in the Taftville Reservoir Area and link them to a greenway along the Shetucket River.	Planning & Neighborhood Services Department	
2	Provide tax incentives, streetscape improvements, and building façade grants to revitalize commercial areas on Route 97&Providence St.	Community Development	
3	Continue to preserve the Ponemah Mill Complex and surrounding housing.	Planning & Neighborhood Services Dept.	
4	Ensure any future development near the I-395/RT-97 interchange in Occum is subject to design review standards.	Commission on the City Plan	
5	Focus on residential rehab and code enforcement activity in Occum Center/RT97.	Planning & Neighborhood Services Department	✓



Greenville

The Greenville Planning District is located in the east-central section of Norwich. Greenville was the home of thousands of workers employed in the mill and industrial buildings built along the Shetucket River. There is a densely developed village area clustered around Prospect Street and Central Avenue in the southern part of this area. In contrast, the northern part of Greenville contains large parcels of vacant land.

Land Use

The table in the side bar illustrates land use in the Greenville District. The land use survey found that this District contains about 918 acres of land. About 75% of the area is either developed land or committed to a specific use. Single family land use (40%) is the most significant land use in Greenville. This District also has 8% of committed area used for multi-family housing.

Character Resources

Important elements of the Greenville District that contribute to the character of Norwich include:

- The Capehart Mill Complex
- Miantonomo Monument
- Greenville Dam & Canal
- The Shetucket River
- Undeveloped slopes and ridgelines in the western section.
- St Joseph's & St. Mary's Cemeteries

The Quinebaug-Shetucket Heritage Corridor also runs along the east side of this District. Large industrial buildings along the rail line however, mostly hide views of the river.

Land Use

Total Area	918Ac
Committed Land	75%
Vacant Land	25%
Committed Land	689Ac
Single Family Residential	275
Multi Family Residential	50
Cemetery	68
Commercial	56
Institutional	21
Industrial	20
Parks / rec.	12
Utility/Trans	187

Significant Strategies

	Strategy	Lead Agency	High Priority
Greenville			
1	Create trails along the Shetucket River as part of a Greenway.	Planning & Neighborhood Services Department	
2	Continue to implement redevelopment plans that include adaptive reuse and environmental clean-up of buildings that are part of the industrial area and the Capehart Mill Complex.	Planning & Neighborhood Services Department	
3	Provide tax incentives, streetscape improvements, and building façade grants for commercial areas along southern Route 12.	Norwich City Council	
4	Continue to enforce health code and other efforts to prevent overcrowding of housing and proliferation of transitional housing.	Planning & Neighborhood Services Department	✓

Downtown

The Downtown Planning District is located in the central section of Norwich at the head of the Thames River. The downtown core or Chelsea Landing Area of Norwich was once a major center of trade and commerce for Connecticut. The world class Norwich Harbor, in this area, attests to the maritime heritage of the City. The Downtown struggles, like most older "Main Streets", to rejuvenate historical buildings and regain a role as a vibrant community focal point.

Land Use

The table in the side bar illustrates the mixed land use in the Downtown District. The land use survey found that this District contains about 459 acres of land and about 94% of the area is either developed land or committed to a specific use. Single family land use (37%) and multi-family housing (10%) are the most significant land uses in Downtown. The second largest land use category in the Downtown is Utility and Transportation because of the railroad and marina facilities located here.

Character Resources

Important elements of the Downtown District that contribute to the character of Norwich include:

- Downtown Historic District
- Jail Hill Historic District
- Norwich Harbor
- River Vistas
- City Cemetery
- Donald Oat Theatre
- Spirit of Broadway Theatre
- Heritage River Walkway
- Buckingham Memorial Building
- Little Plain Historic Districts

The Downtown area, typical of city centers, is comprised of a dense core of mostly intact 18th century buildings, many of significant architectural character.



Land Use

Total Area	459Ac
Committed Land	94%
Vacant Land	6%
Committed Land	433Ac
Single Family Residential	159
Multi Family Residential	44
Institutional	31
Commercial	29
Parks / rec.	13
Industrial	6
Cemetery	5
Utility/Trans	146

Significant Strategies

	Strategy	Lead Agency	High Priority
1	Complete the Heritage Walkway along the Yantic River and connect it to a planned Shetucket Greenway.	Planning & Neighborhood Services Department	
2	Restore historic housing in the Jail Hill Area.	Historic District Commission	
3	Update the Downtown plan for Norwich to include recent changes such as the Heritage Museum, Artspace, River Walkway etc.	Norwich Redevelopment Agency	
4	Continue to promote rehab efforts to improve the appearance of properties on Franklin-Boswell Avenues & N. Main Street.	Planning & Neighborhood Services Department	✓
5	Continue efforts to increase retail and mixed uses in the downtown and to create a pedestrian friendly atmosphere.	Planning & Neighborhood Services Department	✓
6	Continue efforts to create an Arts District to revitalize the western section of Downtown.	Norwich Redevelopment Agency	



Norwichtown

The Norwichtown Planning District is located in the north central section of Norwich. It includes the Norwichtown Historic District, the oldest settled section of the city, and Chelsea Parade Green, home of many of Norwich's finest architectural gems. This District is also the location of significant open space resources, including the 400+ acre Mohegan Park and Indian Leap Park. In contrast, West Town Street, the major thoroughfare in this area is lined with commercial shopping areas, including the Norwichtown Mall.

Land Use

Total Area	3,334Ac
Committed Land	86%
Vacant Land	14%
Committed Land	2,870Ac
Single Family Residential	1,392
Multi Family Residential	35
Institutional	172
Parks / rec.	750
Commercial	112
Cemetery	38
Industrial	3
Utility/Trans	368

Land Use

The table in the side bar illustrates the land use in the Norwichtown District of Norwich. The land use survey found that this District contains about 3,350 acres of land and about 86% of the area is either developed land or committed to a specific use. Single family land use comprises 49% of committed lands. Single family development varies from very small dense lots in historic sections of Norwichtown to large country estates in the northern section. This District has 26% of land area used for Parks and Recreation, more than any other section of Norwich.

Character Resources

Important elements of the Norwichtown District that contribute to the character of Norwich include:

- Norwichtown Historic District
- Norwich Free Academy
- Slater Museum
- Mohegan Park
- Yantic River & Indian Leap
- Falls Mill
- DAR Museum
- Masonic Temple
- Fairview Reservoir
- Chelsea Parade Historic District

Norwichtown is the historic heart and also a very diverse section of the City. Scenic and historic resources in this district rival any section in Norwich. Scenic resources include Mohegan Park, Indian Leap and Fairview Reservoir as well as farmland vistas in the north. Historic resources range from old industrial buildings on the Yantic River to the majestic Chelsea Parade Green.

Significant Strategies

	Strategy	Lead Agency	High Priority
1	Create linkages to Mohegan Park and other open space lands and expand the Heritage River Walkway.	Norwich Parks & Recreation Department	
2	Continue Plans for Chelsea Gardens at Mohegan Park.	Chelsea Gardens	
3	Discourage conversion of single family residences to multi-family use on lower Washington Street.	Commission on the City Plan	√
4	Seek federal and state funding to purchase flood-prone areas along the Yantic River.	Planning & Neighborhood Services Dept.	

Plain Hill

The Plain Hill Planning District is located in the northwest section of Norwich. Plain Hill is characterized by high rolling land to the north and farmland vistas. In-contrast, it is also home to the Norwich Business Park and the Yantic Mill Village Area. Yantic has been somewhat isolated from the rest of the City since the construction of the Route 2/32 Expressway.

Land Use

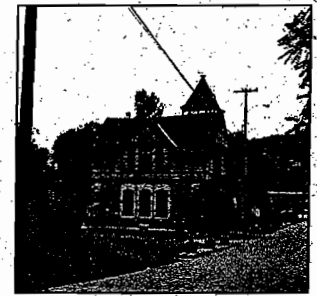
The table in the side bar illustrates land use in the Plain Hill District of Norwich. The land use survey found that this District contains about 4,373 acres of land. Approximately 63% of the area is either developed land or committed to a specific use. Single family land use (55%) is the most significant land use in Plain Hill. Commercial and industrial land uses mostly found in the Norwich Business Park comprise 16% of committed land.

Character Resources

Important elements of the Plain Hill District that contribute to the character of Norwich include:

- Norwich Business Park
- Yantic River Vistas
- Williams Flannel Mill
- Bean Hill Historic District
- Bogmeadow Reservoir
- Dodd Stadium
- Yantic Village
- Yantic Fire Station
- Open Farmland & Scenic Ridges

The Bogmeadow Reservoir area contains 300+ acres of open space that divides the more developed Bean Hill and Yantic sections from the northern farmlands. These large tracks of farmland in Plain Hill give this part of Norwich an unexpected rural character. Preservation of rural character in the midst of expansion of the Norwich Business Park will be a continuing challenge.



Land Use

Total Area	4,373 Ac
Committed Land	63%
Vacant Land	37%
Committed Land	2,747 Ac
Single Family Residential	1,514
Multi Family Residential	40
Industrial	296
Parks / rec.	373
Commercial	143
Institutional	41
Utility/Trans	339

Significant Strategies

	Strategy	Lead Agency	High Priority
1	Develop a design review process for Bean Hill commercial area to improve the appearance of this gateway to the City.	Commission on the City Plan	
2	Continue to preserve wetland and slope areas, as well as scenic vistas, in the northern section of Plain Hill.	Commission on the City Plan	√
3	Ensure Norwich Business Park expansion plans are consistent with the efforts to preserve natural resources and scenic vistas.	Commission on the City Plan	
4	Encourage adaptive reuse of Williams Flannel Mill and surrounding Yantic Village historical buildings.	Planning & Neighborhood Services Department	√
5	Acquire open space in this section of Norwich to preserve natural resources and farmland.	Norwich City Council	



Wawecus Hill

The Wawecus Hill Planning District is located in the southwest section of Norwich. Wawecus Hill is a scenic area with suburban like low density residential development. Large parcels of vacant and underdeveloped land are found here due to rocky and hilly terrain.

Land Use

The table in the side bar illustrates land use in the Wawecus Hill District of Norwich. The land use survey found that this District contains about 2,530 acres of land. About 66% of the area is developed with single family housing, but 68% of the single family parcels are underdeveloped, that is they have the potential for further subdivision. There are no commercial or industrial land uses in this district and 98% of Wawecus Hill is zoned for single family use.

Character Resources

Important elements of the Plain Hill District that contribute to the character of Norwich include:

- Scenic Vistas
- Farmland & Forest Areas
- Wetland Areas

Policies that foster natural resource preservation and continued low-density development will maintain the rural and scenic character of Wawecus Hill.

Land Use

Total Area	2,530 Ac
Committed Land	66%
Vacant Land	34%
Committed Land	1,660 Ac
Single Family Residential	1246
Multi Family Residential	0
Utility/Trans.	95
Com/Ind	0
Institutional	0
Parks / rec.	108
Roads	211

Significant Strategies

	Strategy	Lead Agency	High Priority
1	Acquire land for future education, recreation, and other community needs.	Norwich City Council	√
2	Explore the potential of the reuse of the Rogers Landfill site for open space and recreational use.	Planning & Neighborhood Services Department.	
3	Change zoning regulations to decrease the density of development allowed in the Wawecus Hill area.	Commission on the City Plan	√
4	Revise subdivision regulations to increase the amount of open space required in areas zoned for low-density residential use	Commission on the City Plan	

West Side

The West Side Planning District is located in the southwest section of Norwich. The West Side is a diverse area dominated by the largest commercial shopping corridor in Norwich. This corridor extends along Route 82 from Downtown in the east, to the Bozrah Town Line on the western border of the city. It has been the economic development growth engine for the City in recent years.

Land Use

The table in the side bar illustrates land use for the West Side District of Norwich. The land use survey found that this District contains about 3,438 acres of land and about 83% is developed or committed to a particular use. About 47% of committed land is used for single family residences. The second highest land use category is commercial land use at 12%. The State owned Uncas-on-Thames Campus is located in this District contributing to the large percentage of public and institutional land use.

Character Resources

Important elements of the West Side District that contribute to the character of Norwich include:

- Thames River
- Trading Cove
- Norwich Inn
- Lucas Memorial Woods
- Great Plain Battle Monument
- Uncas On Thames State Campus
- Norwich Public Golf Course

The Thames River is located along the eastern edge of this District and great potential exists here to create scenic riverfront vistas. Adaptive reuse of industrial land for residential and recreational uses can greatly enhance the use of the waterfront.

The western side of the Route 32 corridor, is under development pressure due to recent expansion of the Mohegan Sun Casino, just south of the Norwich City Line. Large integrated developments, with good design standards, should be encouraged at this important southern gateway to the city.

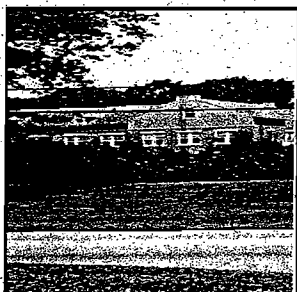


Land Use

Total Area	3,438 Ac
Committed Land	83%
Vacant Land	17%
Committed Land	2,851 Ac
Single Family Residential	1,332
Multi Family Residential	106
Commercial	295
Institutional	280
Parks /rec.	198
Cemetery	1,398
Roads/Utility	572

Significant Strategies

	Strategy	Lead Agency	High Priority
1	Change industrial zoning along the Thames River Corridor to encourage clean-up and adaptive reuse of buildings.	Commission on the City Plan	✓
2	Consider design standards, access management, and larger multi-use planned developments for the Route 32 Corridor.	Norwich City Council	✓
3	Promote redevelopment of the Route 82 Corridor, east of Asylum Avenue, through merger of smaller commercial lots.	Commission on the City Plan	
4	Fund housing rehabilitation programs in the Maple St./Asylum Ave. neighborhood to improve housing conditions.	Norwich City Council	



East Side

The East Side Planning District is located in the southeast section of Norwich and is bounded by the Thames River to the west and the Preston Town Line to the east. The East Side is characterized by areas of dense housing, defined and in some cases located on, high ridges overlooking the Thames and Shetucket Rivers.

Land Use

The table in the side bar illustrates land use for the East Side District of Norwich. The land use survey found that this District contains about 1,590 acres of land. About 77% is developed or committed to a particular use. About 43% of committed lands are used for single family residences and 8% for multi-family residences. Part of the vacant Norwich Hospital Campus is located in the southern section of this District and future use of this area is an issue.

Character Resources

Important elements of the East Side District that contribute to the character of Norwich include:

- Thames River
- Norwich Hospital Historic District
- Laurel Hill Historic District
- Thermos On The Thames
- Noyes Pond
- Corning Road Landfill Open Space
- Scenic Ridgelines

The Thames River is located along the western edge of this District and great potential exists here to create scenic riverfront vistas. Eliminating the industrial scrap yard along the Thames River and replacing it with a more appropriate use would enhance river views from the entire central part of the city, including the marina.

Land Use

Total Area	1,590 Ac
Committed Land	77%
Vacant Land	23%
Committed Land	1,217 Ac
Single Family Residential	520
Multi Family Residential	93
Institutional	108
Parks /rec.	116
Commercial	25
Roads/Utility & Cemetery	344

Strategies

	Strategy	Lead Agency	High Priority
1	Obtain funding to purchase the industrial scrap yard located on the Thames River and to mitigate environmental contamination.	Norwich Redevelopment Agency	✓
2	Explore the potential reuse of the Corning Road Landfill site for open space and recreational activities.	Planning & Neighborhood Services Department	
3	Fund commercial and residential rehabilitation programs along Laurel Hill Avenue.	Norwich City Council	
4	Continue to make strict building code enforcement a priority in this area of the city.	Planning & Neighborhood Services Department	✓
5	Develop a master plan for the Norwich section of Norwich Hospital site to meet housing and economic development goals.	Norwich Community Development Corp.	

ECONOMIC DEVELOPMENT

6

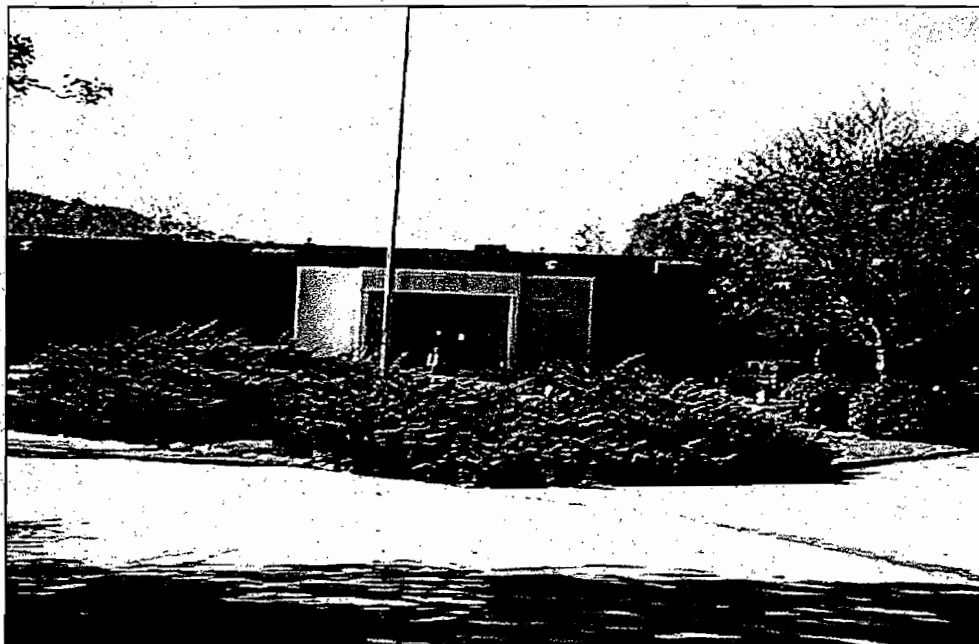
Introduction

This section of the plan evaluates various components of the Norwich economy and how they have changed over time. It also analyzes the Norwich Economic Development Program and suggests policy changes that will allow the City to compete more effectively for new businesses.

Major Strategies

- Create a cohesive vision for economic development and streamline the economic development organization in Norwich.
- Provide sites for business in Norwich by expanding the business park and continuing clean up of brownfield sites.
- Establish a Main Street Program for Downtown that creates a true public and private partnership.
- Change zoning regulations to encourage the types of land use changes needed to revitalize the City.
- Rehabilitate older mill buildings and other commercial buildings.

Norwich Business Park



Economic Indicators

Norwich Businesses

Based on the most recent Economic Census reports, it is estimated that the approximately 700 Norwich businesses in 1997 sold, provided, or produced over \$1 billion worth of goods and services. These businesses:

- Employed approximately 17,000 people in 1999,
- Made-up about 31% of the value of the Norwich Grand List in 1999.

Service Businesses

The 1997 Economic Census indicates 442 service businesses, the largest category in Norwich, employed about 4,700 people and had a payroll of about \$114 million. Service businesses include personal services, automotive, lodging places, restaurants, professional services, real estate, educational, medical and a number of other categories.

These Service businesses:

- Generated \$265 million dollars for services , and
- Have grown significantly from employing 1,068 people in 1977 to 4,700 people in 1997, and
- Now constitute the largest category of employment in Norwich.

Manufacturing Businesses

The 1997 Economic Census indicates that the 49 manufacturing businesses in Norwich employed about 1,403 people, with a payroll of about \$45 million, and had about \$254 million dollars in sales.

Due to a decline in manufacturing businesses in the state and especially in Southeastern Connecticut, data indicates that:

- The number of manufacturing businesses in Norwich has remained essentially unchanged since the 1977 Economic Census at 49.
- The number of manufacturing workers has, however, decreased from about 4,100 in 1977 to 1,400 in 1997.

The 49 manufacturing businesses in Norwich in 1997 reflect 8% of the manufacturing businesses in the state. These businesses employ slightly less than 2% of the State's manufacturing employees.

Employment

Norwich is a major employment center. In fact, it has the second highest number of workers employed in Southeast Connecticut (Groton has the highest number). In 1997, Norwich's share of employment in the Southeast Region was 13% down from 16% in 1987. Norwich ranked 27th of 169 Connecticut communities in terms of employment.

1997* Employment in Southeast Connecticut

Rank	Town	Employment	Percent
1	Groton	28,060	21%
2	Norwich	16,860	13%
3	New London	16,590	12%
4	Ledyard	16,420	12%
5	Waterford	13,440	10%
6	Montville	9,250	7%
	Other Towns(14)	32,740	25%
	Total	133,360	100%

* Last date all Towns reported, CT Dept of Labor

Historic Employment

Employment in Connecticut as a whole increased from 1970 to 1999 by about 40%. During this same period, employment in Norwich declined by about 4%. This decline is a result of the exodus of jobs from urban to suburban locations and the decline of manufacturing employment. The manufacturing sector has historically comprised a high percentage of Norwich employment.

1970-99 Norwich Employment Changes

Year	Norwich Employment	Percent Change	Connecticut Employment	Percent Change
1970	18,390		1,190,000	
1980	16,480	-10.3%	1,375,500	-15.5%
1985	17,990	9.1%	1,598,300	16.1%
1990	18,500	2.8%	1,623,500	1.5%
1995	16,680	-9.8%	1,561,800	-3.8%
1999	17,750	6.4%	1,668,500	6.8%

CT Department of Labor o

Norwich has had a fairly strong manufacturing base in the past with 3,561 manufacturing jobs reported in 1985. The number of manufacturing jobs by 2000 was 1,680, a reduction of over 50%. This reflects a similar change in employment in the Southeast Region. During the same period manufacturing jobs in the Region declined from 35,748 to 26,080 or 27%.

The table below illustrates the rate of decline in manufacturing employment in Norwich and the Southeast Region.

1985-2000 Change in Employment

	Norwich			Southeast Region		
	1985	2000	Change	1985	2000	Change
Manufacturing*	20%	12%	-40%	33%	20%	-39%
Other	80%	88%	+10%	67%	80%	+19%

1985 CT DOT, 2000 CT DOL *INCLUDES CONSTRUCTION

Fortunately, this employment loss in Norwich has occurred during a time of major job growth in the region, due to employment opportunities at the regions two world class major Indian owned casinos. The table below shows this change in employment in the region.

Change in Employment Rate Southeast CT Largest Towns

	1990	1997*	Growth	Rate
Ledyard	2,040	16,420	14,380	705%
Montville	3,880	9,250	5,370	138%
Waterford	10,010	13,440	3,430	34%
Groton	34,040	28,060	-5,980	-18%
New London	18,400	16,590	-1,810	-10%
Norwich	18,500	16,860	-1,640	-9%

CT DOL*1997- last year Ledyard/Montville data available.

The casinos are located in neighboring Ledyard and Montville, and although exact figures are not available, it is estimated that in 2002 they will employ about 20,000. This growing lack of diversity in employment however, is a good reason for Norwich to pursue economic development. Expansion of the number of casinos in Connecticut or in neighboring states could greatly impact employment opportunities in Norwich and the Southeast Region.

Economic Development Program

Purpose

The primary reasons for Norwich to implement a strong economic development program are:

- Growing its tax base so as to reduce the mill rate. A corollary to this primary goal is to improve the City's competitiveness as a location for business, so that more businesses will want to locate there.
- Providing goods and services desired by residents is a secondary goal, of more importance in some sub-sectors of the City than in others.
- Increasing job opportunities by creating a more diverse job market.

Organization

Although the City has many committed citizens involved in facets of its economic development program, the fragmented, multiple agency approach without clear delineation of who is responsible for doing what, is reducing the efficiency and effectiveness of Norwich's economic development efforts. One of the primary limiting factors in development potential is the structure of the City's economic development delivery system, which is fragmented and at times contentious.

To improve the City's track record in fostering business growth the various agencies involved in economic development activities must:

- Make a concerted and collaborative effort to define the responsibilities of each,
- Eliminate duplication of effort,
- Identify and fill any gaps in service, and
- Create an informational process that eliminates confusion for businesses requiring assistance.

The success of economic development efforts should not be left to chance. If it is not possible to streamline the economic development delivery system, then attention must be paid to more clearly defining responsibilities and duties and clearly communicating this arrangement to business prospects in need of assistance in starting, locating, expanding or keeping a business in Norwich.

Implementation

There are very few economic development issues for Norwich that have not already been addressed in one or more plans. If Norwich has an economic development problem, it is from minimal progress in implementing the many recommendations included in these plans. Future efforts must be focused on:

- Developing an action program by prioritizing these recommendations,
- Selecting specific projects or other actions that can be completed in a reasonable timeframe, and
- Creating and carrying out aggressive implementation efforts.

What is Needed?

A cohesive vision

A unified effort

*Improved
organization of the
economic develop-
ment service delivery
system*

Key Economic Development Program Elements

As a result of a review of past plans, meetings with several Norwich boards, commissions, interviews with municipal officials, NCDC staff and business persons, the following have emerged as commonly identified themes related to the City's economic development future:

Develop Business Sites

- The *primary factor* impeding business growth in Norwich is a lack of physical space. If Norwich is to continue to grow its tax base through business development, locations must be provided for this development. This can occur through new development of "greenfield" sites, infill development of smaller existing parcels, or adaptive reuse of underutilized industrial and commercial sites.

Revitalize Downtown

The economic health and appearance of the downtown continues to be of concern to Norwich residents. Not only is this a local quality of life issue-it is also directly related to the City's economic development competitiveness. Many companies consider the current quality of a community's downtown to be an indicator of the future quality of the community as a whole. To improve the image of the downtown area Norwich should consider:

- Reestablishing a full-fledged Main Street Program, or at least the adoption of this development approach.
- Changing the boundary of the Downtown area itself, as defined in the Redevelopment Agency's Downtown Plan. It should be expanded to include appropriate nearby areas such as Jail Hill and parcels along the banks of the Thames River.
- Capitalizing on the two theatres already operating and the recently built ArtSpace (to house artists) to create an arts synergy in Downtown to aid revitalization efforts.
- Developing stronger linkages between the Redevelopment Agency and historic preservation groups.
- Lessening the concentration of non-commercial uses in the Downtown. When opportunities are found, replace non-commercial uses with business uses that complement the City's downtown business development strategy.
- Examining the adequacy of parking.

Simplify Zoning

The City's Zoning District system is overly complex. There is little justification for five separate commercial districts (RO, NC, GC, CC, PC), three industrial districts (I-1, I-2, IP), two special districts (WD, CCI) and the possibility of additional special districts for applications under PUD and PDD regulations. This complexity does not convey the image of a business-friendly community.

Recognize the Role of Tourism

Tourism will not be the major engine that drives the Norwich economy in the future, but it should be a piece of a multi-faceted economic development program. It has a bearing on the successful redevelopment of the Downtown, use of the harbor and waterfront area, and retail and service uses that capitalize on traffic generated by casinos and other tourist venues.

Enhance City Gateways

Primary gateways into Norwich require improvement. The nature of the improvements varies by location, including such things as the visual quality of buildings, streetscaping and signage, traffic congestion, or the presence of desired retail opportunities. These access routes provide the first impression for visitors to Norwich and the importance of these gateways cannot be ignored.

The harbor and waterfront area is one of the principle gateways that continues to be an underutilized resource.

- The Waterfront Development District should be expanded.
- Uses that do not support effective utilization of the waterfront area in the modern economy should be removed or relocated.
- Future attention must be paid to assuring the design quality of new development along the waterfront.
- The Transportation Center should be developed to capitalize on Norwich's unique, downtown, multi-modal transportation capability.

Reposition the Business Park

The Norwich Business Park area, or at least its future expansion, should be repositioned as a higher quality park or corporate campus to emphasize the mixed use capabilities that are available. This reflects the nature of the current and future Connecticut economy. Efforts should be taken to upgrade the landscaping and other visual aspects of the park. Consideration should be given to joint planning with Franklin, which has adjacent industrial land.

Provide Assistance with Code Enforcement

Norwich is blessed with – and known for – its many older buildings of significant architectural character. The commitment to historic rehabilitation and use of available tools for this purpose should be a stated policy of the community's economic development program. Norwich can position itself as one of New England's leading locations for the successful blending of historic preservation and economic development. The City can best assist private owners of historic buildings by being creative and flexible in applying building code requirements.

Retain Three Rivers

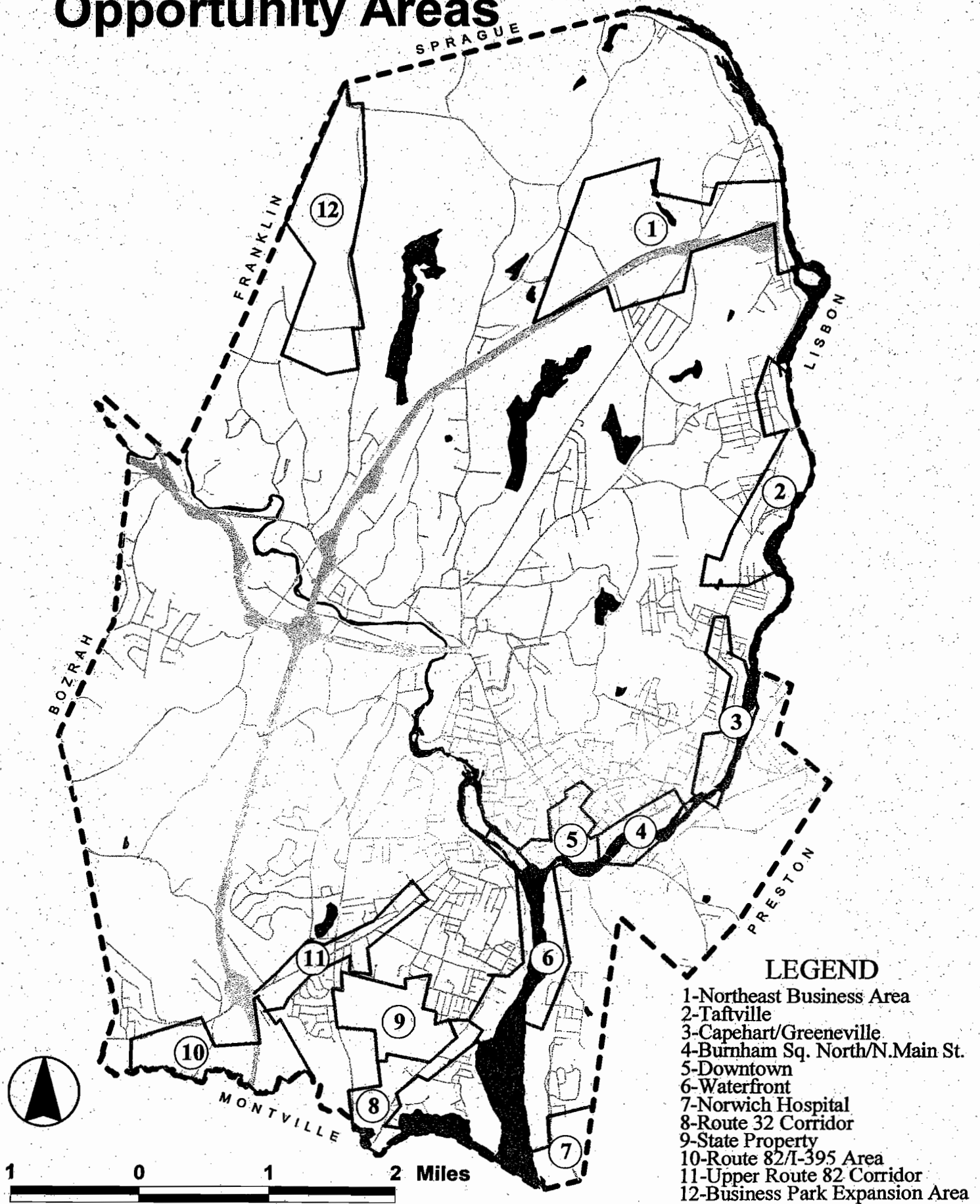
The retention of Three Rivers Community-Technical College in Norwich is important; the specific location of the campus in the city is less so. Communities that have a local community college are perceived by many businesses as having a superior training and education system.

Economic Development Opportunity Areas

Twelve areas of Norwich (illustrated on the map on the facing page) are identified as requiring particular attention because of their importance to the City's economic development program:

1. **Northeast Area** A northern gateway, Route 97, into Norwich requires attention to assure effective development since this area is inappropriately zoned for Industrial Park Development.
2. **Taftville** Taftville provides a continuation of the Route 97 gateway into Norwich from the northeast. Once an industrial village, it has transitioned to commercial uses, many unsightly, vacant, or underutilized.
3. **Capehart/Greenville** This area on Route 12 is in transition to less industrial, and a higher concentration of commercial and residential uses. As with Area 2, the I-2 (Heavy Industrial) District is no longer pertinent and should be changed. The entire area should have uniform zoning.
4. **Burnham Square/
North Main Street** This area is the eastern gateway into the downtown on Route 12. There are many smaller establishments that appear to be struggling, or are at least in need of exterior improvements.
5. **Downtown** This area is the subject of a separate Downtown Plan of Development which should be updated by the Redevelopment Agency. The geographic area subject to this plan should be expanded and zoning regulations for the area should be simplified.
6. **Waterfront** This southern gateway into the Downtown, should be rezoned to Waterfront Development District. The junkyard and industrial buildings in the Shipping Street area should be converted to a desirable, higher end mixed-use area.
7. **Norwich Hospital** The current Planned Development Design District is the most appropriate and should remain. Care must be taken to work with the State of CT in selecting the best use for the property. A use that yields the City the best return on the area's development potential.
8. **Route 32 Corridor** Future development along this southern gateway into Norwich should be carefully reviewed. The character and traffic flow in the area can be improved through larger integrated development projects. The I-1 (Light Industrial) district should be changed to capture casino related development.
9. **State Property** The Uncas-on-Thames hospital property and Three Rivers Community-Technical College site is owned and controlled by the State of Connecticut. The property is underutilized and the underlying zone should be changed from residential to commercial.
10. **Route 82/I-395
Corridor** This area is the southwestern gateway into the City. Its development is, and will continue to be, commercial in nature. The Industrial Park districts are inappropriate, particularly given the Planned Commercial District between them. The entire area should be converted to a Planned Commercial District.
11. **Upper Route
82 Corridor** Creating better traffic flow to enhance growth should be a goal for future development in this corridor. Expanded commercial development is important to the City, and should be done in conjunction with an access management plan.
12. **Business Park
Expansion Area** Expansion should include the entire area west of Plain Hill Road. The few residential lots included in the area can be buffered from business use. The developing adjacent business area in Franklin should be co-planned and joint development should be considered.

Economic Development Opportunity Areas



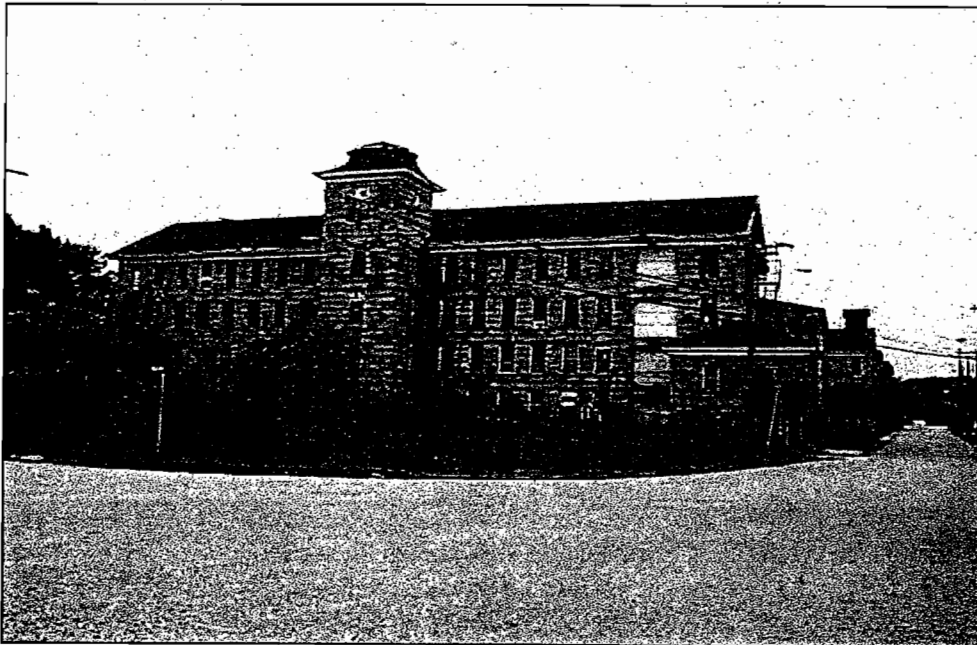
Economic Development Strategies

Economic Development Program			
	Strategy	Lead Agency	High Priority
1	Agree on a cohesive vision of what Norwich is trying to accomplish through economic development.	Norwich City Council	✓
2	Establish an action plan by prioritizing recommendations from existing plans and selecting specific projects or other actions that can be completed in a reasonable time frame.	Norwich City Council	✓
3	Create and carry out aggressive implementation efforts.	Mayor's Office	✓
4	Streamline the economic development delivery system.	Mayor's Office	✓
Provide Locations for Business			
1	Develop "greenfield" sites such as expansion of the Norwich Business Park.	Norwich Community Development Corp.	✓
2	Encourage adaptive reuse of previously developed sites such as mill buildings and other underutilized business sites.	Planning & Neighborhood Services Department	✓
Revitalize the Downtown District			
1	Establish a formal Main Street Program or at least adopt the approach of emphasizing a public/private partnership.	Norwich City Council	
2	Expand the redevelopment area, as defined by the redevelopment agency downtown plan, to include nearby areas.	Norwich Redevelopment Agency	✓
3	Create linkages between the Redevelopment Agency and historic preservation groups.	Norwich Redevelopment Agency	
4	Promote reuse of underutilized or vacant buildings with business and residential uses that complement the City's downtown business development plans	Norwich Redevelopment Agency	✓
5	Use the Donald L. Oat Theatre, Spirit of Broadway Theatre, and ArtSpace to develop an arts synergy in Downtown that will enhance revitalization efforts.	Mayor's Office	✓
6	Address parking adequacy by ensuring parking spots are convenient and perceived as safe.	Mayor's Office	✓

Economic Development Strategies

Improve the City's Gateways			
	Strategy	Lead Agency	High Priority
1	Expand the Waterfront Development District to encompass more riverfront areas.	Norwich City Council	✓
2	Develop the Transportation Center to capitalize on multi-modal capability and to be an impressive entrance to the City.	Norwich Community Development Corp.	✓
3	Identify areas near highway exits where work can be done to improve appearances.	Commission on the City Plan	
Rehabilitate Historic Mills & Other Commercial Buildings			
1	Assist developers in seeking modifications, from the State in Building and Life Safety Code compliance issues, for historic properties.	Planning & Neighborhood Services Department	✓
2	Make historic preservation an integral part of the City's Economic Development Program.	Mayor's Office	

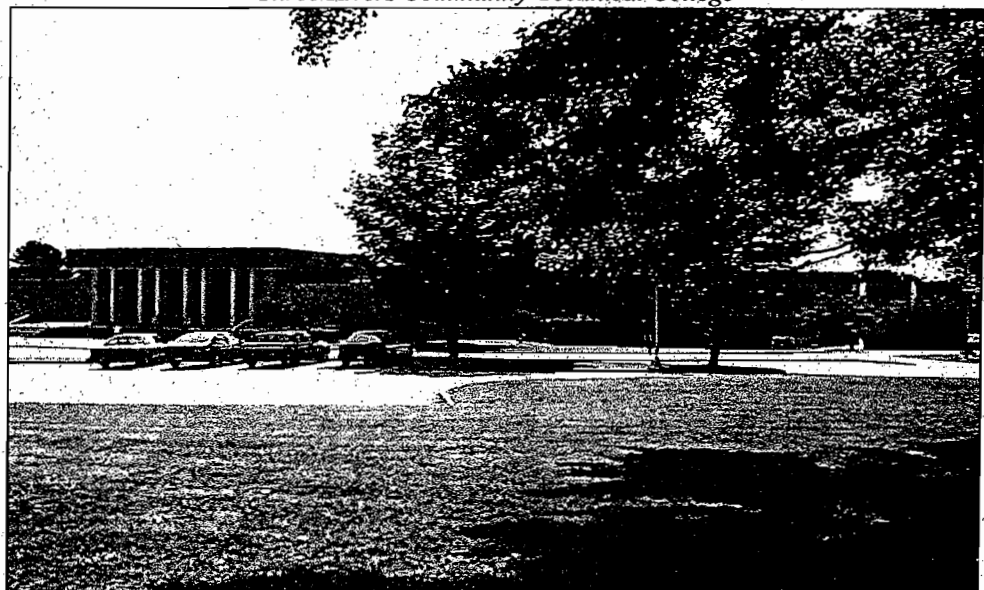
Williams Flannel Mill or Hale Mill



Economic Development Strategies

Change Norwich Zoning Regulations & Map			
	Strategy	Lead Agency	High Priority
1	Simplify the number of non-residential districts.	Commission on the City Plan	✓
2	Expand the Waterfront Development District.	Commission on the City Plan	✓
3	Eliminate the Industrial Park Zone in the northeast section of the City.	Commission on the City Plan	✓
4	Change I-2 Industrial Districts in the RT 32 Corridor, Taftville, Burnham Sq., and Greenville to General Commercial Zone.	Commission on the City Plan	✓
5	Consider changing the residential zoning, of State owned property, in the Uncas on Thames and Three Rivers College areas to Planned Development Design Districts.	Commission on the City Plan	✓
6	Industrial Park Districts in the Route 82/I-395 area should be changed to Planned Commercial zoning.	Commission on the City Plan	✓
7	Expand the Norwich Business Park.	Norwich Community Development Corp.	✓
Retain Three Rivers Community-Technical College in Norwich			
1	Continue to work through State legislators and the Governor's Office to ensure the College remains in Norwich.	Norwich City Council	✓

Three Rivers Community-Technical College



HOUSING AND RESIDENTIAL AREAS

7

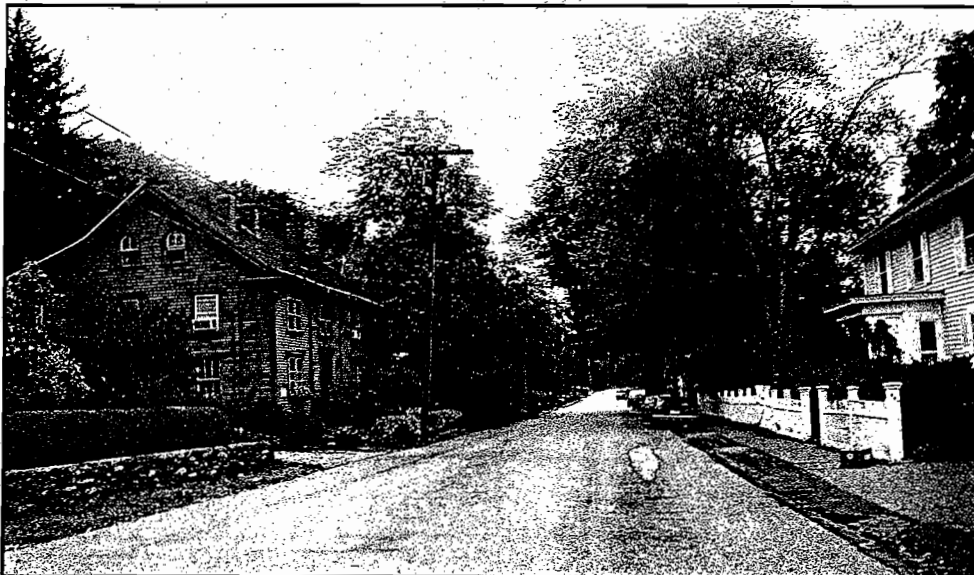
Introduction

Planning for residential development is a key component of this plan. About 55% of committed land in Norwich is used for residential purposes. Approximately 4,100 of the 4,747 acres of vacant land in the city is zoned for residential use.

Major Strategies

- Continue to promote programs that increase owner occupancy of housing units and renovation of blighted properties.
- Consider the need for smaller unit sizes as household size continues to decrease and the percentage of older persons increases.
- Maintain affordable housing efforts by continuing to update existing complexes and sustaining the state standard of 10% of housing units meeting affordable guidelines.
- Working with the Southeast Council of Governments on a regional solution to the shortage of available rental units.
- Examining zoning regulations to ensure sections on conversion of single family residences, multi family housing standards, and multi-family zone boundaries are appropriate.

Norwichtown



HOUSING CHARACTERISTICS

Housing Units

The U.S. Census estimated that the City of Norwich contained 16,600 housing units in 2000. This is an increase of 128 units since 1990. There has been a significant decline in the number of units built in Norwich over the last decade and a pattern of decline over the last 50 years. This is a familiar pattern for urban areas in Connecticut, as population continued to shift throughout the state from urban to suburban locations.

There was a reduction of 83.9% in new housing permits in Norwich between 1990 and 2000, according to the Connecticut Policy and Economic Council. Norwich ranked 4th lowest in the state in number of housing permits issued. In contrast, the average change in housing permits for the state as a whole in the last decade, was an increase of 19.3%.

Norwich Housing Growth

	Units at Start	Change in Decade	Percent Change
1950's	10,706	1,898	18%
1960's	12,604	1,395	11%
1970's	13,999	1,266	9%
1980's	15,265	1,177	9%
1990's	16,472	128	<1%
2000	16,600		

Housing growth also slowed significantly in the 1990's throughout Southeastern Connecticut, as illustrated by the table below. While Groton led the region in housing growth in the 1970's and 1980's, growth has also slowed significantly there. The decline of the number of housing units in the City of New London is also significant.

**Comparison of Housing Growth
New Housing Units
(Ranked by 1990-2000 Growth)**

	1970-80	1980-90	1990-2000
Stonington	859	1,177	668
Waterford	869	952	629
Montville	988	732	522
Griswold	772	803	319
Ledyard	1,079	835	236
Groton	2,557	2,734	219
Preston	284	328	212
N. Stonington	338	424	194
Norwich	1,266	1,177	128
New London	863	546	-410

Housing Occupancy

Compared to other communities in the region and the state as a whole Norwich contains fewer single family units and more multi-family units. The actual number of multi-family units has not been released by the 2000 census, but the probable mix of units is reflected by the table below indicating the percentage of owner and renter occupied housing units. When compared to the other cities in Southeastern Connecticut, Norwich has a higher percentage of owner occupied units, 15% higher than New London and 4% higher than Groton.

Census Data

2000 Census Data used in this report, and other data not yet released, can be obtained on-line at www.census.gov

Comparison of 2000 Percent Single & Multi Family Occupancy
(Ranked by percent single family)

	Percent Owner Occupied Units	Percent Renter Occupied Units
Waterford	85	15
Preston	83	17
Ledyard	82	18
Montville	77	23
Griswold	71	29
Stonington	69	31
N.L.County	66	33
CT	68	32
Norwich	53	47
Groton	49	51
New London	38	62

Housing Density

Housing density in Norwich is high when compared to Connecticut or New London County, as illustrated on the table below. When compared to other cities in New London County, housing density in Norwich is about the same as Groton, but considerably less than New London.

Comparison of Housing Density

	Square Miles	Housing Units	Units Per Square Mile
New London	7.3	11,560	1,583
Groton	38.3	21,975	573
Norwich	29.3	16,600	566
CT	5,010	1,385,975	276
Stonington	42.7	9,314	218
Waterford	36.7	7,986	217
N.L.County	700.9	110,674	157
Montville	43.9	6,805	155
Ledyard	40.5	5,486	135
Griswold	37.6	4,530	120
Preston	31.3	1,901	60

HOUSING TRENDS AND ISSUES

Changing Household Size and Occupancy Type

As previously noted, the number of housing units in Norwich has not changed significantly between 1990 and 2000. However, in analyzing the 2000 census, there are some differences in household occupancy and size that can be seen as significant:

- The percentage of owner occupied units increased from 48.1% in 1990 to 52.5% in 2000.
- The number of one person households in 1990 increased from 27.8% in 1990 to 32% in 2000 (4.2% increase). In Connecticut the number of single person households also went up, but at a lower rate (2.2%).
- The number of households with persons age 65+ decreased from 27.3% in 1990 to 25.8% in 2000. This is more comparable with the 25.1% average for the state in 2000.
- The number of households in Norwich with children under 18 years of age increased in 2000 to 33.3% from 31.5% in 1990, a difference of 1.8%. In Connecticut the number of households with persons age 18 also increased, but at a lower a rate from 33.4 in 1990 to 34.7 in 2000, a difference of 1.3%.

These differences in housing occupancy can be used by the City to anticipate future trends so as to better plan for development and housing programs.

- The percentage of owner occupied dwellings is going up, which is a positive sign. It is generally found that a high percentage of owner occupied units positively impacts housing conditions. Government policy at all levels of government, from the federal HUD mortgage programs to the Norwich Urban Homestead Program, has been developed to increase home ownership in the city.
- The increase in the number of one-person households points in the direction of encouraging the building of smaller housing units. Increased demand for apartment and condominium types of dwelling units could be expected.
- Of note is the number of households with persons age 65+ has decreased between 1990 and 2000. Norwich has historically had a comparatively high percentage of older persons. Norwich now has a more typical level within 1% of the state average.
- Norwich has had an increase in the percentage of households with children in the last decade. This has financial implications for the City as it struggles to keep a steady tax rate.

Housing Affordability

Housing in Norwich is relatively affordable. Norwich ranked 152nd of 155 communities in Connecticut in 1999 median sales price of residential property, according to the Connecticut Policy and Economic Council (14 towns were not reported). It has the lowest real estate values in Southeastern Connecticut (as illustrated in the side bar). This is not surprising when one considers that the median sales price of housing in Norwich is 42% less than for the state as a whole.

In spite of the apparent affordability of housing in general in Norwich, there is a discrepancy in the affordability of housing sales and housing rental rates. The National Low Income Coalition indicates that in 2001 fair market rents for the Norwich/New London Area were \$627 for a one bedroom apartment and \$764 for a two bedroom apartment. These rents continue to climb at a rapid rate.

"The Connecticut Long Range Housing Plan", prepared in February 2000 highlights this issue. *"The median value of owner occupied housing units and median contract rents levels from 1990 to 1998 show the extent to which ownership housing values plummeted in Connecticut and rental housing values skyrocketed in the 90's. The median value of an owner occupied unit had decreased 23.7% by 1998. The National Housing Center estimates that the median contract rent in 1998 increased by 17%."*

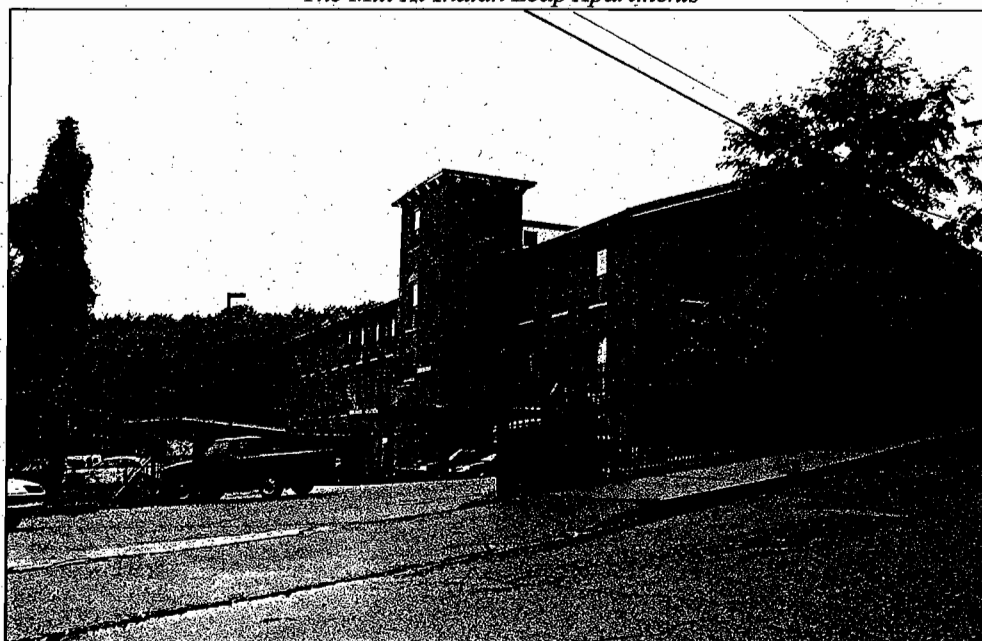
1999 Average Residential Sales Price

	1999 Avg.
CT	220,858
Groton	154,865
Waterford	146,276
Ledyard	122,041
Griswold	119,109
Montville	115,671
New London	98,013
Norwich	89,284
CT DECD	

1999 Median Residential Sales Price

	1999 Median
Norwich	\$86,000
CT	149,900
US NE	139,000
US	133,300
US Board of Realtors	

The Mill At Indian Leap Apartments



Affordable Housing

The recent large increase of employment in neighboring casinos has caused high demand for apartments. As apartments have become scarce and rental rates are increasing, concern has been raised by the City Social Service and Inspections Departments, that overcrowding in units is becoming more and more of an issue.

Affordable housing is a statewide concern in Connecticut. To address this issue, legislation was enacted in the 1980s that gives preferential treatment to housing developments that are targeted, through rental and sales prices controls, to individuals and families of low and moderate income. Communities whose housing stock contains less than 10% affordable units are subject to special zoning procedures that encourage affordable housing.

Given Norwich's high percentage of rental units and proximity to Mohegan Sun Casino, newcomers to the area will be attracted to Norwich as a place to live. Norwich currently does more than its share in providing affordable housing. According to data from the Connecticut Department of Economic and Community Development, Norwich has 2,982 units (18.1% of total units) as of 1999 that were considered "affordable" housing. Building more affordable units therefore is not a priority for the City, but maintaining current units is.

Elderly Housing Needs

With the increased number of elderly persons anticipated as the "Baby Boom" generation ages, some residents may choose to live in their current residences while others will want smaller units. To address this need Norwich should continue to provide and/or encourage:

- Elderly tax relief,
- "Empty nester" Housing,
- Congregate, assisted living and nursing home facilities and,
- Publicly assisted elderly housing in proportion to market rate housing.

Greeneville



Norwich Business Park



Taftville



HOUSING CONDITION

Although the number of housing units that have been built in Norwich in the last decade is not large, there has been a great number of properties rehabilitated. In fiscal year 1999/2000 the City of Norwich Inspections Department issued 1,386 building permits, most of which were for remodeling of existing properties. The condition of housing in Norwich is not only important to assure resident's quality of life, but also to enhance community character in Norwich.

Rehab Programs

Enhancing community character is necessary for future growth and prosperity of the City. The City of Norwich is doing a good job in improving housing condition and needs to sustain recent efforts. The City is aggressively pursuing home owners of properties that do not meet building or other safety codes. Norwich is also mobilizing resources from a variety of programs to financially assist home owners with rehabilitation efforts. Some of the important programs that are being implemented to improve housing condition include the Rental Certification, Urban Homestead Program and First Time Buyer Program.

Neighborhood Revitalization Zones (NRZ)

State funding is available to assist with community planning at the neighborhood level and Norwich has used this program to establish a Greenville NRZ and Downtown NRZ. The adaptive reuse of the Capehart Mill Complex for a mixed use or other economically feasible development is the cornerstone of revitalization efforts in the Greenville area. Promoting the Downtown as an arts & cultural center, retail center, and residential area are important strategies for the Downtown Plan.

Substandard housing is also found in the Taftville/Occum and the East Side areas of the city. Neighborhood revitalization plans should be done for these areas to help mobilize community support for eliminating blighted housing and commercial areas.

Historic Preservation Trusts

Other communities have successfully used private preservation trusts to rehabilitate and restore housing. Trusts can rejuvenate historic neighborhoods by buying, remodeling, and selling historic properties. Use of this creative tool should be considered as part of neighborhood revitalization efforts. The Norwich Redevelopment Agency could take a lead role in establishing a non-profit Preservation Trust in the city. The "Jail Hill Area", already a designated historic district, would be a good place for a Preservation Trust to begin work.

Redevelopment

The shortage of rental housing in the region gives Norwich an opportunity to explore, with private developers, the possibility of designating concentrated areas of sub-standard housing for redevelopment. As part of an NRZ effort, demolition

Greenville NRZ

On April 17, 2000 the Norwich City Council passed a resolution creating the Greenville Neighborhood Revitalization Zone (NRZ) to strategically plan for redevelopment.

In accordance with State of Connecticut Public Act 95-340 establishing a NRZ Strategic Plan makes a neighborhood eligible for:

- *Specific grants-in aid, and*
- *Priority status in targeting federal and state funding.*

NRZ designation also enables the City to more easily use eminent domain to foster revitalization.

What Are Nodes?

Nodes are areas of more intense mixed use activity that serve as a focal point for the surrounding areas.

FUTURE HOUSING DEVELOPMENT

Guide Multi-Family Development

The increased demand for rental housing in the Southeast Region suggests Norwich be proactive in determining desirable locations and types of multi-family housing. Of importance is that any future multi-family housing not detract from the character of the community or negatively impact the quality of life in the surrounding neighborhood.

In terms of multi-family development this plan suggests that sites near “nodes” (see sidebar) serviced by public utilities and transportation are the best sites for multi-family developments. The location of multi-family uses in these areas will help to promote active and vibrant commercial areas supported by a variety of land uses. Norwich has already established multi-family developments in some nodes such as Bean Hill Commons. Other projects, in the Jail Hill Area for example, seem out of place.

Since Multi-family residences are allowed throughout the city in commercial zones and in two designated multi-family zones, it is important that future developments:

- Help maintain Norwich’s appearance and character by blending in effectively with nearby residential areas,
- Be consistent with the level of infrastructure and services available,
- Reflect the density established in the neighborhood in scale and number of units planned,
- Provide transitions between commercial and residential areas, and
- Rejuvenate historic mill buildings and other waterfront areas.

Examine Zones Allowing Multi-Family Uses

Norwich Zoning regulations allow the construction of multi-family residences or mixed apartment and commercial uses in most non-residential zones. Apartment units are allowed in:

- Multi Family Residence Zones (MF-5, MF 8),
- All commercial zones except the Coastal Commercial Industrial (CCI) Zone,
- All industrial zones except the Heavy Industrial Zone (I-2) Zone, and
- The Chelsea Central and Waterfront District (WD), allow mixed-use residential by special permit.

The pressure of a shortage in rental housing in the region is a good reason for Norwich to reevaluate zones allowing multi-family development. Zoning regulations should be reevaluated to consider whether:

- Multi-family uses are appropriate in the entire area zoned for this use,
- Multi-family uses should be permitted by special permit rather than as of right,
- Zone locations are appropriate, and
- Design standards and design review should be established in some areas.

Conversions

Section 3.12 of the Norwich Zoning Regulations allows single-family residences in any zone to be converted to two-family residences under certain conditions (see side bar). The Residential Office Zone allows, by special permit, conversion of residential properties to offices.

Conversion of single family residences to multi-family residences can lead to absentee ownership and deterioration of housing conditions. The conversion of residential properties to mixed-use or commercial uses can also have a negative impact on surrounding residential properties. Conversely, the benefit of allowing conversions, as reflected by Section 3.12, is to make it feasible to maintain large older residences.

The Norwich Building Department lists 32 property conversions approved from 1990 to 2000. The number of conversions is not great when compared to the over 16,000 housing units in Norwich. Concern about conversions may reflect their high visibility. Many conversions are located on major thoroughfares, and have significant visual impact. The current shortage of rental units in the region leads to concern that there may be a flood of conversions as rental rates continue to escalate.

This is a good time to scrutinize regulations that permit conversions and determine if they are achieving the goal of maintaining older properties. It is important for Norwich to maintain community character in every neighborhood, but especially in the more densely developed areas where conversions take place.

Expand Special Waterfront Zoning

There has been much discussion about the need to open waterfront areas for residential and recreational uses in Norwich. Much of the waterfront property is now zoned for light or heavy industrial uses. As part of a future land use plan for the City, consideration must be given to changing the zoning in these areas. A change in zoning to allow greater flexibility in use may benefit the city. These benefits include promoting uses that are environmentally friendly, and take better advantage of the potential increased value of waterfront real-estate.

The existing Waterfront District (WD) could be utilized and expanded in area. Boating related uses, commercial uses, marinas, nautical museums, and swimming clubs are allowed as of right in this zone. The WD Zone allows the following variety of uses by special permit:

- Restaurants
- Offices
- Transportation Facilities
- Hotels and Inns
- Residential Uses
- Retail Uses

Norwich should adopt a strategy that promotes high-end multi-family developments, and well designed mixed-use complexes with water views. This type of development has the potential to improve the City's tax base and enhance the character of the City. It can also open up waterfront land for recreational use by the public.

Section 3.12 Norwich Zoning Regulations

A special permit for the conversion of an existing single family residential building to two dwelling units must meet the following conditions:

- *The building is at least 25 years old.*
- *Each dwelling unit contains a minimum of 600 SF.*
- *The building after conversion does not exceed lot coverage requirements.*
- *Area requirements and minimum required lot area for the applicable district shall be used for each dwelling unit.*
- *Each dwelling unit shall comply with parking requirements.*
- *Health and sanitation requirements shall be approved by the Health Director.*

Single Family Zones

Zone	Min Acres	Width
R-80	80,000	200'
R-40	40,000	150'
R-25	25,000	125'
R-17.5	17,500	100'
R-10	10,000	80'

Single Family Development Patterns

Conventional

A parcel of land is divided into residential lots with little or no dedicated open space.

Open Space

A parcel of land is divided into roughly the same number of residential lots that are smaller in area than in a conventional development and the remaining area is preserved or dedicated as open space.

Single Family Residential

It is important to note that:

- About 70% of Norwich is zoned for single family residential use, as illustrated on the map on the facing page.
- In addition, about 80% of the 4,747 acres of vacant land in the city is zoned for single family residential use, most of it in the R-25 and R-40 zones.

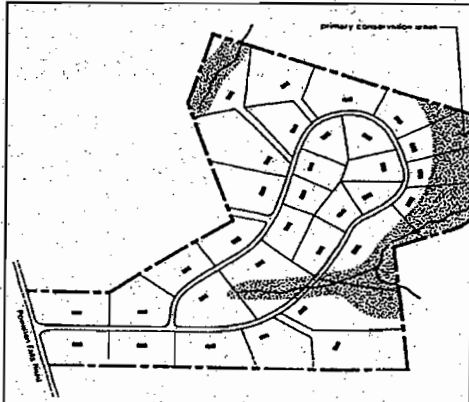
There is a large amount of vacant farmland and forested land in the Plain Hill and Wawecus Hill Areas of Norwich. The large amount of undeveloped acreage makes the potential impact of additional single family subdivisions an important consideration of this plan. The rural character and natural resources in these areas can be preserved through application of well thought out land use regulations.

There are five traditional single family zones in Norwich (see side bar), which promote the typical one-family grid pattern of development we are accustomed to seeing. Given the environmental constraints and the almost rural character of much of the remaining residentially zoned land in the city, more creative zoning should be considered. The PUD section of the current zoning regulations is a good example of creative zoning, and certainly there are other approaches.

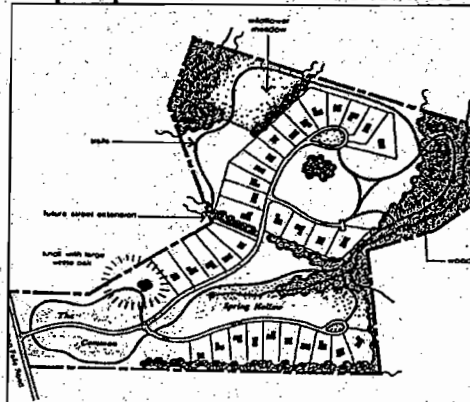
Norwich should promote regulations that discourage a "cookie cutter" approach to zoning and should consider *requiring* subdivision design be in response to the natural capabilities of the land. Local regulations can be revised to incorporate what are called open space subdivisions. One approach to open space type regulations requires adopting a buildable land definition and using a density regulation to regulate development. Requiring a specific percentage of the parcel be preserved as open space and providing flexibility in minimum lot size requirements are also considerations.

Standard and open space subdivision patterns are compared in the following illustration. Note that the open space pattern provides significantly more open space. Additionally, the open space is more visible and functional.

Conventional Subdivision 32 lots-10% OS

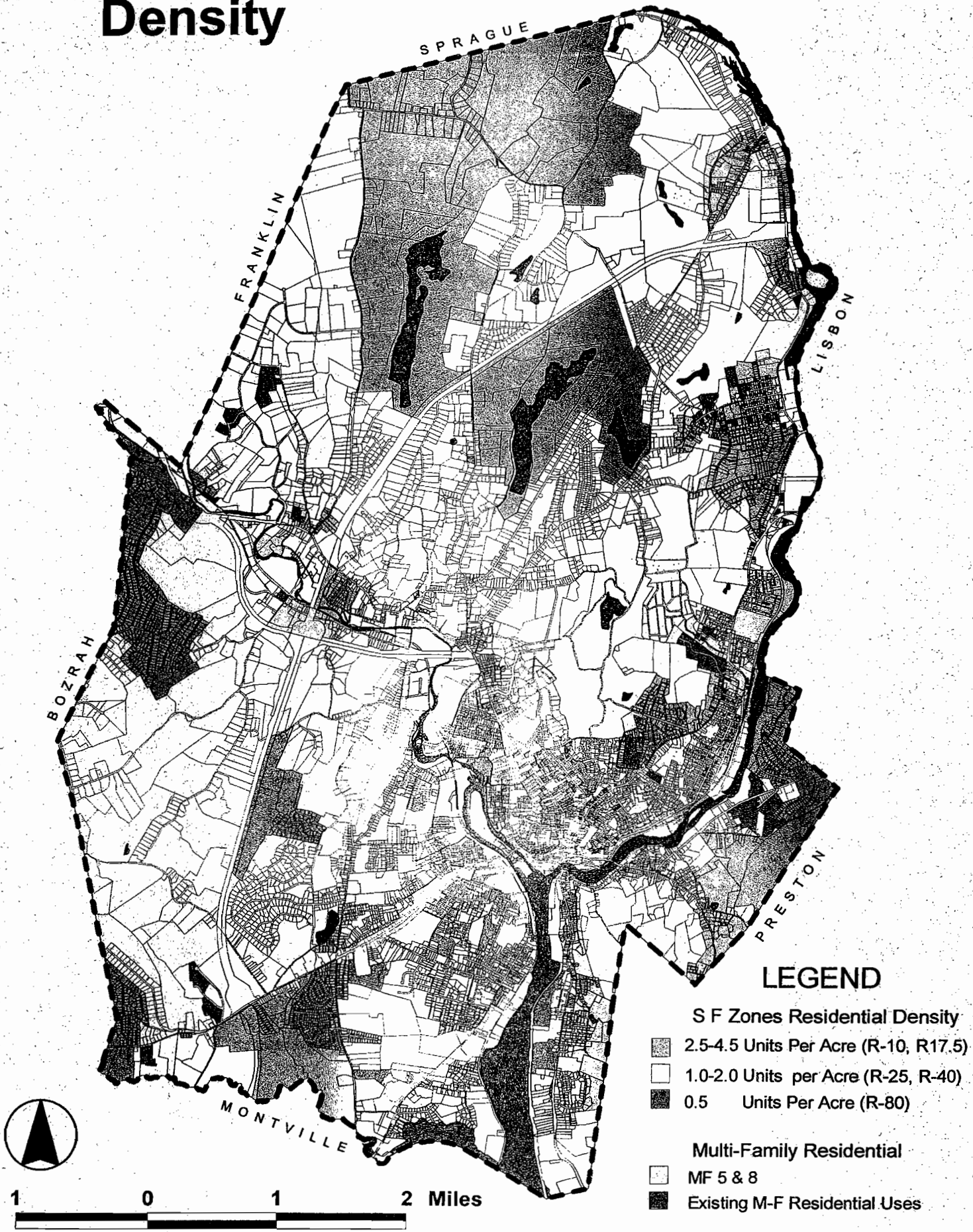


Open Space Subdivision 32 lots-65% OS



Source: Conservation Design For Subdivisions: A Practical Guide For Creating Open Space Networks; Randall G. Arendt

Residential Zones Density



Housing & Residential Area Strategies

	Strategy	Lead Agency	High Priority
Evaluate Housing Occupancy			
1	Continue to promote public programs that increase the percentage of owner occupied housing in Norwich.	Community Development	✓
2	Consider the need for smaller housing units as household size continues to decrease and the number of elderly residents grows.	Commission on the City Plan	
3	Enforce zoning and other housing codes to prevent overcrowding of existing housing.	Planning & Neighborhood Services Department	✓
4	Coordinate plans for development of new housing with the future plans of the Board of Education.	Commission on the City Plan	
Maintain Affordable Housing Efforts			
1	Work with the Southeast Council of Governments to establish a region-wide plan to address the shortage of rental units.	Planning & Neighborhood Services Department	✓
2	Maintain efforts to ensure affordable housing is an appropriate percentage of total unit development.	Commission on the City Plan	✓
3	Seek state and federal funding to maintain existing assisted housing units operated by the Norwich Housing Authority.	Norwich Housing Authority	
Improve Housing Condition			
1	Maintain City inspection programs that target blighted properties.	Planning & Neighborhood Services Department	✓
2	Continue efforts such as the Urban Homestead and Property Rehabilitation Programs that target renovation of blighted properties.	Planning & Neighborhood Services Department	✓
3	Expand use of State programs that can be used for property rehabilitation.	Community Development	
4	Form Neighborhood Revitalization Zones and develop neighborhood plans where housing condition is a concern.	City Managers Office	
5	Explore the use of a Historic Preservations Trust as a vehicle for property rehabilitation in historic areas.	Community Development	
6	Target blighted areas in the Chelsea District for housing redevelopment.	Norwich Redevelopment Agency	✓

Housing & Residential Area Strategies

	Strategy	Lead Agency	High Priority
Guide Multi-Family Development			
1	Guide Multi-family developments to properly serve "nodes".	Commission on the City Plan	√
2	Guide multi-family developments to sites where they can serve as a transitional land use.	Commission on the City Plan	√
3	Ensure that the design and scale of multi-family complexes complement the character of the neighborhood.	Commission on the City Plan	√
4	Re-evaluate zoning regulations in regard to standards for multi-family housing. Specifically, review location, design, and density standards.	Commission on the City Plan	√
5	Establish design standards and design review for areas around "nodes" where multi-family housing is determined to be a desirable transitional use.	Commission on the City Plan	√
6	Continue to promote adaptive reuse of historic mills as multi-family housing.	Norwich City Council	√

Historic Yantic Street Townhouses



Housing & Residential Area Strategies

	Strategy	Lead Agency	High Priority
Expand Waterfront Zoning.			
1	Implement zone changes for waterfront industrial properties to encourage reuse as high quality residential and mixed uses.	Norwich City Council	✓
Examine Conversions			
1	Evaluate conversions approved in the last decade to determine if they meet the intent of zoning regulations.	Commission on the City Plan	
2	Revise Norwich Zoning Regulations, if necessary, to ensure the character of neighborhoods are not impacted by conversions.	Norwich City Council	
Enhance Single Family Residential Development			
1	Maintain low density zoning in the Plain Hill and Wawecus Hill Districts of Norwich.	Commission on the City Plan	✓
2	Modify land use regulations to encourage open space subdivision patterns in appropriate areas.	Commission on the City Plan	✓
3	Consider allowing a fee-in-lieu of open space provision in zoning regulations to allow open space to be purchased in desired areas.	Norwich City Council	✓

Multi-Family Conversion on Williams Street



REGIONAL FACTORS

8

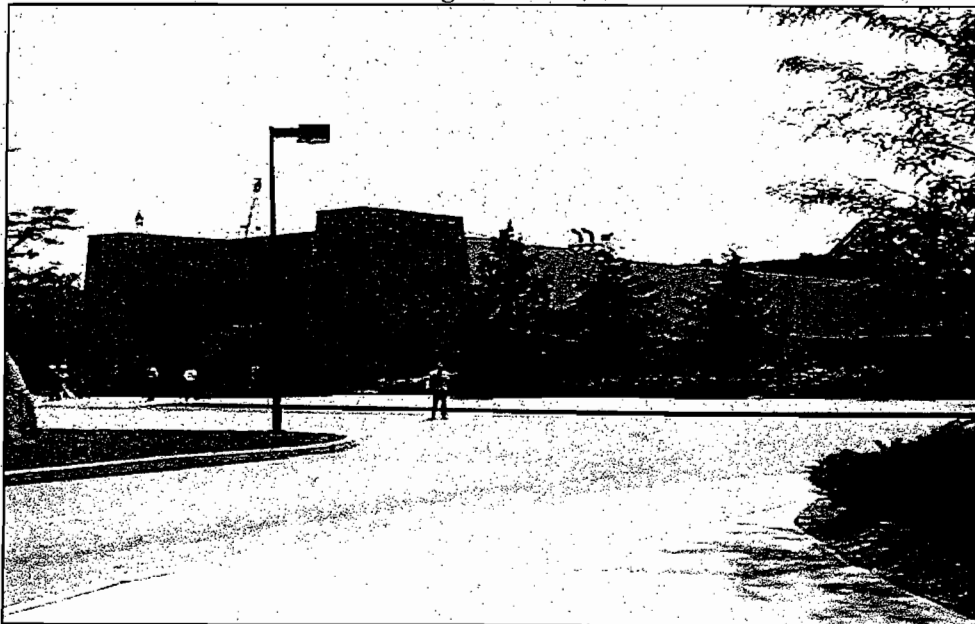
Introduction

Development patterns and trends in Norwich are heavily influenced by what happens in Southeastern Connecticut as a whole. Economic, housing, and transportation needs, depend as much on what happens in the region as within the City boundaries. Norwich is also the geographic center and therefore the focal point for commercial activities and the delivery of social services in Eastern Connecticut. Norwich business and service agencies provide employment, transportation, shopping, and other needed services for a wide area.

Major Strategies

- Increase and better coordinate bus transit in the Southeast Region.
- Establish a true multi-modal transportation center in Norwich.
- Provide strong leadership to promote tourism activities and related businesses in the city.
- Promote the Quinebaug-Shetucket Heritage Corridor and establish Norwich as the southern gateway.
- Promote the Downtown as a commercial center and discourage social service and institutional uses from locating there.

Mohegan Sun Casino



Employment And Jobs

The Economic Development section of the Plan noted that Norwich is the second largest employment center within Southeastern Connecticut. Even though Norwich is still an employment center, residents increasingly depend on finding employment outside the City. While the 2000 Census pertaining to work destinations is released more details will be available about where Norwich residents work.

Norwich is considered an exporter of workers as illustrated by the table below. This means the Norwich labor force exceeds the number of jobs available in the community.

1997 Employment in Southeast Connecticut

Town	Jobs	Workers	Ratio
Groton	28,060	18,061	155%
Norwich	16,860	19,270	87%
New London	16,590	12,724	130%
Ledyard	16,420	8,118	202%
Waterford	13,440	10,332	130%
Montville	9,250	9,967	93%
Stonington	6,990	9,938	70%
	Total	133,360	

* Last date all Towns reported, CT Dept of Labor

Current data on employment commuting patterns is not available. When this 2000 census information becomes available, a pattern illustrating the significant change in the regional economy from 1990 will emerge. Major shifts in the economy will be based on the following factors:

- Foxwoods Casino in Ledyard is the largest employer in Southeast Connecticut and one of the largest in the State of Connecticut.
- Foxwoods and Mohegan Sun Casinos, not only employ about 20,000 workers, but this number is expected to grow.
- There has been significant downsizing of military related employment in Groton, where a sizable number of Norwich residents worked.
- Electric Boat in Groton was historically the largest employer in region, but now employs fewer workers than the casinos.
- The recent opening of a Pfizer Pharmaceutical facility in New London has significantly increased employment there.
- Employment in Norwich has been stagnant overall in the last decade (4% lower than in 1990).
- The Norwich economy has shifted to mostly service jobs, as has the southeast region economy.

Mass Transit

The major transportation center for the Southeast Region is in New London. A multi-modal facility there provides passenger train service, ferry service, and bus transportation. Norwich is a secondary focal point in Southeastern Connecticut for bus transportation. In the past Norwich has had passenger rail and ferry service, but these are currently limited to occasional pleasure tours.

Norwich has state and federal funding to build a state of the art multi-modal transportation center. If sited properly, such a facility could be an incentive to operate other modes of transportation in Norwich. The new center could also enhance the operation of the regional bus service.

Norwich SEAT (Bus Service)

Southeastern Area Transit (SEAT) operates bus service within the City of Norwich and provides commuter service to New London and Groton. The SEAT main office and garage facility is located in Preston, just over the line from Norwich. All service in Norwich is keyed to the Viaduct Parking Lot, which is the main transfer point. There are three local runs in Norwich providing hourly service.

Southeast Area Transit (SEAT) Operating Data

A review of the SEAT operating budget for FY 2002 shows that:

- The State of Connecticut provides 54% of the system's operating budget.
- Member towns pay less than 10%.
- The City of Norwich will pay 32% of the total paid by member towns; but this amounts to only 2.25% of the total operating budget.



Taxi Service

Norwich Taxi, LLC provides service:

- 7 days a week,
- 24 hours a day,
- Serving a 20 town area.

SEAT Ridership

For the year 2000 annual ridership was 852,558.

Year 2000 annual ridership for Norwich was 329,222 or 38% of the total.

A Regional Solution

Constant funding problems have prevented SEAT, not unlike other transit districts in the state, from meeting the needs in the region for mass transit. At a time when transportation to work is considered a problem by Norwich residents, many bus routes are not utilized to capacity. Much needs to be done region-wide to design and fund a system that meets employment transportation needs and also services the emerging tourism industry.

The Southeast Council of Governments (SECOG) 2000/2001 Transportation Plan outlines a strategy for SEAT that could be the cornerstone for meeting the region's local needs and demands created by gaming and tourism industries. This plan calls for:

- 65 new buses to be added to the 25 currently operated by SEAT,
- All service levels to be expanded from 1-2 hour intervals to 1/2 hour intervals, and
- The geographic area of the system to be expanded.

Three intermodal transportation centers are also part of this plan including:

- New London Transportation Center, this is the only true multi-modal transportation center in Southeastern Connecticut.
- Norwich Transportation Center, plans and funding are in place to build a \$12 Million facility in Norwich.
- A third center is proposed near Exit 92 on I-95.

Although the primary purpose of the SECOG Plan is to coordinate regional bus service and provide connections to other forms of transit, it is also designed to improve and expand local service. The extensive system outlined by SECOG is one of many possible options to improve transit in the region. Communities in Southeastern Connecticut need to agree on a plan for more effective mass transportation. The economic future of both Norwich and the Southeast Region could be constrained without improved service.

Other Norwich Bus Service

In addition to routes run by SEAT there are three private bus services operated in Norwich:

- Rose City Senior Center operates medical and senior transportation,
- Foxwoods Casino operates mini-bus transportation in Norwich for employees from the Viaduct lot in Downtown,
- Backus Hospital provides shuttle transportation from two parking lots located on Washington Street, within one mile of the hospital, for 150 employees daily.

The provision of these special services by SEAT should be explored.

Other Transportation Service

Rail Service

North-south rail freight service is provided on the west side of the Thames River by the New England Central Railroad and on the east side of the Thames by the Providence and Worcester Railroad.

- There is currently no passenger rail service in Norwich.
- AMTRAK provides passenger service with 2 hour headways along the Long Island Sound corridor with stops in New London and Mystic.
- High speed service provided by ACELA trains was added to the Northeast Corridor and future stops in New London are planned.
- Trains arrive at the New London Transportation Center where bus service is available to Southeastern Connecticut Casinos and Mystic.

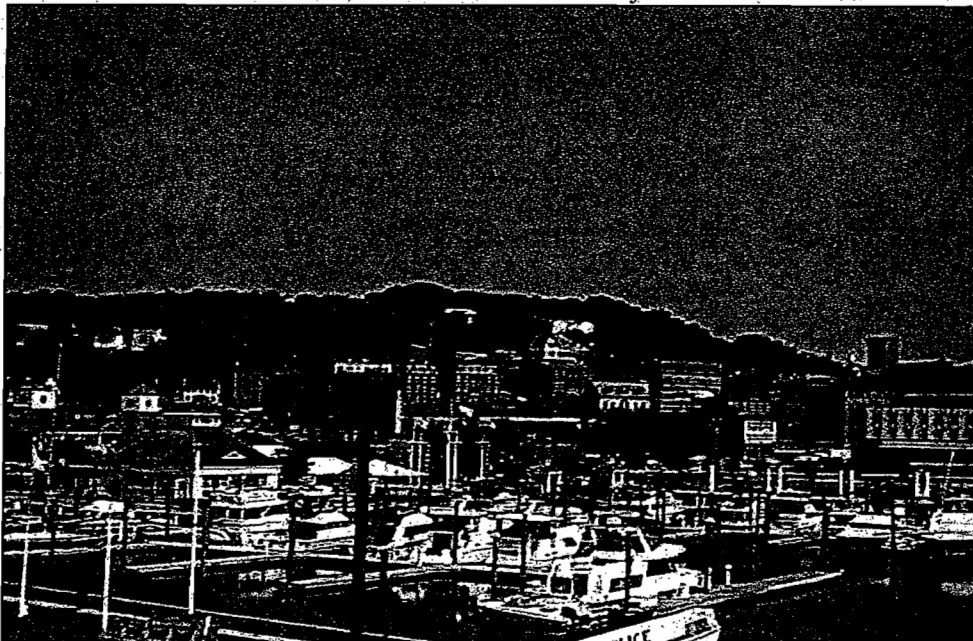
Marine

On the Thames River, large industrial, commercial, and military marine transport is limited inland to the Norwich Marina because of the depth of the channel. There have been many plans in the past to use ferry service as a part of the mass transportation system in the Southeast Region with little success.

The only passenger boat services that operate at present in the region are as follows:

- Ferry service is available from various points on Long Island to the City of New London, where bus service provides connection to Southeastern Connecticut's Casinos and Mystic, and
- Norwich Harbor Cruises provides week-end sight-seeing cruises around the Norwich Area and to New London Harbor and Groton.

Marina at American Wharf



Tourism

The Economic Development section of this plan pointed out that tourism should be a piece of a multi-faceted economic development program for Norwich. This section of the plan takes a more detailed look at organizations responsible for tourism, existing tourism venues, and tourism's role in Norwich.

Connecticut's Mystic & More

The regional agency responsible for tourism in Norwich is Mystic & More. Mystic & More has a \$1.8 million a year budget for promoting Southeast Connecticut's tourism industry. Norwich should work to become a major beneficiary of this promotion. The *2000 Tourism Development Strategy* for Mystic & More lists nine strategic initiatives that Norwich should commit to:

1. Improve highway and mass transportation.
2. Provide promotional activity to attract visitors and lengthen stays.
3. Implement a communication, education, and outreach plan to enhance the understanding of, participation in, and support of tourism by the region's residents, businesses, and public officials.
4. Establish a region-wide direction/sign program and establish a state of the art visitors center.
5. Coordinate fragmented regional marketing efforts.
6. Expand the research conducted to provide comprehensive tourism statistics, to help monitor the success of the regional tourism industry.
7. Facilitate the development of new tourism products, facilities, and events
8. Building on OP-Sail to support the creation of other signature events.
- ★ 9. Advocate investment in infrastructure including facilitating construction of public rest rooms, waterfront facilities, and beautification programs.

Spirit of Broadway Theatre



Quinebaug-Shetucket Heritage Corridor

The heritage corridor program was created in 1994 by act of Congress. The act provides federal funding to establish a non-traditional national "park" that is not government owned. The Quinebaug-Shetucket Corridor is a new way of envisioning the term "park", allowing private citizens, non-profits, businesses, and governments to work together to preserve and enhance the region's history and economic development.

The corridor consists of:

- 26 Towns in Eastern Connecticut, with Norwich being the southernmost community, and
- 9 Towns in Central Massachusetts.

One of the main goals of the Corridor is to facilitate the growth of tourism in the area. Staff prepares publicity and assists in the establishment of heritage and natural resource related venues. The Corridor has the potential to receive millions of dollars in federal funding. Establishing an interpretive center for the program is the focus of current activities. Thompson, CT is the northern gateway entrance to the park and a \$3-5 million dollar facility is under construction there. Norwich should pursue designation as the southern gateway entrance.

Norwich Tourism Venues

There are many different attractions or venues that are considered when the future of the tourism industry in Norwich is discussed. At present, most of these are smaller attractions geared to area residents. The sum of many different attractions, however, may combine to make Norwich an attractive tourist destination. The following are some of the more prominent Norwich tourism venues:

- **Norwich Navigators (Dodd) Stadium**

This stadium is promoted throughout the state as the minor league affiliate of a major league baseball team. Recent efforts to use the stadium for concerts and other kinds of entertainment could make this a more profitable and diverse attraction.

- **Norwich Heritage Center**

A historic building on Main Street is under renovation for use as a community focal point to display elements of Norwich History. There is potential for this center to be coordinated with the Quinebaug-Shetucket Heritage Corridor as a southern gateway facility.

- **Mohegan Park**

Plans are underway to develop a botanical garden at Mohegan Park as a tourism destination. This could be linked to the Heritage River Walkway, Historic Norwichtown, and Indian Leap Areas.

Heritage Walkway

One and a half miles in length, this walkway offers vistas along the east side of the Yantic River and includes interpretive signs. It passes Upper Yantic Falls Heritage Park, Falls Mill Historic Village and the natural waterfalls known as Indian Leap.



- **Norwich Marina**

The Marina at American Wharf attracts tourists to Norwich as a boat docking facility for casino visitors. There is a miniature golf center located here and river tours with a historic theme originate at Norwich Harbor. A feasibility study is underway to plan for a riverboat facility that could be a restaurant, convention, and touring attraction.

- **Historic Preservation**

Norwich is one the finest locations in New England for viewing a wide range of 18th and 19th century architecture. Brochures highlighting walking tours throughout the city and web site information, found at www.norwichct.org, promote the City as a "historic" destination. There is some tourism generated by historic interest, but this is a very limited market and difficult to exploit. Norwich's historic buildings have to be marketed with other tourism venues to be a successful draw.

- **Arts & Theatre**

ArtSpace, and two theatres in downtown Norwich, are the building blocks for a possible arts district. There is the possibility that more arts related retail shops and promotions such as "art walks", sponsored in the downtown, could create a significant tourism venue. The Slater Museum is already a focal point for cultural activities in the City. Building upon the heritage of the Norwichtown area, where the museum is located, could enhance this area as another center for cultural activities.

Donald L. Oat Theater



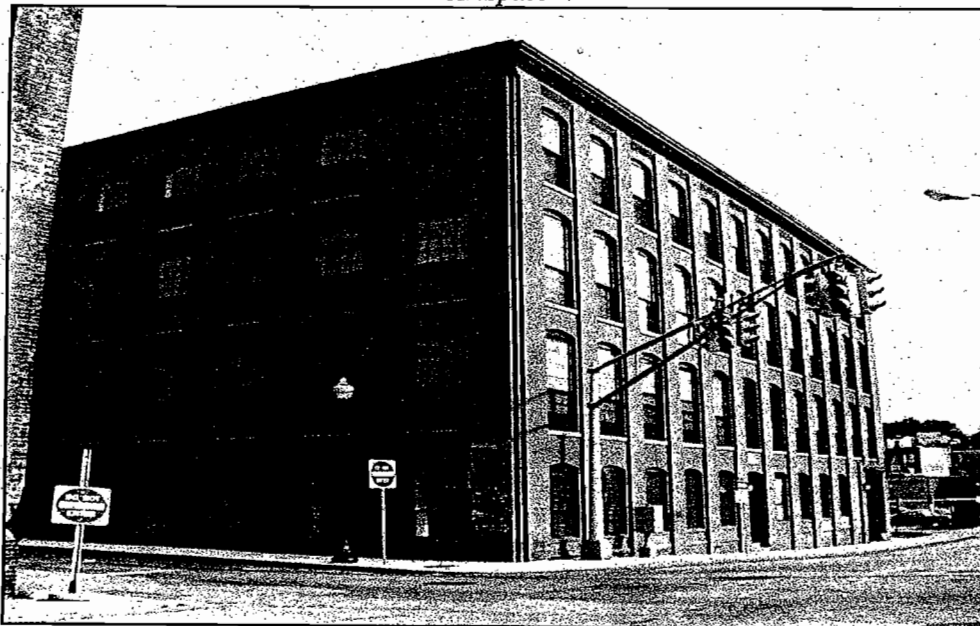
Future Role of Tourism

There is no doubt that proximity to two ocean-side attractions and two well established casinos, has made Norwich re-focus thinking on the role that tourism should play in the local economy. Tourism is the number one industry in Southeastern Connecticut.

Tourism is not the total answer to expanding the economy of Norwich, but it is an important part of the picture. Tourism was linked in the past primarily with downtown revitalization. Tourism is a much larger industry than simply the creation of entertainment venues in downtown. It is also about hotel, convention, restaurant, and other hospitality related businesses, that can contribute to economic health of the City. Recognizing this and planning appropriate locations for tourism and related hospitality services, is an important step Norwich can take to capitalize on large tourist attractions in the region.

Promoting tourism in Norwich requires hard work, tourism activities don't just evolve. Many small things like proper signage and information booths can be an important start. Making projects such as the Heritage Museum or Chelsea Botanical Gardens major tourism venues should be a long-term goal. Marketing Norwich as a tourism destination requires sustained commitment.

ArtSpace



Uncas-on-Thames

This state complex is home to many State regional offices and private social service agencies. Over 700 workers are employed here.

State Offices

- CT Department of Mental Retardation
- CT Dept of Social Services
- CT Department of Public Works
- State Police Major Crime Squad
- Office of Court Evaluations
- SE CT Mental Health Authority

Other Programs

- United Way Infoline
- Integrated Behavioral Health
- Sexual Assault Crisis Center
- Domestic Violence Services
- Project Independence
- TVCCA Programs
- Martin House
- Art Reach/Second Step Players

Social Service Land Use

Norwich is home to many state operated and private social service agencies. The United Way Infoline 2000 Directory for the East Region lists 74 private social service agencies located in Norwich, excluding state offices. Norwich is the geographic center for the state designated Eastern Connecticut Social Service District. The City is a regional focal point for social service delivery.

There is also a large number of mental health and other transitional housing facilities in Norwich. The relatively low cost of housing in the city attracts a disproportionate share of these facilities.

Downtown Institutional & Social Service Uses

The Economic Development Section of this plan highlighted the need to reduce the presence of non-commercial uses in the core downtown area. A pedestrian commercial center prospers when there is a critical mass of businesses. A successful streetscape consists of a relatively continuous line of stores, restaurants, and personal service businesses that encourage visitors to stop at more than one establishment.

Currently the downtown does not have an appropriate mix of land uses to succeed as a commercial center. The concentration of non-commercial uses, especially social service uses, needs to be lessened.

State Property (Uncas-On-Thames)

There is a concentration of existing state offices and mental health facilities on this former hospital property. (The sidebar lists State offices and other agencies currently housed on the Uncas-on-Thames Campus.) There is a large amount of vacant land available at this site, inviting future expansion of State facilities. The City should work with State officials to master plan for the ultimate build-out and access for Uncas-on-Thames.

Group Homes and Transitional Housing

Residents have raised concerns about indiscriminate placement of drug, alcohol, and other transitional housing facilities. Generally, these facilities involve the conversion of single or multi-family residences into supervised boarding homes.

The character of City neighborhoods can be negatively impacted when too many transitional facilities cluster in one location. Overcrowding, parking problems, and building code violations are all issues faced by City neighborhoods because of poor transitional housing oversight.

Norwich must continue to be proactive in planning with state and local agencies to influence the future location and quality of these facilities. The City should continue to work with Neighborhood Revitalization Committees to establish strategies to lessen problems caused by transitional housing.

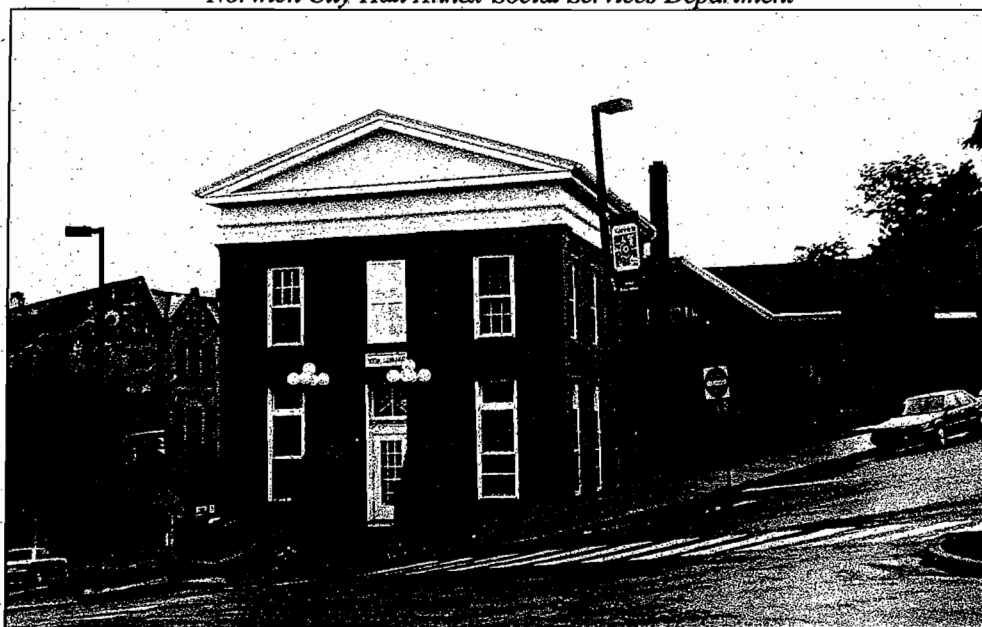
Strategies- Regional Factors

Regional Employment			
	Strategy	Lead Agency	High Priority
1	Analyze data from the 2000 Census for commuting patterns to plan for future transportation & economic development activities.	Planning & Neighborhood Services Department	
Mass Transportation			
1	Consider coordinating all bus transportation in Norwich under the transit district umbrella.	Southeast Transit District	
2	Support SEAT plans for expanded bus service in the region. Service should be expanded to ½ hour runs on major routes.	Norwich City Council	
3	Work with CT DOT, and Southeast & Northeast Council of Governments to make passenger rail service a priority.	Planning & Neighborhood Services Department	
4	Establish Norwich as a multi-model transportation center by building a facility that is comprehensive and properly sited.	Norwich Community Development Corp.	√
Tourism			
1	Establish a Tourism Council mechanism to oversee and coordinate tourism activities in Norwich.	Norwich City Council	
2	Market Norwich hospitality businesses and tourist attractions to a wider audience by effectively using services provided by Mystic & More.	Mayor's Office	√
3	Develop a tourist-welcoming center in Norwich.	Mayor's Office	
4	Implement recommendations of the recent "Sign Study" to better market Norwich attractions.	Mayor's Office	
5	Make Norwich the southern "Gateway" to the Quinebaug Shetucket Heritage Corridor utilizing the Heritage Museum.	Norwich Community Development Corp.	
6	Continue to coordinate events in Norwich which promote community spirit and make residents aware of the City's heritage.	City Managers Office	
7	Support the construction of a hotel in the marina area.	Norwich City Council	√

Strategies- Regional Factors

Social Services			
	Strategy	Lead Agency	High Priority
1	Develop a land use policy that will lessen the number of social services and institutional uses in the Downtown.	Commission on the City Plan	✓
2	Request the State prepare a build-out plan for the former Uncas-on-Thames Hospital property consistent with Norwich plans.	Norwich City Council	
3	Develop strategies to minimize the impact of transitional residential uses on community character.	Planning & Neighborhood Services Department	✓
4	Continue efforts by the Norwich Social Service Department to coordinate mental health, alcohol & drug abuse prevention programs.	Norwich Social Services Department	✓

Norwich City Hall Annex-Social Services Department



COMMUNITY FACILITIES

9

Introduction

The level of government services and the variety and physical condition of public facilities can often be used to gauge the health of a community. The location, quality, and efficiency of government services and facilities have a direct impact on the quality of life of residents and the character of a community. As a component of the planning process, the evaluation of existing services and facilities must be completed in order to determine if existing facilities are adequate and to establish future needs.

Major Strategies

- Replace the Greeneville Fire House.
- Meet the storage and parking needs of the Norwich Police Station.
- Renovate John B. Stanton School.
- Purchase land now for future needs.

Buckingham Memorial Building



City Administrative Facilities

City Hall

City Hall is the primary location where the day-to-day business of government is carried out. The office of the Mayor, City Council, City Manager, Comptroller, Tax Collector, Registrars of Voters, and Assessor are located within the walls of this prominent building.

A major interior renovation of City Hall was completed in 2000. Structural and mechanical issues were addressed, including the installation of a new elevator, fire protection, and security systems. The exterior of the structure was also completely rehabilitated, coinciding with the construction of a pedestrian mall in front of the building. Construction of a parking deck on Broadway and Willow Street was completed in 2001. The deck provides parking primarily for City Hall.

Due to the high cost of maintaining and heating the facility, approximately half of the building is leased to the State of Connecticut for the Offices of Adult Probation and Family Court Services.

23 Union Street

Since the 1989 Plan of Development, the City purchased adjoining property to City Hall at 23 Union Street. The Planning Department, Building and Housing Code Offices, and Community Development were relocated to this renovated building.

City Hall Annex

The Department of Social Services is the sole occupant of the City Hall Annex, located across from City Hall on Union Square. Since the 1989 Plan of Development, the building has been further modernized and renovated to serve clients in a more efficient manner and to provide a more secure working environment for caseworkers. There do not appear to be any immediate facility needs relative to this building.

Buckingham Memorial Building

A police substation and administrative offices of the Parking Commission are located on the ground floor of this Main Street facility. The Department of Youth Services occupies the upper floors.

Based upon land records, the Buckingham Memorial Building was constructed in 1845. While this masonry structure is in relatively good condition and has been remodeled to accommodate office use, there is no room for future expansion.

Public Safety

Norwich Police Station

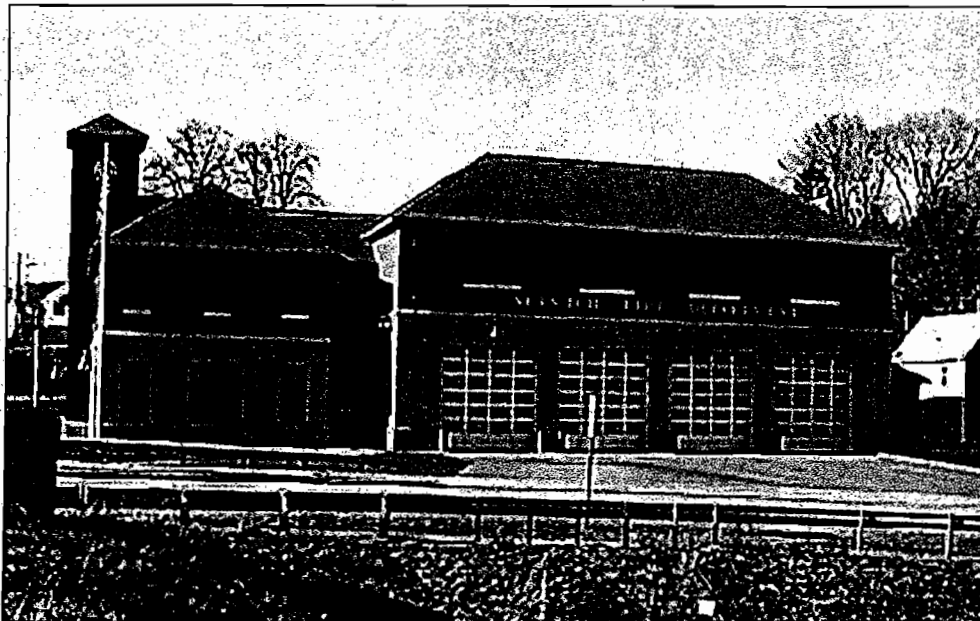
The Police Station is located on West Thames Street overlooking Norwich Harbor. Constructed in the mid 1980s, the facility represents a positive commitment by the City towards improved public safety and crime prevention. The station is located on a 2.7-acre parcel that limits plans for future expansion. Lack of storage space, maintenance areas, and parking are current and long-standing issues.

Fire Service

Fire service in the City of Norwich is provided through a combination of two paid City departments and five volunteer stations. Since the 1989 Plan of Development, two paid City Departments have been closed (Engine Company 3 on Joseph Perkins Road and Engine Company 6 on West Thames Street). Even more significant was the closing of the Central Fire Station located in the heart of Downtown. A new, modern, state-of-the-art fire fighting facility was constructed on West Main Street. Mutual assistance agreements exist between the City Fire Department and the volunteer companies.

In the urbanized areas of the city, a fire station is generally located within 1.5 miles. There are, however, large areas that are under-served, especially in the Plain Hill and Wawecus Hill sections of the city. As these areas are developed, the City will have to resolve the issue of increasing the level of service. A solution for the Plain Hill area may be to identify a suitable parcel of land within the expanded Industrial Park for future construction of a fire station. If possible, the City should identify and purchase a suitable parcel in the Wawecus Hill area.

Central Fire Station



Fire House Maintenance

In 1988 an architectural analysis of the City Fire Stations concluded that the cost for upgrading and repairing the various buildings would be \$380,000. Faced with the fact that the investment would only extend the life of the buildings slightly, the City took proper action and closed Company 3 and Company 6.

Although the volunteer stations have been periodically updated and are in better condition, they also are in need of review. For example:

- The community should take immediate action to replace City Engine Company 2 in Greeneville, as it is inadequate by today's standards.
- The East Great Plains Station is comprised of a series of additions added to an original 1945 frame building, and should be examined.

Realizing the significant community and financial benefits of supporting a volunteer fire service in the city, a long-term plan should be developed. Anticipating the future level of financial support necessary to maintain a high standard of fire protection service within the community should be a priority. Although the topic of consolidation is not a popular one, this alternative should also be considered. The City may have to make this difficult policy decision if studies determine that this is the only way to deliver fire protection in a cost-efficient manner.

Norwich Fire Stations

Fire Stations	Location	Built	Acreage
City of Norwich Stations			
Central Station	West Main Street	1994	1.0
Engine Co.2 Greeneville	North Main Street	1896	0.06
Volunteer Stations			
Yantic Station	Franklin Road	1908	.76
East Great Plain Station	New London Turnpike	1945	.58
Occum Station	Taftville Occum Road	1947	1.10
Taftville Station	Providence Street	1969	0.23
Laurel Hill Station	Laurel Hill Road	1946	0.42

Civil Preparedness

The Civil Preparedness administrative offices are located in the Greeneville Fire Station on North Main Street. Equipment and vehicles are stored in the old City Armory building on McKinley Avenue. There is no question that the separate locations and the antiquated, cramped administrative offices are not conducive to the efficient operation of this department.

Although discussions have been initiated relative to the continued operation of Civil Preparedness and/or assigning the duties to the fire service, no resolution has been reached. Irrespective of the outcome of these discussions, the current substandard condition of the administrative offices should be addressed.

Parks & Recreation

Recreation Department

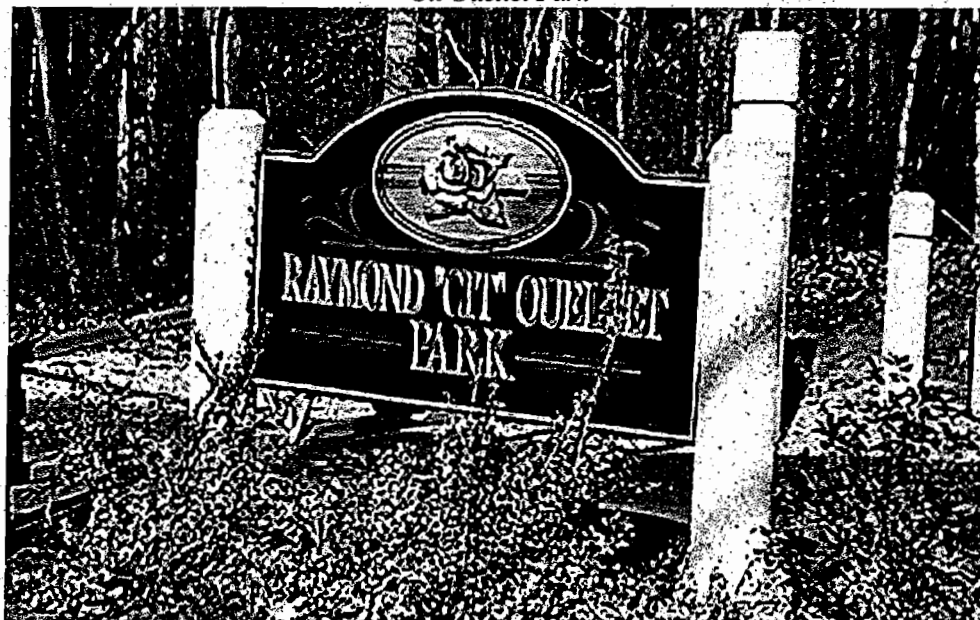
The Recreation Department building is located at the corner of Reynolds Road and Mohegan Park Road. Administrative, program development, and scheduling activities are carried out here. A second small building, located on a separate parcel, houses equipment and maintenance facilities.

Public recreation facilities are scattered throughout the city and vary in type, size, and quality. Significant recreation based improvements since the 1989 Plan of Development include the construction of softball and soccer facilities at Cit Ouellet Park in Taftville, an indoor ice rink on the West Side, and a skateboard park on Mahan Drive. School and neighborhood playgrounds have also been upgraded.

While some progress has been made over the last decade, the primary issues are still related to ownership, management, maintenance, and administration. The minimal resources of an understaffed recreation department and a financially challenged public school system present significant challenges to the City's recreation facilities. Future expansion of basic recreational facilities into growth areas such as Wawecus Hill and Plain Hill will be severely limited if the planning and capital programming process is not initiated immediately.

Perpetuating the practice of accepting small, scattered parcels, designated as recreation land through the subdivision process, will not address future needs comprehensively. A plan must be developed prioritizing needed locations for future parks and recreation facilities. Whenever finances permit, the Recreation Department must continue to be proactive in constructing new facilities to meet the community's changing recreation needs.

Cit Ouellet Park



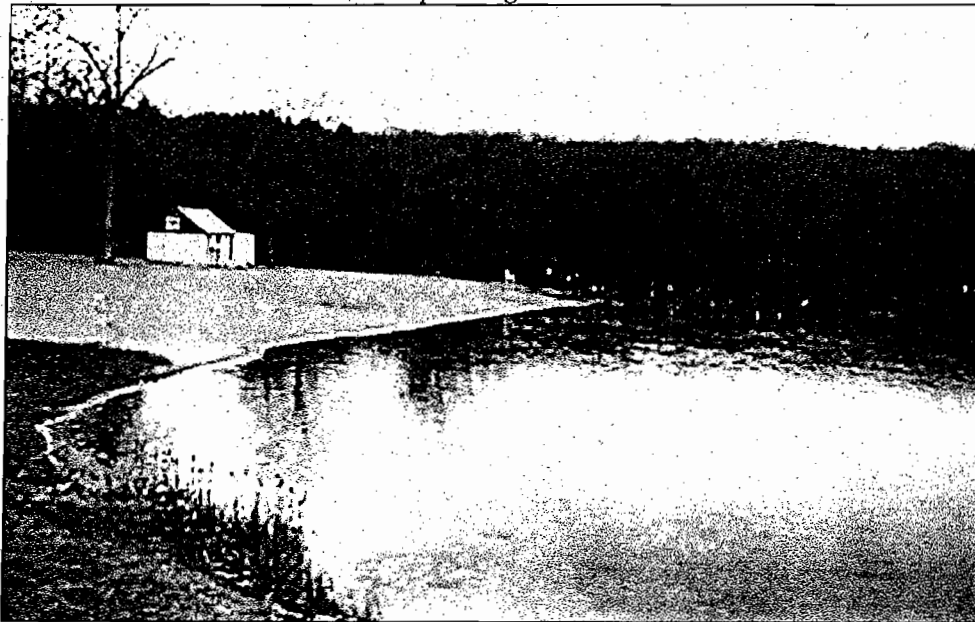
Recreation Facilities

Playgrounds	Location	Use	Acres
Greeneville Playground	Central Avenue	Tennis, Basketball	0.63
Laurel Hill Park	Laurel Hill Avenue	Open Play	0.59
Fernwood Playground	Fernwood Drive	Tennis, Basketball	2.45
Thamesville Playground	West Thames Street	Softball, Basketball	2.50
Jenkins Park	Mechanic Street	Ballfield, Tennis	4.90
Taftville Playground	Providence Avenue	Baseball, Basketball, Tennis	1.30
Occum Playground	School Avenue	Softball, Basketball, Tennis	2.29
Lake Street Playground	Lake Street	Basketball	1.92
Firemans Field	Franklin Road	Open Field	2.21
Hamilton Playground	Hamilton Avenue	Softball, Basketball	5.80
Elizabeth St Playground	Elizabeth Street	Jungle Gym	0.60
Atlantic Ave Playground	Atlantic Avenue	Tennis	0.46
Ball Fields	Location	Use	Acres
Recreation Fields	Mohegan Park Road	Softball	3.1
Moriarity Field	Lawler Lane	Baseball	2.81
Dickenman Field	Mohegan Park Road	Baseball	4.70
Cit Ouellet Park	Old Canterbury Tpke	Softball, Soccer	20.00
Hamilton Avenue Park	Hamilton Avenue	Youth Football	5.00
Fitzgerald Field	East Main Street	Little League Baseball	5.80
Otrobando Ave. Fields	Otrobando Avenue	Little League Baseball	7.50
Robert Spayne Courts	Mahan Drive	Basketball	1.08
Fontaine Field	Mahan Drive	Track, Soccer	7.09
Kelly Soccer Field	Mahan Drive	Soccer	2.10
School Playgrounds	Location	Use	Acres
Kelly Junior High	Mahan Drive		10.33
Norwich Regional Tech	New London Tpke.		6.36
Uncas Elementary	Allyn Avenue		5.16
Mahan Elementary	Salem Turnpike		2.86
Buckingham Elementary	Washington Street		2.17
Teachers Junior High	Starr Street		4.20
Huntington Elementary	West Town Street		1.70
Stanton Elementary	New London Tpke.		1.55
Wequonnoc Elementary	Providence Street		2.54
Bishop Elementary	East Main Street		.50
Other Facilities	Location	Use	Acres
Armstrong Tennis Courts	Mohegan Park Road	Tennis	3.88
Spaulding Pond	Mohegan Park	Swimming & Skating	1.14
Municipal Ice Rink	New London Tpke.	Indoor Skating	7.72
Municipal Skateboard Pk	Mahan Drive	Skateboarding	5.00
Dodd Stadium	Industrial Park	AA Baseball Stadium	43.53
Norwich Free Academy	Washington Street	Football & Track	3.44
Noyes Pond	Garfield Avenue	Outdoor Skating	14.30
Municipal Golf Course	New London Tpke.	Golf – 18 holes	114.00
Undeveloped	Location	Use	Area
Watson Drive, Adams Drive, Thather Lane		Vacant Land	7.4
Taftville Reservoir I	Old Canterbury Tpke	Open space & trails	80.00

Parks Department and Mohegan Park

The Parks Department administrative and maintenance facilities are in the 354-acre Mohegan Park, located in the geographic center of the city. Mohegan Park is also the location of the regionally renowned Rose Garden and plans for a large scale Botanical Garden are in progress. Amenities within the park include, picnic areas (with pavilion), open fields, play areas, and walking trails. The central area of Mohegan Park is a swimming area located around Spaulding Pond and was completely redesigned in 1992. Construction of new walkways, play areas, fountain, and extensive landscape plantings were also added.

Spaulding Pond



Other Parks

Norwich is fortunate to have many additional public and private parks, increasing total parklands to almost 450 acres. Since the 1989 Plan of Development, four additional parks have been developed and a riverside park in the Occum section of the city is being developed. In response to a federal application to create a small hydroelectric facility at the lower falls of the Yantic River, the City initiated action to prevent the degradation of this valuable historic and natural resource. The final result was the creation of a small park known as Uncas Leap, which is recognized as an area of enormous historic importance to the City and local Indian Tribes.

In an effort to preserve other historic and natural resources along the Yantic River corridor, a linear system of parks or greenway was developed including:

- Yantic River Upper Falls Park, which recaptures historic assets,
- Heritage Riverfront Walkway (Phase I) that follows the Yantic River from the Upper Falls to Howard Brown Park, and
- Heritage Riverfront Walkway (Phase II) providing a pedestrian connection from the waterfront to a pedestrian mall at City Hall.

Future Parkland

Norwich's parks are not evenly distributed within the community. The majority of park facilities are located in the older, more urbanized sections of the city. Mohegan Park is the most widely used facility and providing that adequate funding is made available for required maintenance and capital improvements, the park should serve the majority of the community well into the future. Whenever undeveloped property adjacent to Mohegan Park becomes available, the City should attempt to purchase the parcels as a method of expanding the park.

The current park system serves the majority of the community satisfactorily. However, Norwich should begin to explore the potential of acquiring park sites in the undeveloped portions of the city to the northwest and southwest. These locations have been identified as future residential growth areas. If possible, the proactive purchase of key parcels for future parks and recreation areas is a logical and economic approach to meeting anticipated demand. Land prices will only increase in the future and the availability of suitable parcels will diminish as development demands intensify.

The primary issue facing the City relative to the park system is that the Parks Department will be under increasing pressure to "do more with less" over the next decade. Due to budgetary constraints, the Parks Department may not be able to continue the high level of service necessary to ensure that the quality of the City's parks meet the community's expectations. The problem is not unique to the Parks Department and is an issue for any City department responsible for infrastructure maintenance.

Norwich Public & Private Parks

Public Parks	Acres
Veterans Memorial Park	0.22
Lucas Park Woods	11.38
Little Plain Green	0.69
Chelsea Parade Green	4.23
Norwichtown Green	1.75
Bean Hill Green	0.60
Columbus Park	0.73
Uncas Leap Park	26.46
Centennial Sq. @ Boswell & Broad Street	0.02
Lafayette Street @ Nell Lane	0.44
Hamilton Avenue	0.33
Great Plain Road Conservation Area	3.34
Miantonomo Monument	0.44
Lower Falls Park	0.75
Upper Falls Park	3.00
Heritage Riverfront Park Phase I & II	17.00
Private Parks	
Lowthrope Meadow	15.30

Public Works

Administrative Facility

The Department of Public Works Headquarters is located on Clinton Avenue in a rehabilitated industrial building. With the exception of vehicle maintenance and repairs, the Department's administrative and infrastructure operations are coordinated and conducted from this site.

The primary structure on the site is the single story masonry building, which houses the administrative offices, dispatching, engineering, vehicle garage, and tool and equipment storage areas. Over the past decade, a salt storage shed and a recycling/storage building have also been constructed. The main building has been recently renovated and is in good condition. Site improvements have also been recently completed, which includes modifications to parking areas, drainage systems, and landscaping.

Asylum Street Garage

General maintenance and repair of City vehicles and equipment is conducted at this facility. The City fleet consists of approximately 225 vehicles operated by the Departments of Public Works, Police, Fire, Recreation, Senior Citizens, Parking Commission, Ice Rink & Stadium Authorities, and the Board of Education.

There are two principal buildings located at the Asylum Street site. The older masonry building houses the general repair facilities and administrative offices. A second masonry building houses a body shop, tire repair, and paint spray booth. These facilities have been updated as needed and the only short-term projects planned are the construction of a concrete storage building and the modification of the paint spray booth to comply with OSHA standards. There are no other long-term projects or expansion plans identified at this time.

Other Norwich Public Facilities

Senior Citizens Center

The City of Norwich constructed a Senior Citizen Center on Mahan Drive in 1993. It is administered by the Norwich Social Services Department. The facility consists of private office areas for staff, meeting/activity rooms, and a kitchen and dining area. A variety of social, recreation, and education programs are offered throughout the year to Norwich seniors. The only pressing problem relative to the Senior Center is the creation of additional storage space.

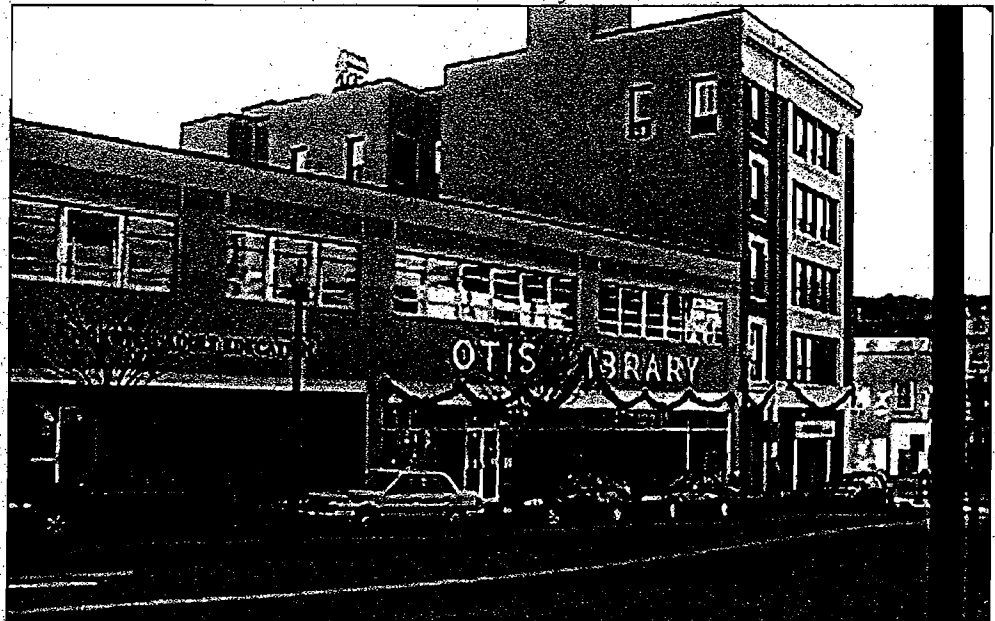
Municipal Child Care Center

In response to a demand for quality childcare facilities for the employees of the City of Norwich, a municipal childcare center was constructed in 2000. The facility was sited on a parcel of land located adjacent to Mahan Elementary School. The state-of-the-art facility has separate areas for infant and preschool children. The Department of Social Services oversees the facility, which is staffed on a contract basis. There are no outstanding concerns with the facility.

Otis Library

Although the City does not own Otis Library, the facility is the only public library that serves the general population of Norwich. The City contributes funding on an annual basis to assist in offsetting operational costs. Occupying a 20,000 square foot building in the heart of the Downtown, Otis Library provides a number of vital community services. A major expansion plan is now in the fundraising stages.

Otis Library



Public Schools

One of the most valuable assets Norwich has is its system of public and private schools, which together comprise a strong positive advantage for the City. However, Norwich is experiencing increased enrollment due to the rapid influx of families relocating to the region for employment at the Mashantucket and Mohegan Indian casinos. In these times of fiscal constraint, this factor will present significant challenges to the community in the years ahead. The budget decisions made over the next few years may have long-term impacts on the overall quality of education delivered in the future.

Norwich Free Academy

Norwich Free Academy (NFA) is a publicly supported private high school that is attended by students from Norwich and surrounding towns. The operating expenses of this facility are derived from tuition, which is paid on a pro-rated student basis by Norwich and other participating municipalities. NFA is a highly regarded educational facility within the state, and nationally. The Academy has made substantial capital investments in the rehabilitation of buildings and new construction projects since the 1989 Plan of Development. A very pro-active and aggressive approach to future campus planning and financial programming has positioned Norwich Free Academy for the future.

Teachers Memorial Junior High School, constructed in 1975, is sited on the largest parcel of public school land in Norwich. The 30.2-acre parcel is located off of Starr Street in the East Great Plain area of the city.

Kelly Middle School is located on Mahan Drive, a convenient location to many areas of the city. The facility is sited on an 18.9-acre parcel of land and was constructed in 1962.

Mahan Elementary is located on a 10.62-acre parcel of land off Salem Turnpike. Constructed in 1968, this is one of the smaller elementary school facilities.

Uncas Elementary is located off Elizabeth Street Extension on a 12.55-acre parcel. Constructed in 1975, this facility is also small in comparison to other schools.

Veterans Memorial Elementary is located on a 12.26-acre parcel of land at the end of Crouch Avenue. The City of Norwich owns an adjacent 9-acre parcel that fronts on Laurel Hill Road. Constructed in 1968, this facility is the only school serving the Laurel Hill area.

Buckingham Elementary is located on Washington Street on a rather small 6.28-acre parcel. This school was constructed in 1956 to serve the central city area.

Wequonnoc Elementary in Taftville is located on an 8.67-acre parcel of Providence Street. This school was constructed in 1962.

Stanton Elementary is located on a 24.7-acre parcel on New London Turnpike in the East Great Plain area of the city.

Bishop Elementary was constructed in 1925 and is sited on 1.16-acre parcel on East Main Street. Despite recommendation in the 1989 Plan of Development to close the facility, Norwich chose to purchase adjacent parcels of land and embark on a major renovation, including technology upgrades, and construction of outdoor recreation areas completed in 1998.

Huntington Elementary is one of the older school facilities. Constructed in 1928 on a small 4.18-acre site in the Norwichtown area, this is the only school on the western side of the city. Major upgrades and renovations to this school were completed in 1998.

Greeneville Elementary, constructed in 1956, is located off Hickory Street on a 14.6-acre site.

Moriarty Elementary is located on a 14-acre site off Canterbury Turnpike north and west of Taftville. Constructed in 1962, the facility has taken some of the enrollment and space pressure from Wequonnoc Elementary.

School Maintenance and Improvements

With the completion of the recent renovations to the Bishop and Huntington Elementary Schools, the only elementary school facility slated for major improvements in the near future is Stanton. The recent Board of Education Capital Improvements Plan for fiscal years 2002–2007 indicates overall improvements in excess of \$20,000,000 including an addition, sprinkler updates and other code improvement work. The remaining elementary schools are slated for general maintenance and some code work over the same period of time.

Stanton Elementary School



Future Sites

The primary issues that the Board of Education and the City must address are:

- A lack of area to expand some of the existing elementary schools,
- Identifying parcels of land in areas where future schools may have to be sited, and
- Funding these significant capital expenditures.

The northwest and southwest sections of the community will be subject to increasing development pressure over the next decade. Potential school sites should be identified now and secured while land is available and prices are reasonable.

Expansion of the main campus of Norwich Free Academy is restricted due to topographic and site conditions. As adjacent parcels become available, they should be purchased to support future growth. This is the only plausible method of expanding educational and ancillary uses associated with the Academy.

Private & Religious Schools

In addition to the City of Norwich School System and Norwich Free Academy, there are a number of religious and private schools that contribute to the community. Although the parochial school enrollment dropped in the 1980s, enrollment has now stabilized. Many of these institutions are now also providing day-care for two income families. The three Catholic Parochial Schools are:

- St. Patrick's on Perkins Avenue,
- St. Joseph's on Cliff Street, and
- Sacred Heart on Providence Street in Taftville.

Other educational facilities in Norwich are the Orthodox Hebrew Day School on Broad Street and the Wildwood Christian School on Wawecus Hill Road. In 1999 a Day Charter School opened in what was the Thermos on the Thames Manufacturing Facility, and a Montessori Discovery School for pre-school through fourth grade is located on Dudley Street, in the East Great Plains area.

Conclusion

Population growth and the economic health of the City will determine how current levels of service will be maintained and what additional services will be provided for in the future. The City is fortunate that the majority of its community facilities are in excellent condition. General maintenance and code compliance issues in the school system comprise the bulk of anticipated capital expenditures for the immediate future. Construction of a new Greeneville Fire Station should also receive serious consideration.

The primary overall recommendation relative to community services and facilities at this time is to identify sites in outlying areas of the city for future school and fire facilities.

Facility Strategies

Community Facilities			
	Strategy	Lead Agency	High Priority
1	Identify sites in outlying areas of Norwich for future school, parks, recreation, and fire facilities.	Commission on the City Plan	√
2	Develop and implement plans to replace the Greenville Fire Department facility.	Fire Marshall	√
3	Implement renovations slated for the John B. Stanton Elementary School.	Norwich Board of Education	
4	Examine the need of the Police Department for storage facilities and additional parking.	Police Chief	
5	Plan for immediate storage needs of the Norwich Senior Center and plan for expansion of services.	Norwich Department of Social Services	
6	Assist with the Norwich Free Academy expansion plans.	City Managers Office	
7	Address the substandard conditions of the Civil Preparedness Administrative Offices	Civil Preparedness Director	
8	Address parking adequacy by ensuring parking spots are convenient and perceived as safe.	Planning & Neighborhood Services Department	√

TRANSPORTATION

10

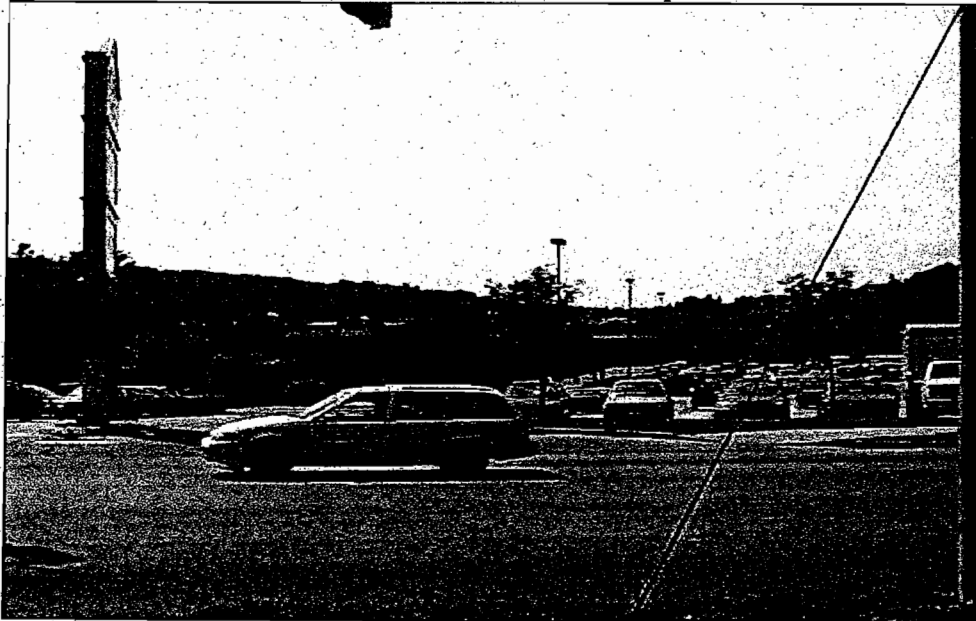
Introduction

The transportation system in a community is an important factor in its growth and development. The physical characteristics of the city have shaped the roadway system along valleys and ridges and the city's growth has evolved around this roadway system. In the past, the Thames River was an important element of the transportation system. Today it is used primarily for recreational and pleasure boating purposes. The City of Norwich depends almost exclusively upon the roadway system for movement of vehicular and pedestrian traffic.

Major Strategies

- Complete the Route 2 and I-395 Interchange.
- Reconsider Washington Street improvements near Route 2.
- Improve traffic flow in the Route 82 Corridor.
- Construct new roads to further business development.
- Plan for improved pedestrian and bicycle facilities.

Route 82 Plaza Commercial Strip



Traffic Volume

Limited access roadways carry the highest traffic volumes in Norwich.

- *I-395 carries the highest traffic volume in Norwich 35,000 to 54,000 ADT**
- *Route 2, the other limited access highway in Norwich, carries 30,000 to 40,000 ADT.*

On non-limited-access roads in Norwich, the highest traffic volumes are found on:

- *Washington Street between the Route 2 Expressway and Lafayette Street (20,000 to 27,000 ADT),*
- *Salem Turnpike/West Main Street (19,000 to 25,000 ADT)*

**Average Daily Traffic*

Routes and Volume

The City of Norwich has a comprehensive road network which includes:

- Approximately 45 miles of state routes, and
- About 107.5 miles of city roads.

Norwich's roadway system evolved over a period of nearly three and one-half centuries. As with most New England Towns, the roads followed paths of least resistance carved within the terrain as footpaths, and eventually widened to create the roadway system. Three rivers (Thames, Yantic, and Shetucket) carve valleys through the land mass of Norwich, and rocky terrain rises from these low lying water courses.

Earlier Plans of Development describe the roadway system as being eccentric. With the exception of the expressway roadways, most roads meander around the physical barriers taking a circuitous alignment as they wind through the city and its neighborhoods.

Major Routes

The highest 1998-99 traffic volumes in Norwich were found on grade-separated highways. Interstate I-395 carries between 35,000 and 54,000 vehicles per day, also referred to average daily Traffic (ADT). The Route 2 Expressway between Route 32 and I-395 carries 30,000 to 40,000 ADT with lower daily traffic volumes (21,000 to 24,000 ADT) between I-395 and Washington Street. This is illustrated on the Average Daily Traffic Volume Map on the facing page.

Several surface roadways also carry substantial volumes of traffic. Washington Street (Route 2/32) carries 20,000 to 27,000 ADT along the segment between the Route 2 Expressway and Broadway. Salem Turnpike/West Main Street (Route 82) carries 19,000 to 25,000 ADT for its entire length from the Thames River to the I-395 interchange.

Comparison 1990-99 Volumes

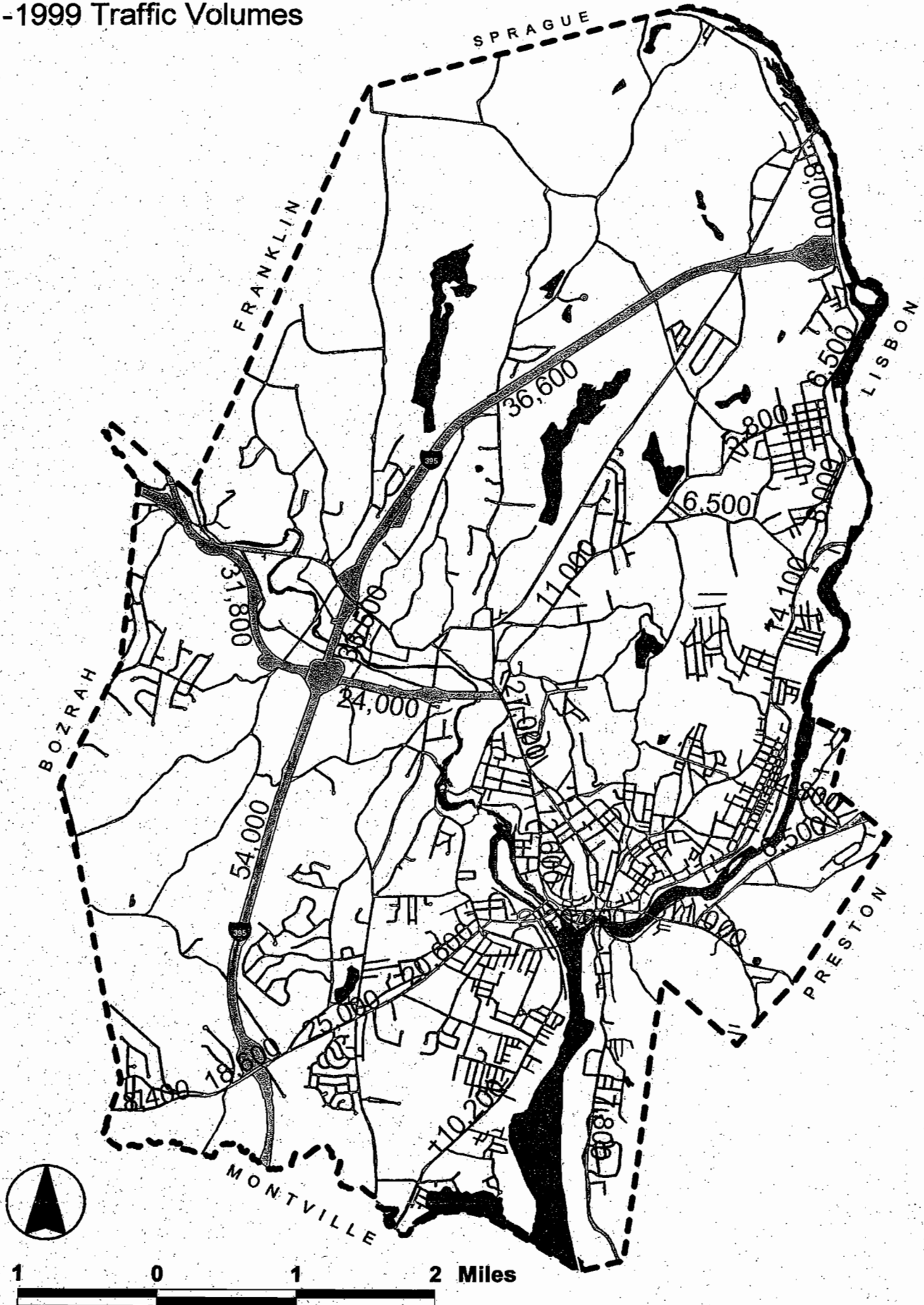
According to *The Connecticut Economy*, traffic volumes state-wide have increased about two percent annually since 1991. A total increase of approximately 20 percent would be considered typical along the city's roadways during the 1990's. In general, the traffic volumes on the interstate and expressway roads increased by 25 to 50 percent during this period as indicated below:

- Traffic volumes in the southwest quadrant increased by approximately 25 percent.
- Traffic volumes on Routes 32 and 2 south and east of the Downtown increased by 25 to 50 percent.

However, traffic volumes in the northeast section of the city remained steady or showed a decrease of up to 20 percent.

Average Daily Traffic

1998 -1999 Traffic Volumes



Significant Roadways

Limited Access Roads

I-395/Connecticut Turnpike was the second major Connecticut expressway built and was intended to interconnect all the shoreline cities and then sweep northeastward past Norwich. It provides safe, high-capacity travel for the long-term. (Its current maximum traffic volume of up to 54,100 vehicles per day is about 90 percent of its comfortable capacity.)

In the vicinity of Norwich, the Turnpike is a 4-lane divided road, with the following interchanges (all full, except with Route 2):

- Route 82
- Route 2
- West Town Street
- Taftville-Occum Road.

Growth and development has accelerated in the vicinity of the Route 82 interchange during the nineties, and there has been significant increases in traffic between this interchange and Downtown. The recent addition of a major retailer west of the interchange has also caused traffic volumes between I-395 and the Bozrah Town Line to grow substantially during the past several years.

Non-residential uses in the vicinity of West Town Street and Route 97 have remained relatively unchanged during the decade of the nineties. Development at the Route 2 interchange cannot occur as this is a grade-separated interchange between two expressways. The Southeast Council of Governments Regional Transportation Plan lists reconstructing this interchange as a highway improvement priority.

Route 2 Expressway was conceived as a connection from Hartford to Stonington, with Norwich the largest City en route. It was designed as a 4-lane divided, limited access expressway with no grade crossings. It was never constructed as conceived by the State. The result has been and will continue be a major problem for Norwich, for the high-speed Route 2 Expressway now ends and drops significant traffic right into the city's street system. Although current traffic channelization and lane adjustments have been constructed on Washington Street at this terminus interchange, traffic flow problems remain. Route 2 further complicates things for Norwich:

- When the Connecticut Turnpike was designed and built for interchange with the Route 2 Expressway, no provision or future possibility was left for connecting westbound Route 2 with northbound lanes on the Turnpike. This results in all northbound Turnpike traffic having to use Town Street and West Town Street to reach the northbound Turnpike interchange at Bean Hill.
- Similarly, no connection was made between the southbound lanes on the Connecticut Turnpike and westbound Route 2; thus, necessitating use of West Town Street for this connection. A recently completed construction project removed many dangerous weaves and merges here.

State Highways-Arterial Streets

Route 82 (Salem Turnpike-West Main) was widened during the 1980's to provide two lanes of travel in each direction from I-395 to downtown due to increased commercial development. Development along the Route 82 corridor includes strip retail plazas, fast food restaurants, and other commercial uses.

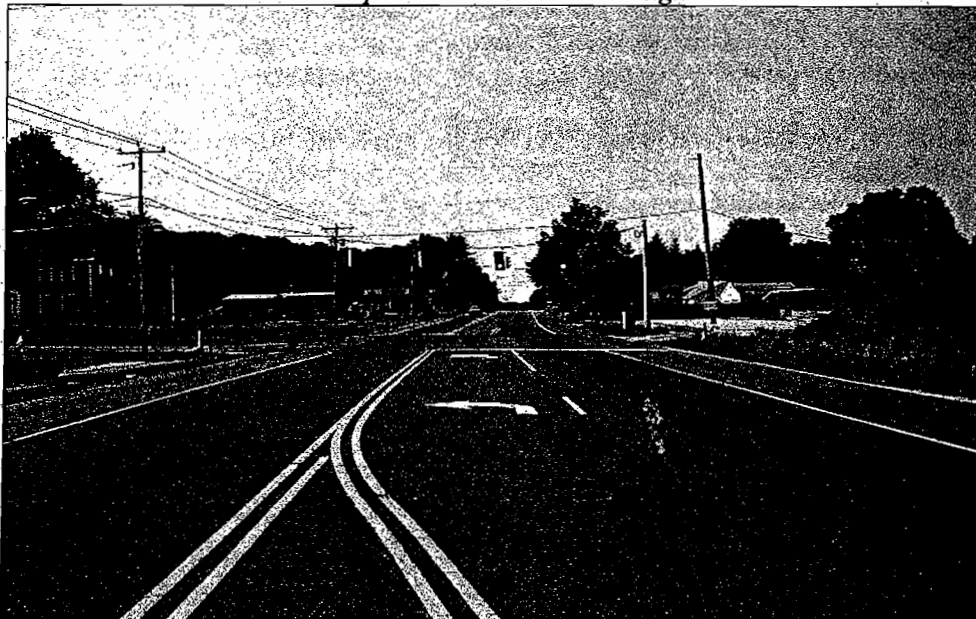
There are eleven signalized intersections along Route 82 between I-395 and the Yantic River. Traffic flow is a major problem on Route 82 since:

- Only the signalized intersection with New London Turnpike was constructed with exclusive left turn lanes in both directions.
- At the three signalized intersections, nearest I-395, the inside eastbound lane has been converted to an exclusive left turn lane and through traffic is once again confined to a single lane.
- There are too many curb cuts causing interruption in traffic flow.

Route 32 is the north-south highway through eastern Connecticut, passing from Interstate 84 to Willimantic through Norwich to New London. It's route along city arterial streets is 2-lane, with rather narrow right-of-way width, but with relatively few traffic signals. Route 32 joins with Route 2, over a section of roadway, in the Washington Street area. The critical section of its route, however, is from Backus Hospital to Norwich Free Academy, where very heavy (20,000 to 27,000 vehicles per day) traffic flows. This volume combined with very narrow right-of-way width, and frequent local street intersections, combine to create a congested environment.

Several years ago a design study proposed to add an additional travel lane and improve turning lanes along this section of Route 32. The improvements would have required land acquisition from several properties along the west side of Washington Street, including property from Backus Hospital. This proposal met vocal opposition and the project was not revisited during the 1990's. The section of Route 32 along Washington Street from Backus Hospital to Broadway remains congested, and eventually improvement will be required.

Example-Good Intersection Design



Route 2 after becoming two-lanes, runs along Washington Street to Downtown. It then follows a circuitous route through the east side of the city to the Preston Town Line. The Preston Bridge was rehabilitated by CTDOT in 1990.

The Foxwoods and Mohegan Sun Casinos opened during the 1990's and changed the travel patterns in the region. Because of these major attractions, CTDOT has been conducting a study to evaluate the Route 2/2A/32 corridors in the region, and has recommended construction of a Route 2A expressway. The expressway would by-pass Norwich to the south, extending from the present connection to I-395 across the Mohegan-Pequot Bridge over the Thames River, connecting with old Route 2.

Route 12 from Griswold to Groton passes through Norwich from the Jewett City Road Bridge at Taft Station and eventually runs along side the Viaduct Parking Lot in Downtown before heading south over Laurel Hill.

The roadway has two lanes and sections have strip-commercial development. With closure of the Norwich State Hospital near the Preston Line and reduced employment at Electric Boat Company (far south in Groton), traffic volumes on Route 12 south of the Viaduct, have remained unchanged during the last decade. With possible construction of the Route 2A by-pass, access to future development on the Norwich State Hospital site would be provided from this new roadway with direct access to and from I-395.

Route 169 starts at the end of the Route 2 Expressway, crosses over the high center ridge of the city on Harland Road, and crosses the Shetucket River into the Town of Preston. It functions as an important feeder road from various City districts to Route 2 and southward on I-395. Route 169 provides a single lane in each direction and varies in width from narrow to moderate. It is developed predominantly with residential uses, and traffic volumes along most of this route have remained steady or decreased during the past ten years.

Route 97 begins at Taftville and traverses the Shetucket River Valley northward through Occum and beyond. It is a rural road running alongside the river, in the far northern section of the city, but becomes a more congested commercial route as it travels through Taftville to join Route 12. There is a full interchange with I-395, with minimal commercial/retail development, just north of Taftville. Traffic volumes along Route 97 have decreased during the decade of the nineties.

Route 165 (Hamilton Avenue) is the connection from Norwich northeasterly into Preston. Near its southerly end the roadway has a dense, narrow right-of-way, but becomes a more open suburban roadway as it proceeds northeast.

State Route 642 (Town Street/West Town Street) parallels the Route 2 Expressway. Nearly the entire length of this route has become developed as a commercial/retail strip. It is one of the access routes from I-395 to the Norwich Business Park. Town Street and West Town Street serve as the missing link between westbound Route 2 to northbound I-395 and from southbound I-395 to westbound Route 2. Because it carries this highway traffic, demands for motorist services will continue and increased commercial/retail development will follow. It is expected that the ever-increasing traffic volumes resulting from this development will continue to a problem in this area.

Roadway Classifications

Since transportation planning occurs at many levels of government, roads are classified by each agency based on their needs and programs. They are typically classified according to a number of factors:

- Function (through traffic versus access),
- Major land use (business or residential),
- Traffic volumes, and
- Overall location.

These classifications are illustrated on the map on the next facing page. State roadways were classified by CTDOT, and local roadways by the 1989 City Plan.

State Designated Classifications

Principal Arterial – Interstate	
Interstate 395	
Principal Arterial Other – Expressway	
Route 2 Expressway	
Principal Arterial Other	
Washington Street (Town Street to West Main Street)	
West Main Street - Salem Turnpike	
Shetucket Street (Washington Street to Laurel Hill Bridge)	
Laurel Hill Avenue - Laurel Hill Road, Viaduct	
East Main Street - Stonington Road	
Water Street (Laurel Hill Bridge to Washington Street)	
Market Street	
Hamilton Avenue	
Minor Arterial	
W. Thames-N. Main Streets, Boswell- Norwich Avenues, Occum Road to I-395	
Town Street - West Town Street	
Yantic Road	
Harland Road - Merchants Avenue - Providence Street	
Broadway	
Union Street	
Jewett City Road	
Bath Street	
New London Turnpike	
Collector	
Main Street	Scotland Road
Boswell Avenue-Franklin to North Main St	Canterbury Turnpike
Franklin Street	Sachem Street
Yantic Lane	Sherman Street - Lafayette St.
Fitchville Road	East Town Street
Browning Road	Smith Avenue
Asylum Street	Connecticut - Wisconsin Avenues
Dunham Street	Winnenden Road
Hunters Road	Wawecus Street
Plain Hill Road-Huntington Ave.	Otrobando Avenue
White Plains Road	Washington Street (Town to East Town)
Lawler Lane	Occum Road north of I-395
Baltic Road	Bridge Street

Road Classification

Expressway

A limited access route designed for long distance and/or high-speed travel.

Arterial Road

A road primarily intended to carry regional traffic and serve major activity centers.

Collector Road

A road intended to serve business areas and/or distribute traffic between arterial roads and neighborhoods.

Local Street

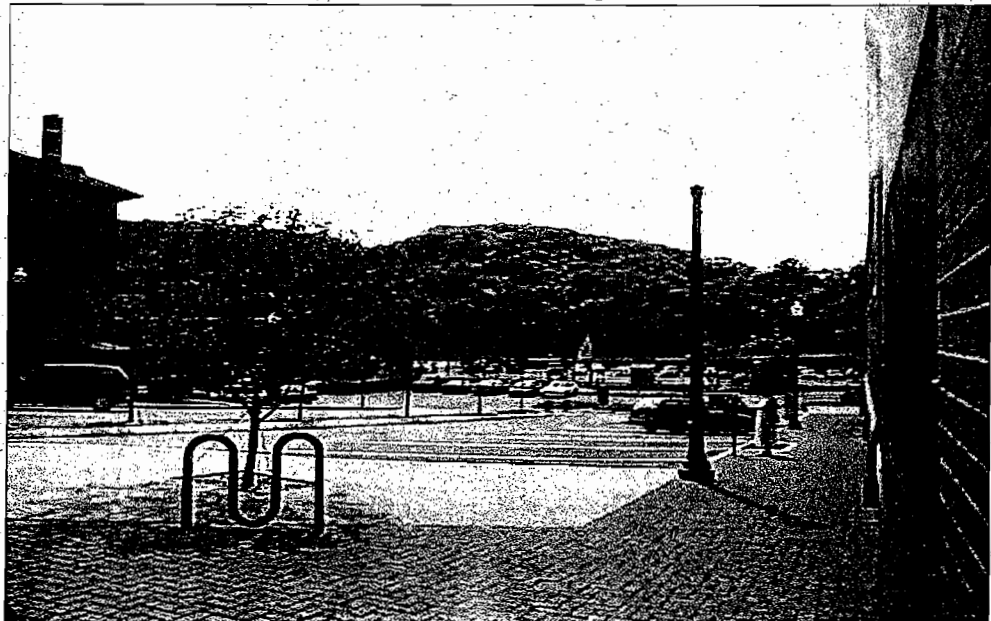
A road primarily intended to provide access to abutting properties and not serve major through traffic.

City Designated Classifications

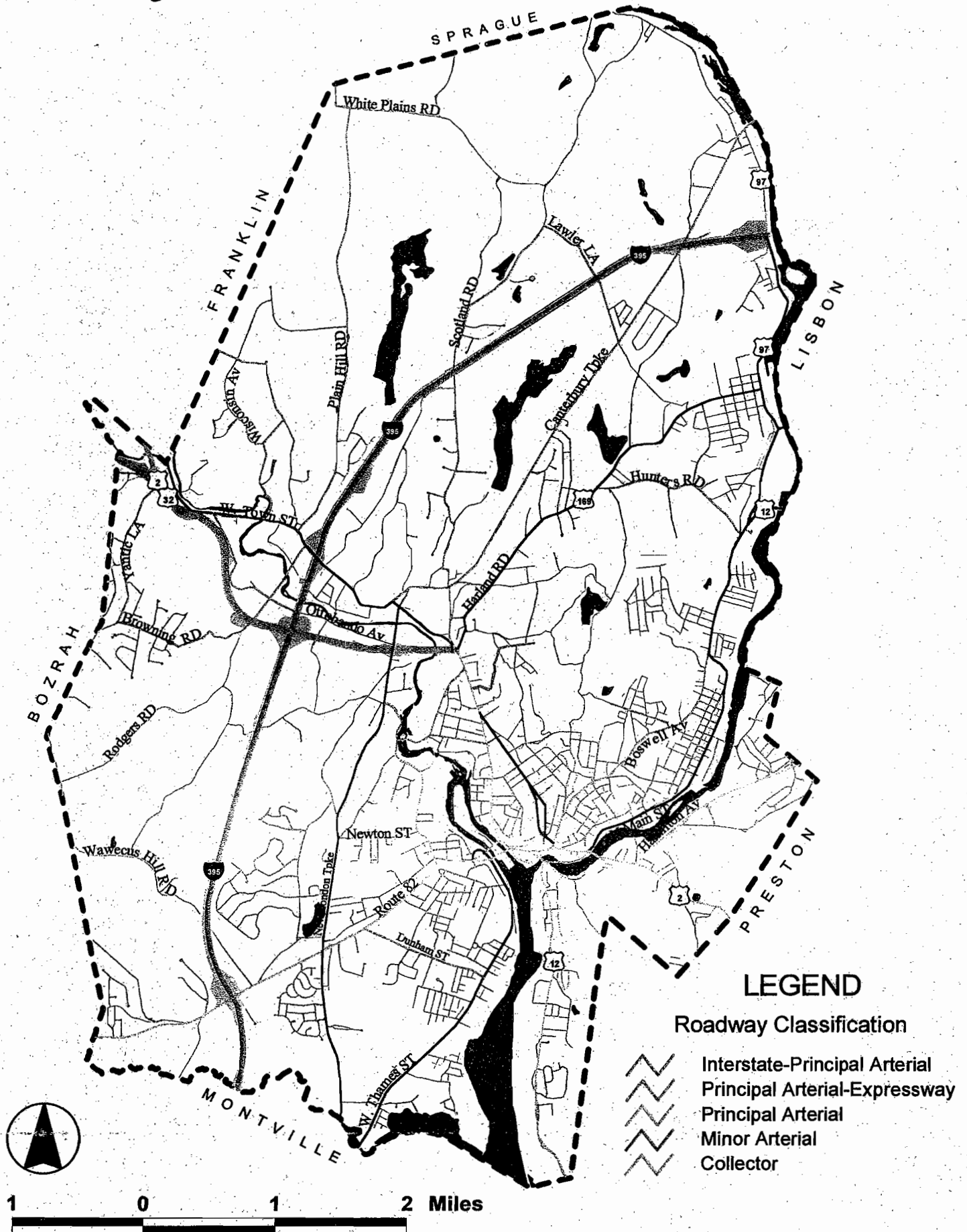
Collector
Cranberry Pond Road
Wawecus Hill Road
North Wawecus Hill Road
Rogers Road
Courthouse Square
Dudley Street
Gifford Street
Starr Street
Montville Road
Central Avenue
Case Street
Mohegan Park Road
Corning Road
Hunters Avenue
McClellan Avenue
Ox Hill Road
Mahan Drive
Roosevelt Avenue
Vergason Avenue
Stott Road
Old Canterbury Turnpike
Lillibridge Road
Barbers Road
Local Streets
All Other Roads

The map on the facing page illustrates State Road Classification in Norwich.

Downtown Parking



Roadway Classification



High Accident Locations

Six of the highest nine accident locations occurred along Route 82.

Salem Turnpike at New London Turnpike has the highest accident experience.

Accident Experience

Accident information can provide important information about a roadway system. While accidents are an expected occurrence on any roadway, a concentration of accidents can indicate:

- Capacity issues (congestion),
- Inadequate geometry (lack of turning lanes or poor road alignment), or
- Other issues including a preponderance of private drives along a congested corridor.

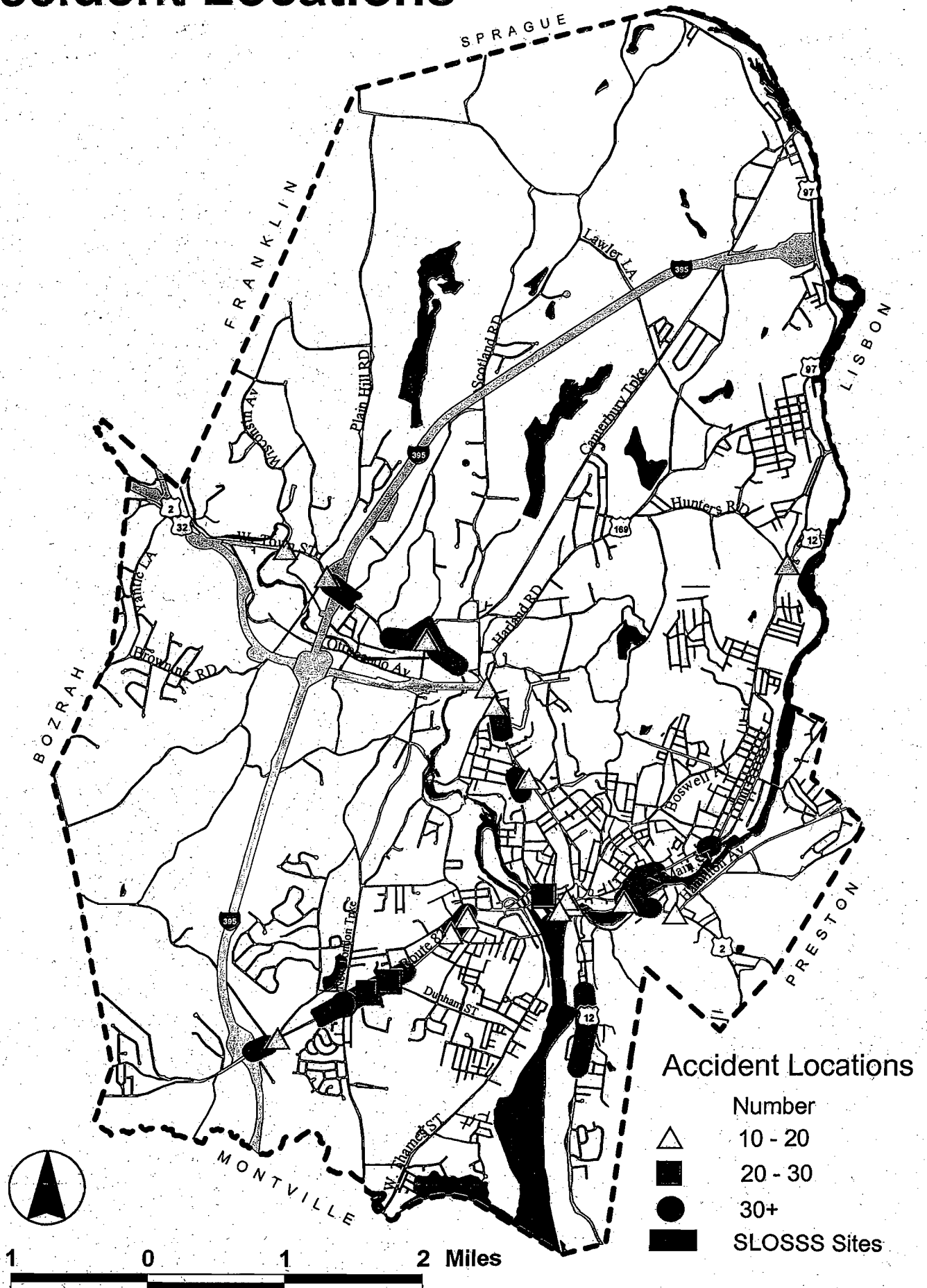
The Norwich Police Department maintains a summary of accidents at intersections and along roadway segments throughout the city. Locations that experienced more than ten accidents during the 2000 calendar year have been plotted on the map found on the facing page.

Additionally, CTDOT maintains a comprehensive database of accidents on state roads. The State compiles a list of high accident locations and a Suggested List of Surveillance Study Sites (SLOSSS). (The study sites are also illustrated on the map on the facing page). The SLOSSS indicates that most of Route 82 between I-395 and the Yantic River is included for having higher than expected accident rates when compared with other similar roadways throughout the state. Short sections of Loral Hill Avenue, Washington Street and North Main Street are also included in the latest (1995-97) SLOSSS.

Number	Accident "Hot Spots"
41	Salem Turnpike (Route 82) at New London Turnpike 41
28	West Main Street (Route 82) at Norman Road
27	Main/West Main/Water/Washington
24	West Main Street (Route 82) at Dunham Street
20	Norwich Avenue/Jewett City Road/Hunters Road
19	West Main Street (Route 82) at Asylum Street
16	West Main Street (Route 82) at Mount Pleasant street
15	Water Street at Chelsea Harbor Drive
15	Salem Turnpike (Route 82) at Old Salem Road

Six of the top nine accident locations are along the Route 82 corridor. This combined with the State's SLOSSS report indicates much of the length of Route 82 has higher than expected accident rates. There is a need to review and identify the safety issues and make corrections to reduce the accident experience along the corridor.

Accident Locations



Access Management

CTDOT is conducting a Corridor Study for Route 82 to identify where access management might improve traffic flow.

An access management program consists of a series of maps. These maps show all the properties and drive-ways in the corridor and recommend access improvements to be made as properties develop or change use. To be effective, access management plans should be implemented as part of the zoning review process.

The program should address such issues as:

- Driveway grade,
- Driveway alignment,
- Sight distances,
- Properties with frontage on 2 roads,
- Interior circulation driveways, and
- Minimizing curb cuts.

Volume Capacity & Congestion

Congestion occurs when traffic volumes exceed the capacity of the roadway (or the intersection). Other communities have found that two-lane arterial roadways could handle up to 17,000 ADT before congestion became apparent and that four-lane arterials could handle up to about 26,000 ADT.

On the basis of traffic volumes alone, it can be seen that the following roads in Norwich are or have the potential to be congested, particularly during peak hours.

Roadway	Volume Per Day
I-395 between Route 2 and Route 82	54,000 vpd
Route 82 east of New London Turnpike	40,000 vpd
I-395 north of Route 2	36,000 vpd
Route 2 west of I-395	25,000 vpd

Access Management

It should be no surprise that intersections are a capacity constraint. At unsignalized intersections and intersections with heavy left turns, but no left turn lane, turning traffic can block through travel lanes causing delays to through traffic. While signalized intersections can be timed to maximize capacity, the fact that traffic can move along each approach for short periods before having to stop means that additional lanes are needed to accommodate traffic needs.

In the case of Salem Turnpike, the left turns at three signalized intersections have been addressed by converting the inside travel lane to an exclusive left turn lane, forcing all through traffic to use a single lane at these locations.

Expanding roadway capacity (by either widening the roadway or improving intersection operations) is expensive and can have significant community impacts. Access management is a technique that seeks to manage driveways and intersections to maximize capacity and travel along a roadway corridor.

CTDOT is embarking on a corridor study to include access management for Route 82 to identify improvements that could enhance travel along the corridor between I-395 to the Yantic River. The City may also want to pursue access management programs for other locations where traffic congestion is becoming an issue such as the section of Washington Street from the Route 2 Expressway to the Downtown area.

Major issues addressed by Access Management Programs are listed in the side bar. Additionally, the program should address issues such as:

- Minimum sight distance requirements for new driveways,
- Maximum grade allowed for a drive,
- Desired alignment of new drives in relation to existing drives and roads, and
- Cross circulation between abutting properties to allow shared use of drives.

Local Roadways

Local Roadway Maintenance

Norwich Public Works Department is implementing a formal pavement management system; they include in their annual budget, \$800,000 for roadway overlay throughout the city. The overlay program extends the life of local streets and reduces the future need for capitol improvements.

Failure to maintain the roadways in good condition raises maintenance costs as pavement degradation accelerates over time. Pavement generally has a life expectancy of 15 years. However, during the first 11 years or so, studies have found that pavement degrades by about 40 percent due to traffic and climate. Beyond 11 years, the road base becomes damaged requiring repairs that are more substantial, including base replacement. Thus, to avoid costly replacement of the road base, routine preventive maintenance such as pavement overlays is highly desirable.

Business Park Access

The Norwich Business Park is located in the northwest portion of the City. The property along the west side of Plain Hill Road would be a logical extension of the existing business area. Alternative access plans should be investigated to extend utilities and the transportation network to provide access to potential industrial development in this section of the city.

Interchange Gateways

The two major highways in Norwich are Route 2 and I-395. There are four interchanges along the I-395 corridor within the city:

- The interchange with Route 82 has become a gateway access with significant economic development along the corridor.
- The interchange with Route 2 connects two major highways and provides no direct access to the surface roadway system. Hence, this interchange provides no gateway opportunities.
- The interchange with West Town Street serves as the connector for the missing links between Route 2 and I-395. There are substantial service facilities to meet the needs of travelers as they traverse the surface link between I-395 and westbound Route 2.
- The last interchange along the I-395 and Route 97 corridor in Norwich is in the northeast corner of the city.

To date there has been little retail/commercial development in this northeastern interchange area, since Route 97 does not serve as a convenient gateway to Downtown. Significant demand for commercial development exists within close proximity to the I-395 interchange however, but this interchange lacks necessary access roads limiting current opportunities.

Bicycle Routes

It is the aim of this Plan to encourage safe, convenient, comfortable, and secure bicycle-riding environments and encourage bicycle transportation as an important transportation mode and recreation activity.

The types of bicycle facilities that may be appropriate in Norwich include:

- *shared roadway,*
- *wide curb lane,*
- *shoulder bikeway,*
- *bike lanes, or*
- *multi-use paths.*

Other Transportation Related Issues

Transportation Center

Plans are being forwarded to construct a multi-modal transportation center on Hollyhock Island. It should be expected that a transportation center would result in considerable pedestrian traffic to and from the downtown area. These pedestrians would cross Washington Street at one of its busy signalized intersections. Capacity of these intersections should be reviewed to confirm that frequent actuation of the pedestrian phase will allow the intersection to operate at acceptable levels of service. If required, an alternative pedestrian crossing that does not include direct crossing at the signalized intersection (i.e. a pedestrian bridge) may need to be investigated.

Facilities For Cyclists

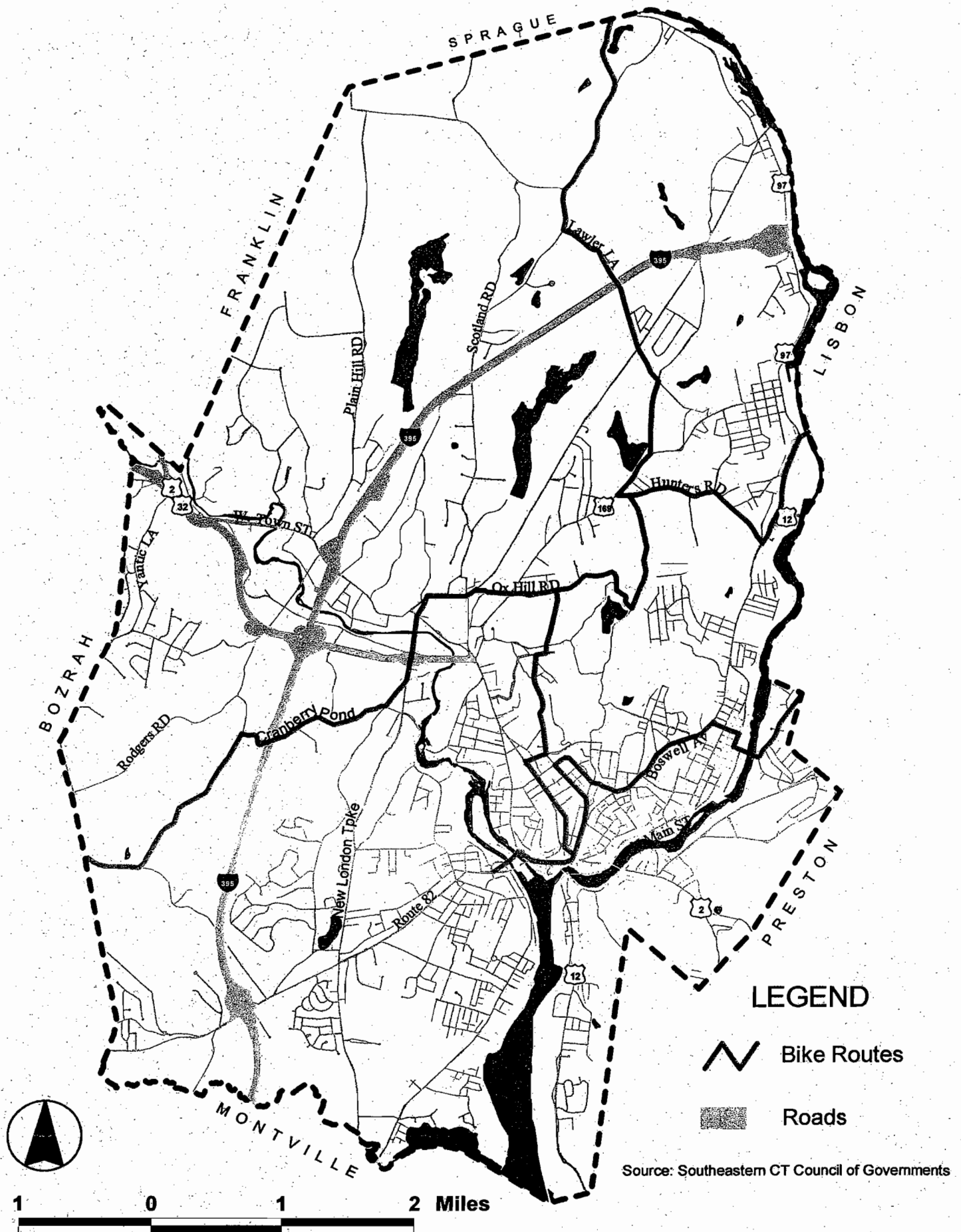
At the present time, bicycle routes in Norwich rely predominantly on roads and streets where conflicts can arise between bicycle and vehicular use. The eventual development of a system of bicycle routes appropriately designed, signed, and marked to ensure the safety and enjoyment of Norwich residents will be facilitated by the preparation of an overall concept plan. Proposed routes prepared by the Southeast Council of Governments, included on the facing page, should be considered as a starting point. These routes highlight roads of comparatively low traffic levels and/or have shoulders or sidewalks that can accommodate bicycles.

Bicycle use and needs should be considered and a suitable type of bicycle facility provided each and every time road improvement work is undertaken. While the goal should be to create a series of interconnected bicycle routes in the community, priority consideration should be given to establishing bike trails along roads that connect residential areas with centers of business and recreational activities. The City should work with the Council of Governments in identifying and promoting bike routes.

Pedestrian Traffic-River Walkway

Proposals have been considered to remove vehicular traffic from Chelsea Harbor Drive and convert this section to a riverfront park. In order to accomplish this change, two-way traffic would be introduced to Water Street. Before any plan to remove traffic from Chelsea Harbor Drive is implemented, the capacity needs and traffic operations on other streets through the downtown area should be investigated and provisions made to handle the diverted traffic demands.

Proposed Bike/Pedestrian Routes



Transportation Strategies

	Strategy	Lead Agency	High Priority
Route 2 and I-395 Interchange			
1	Hold joint planning sessions with CT DOT and the City to discuss options to connect I-395 with westbound Route 2.	City Managers Office	✓
Washington Street Improvements			
2	Hold public meetings to discuss improvements for Washington St. between Route 2 and Broadway.	City Managers Office	✓
Route 82 Corridor			
3	Request that State Legislators promote the immediate completion of two CT DOT studies underway for Route 82.	Norwich City Council	✓
4	Require that a fifth turning lane; widening of appropriate portions of the roadway, correcting problems at high accident locations, and reducing driveway cuts be incorporated as part of CT DOT plans for Route 82.	Norwich City Council	✓
Construct Roads to Foster Business Development			
1	Extend Consumers Avenue in the Norwich Business Park.	Norwich Community Development Corp.	✓
2	Examine the feasibility of constructing access roads in the vicinity of the Route 97 and I-395 interchange.	Commission on the City Plan	
Pavement Management System			
1	Continue to implement a Pavement Management System and rank the condition of all City streets.	Norwich Public Works Department.	✓
2	Establish a ten-year pavement plan including resealing, crack sealing, and reclaiming.	Norwich Public Works Department.	
Facilities for Cyclists			
1	Work with the SECOG and Quinebaug Shetucket Heritage Corridor to plan for bicycle routes,	Planning & Neighborhood Services Department	

UTILITY SERVICES

11

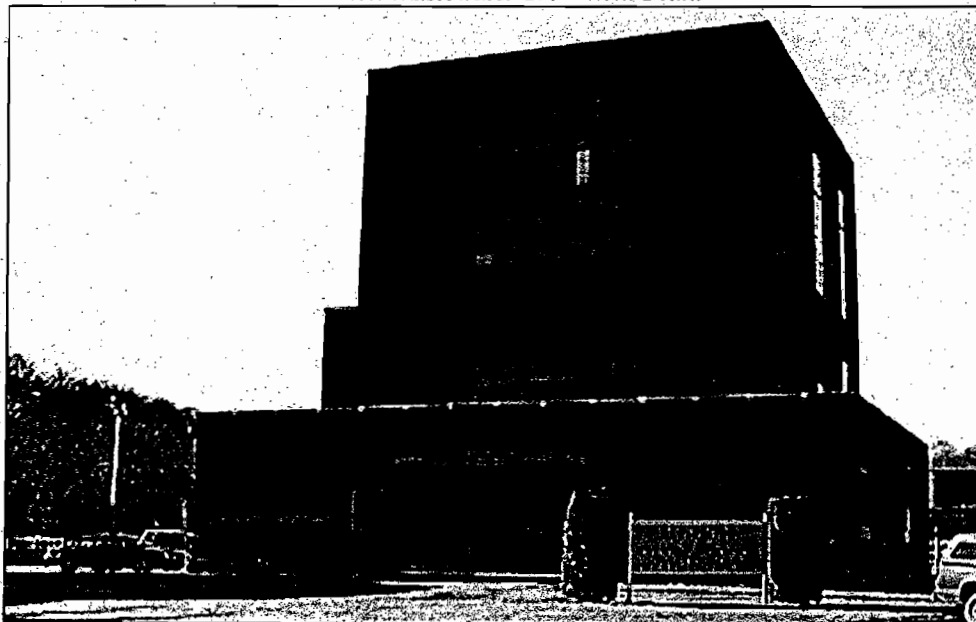
Introduction

The availability of public utilities, especially public sewer and water can greatly influence development patterns. The ideal is for utility expansion to be phased in over time to minimize the impacts on a community. In a community with aging infrastructure, planning for upgrading and maintenance of existing facilities is also important. This Plan considers the location and capacity of public water, public sewer, and other services.

Major Strategies

- Explore opportunities to market Norwich Public Water Service regionally.
- Investigate funding for continued separation of remaining combined sewers in the City of Norwich.
- Develop a comprehensive plan to guide sewer expansion.
- Ensure community input and aesthetic concerns are addressed when new cellular towers are sited.

Norwich Wastewater Treatment Plant



Norwich Public Utilities

In 1904, the City of Norwich purchased the Norwich Gas and Electric Company. Since that time, Norwich Public Utilities has provided state-of-the-art utility service to its customers within and outside of Norwich. Norwich Public Utilities is a full-service municipal utility company that offers water, sewer, natural gas, and electricity service.

Every year, Norwich Public Utilities returns ten percent (10%) of its revenues back into the City General Fund. This close relationship between Norwich Public Utilities and the City allows for enhanced cooperation and innovative partnerships that can dramatically assist in both promoting and regulating development.

Public Water Service

Public water service is an important consideration since it can:

- Help meet fire protection, residential, and business needs for an ample water supply,
- Protect public health by supplying potable water, and
- Be used to support more intensive development where the community desires growth.

Norwich Public Utilities maintains an abundant, high-quality water supply that provides for existing community needs as well as future growth. A map of the area serviced by public water in Norwich is found on the facing page. The Norwich water supply system has several basic components including; water supply reservoirs, emergency reservoirs, and localized well systems.

Water Supply Reservoirs

Norwich Public Utilities maintains two large water supply reservoirs outside of the city that satisfy the majority of the community's demand:

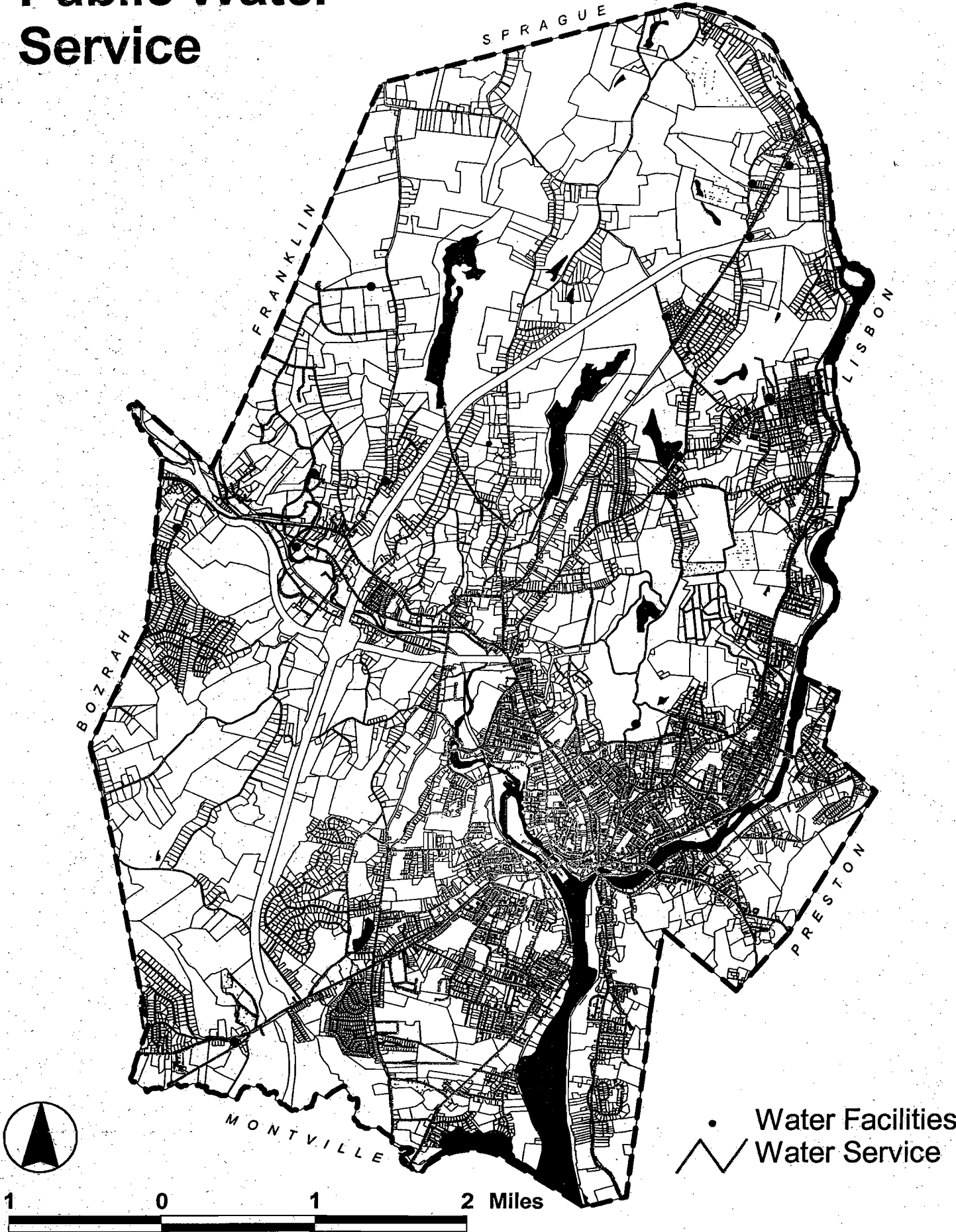
- **Deep River Reservoir** in Colchester is a 1.4 billion gallon lake that was developed in 1929.
- **Stony Brook Reservoir** in Montville is a 500 million gallon lake developed in 1924.

Emergency Reservoirs

Norwich Public Utilities also maintains two emergency reservoirs in the northern half of the city. These emergency reservoirs vary in capacity and quality, but none have been used for active public water supply since 1976. Included are:

- Fairview Reservoir, the primary emergency reservoir, and
- Bog Meadow Reservoir which continues to be the most promising future active water supply within the city.

Public Water Service



Local Well Systems

In addition to reservoirs, Norwich Public Utilities also maintains a local well system. Although it is not actively utilized, the well south of West Main Street in Norwichtown can draw water from a stratified drift aquifer to provide a back-up water supply during distribution system emergencies. Norwich Public Utilities also services a number of smaller neighborhood well systems located throughout the city.

Adequacy of Supply

The adequacy of a water supply is measured by comparing water use to the safe yield of a water system (the amount of water that can be reliably withdrawn, even in a drought year). In order to provide a margin of safety, industry standards suggest that the safe yield should exceed 115 percent of the average daily consumption. As can be seen in the following table, Norwich Public Utilities has an adequate water supply.

Margin of Safety (MOS) – Norwich Public Utilities

	Use*	Safe Yield*	MOS
Average Daily Production	5.20		
Deep River (active)		5.04	
Stony Brook (active)		2.12	
	TOTAL	7.16	138%
Norwichtown Well		1.00	
Fairview & Bog Meadow		1.00	
	TOTAL	9.16	176%

* millions of gallons per day

With its active reservoirs alone, Norwich Public Utilities far exceeds the accepted margin of safety for a public water supply. Considering its emergency sources as well, the utility company has a significant potential surplus. Based on this fact, Norwich Public Utilities is considering plans to market its water product to additional customers.

Water Quality

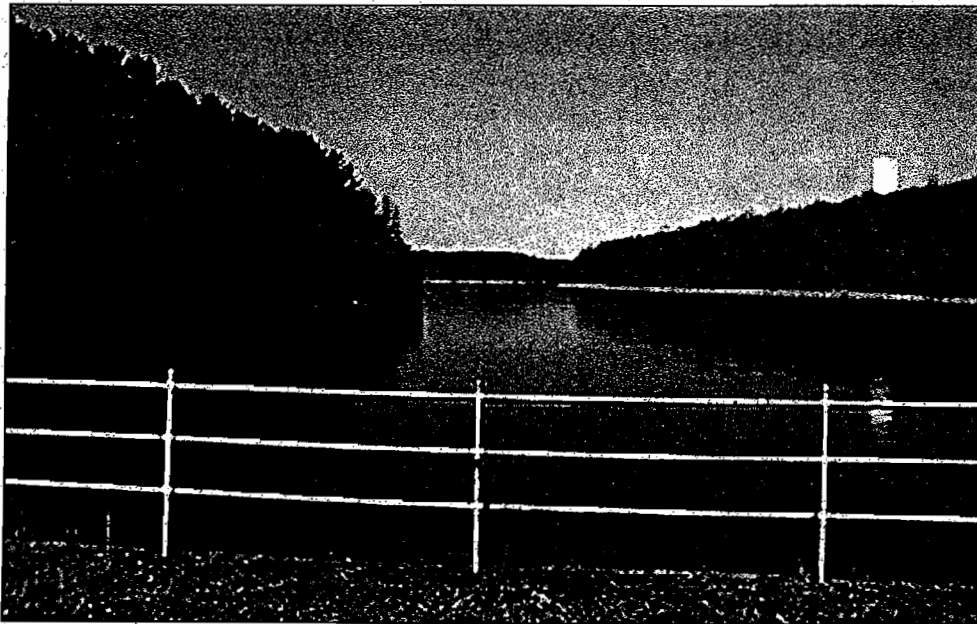
Protecting water supply resources is a responsibility of all levels of government. The Federal Environmental Protection Agency (EPA) and State Department of Environmental Protection (CTDEP) are involved, as well as the State Department of Utility Control (DPUC) and State Department of Health (CTDPH). In addition, Norwich, through the Uncas Health Department, regulates septic systems in an effort to protect ground water quality.

In large part, there are very few issues affecting the quality of Norwich's water supply. There have been some minor aesthetic quality concerns regarding taste and odor at both active reservoirs. A new aeration system has been recently installed at Deep River and similar plans are being developed for Stony Brook to address this issue.

Infrastructure

Issues relating to water quantity and quality are relatively minor in Norwich. Of greater concern is the state of Norwich's aging public water service infrastructure. With limited resources, maintaining water supply facilities, large transmission lines, and smaller neighborhood lines is a costly proposition. A comprehensive plan to address priority upgrades and repairs was developed in the 1990s to address this issue systematically and is being implemented.

Fairview Reservoir



Public Sewer Service

Public sewer service is also an important public utility since it can protect public health by preventing pollution, and be used to support more intensive development where the community desires growth.

Sewer Service Area

Norwich Public Utilities maintains an extensive wastewater system that serves over 7,000 customers by operating a wastewater treatment plant on Hollyhock Island, adjacent to Norwich Harbor. Norwich Public Utilities also provides service to portions of the neighboring towns of Preston and Sprague. The map on the following page shows the public sewer service area within Norwich. Although the majority of Norwich's urban core has sanitary sewers, many of the rural outlying areas are not serviced.

Treatment Facility

Norwich Public Utilities' wastewater treatment plant on Hollyhock Island continues to operate effectively to process sewage and protect water quality. The plant has an 8 million-gallon capacity and provides both primary and secondary treatment facilities. Although its excess capacity continues to allow for economic development and community growth, Norwich Public Utilities is currently studying the feasibility of an expansion to serve future local and regional needs.

Combined Sewers

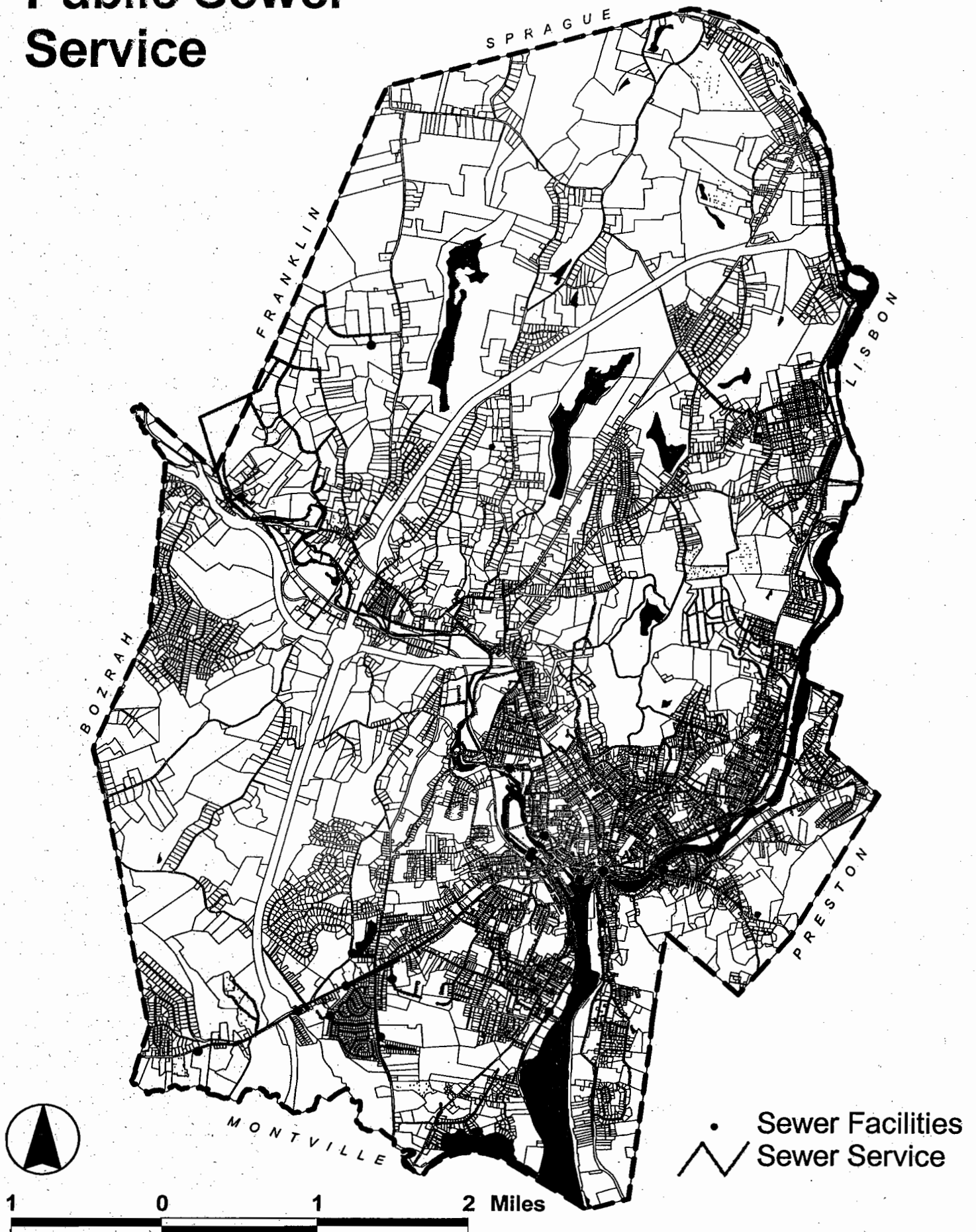
The most pressing issue facing Norwich's public sewer service over the last decade has been the separation of combined sewers throughout the city. In many of the City's older sections, combined sewer systems allowed surges of storm water to flood sanitary sewer lines and overload the sewage treatment plant. The result was the discharge of raw sewage into the City's waterways and harbor.

State and federal funding has allowed Norwich Public Utilities to greatly reduce the number of combined sewer overflows. In the last decade the number of overflows in the city has diminished from about thirty to approximately twelve today. Although there are still combined sewer overflows in Greeneville, Thamesville, and Downtown, there has been significant and documented improvements in water quality in places like the Thames River. Regulatory requirements and available funding will dictate future separation projects.

Sewer Expansion

Recent expansion of sewer service areas within Norwich has progressed over the last decade without a comprehensive plan. Driven by neighborhood and political demands, new service areas have been concentrated in existing older urban neighborhoods, especially in the southern half of the city. Less effort has been made to extend service to the more rural sections of Norwich, where poor subsurface conditions and failing septic systems have hampered new development.

Public Sewer Service



Public Natural Gas Service

Norwich Public Utilities provides natural gas service to 7,200 customers in Norwich, portions of Preston, and the Mashantucket Pequot Tribal Nation. Within Norwich, natural gas service is available in many neighborhoods in the southern half of the city, as well as within the Norwich Business Park. The map on the following page shows the natural gas service area within Norwich. The Algonquin Gas Transmission Company also operates a major natural gas transmission line along the western edge of Norwich.

Other Utility Services

Electric Service

Norwich Public Utilities provides electrical service to over 18,000 customers throughout Norwich and within portions of Preston. System upgrades converting 4.8kV to 13.8kV distribution voltage have been recently completed throughout the western side of the city. Conversions will continue in Taftville, Occum, and the New London Turnpike area. Through a cooperative partnership, Norwich Public Utilities also provides power to the Mohegan Tribal Nation.

Telephone Service

Southern New England Telephone (SNET) provides telephone service to customers throughout Norwich. SNET maintains a central office on Bath Street in Downtown Norwich. In addition to telephone service, SNET also offers high-speed DSL internet access to selected areas of the city.

Cable Communications

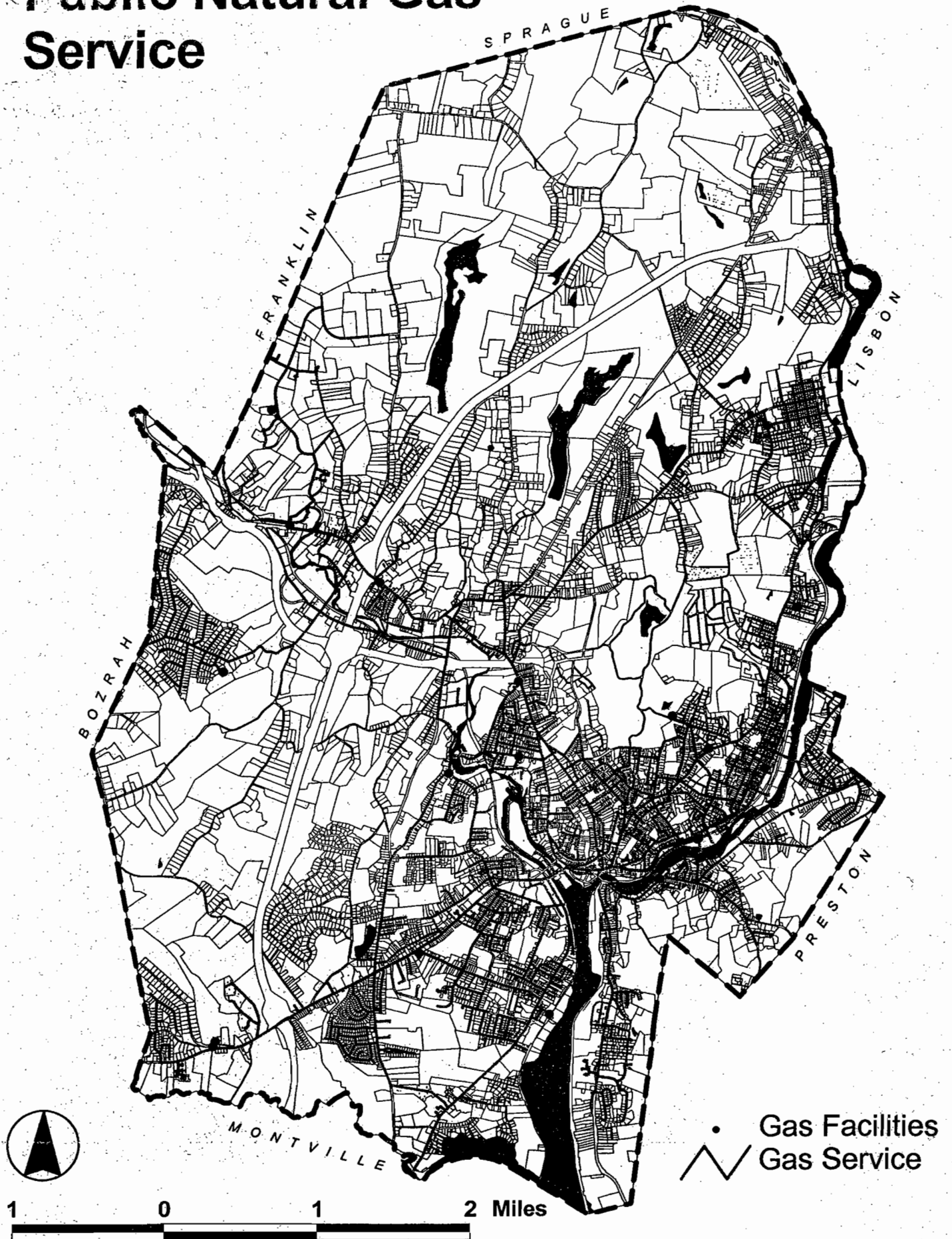
The Adelphia Company provides cable television service to customers throughout Norwich and adjoining towns. The Adelphia Company is in the process of making digital cable television and high-speed cable internet access available.

Wireless Communications

Wireless communications, especially cellular phone systems, are a rapidly growing element of utility infrastructure systems. Norwich currently has cellular communications towers located on Plain Hill Road, Rogers Road, Clinton Avenue, and Hinckley Hill Road. These towers are multi-user facilities.

In recent years, Norwich has been encouraging service providers to locate wireless communications panels on existing structures rather than building new towers. Proper design and camouflaging of communication panels on existing structures like water tanks and church steeples protect neighborhood aesthetics while allowing for the expansion of service. Despite the tremendous growth of this emerging network, wireless communication services operate by line of sight and there are still some areas of Norwich that have intermittent or poor coverage.

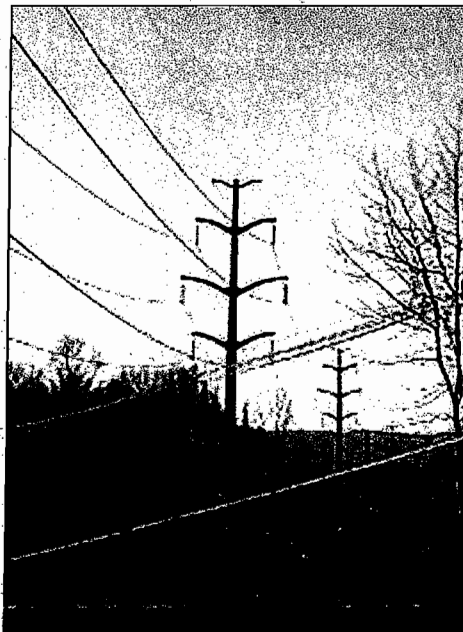
Public Natural Gas Service



Utility Service Strategies

	Strategy	Lead Agency	High Priority
Public Water Service			
1	Explore opportunities to market water service regionally, while preserving capacity to meet Norwich demands.	Norwich Public Utilities	✓
2	Provide leadership in developing a regional approach to the development of new water supplies and existing resources.	Norwich Public Utilities	
3	Continue to implement comprehensive plans to maintain and upgrade water service infrastructure.	Norwich Public Utilities	✓
Public Sewer Service			
1	Seek for the continued separation of combined sewer overflows, and upgrades needed to the wastewater treatment plant.	Norwich Public Utilities	✓
2	Develop a comprehensive plan for the expansion of sewer service to meet new economic development demands.	Norwich Public Utilities	
Wireless Communication			
1	Work with the CT Siting Council to insure community input and aesthetic concerns are addressed.	Planning & Neighborhood Services Department	

Wired Utilities



Piped Utilities



FUTURE LAND USE

12

Introduction

The Future Land Use Plan is a statement of what the Norwich of tomorrow should look like. It is a reflection of the stated goals, objectives; and recommendations of the Plan, as well as an integration of the preceding elements of the Plan of Conservation & Development.

The land use map that is the basis of this chapter provides a vision for the future. The proposed changes in land use will be implemented by eventual changes in land use regulations. These desired land use changes are detailed throughout the Plan and summarized by the following goals.

Major Goals

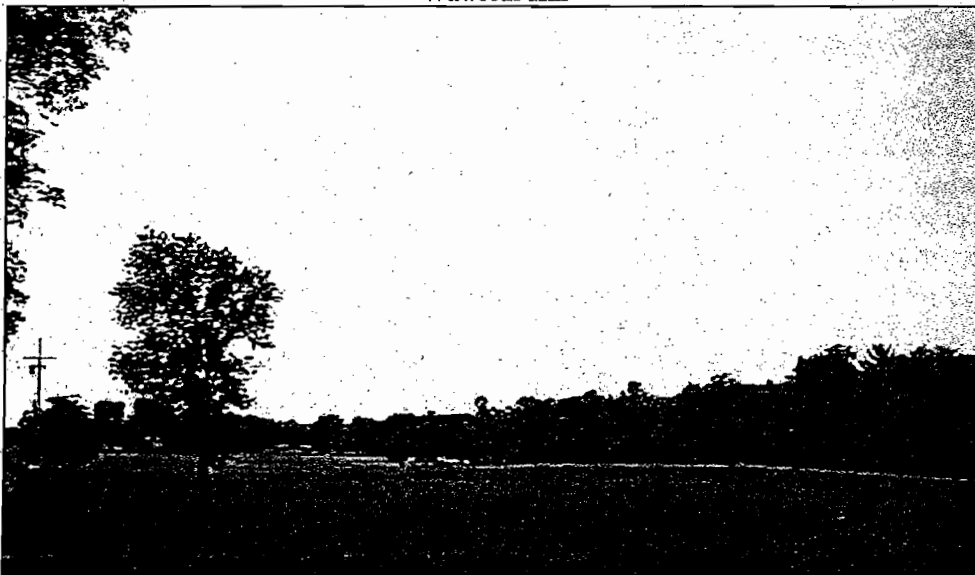
- Enhance dedicated open space areas.
- Preserve important natural resources.
- Allow for appropriate transitional land uses.
- Better utilize waterfront areas.
- Increase land available for commercial growth.

Land Use Maps

The map in this section represents the desired future land use pattern for the City of Norwich.

The Existing Land Use Map found in Chapter #2 is a map of the actual land uses in Norwich in 2002.

Wawecus Hill



Enhance Dedicated Open Space Areas

Norwich is blessed with large areas of preserved open space. This open space is often taken for granted. It is important to remember, at various times in history, residents of the City made it a priority to preserve these lands for future generations. Preserving open space in appropriate areas should be a sustained effort in recognition of the desire of Norwich residents to continue this legacy. This Plan recommends enhancing existing open space holdings. Proposed additions to open space holdings include:

- Acquisition of vacant parcels adjacent to Mohegan Park, and
- Continuing to purchase property in flood prone areas to expand river greenways.

Preserve Important Natural Resources

The Wawecus and Plain Hill section of Norwich were identified as having large areas of vacant land with natural constraints. These two areas of the city contain large parcels of farmland, wetlands, and forested tracts that provide wildlife habitats and enhance the character of Norwich.

Increasing the amount of land in the Wawecus Hill and Plain Hill sections of the city zoned for low density residential use can encourage more dedication of open space. Requiring more open space at the time of subdivision allows:

- Natural buffers between developments to be maintained,
- Increased opportunity for preservation of important natural resources, and
- Open space to be required in visible locations to maintain the rural character of these areas.

In addition to increasing the amount of land zoned for low density development, Norwich should consider acquiring vacant land on the Preston Town Line to protect fragile slopes and river viewsheds.

Allow for Appropriate Transitional Land Uses

There are sections of the city, bordering low density residential areas, that are zoned for commercial or industrial use. Change to moderate density residential land uses should be encouraged as better transitions to adjacent low density residential districts. These transitional areas can form needed buffers and include, but are not limited to the:

- Otrobando/New London Turnpike Area -a change of existing zoning from residential/office to moderate density residential use will make this area more compatible with the character of lower density residential areas to the north and south.
- Bean Hill - has a small area of industrially zoned land that intrudes on neighboring residential uses. A change in zoning, to moderate density residential use is recommended.

Better Utilize Waterfront Areas

The regional economy no longer necessitates the use of riverfront lands for industrial uses. This Plan recommends changes in zoning along the riverfront to encourage land uses more compatible with maintaining water quality, improving flood protection, and increasing public access.

Changes in land use in these riverfront areas can:

- Encourage reinvestment,
- Enhance property values,
- Increase public access,
- Promote adaptive reuse of mill buildings and brownfield sites, and
- Protect important natural resources.

Promoting change of industrial uses in the following riverfront areas to more compatible water dependent, residential or mixed uses is recommended:

- In Taftville, along the Shetucket River,
- South of the marina (along South Thames Street), and
- Along Shipping Street and Route 32.

Increase Land Available for Commerical Use

There is great demand for commercially zoned land in the city and little available. The number one strategy for an Economic Development Program for the Norwich, discussed in Chapter 6 of this Plan, is to provide additional business sites. Making commercial land more available through changes in land use regulations and providing improved access to business areas are important methods for the City to implement this strategy. The following are locations where business expansion is desirable and zoning should be changed to facilitate the highest and best use of properties to enhance the City's tax base:

- Norwich Business Park,
- Vacant parcels near the I-395/RT 97 Interchange, west to Lawler Lane,
- Properties located in the vicinity of the I-395 Interchange at Salem Turnpike, and
- Properties along the Shetucket River in Greeneville and Taftville.

The map on the facing page shows desired land use in Norwich. The following chart provides an explanation of the land use categories developed on the map.

Open Space Uses

Open Space

Areas that are currently preserved (dedicated open space) or used (managed open space) including recreation and cemetery uses. In addition, areas that would make a significant contribution to Norwich's open space network are shown.

Residential Uses

(based on natural resource or infrastructure limitations and desired development patterns)

Low Density

Areas where typical density is expected to be equal to or less than one-half unit per acre.

Medium Density

Areas where residential density is expected to occur at between one and two units per acre. (Some existing residential development has occurred at higher densities.)

High Density

Areas where new residential development is expected to occur at a density greater than 2 units per acre.

Commercial, Industrial, and Mixed Uses

Special Districts: Planned Development & Waterfront

Areas that are intended to be developed or redeveloped with significant regulatory controls pertaining to use, intensity, and design characteristics.

Commercial Areas

Areas that have developed or are intended to develop with commercial facilities.

Industrial Areas

Areas that have developed or are intended to develop with industrial facilities.

Business Parks

Areas that have developed or are intended to develop with corporate offices, research & development, light manufacturing, and distribution facilities.

Other Uses

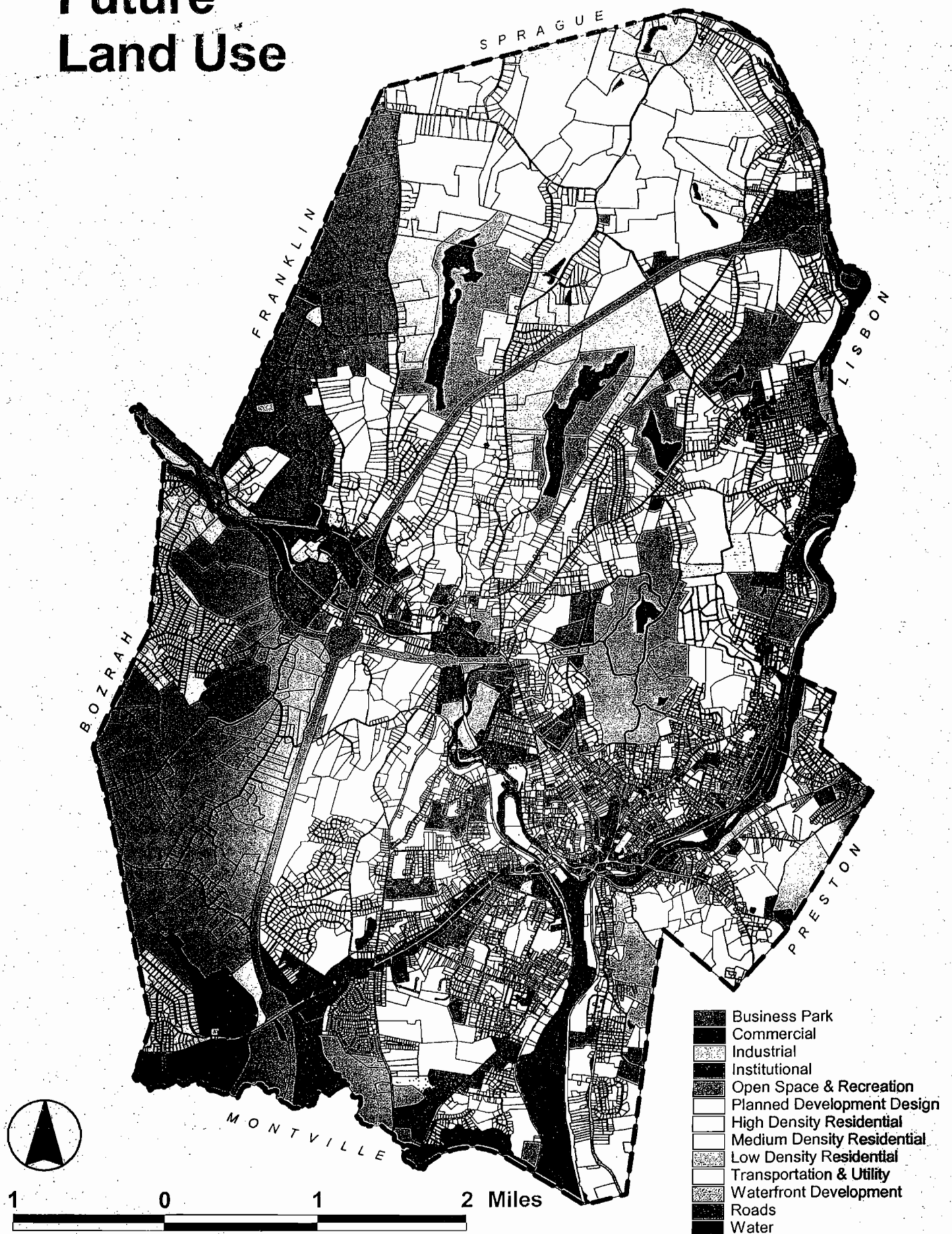
Institutional Facilities

Areas containing existing government, institutional, and community facilities.

Transportation and Utility

Areas in the city adjacent to and associated with roadway or other modes of transportation, and lands owned by or used for utility and communication infrastructure.

Future Land Use



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CONCLUSION

The Commission on the City Plan, over the last two years, has prepared this Plan on behalf of Norwich residents. Outlined in the twelve chapters of this plan are strategies and policies that could enhance the natural and built environment in Norwich. Making cities more desirable places to live and work depends on creating an enhanced urban environment.

The opening of two casinos in Southeastern Connecticut during the 1990's has had, and will continue to have, a profound effect on Norwich. The pages of Norwich history are filled with changes that have left their mark on the community, from the birth of the industrial revolution to the construction of interstate highways. The strategies outlined in this plan recommend multiple ways that Norwich can prepare for the future, while incorporating significant historical and structural elements of the City.

The strategies included in each chapter of the plan were considered in drafting the Future Land Use Plan in Chapter 12. The Future Land Use Plan presents a vision for future growth in Norwich. This vision is based on a general philosophy established by the Commission on the City Plan to guide future land use decisions to:

- *Preserve significant natural and historical resources of the City, while creating new opportunities for economic growth, and*
- *Improve the quality of life of residents by enhancing community character.*

The Future Land Use Plan depicts an achievable future for the City. It shows the way to realizing the potential for planned growth and change in Norwich. Implementing the objectives and strategies of the Plan is essential in ensuring the success of this Plan of Conservation and Development.

The Future Land Use Plan, is no more than a map or guide. It can show the way, but it cannot go there. The many goals, objectives, and strategies outlined in the Plan of Conservation and Development cannot become reality until they are implemented. They are a guide to realizing the future vision of Norwich and ultimately enhancing the quality of life for residents. By preparing this Plan of Conservation and Development, the first step has already begun.